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Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna, Dist. Amravati &
Shripad Krushna Kolhatkar Mahavidyalaya, Jalgaon Jamod, Dist. Buldhana
in Collaboration with
International Federation of Physical Education, Fitness and Sports Science Association
Organising
Two Days International Scientific E-Conference on
"PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS"
20th & 21st August 2021

Dr. Pravin Dabre	Dr. Harish Kale	Dr. R. S. Deshmukh	Dr. Hanumant R. Lunge
Convener	Convener	Organizer & Principal	Organizer & Principal

Anil Jaiswal



Chairman Jalgaon Education Society Jalgaon Jamod Dist Buldana

MESSAGE

I feel proud and privileged to be part of the International E-Conference on "PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS". This is the Joint Venture of Department of Physical Education and Sports, Shripad Krushna Kolhatkar Mahavidyalaya Jalgaon Jamod and Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna in the Auspicious Collaboration of International Federation of Physical Education of Fitness and Sports Science Association. Sport is an integral part of life in the growth and development of every individual. Sport persons are excelling in their preferred sports by sheer hard work, rigorous training under the supervision of dedicated coaching nowadays. Thus, they do fetch laurels and medals for the country. At the same time fitness is important for the professional sports person to keep himself afresh and always on the toes. We have seen in the past that due injuries many sport person had to cut short their professional careers in sports. It is so important to carry on research work on the ground as well in the laboratory also. It is the need to develop the sports activity related literature. This is the chance for the authors in the field of Physical education to publish their own work in the issue of the International Journal of Health Physical Education and Computer Sciences in Sports. A peer revived refereed journal with impact factor International Research Journal. Publication Impact factor I20R 4.005 with Impact factor 6.997 Indexed Journal.

President,
The Jalgaon Education Society.
Jalgaon(Jamod)Dist Buldana

Anil Jaiswal

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Bacchubhau B. Kadu



Founder President Veer Baji Prabhu Krida v Vyayam Mandal Belora

MESSAGE

My message for you, my dear Staff members: be proud of make us proud of Chhatrapati Shiva:1i Kaia iViahavidyalaya, Asegaon Purna, and Shripad Krushna Ko]hatkar I'vlahavidyalaya, largaon Jarnod joint venture. of organized a international Scientific E-Conierence jointly in SKI(Ma.havidya.laya Jalgaon Jamod and Chhatrapati Shivaji Kaki. Mahaviciyalaya., Asegarm Puma, (MAHARASHTRA, INDIA) In the Auspicious Collaboration with If PEFSSA 'PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS" on 20and 21 August 2021, II is a cheerful progress that we are available a journal of Publication We are planning for publishing the scientific. pa.pers in a peer revived refereed journal ii.vith impact factor International Research Journal, Having Publication Impact factor 120R. 4..005 with Impact factor 6.997 Indexed Journal International Journal of Flealth Physical Education and Computer Sciences in Sports. Remember that wherever you are, whatever life may surprise you wi I h, you carry the banner of CSKM and SKKM with you always- Being the best of the best, you will he admired by many others in the profession of Physical Education. Many opportunities will come your way in the development of Students to achieve the job opportunity. When you are faced with deciding between what is right and what is wrong, let the teachings of our it tirution guide you. Make a positive difference in society. I could speak for hours about how to achieve success in. life but until and unless you take the initiative to put yourself on the roadmap to suer s, nothing, langible will happen.. That being said, let Erie end by saying this to faculty members, students and those who have contributed to the success of conference you were meani Co be here and to share in the numerous succe5s stories that have become a habil at our institute; you are not here by chance, this is your marvelous destiny.



Bacchubhau B. Kadu

Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna, Dist. Amravati &
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Convener	Convener	Organizer & Principal	Organizer & Principal

Dr. Hanumant R. Lunge

Principal, Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna Dist. Amravati



MESSAGE

Welcome to , the organization of International Scientific E-Conference on "PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS" on 20and 21 August 2021. It is a glad movement that the organizers are publishing the scientific papers in a peer revived refereed journal with impact factor International Research Journal. Having Publication Impact factor I20R 4.005 with Impact factor 6.997 Indexed Journal International Journal of Health Physical Education and Computer Sciences in Sports. COVID 19 pandemic has been one of the biggest disruptions that have posed a challenge for human existence. It has triggered innovative and out of the box thinking for educational institutions, particularly the Higher Education. The challenge is to maintain the continuity of teaching-learning, effective utilization of resources, management of anxiety level among the young minds, and nurturing their enthusiasm. In today's times, where the learner and teacher both have to tackle the challenges of time and distance and ever changing demands to upgrade knowledge and skills, the learning and teaching both have become very dynamic. The role of the teacher is transformed into that of a virtual Educator which is much wider and constantly evolving than that of a teacher; and the role of a student post-pandemic is transfigured into one of an agile knowledge acquirer in a virtual world. The experience of lockdown has reflected upon the requirements to adapt the academic systems to cultivate sensibilities, unlock the mind for adaptability, train for meaningful learning and connect the minds for new understanding.

Dr. Hanumant R. Lunge
Principal

Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna, Dist. Amravati &
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Convener	Convener	Organizer & Principal	Organizer & Principal

Dr. R. S. Deshmukh



Principal Shripad Krishna Kolhatkar Mahavidyalaya, Jalgaon Jamod

MESSAGE

I always look forward to the commencement of any academic term with a sense of development of the society because I cannot think of anything other than pleasant student enriching moments in our campus. We always try to think beyond the academic purview for pedagogical purposes. In this sense, it must be stated that mere academic coaching will not suffice for the student to succeed in the corporate world, and therefore, the management has set up Sports infrastructures Development under the competent leadership of Dr. Pravin C. Dabre. We were organised a International Scientific E-Conference jointly in SKK Mahavidyalaya Jalgaon Jamod and Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna, (MAHARASHTRA, INDIA) In the Auspicious Collaboration with IFPEFSSA "PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS" on 20and 21 August 2021. It is a thankful movement that we organizers are publishing the scientific papers in a peer revived refereed journal with impact factor International Research Journal. Having Publication Impact factor I20R 4.005 with Impact factor 6.997 Indexed Journal International Journal of Health Physical Education and Computer Sciences in Sports. There are other projects in the pipeline which will manifest into concrete forms very soon. Our institution can look forward to exciting times ahead with the God bless.

Dr. R. S. Deshmukh
Principal

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Convener	Convener	Organizer & Principal	Organizer & Principal

Dr. Harish Kale Conveyor



MESSAGE

It gives me immense pleasure to announce that the our college Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna and Shripad Krushna Kolhatkar Mahavidyalaya Jalgaon Jamod jointly organized *Two Days International Scientific E-Conference on "PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS" in the auspicious collaboration with International Federation of Physical Education, Fitness and Sports Science Association on* 20th – 21st August 2021. In fact the topic of the E- conference is relevant to meet the learning needs of the students, faculty members, academician and helpful to strengthen Higher Education. The Conference will focus on a wide range of themes related to Physical Education and the sport sciences, including health, fitness, physical activity and sport competitions. The goal of the e-conference is to bring together leading professionals and researchers, students in the field of physical education and sports sciences, in order to stimulate discussion on the latest innovations in these areas and provide them a platform for exchanging information through the scientific presentation, discussion and interaction. It is an opportunity to share knowledge and experience. I hope that on the occasion of this e-conference professional, students, researcher and practitioners whether individual or associations from around the world are assembled together.

We are going to publish a research journal "*International Journal of Health, Physical Education & Computer Science in Sports*." I hope that this conference forwarding provide an excellent interface for a meaningful writings among eminent academician and researchers. I am grateful to all the contributions for the research papers in this journal. There is a surge of research papers to publish in the journal. I am very much thankful for the huge responses. I feel e- conference a grand successful; It will serve as the pioneering events.

Dr.Harish S. Kale
Convener- PESSHFPASC-2021

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Convener	Convener	Organizer & Principal	Organizer & Principal

Dr. Pravin C. Dabre
Organizing Convener

Professor, Dept. Phy.Edu Shripad Krishna KolhatkarMahavidyalaya, Jalgaon Jamod Dist. Buldana (MS) India



MESSAGE

With great pleasure I would like to state that we have a wonderful year for the next academic term after the pandemic of corona virus. Human values must go hand in hand with any creative enterprise, that is why we had very seriously organization of International Scientific E-Conference on "PHYSICAL EDUCATION, SPORTS SCIENCES, HEALTH, FITNESS, PHYSICAL ACTIVITY AND SPORTS COMPETITIONS" on 20and 21 August 2021. It is a glad movement that we are publishing the scientific papers in a peer revived refereed journal with impact factor International Research Journal. Having Publication Impact factor I20R 4.005 with Impact factor 6.997 Indexed Journal International Journal of Health Physical Education and Computer Sciences in Sports. In order to imbibe Human Resource practices those are conducive to our educational environment. Work becomes productive only when it is enjoyable and infused with team spirit. We would like to identify new thrust areas for students who thirst after knowledge and excellence. Our vision is to be inculcating value-added programs upcoming academic season will primarily focus on technical knowledge enhancement. We will be achieving this through collaboration with eminent experts from the Professional Physical Educators. I pray that this year, our institution will scale greater heights through the concerted efforts of the Principal, HODs, faculty members, non-teaching staff members, students and well wishers.



Dr. Pravin C. Dabre
Organizing Convener

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Dr. Rajesh S. Jaipurkar



Pro-Vice- Chancellor
Sant Gadge Baba Amravati University

MESSAGE

I am happy to know that Two Days International Conference on `Physical Education, Sports Science, Health, Fitness, Physical Activity and Soprts Competitions' is organised jointly by Department of Physical Education, SKK Mahavidyalaya Jalgaon Jamod and Chhatrapati Shivaji Kala Mahavidyalaya, Asegaon Purna during 20-21 Autust 2021. Also organisers are going to publish scientific research papers in an `International Journal of Health Physical Education and Sciences in Soports'.

Physical education and sports sciences are an integral and very important part of higher education. Quality physical education programs are needed to increase the physical competence, health-related fitness, self responsibility. It leads to the healthy and fit society and Nation at large.

I congratulate the Principal for this giant organisation and Editorial Board for publishing the scientific papers in the International Journal.

Dr. Rajesh S. Jaipurkar

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Physical fitness the components of health-related and skill-related physical fitness its utility in the development of fit youth and fit nation

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Research Article

Impact on psychomotor variables among school going children participating In International Association of Athletics Federations Kid's Athletics program

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ABSTRACT

The purpose of this study was to investigate the impact on psychomotor variables among school going children participating in International Association of Athletics Federations (IAAF) Kid's Athletics program. The subjects were randomly assigned to experimental group of 20 subjects who had undergone 12 weeks IAAF Kid's Athletics intervention and Placebo group of 20 subjects age ranged 10–14 years. The IAAF Kids Athletics program is one of the biggest grassroots level programs was created in 2001 worldwide and launched in India in 2013. The psychological variables selected were Reactive Stress Tolerance and Focused Attention corresponding tests were conducted using Vienna Test System Sports – TATEEN. Motor variables selected were Explosive Strength, Speed, and Agility corresponding test were Standing Broad Jump, 50m sprint, and Agility T- test, respectively, conducted before training and after 12 weeks of training. Mid test was conducted only for motor variables. The two-way mixed ANOVA was used to estimate the time and group interaction effect on each variable. The results revealed that the children participated in the IAAF Kids' Athletics program showed significant difference ($P = 0.001$) for Reactive Stress Tolerance, ($P = 0.001$) for Focused Attention, ($P = 0.001$) for Explosive Strength, ($P = 0.001$) for Speed, and ($P = 0.001$) for Agility with large effect size. In conclusion, the participating in IAAF Kids' Athletics program has a great impact on the psychological aspects as well as motor components of 10–14 years of sedentary school going children.

Keywords: Reactive stress tolerance, Focused attention, Speed, Agility, Explosive strength, Sedentary school children

INTRODUCTION

Athletics creates an excellent environment that allows children to interact with their peers because of the various contest areas (International Association of Athletics Federations [IAAF], 2006). IAAF has developed a new concept of athletics that focuses on the developmental needs of children as a result of countless research and studies that have designed contests for children entirely in a way that continues to inspire children's sporting enthusiasm and mutual interaction (IAAF, 2006). The IAAF backed work in spring 2001 was completed in 2005, and this project was named "IAAF Kids' Athletics" (IAAF, 2006). The term is expressed as Kids' Athletics and athletics Game.

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Children, who take part in sport as early as in preschool, experience an increase of their physical capacity and the development of their social skills (Chatrath, 2002). In addition, sports participation at a young age positively contributes to the development of the child's motor coordination since involvement in physical activity provides more opportunities to learn and refine motor skill executions (Fisher *et al*., 2005), (Okely e*t al*., 2001) in children who are actively involved in sports, differences in levels of physical fitness, and motor coordination can partly be explained by the amount of hours spent within the sport. For example, Fransen *et al*., 2012, found a positive effect of the amount of training hours per week on flexibility (sit and reach), explosive leg power (standing broad jump) and motor coordination in 10–12 year old boys.

Buzgó *et al*., 2010 investigated a study on the effectiveness of fitness programs in a group of 21 young weight lifters age ranged

11–16 years. The influence of condition preparations in Latin American dances was researched by Chren, 2008. Faigenbaum and Westcott, 2005 conducted research study monitoring with 64 boys and 32 girls at the age of 6–12 years old that performed weight lifting with maximum effort. Vanderka *et al*., 2010 conducted a research on the adaptation effect of explosive strength training with and without countermovement on a group of 30 students of Faculty of Physical Education and Sports of Comenius University in Bratislava. Implementation of fitness and strength training for young athletes was investigated by Bompa, 2000, Lancaster and Theodorescu, 2008, Kraemer and Fleck, 2004. There are only few researches have been done on children's fitness through Kid's Athletics program by other researchers.

Sports is also considered as a training strategy to stimulate intellectual processes such as attention, memory, creativity, and reasoning (Krogius, 1972) and strengthen abilities such as concentration, problem solving, planning strategies, and creativity for children with special education needs (Storey, 2000).

Therefore, the aim of this study was to find out the effect of 12 weeks of Kid's Athletics intervention on selected psychomotor abilities among school going children. The author's hypothesized that there would be positive effect of the Kid's Athletics intervention on psychomotor abilities compared to the Placebo group.

MATERIALS AND METHODS

Participants

Forty young school going children took part in this research (pupils of Labour India Public School, Kottayam, Kerala, India). The Kid's Athletics group consisted of children who voluntarily participated in IAAF Kids' Athletics intervention in the aforementioned school. There were 20 boys subjects in the Kids' Athletics group and 20 boys subjects in the Placebo group aged 12 ± 2 years. A written consent form was signed by the parents/guardian after explanations of the procedure and possible risk during the intervention/data collection. The study was approved by the Departmental Research Committee of the institution (***blind for review***), and was conducted in accordance to the ethical principles for human research proposed in declaration of Helsinki.

Procedure

A week familiarization program was conducted before the data collection and training protocols. Subjects underwent a total of 36 training sessions of 60 min each. The intervention consisted of three sessions in one micro cycle of 7 days for 12 weeks. The training units were conducted on the alternate days (i.e. Monday, Wednesday, and Friday; Table 1). The training was focused on the development of psychomotor abilities with maximum fun and pleasure-based elements added with the exercises.

Data Collection

All 40 subjects had undergone pre-test, post for psychological variables, and 3 times testing for motor variables, that is, 0 week, after 6 weeks, and after 12 weeks, respectively. The motor test consisted of Standing Broad Jump, 50 m Dash, and *t*-test.

Table 1: The micro-cycle plan of Kid's Athletics program group

Monday	Wednesday	Friday
Warm up (10 min)	Warm up (10 min)	Warm up (10 min)
Lead up Games	Lead up Games	Lead up Games
1. Form a group	1. Racing Relay	1. Team Alphabet
2. Sally and Steve	2. Frogs and Lily pads	2. Stone, Bridge, and Tree
Main Session (40 min)	Main Session (40 min)	Main Session (40 min)
Ladder Drills: (10 m×5 reps)	Forward Squat Jump: (20m×2) approx.	Formula one: (80 m×2)
Different speed and coordinative exercises.	10 jumps	A team event in which each team member has
Reaction Drills: (20 m×5 reps)	Do very explosive continuous 10 squat	to complete the full course. Up to six teams
Short Sprints from different position×5	jumps to the front.	can compete at the same time on one course.
Curve Running: (20 m×2reps)	Speed Bounce: (20 s×2)	"8" Endurance Race: (150 m×2)
Players run curves around various markers	Players jump side to side over a foam	Each team has to run around a course of 150
from the starting point, following the	wedge as many times as possible in 20 s.	m from a given starting point. Each team
directions that are called by the coach	Skip to my Lou: (40 nos. ×4)	member tries to run around the course as often
Slalom Sprint: (5×50 m relay×1 rep)	Holding the skipping rope behind the	as possible in 8 min. The start command is set
In teams, players run slalom-style between	heels, players challenge themselves to	for all teams at the same time by blowing a
markers in a relay race.	skip as many two-foot jumps within a	whistle.
	time limit.	
Cool Down (10 min)	Cool Down (10 min)	Cool Down (10 min)

Standing broad jump

Standing broad jump was conducted to measure the explosive strength of the subjects. The subjects were asked to stand behind the takeoff line with their feet several inches apart and were asked to flex their knees and swing their arms backward allowing them to jump forward. The best trials among the three trials were recorded for analysis.

50 m dash

This test was conducted to measure the speed of the subjects. One pair of photoelectric timing gates (Cronox sports, Madrid, Spain) was placed both at the starting point and finish point. The subjects started 50 cm from behind the first timing gate and time was recorded between the first and second pair of timing gates placed 50 m apart.

t-test

T-test was used to determine the speed with directional changes, which included forward sprinting, left and right shuffling, and backward running. The subjects were asked to start at cone A. On the signal the subject sprints toward the cone B and touched the base of the cone with their right hand. Then, they turned left and shuffled sideways toward cone C, and also touched its base, this time with their left hand. Then, shuffled sideways toward the right to cone D by touching the base of the cone with the right hand. Then, the subjects shuffled back to cone B by touching the cone with the left hand, and do backward run toward cone A. The time was stopped as they passed cone A. Single beam photocell timing system was placed at the starting line and at the finish line (Cronox sports, Madrid, Spain). Subjects took the start 0.5 m behind the photocell.

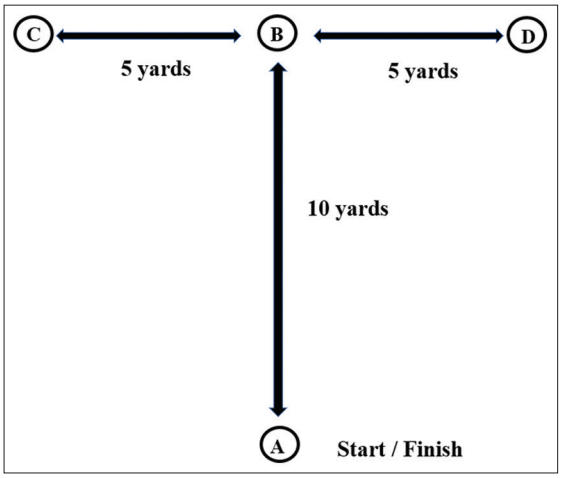


Figure 1: Graphical representation of *t*-test

Whereas the psychological test was conducted using a valid and reliable (Lienert and Raatz, 1998), Talent Assessment Teens 2 (TATEENS2) test set in the Vienna Test System Sport (VTS Sport) which comprised of Reactive Stress Tolerance and Focused Attention. The tests were conducted in a calm and quiet room on a laptop installed with VTS software (TATEENS) and supporting equipments such as VTS keyboard and foot paddle. The duration of the test for each subject was approximately 55 min. The procedure of the all the test protocol can be obtained from elsewhere (Vienna Test System, 2013).

Statistical Analysis

Pre-, mid-, and post-intervention measurements were recorded for motor variables and pre- and post-test for psychological variables. Researchers used arithmetic mean (x) of psychomotor variables scores and standard deviation (SD) from variability rates within the descriptive statistics. The data distribution normality was verified by Shapiro-Wilk test in all statistical analyzes. Sphericity was verified by Mauchly's Test of sphericity. Huynh-Feldt correction was used in case where we found violations of assumptions of sphericity using the Mauchly's sphericity test. A two-way mixed ANOVA with

Table 2: Mean and standard deviation of psychomotor variables in pre-test, mid-test, and post-test.

	Kid's Athletics group			Placebo group			*P*-value (group×time)	ES (group×time) η^2_p	ES (pre to mid) d [95% CI]	ES (pre To post) d [95%CI]
	Pre-test	Mid-test	Post-test	Pre-test	Mid-test	Post-test				
			Mean [SD]							
SBJ	1.5 [0.23]	1.61 [0.22]	1.82 [0.19]	1.53 [0.2]	1.49 [0.22]	1.5 [0.22]	<0.001	0.91	1.99 [1.23-2.74]	4.8 [3.58-6.02]
50 m	9.19 [0.86]	8.99 [0.82]	8.6 [0.69]	9.34 [0.64]	9.35 [0.6]	9.41 [0.68]	<0.001	0.78	2.12 [1.35-2.9]	2.09 [1.13-2.86]
t-test	14.06 [1.45]	13.45 [1.27]	12.61 [1.18]	14.44 [1.31]	14.5 [1.34]	14.58 [1.36]	<0.001	0.93	1.92 [1.17-2.67]	3.45 [2.47-4.43]
RST	16.8 [9.42]	----	52.55 [9.7]	17.55 [15.32]	-----	17.4 [12.58]	<0.001	0.205	0.97	4.65 [3.65-5.65]
FA	21.2 [9.88]	----	54.6 [10.52]	24.25 [13.57]	-----	21.45 [12.15]	<0.001	0.343	0.98	7.08 [5.68-8.48]

Pre-test=0 week, mid-test=6 weeks, post-test=12 weeks, SBJ=standing broad jump, RST=Reactive Stress Tolerance, FA=Focused Attention, η^2_p=partial eta squared, and d=Cohen d

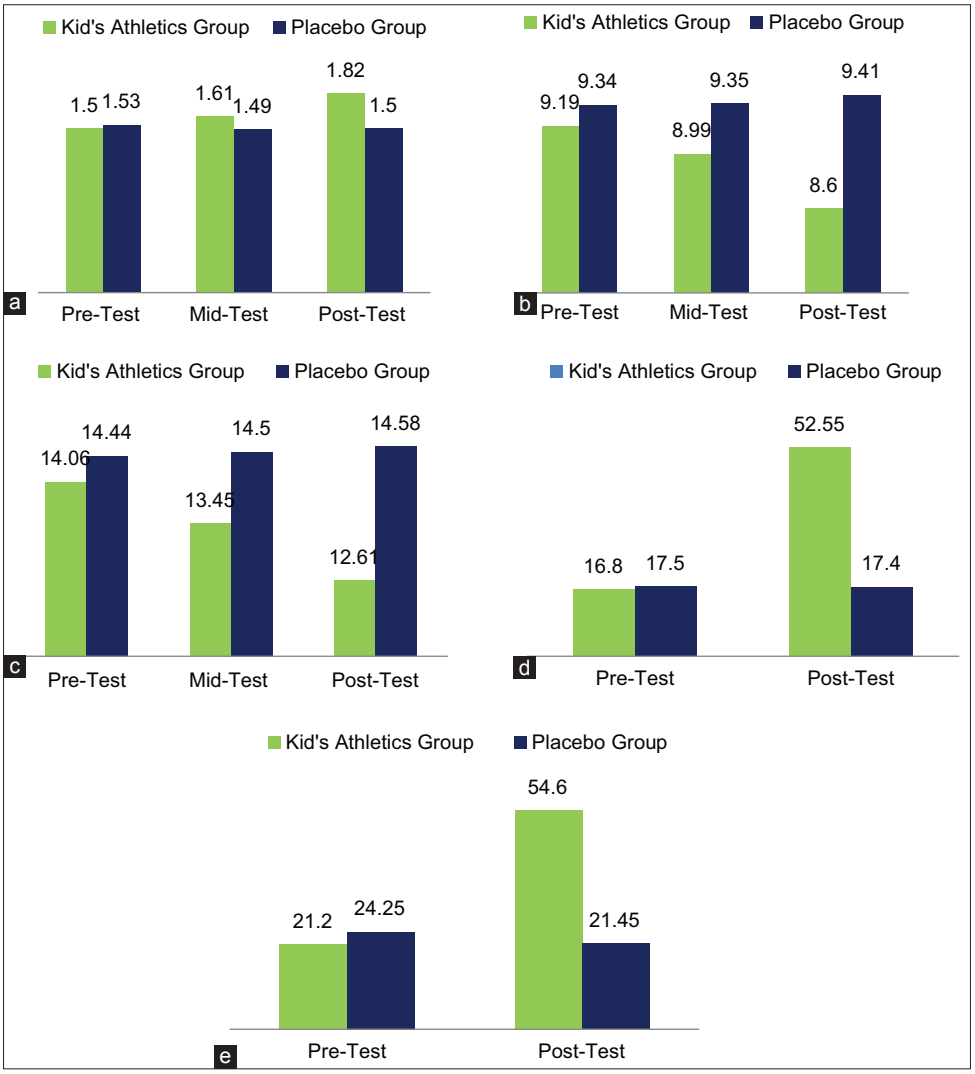


Figure 2: Graphical representation of pre-, mid-, and post- measurement of (a) standing broad jump, (b) 50 m sprint, (c) *t*-test, and graphical representation of pre- and post- measurement of (d) Reactive Stress Tolerance, (e) Focused Attention of Kid's Athletics group and Placebo group

time (pre-, mid-, and post) as within subject factor, groups (Kid's Athletics and Placebo) as between subject factors were used for analyzes. The level of significance for all tests was set at 0.05. Statistical analysis was performed through the computer program IBM® SPSS® Statistics V20.0. The effect size of the interaction effect was calculated using η^2_p with 0.01 meaning small, 0.06 moderate, and 0.14 large effects. Cohen d was also calculated for baseline and post-assessment effect size with <0.2 trivial, 0.2-0.6 small, >0.6- 1.2 moderate, >1.2- 2.0 large, >2.0-4.0 very large, and >4.0 extremely large (Hopkins *et al*., 2009).

RESULTS

Table 2 shows the values of all the measured variables. The outcome of the two-way mixed ANOVA was significant for the Kid's Athletics group on all the motor variables in group × time interaction ($P = 0.001–<0.001$) with large effect sizes.

DISCUSSION

The principal aim of this investigation was to investigate the impact on psychomotor variables among school going children participating in IAAF Kid's Athletics program. This was achieved by comparing 40 children randomly assigned to Kid's Athletics and Placebo group. The Kid's Athletics group who had undergone, alternative 3 days of training in a week for 12 weeks. The results suggest that the program has benefited the children in improving their motor fitness as well as psychological attributes.

Primary school age is a constructive period for the development of such abilities as speed and coordination abilities (Starosta

and Hirtz, 2002), (Larisa, 2006), (Zeanah, 2011) the results of the study confirm this fact, because all children in the Kid's Athletics group have a significant improvement in their motor fitness over time.

This study showed the effectiveness of 12 weeks IAAF Kids' Athletics intervention among the school going children. As children from experimental group who underwent the Kid's Athletics intervention significantly improved psychomotor variables such as Explosive Strength [Figure 2a], Speed [Figure 2b], Agility [Figure 2c], Reactive Stress Tolerance [Figure 2d], and Focused Attention [Figure 2e] have shown a significant difference between the groups over different time duration. A similar finding was observed in a study conducted by Petros *et al*. where the subjects have improved their physical fitness and event performance drastically than the traditional repetitive skill teaching method (Petros *et al*., 2016). The results revealed that students who practiced the IAAF Kids' Athletics improved all physical fitness components, whereas those who practiced track and field with the traditional method did not. A study conducted by Petros *et al*., 2016 reported that a biggest improvement was primarily found for speed and agility and secondarily for endurance and flexibility. Speed and agility were directly affected by the implementation of the program.

This could be explained with the variety of preparatory exercises and modified games, aiming at the improvement of track and field skills. These findings are in agreement with investigations which claim that providing children with a wide variety of drills and multi-sport activities can have a positive outcome on their physical fitness (Kirk, 2005), (Pesce *et al*., 2012). The Fun based exercises and activities make it unique and effective. It does not require a lot of space for its implementation, or special physical training, or complex equipment.

Another finding of our study was psychological improvement in the Kid's Athletics group than Placebo group. Due to lack of studies in Kid's Athletics for psychological variables, a comparison could not be made. In view of this, the available literature does acknowledge the relationship between motor and cognitive skills (Gethell *et al*., 2005; Gioti *et al*., 2006; Haines, 2003; Kambas *et al*., 2002; and Spanaki *et* Federations Kid's Athletics program *al*., 2016). Previous studies also highlighted the importance of the organized motor program with supporting evidence that a structured program may increase the activation level of cognitive skills among children (Pascual-Leone and Irwin, 1994).

This study adds to the growing body of data suggest that participation in this 12-weeks Kid's Athletics program was effective in terms of improving the psychomotor variables such as Explosive Strength, Speed, Agility, Reactive Stress Tolerance, and Focused Attention of young children in the experimental group, whereas the Placebo group was found no significant changes.

CONCLUSIONS

Taking into account the results of our research, we recommend: The experimental group showed significant difference in all measured psychological variables and motor variables (Explosive Strength, Speed, Agility, Reactive Stress Tolerance, and Focused Attention where than the Placebo group. This research confirmed that the Kid's Athletics program for the age group of 10 to 14 is beneficial for the development of psychomotor components. The IAAF Kids' Athletics program provided positive effects on creating interest of physical activities and exercises in the young age and also confirmed that it can achieve positive changes in the level of motor fitness variables as well as psychological variables among children.

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Research Article

Comparison of performance related six factors composite physical fitness test between different zones of school going boys

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ABSTRACT

The purpose of the study was to compare the six factors composite physical fitness test between different zones of school going boys of Delhi region. For this studied to select total 200 boys students from 50 each zone (Central, North, East zone, and West zone). The age of the subjects ranges 15–18 years school going boys. The selected subjects were tested a physical fitness by six factors composite physical fitness test, which was selected variable. The collected data were analyzed using one-way ANOVA to find out the significant difference between Central, North, East zone, and West zone school boy's students. The result of the study showed that the F-value in Table 1 is insignificant as its ($P = 0.069$) is more than 0.05 at level of significance. The scores in Table 2 show that performance on physical fitness test and compared the composite performance between zones and within zones were the testers in each group are same. The Table 2 shows the Central zone mean (M) 42.63, standard deviation (SD) 8.23, and standard error (SE) 1.16, North zone M 42.08, SD 4.93, and SE 0.69, East M 45.08 SD 6.12, and SE 0.86, and West M 42.69, SD 4.20, and SE 0.59 and overall combine performance of boys given the Table 2 M 43.40, SD 6.13, and SE 0.433 are respectively. Its analysis of fitness with best timing of the test and performance of boys is significantly in favor of physical fitness test.

Keywords: Physical fitness, One-way ANOVA, Six factors, Significance

INTRODUCTION

The physical fitness a large majority to establish physical fitness test has resulted in mixture of physical fitness stations and motor performance of stations. A strong point of test to included required fitness components of motor performance components. Physical fitness has been an important objective of physical education to the development of physical fitness was primary region of fitness such as endurance, flexibility, and strength. To the develop efficiency of movements as well as neuro-muscular and organic efficiency.

METHODS

The purpose of the study was to compare the six factors composite physical fitness test of school going boys of Central, North, East, and West zone (Delhi Region). For the purpose of the study, 50 girl's students were selected from the each zone of Delhi region. The age of the subjects at 15–18 years and among the total selected 200 subjects for the studied and 50 subjects each Central, North, East and West zone was school going girls students.

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Variable and Test

- Six factors composite physical fitness test.
- Unit of measured in seconds 1/100.

Table 1: ANOVA table of different zones based on physical fitness

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	266.082	3	88.694	2.405	0.069
Within Groups	7228.119	196	36.878		
Total	7494.201	199			

*the mean difference is in significant at the 0.05 level. **the F-value is 2.405

Table 2: Descriptive statistics analysis based on six factors composite physical fitness test

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Central	50	43.6788	8.23758	1.16497	41.3377	46.0199
North	50	42.0858	4.93909	0.69849	40.6821	43.4895
East	50	45.1388	6.12903	0.86678	43.3969	46.8807
West	50	42.6976	4.20657	0.59490	41.5021	43.8931
Total	200	43.4003	6.13672	0.43393	42.5446	44.2559

Data Collection

The before data collection field marking was done. All subjects were asked to go for warm-up and given to instruct. The tests for six factors composite physical fitness test were demonstrated and instruction to complete the test was given to the subjects. When subjects were ready for the data were recorded by the administering the test.

Statistical Analysis

The collected data were analyzing by one-way ANOVA statistics can be used to compare the means of Central, North, East and West zone school boys on six factors composite physical fitness test. SPSS statistic software was using for all statistical computation. These four groups in programs, the data of physical fitness obtained of the subjects in these four groups assuming that the conditions are same. The level of 0.05 was set for statistical significance differences

RESULTS

Table 2 shows the descriptive analysis on six factors composite physical fitness test of result for four zones. The scores in Table 2 show that performance on physical fitness test and compared the composite performance between zones and within zones were the testers in each group are same. The Table 2 shows the Central zone mean (M) 42.63, standard deviation (SD) 8.23, and standard error (SE) 1.16, North zone M 42.08, SD 4.93, and SE 0.69, East M 45.08, SD 6.12, and SE 0.86, and West M 42.69, SD 4.20, and SE 0.59 and overall combine performance of boys given the Table 2 M 43.40, SD 6.13, and 0.433 are respectively.

The Table 3 shows the test of homogeneity of variances using the levene statistic 3.369 at show that the variences are equal and no difference in variances of four groups and $P = 0.02$ is obtained from independent samples test at show the test is significant at the level of 0.05.

The F-value in Table 1 is insignificant as its ($P = 0.069$) is more than 0.05. Thus, the null hypothesis is differences among the means of the four groups may be rejected at 5% level of significance of based on six factors composite physical fitness test.

Table 3: Test of homogeneity of variances

Levene Statistic	df1	df2	Sig.
3.369	3	196	0.020

*The P=0.02 is significant at the 0.05 level

Since F-value is no significant, post-hoc test needs to be applied for comparing means of group's results by Thahane is shown on Table 4 these, such comparisons it can be seen that the different zones of subjects between Central zone and North zone is insignificant as the P-value for this mean difference is 0.814 which is more than 0.05.

Similarly, the mean difference between Central zone and East zone is also insignificant as the P-value for this difference is 0.899 and Central and West zone are also insignificant as the P-value for this difference is 0.974 which also more than 0.05. However, there is a difference between the means of North zone, East zone, and West zone. Table 4, Dunnett T3 statistic is also shown the as the same results by analysis of Thahane statistics.

From Table 2, it may be seen that the mean of physical fitness of the Central zone is insignificantly medium in comparison to that of North, East, and West zones. It may be concluded that the physical fitness of the boys in Central zone is medium in comparison to that of boys of North, East, and West zone.

DISCUSSION OF FINDINGS

The results presented in Table 4 show that there exists no significant means difference between North, Central, East, and West zones. There was insignificant difference in six factors composite physical fitness test and the boys of different school of zones in Delhi. In Table 2, the mean value is closely different in zones and various groups shown the fitness of composite test. The Table 3 showed the homogeneity of variances of significant at the level 0.05. However, as a major part of the samples are consisted of Delhi region population. The results might be different zones are included in the study.

Table 4: Post-hoc tests on multiple comparisons of physical fitness

	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	95% Confidence Interval
						Lower Bound	Upper Bound
Tamhane	Central	North	1.59300	1.35833	0.814	−2.0711	5.2571
		East	−1.46000	1.45205	0.899	−5.3657	2.4457
		West	0.98120	1.30807	0.974	−2.5563	4.5187
	North	Central	−1.59300	1.35833	0.814	−5.2571	2.0711
		East	−3.05300*	1.11319	0.043	−6.0450	−0.0610
		West	−0.61180	0.91750	0.986	−3.0768	1.8532
	East	Central	1.46000	1.45205	0.899	−2.4457	5.3657
		North	3.05300*	1.11319	0.043	0.0610	6.0450
		West	2.44120	1.05129	0.128	−0.3893	5.2717
	West	Central	−0.98120	1.30807	0.974	−4.5187	2.5563
		North	0.61180	0.91750	0.986	−1.8532	3.0768
		East	−2.44120	1.05129	0.128	−5.2717	0.3893
Dunnett T3	Central	North	1.59300	1.35833	0.807	−2.0668	5.2528
		East	−1.46000	1.45205	0.895	−5.3617	2.4417
		West	0.98120	1.30807	0.972	−2.5516	4.5140
	North	Central	−1.59300	1.35833	0.807	−5.2528	2.0668
		East	−3.05300*	1.11319	0.043	−6.0420	−0.0640
		West	−0.61180	0.91750	0.985	−3.0744	1.8508
	East	Central	1.46000	1.45205	0.895	−2.4417	5.3617
		North	3.05300*	1.11319	0.043	0.0640	6.0420
		West	2.44120	1.05129	0.127	−0.3862	5.2686
	West	Central	−0.98120	1.30807	0.972	−4.5140	2.5516
		North	0.61180	0.91750	0.985	−1.8508	3.0744
		East	−2.44120	1.05129	0.127	−5.2686	0.3862

*The mean difference is significant at the 0.05 level. ** The value of lower bound and upper bound has been omitted from the output table

CONCLUSION

In my thinking, this study was investigating the role physical fitness among the Indian school going boy's population. Specifically, the Delhi region school going boys are testing the physical fitness. Its analysis of fitness with best timing of the test and performance of boys are significantly in favor of physical fitness test.

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Research Article

Comparative study of aggression and anxiety level between lawn tennis and badminton players

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ABSTRACT

The main purpose of the study was to find out the significant difference of aggression, and competitive anxiety between Lawn Tennis and Badminton players. Fifteen male players from each of Lawn Tennis and Badminton teams of Guru Ghasidas Vishwavidyalaya were selected as subjects. The age of the subjects was ranging from 18 to 25 years. Purposive sampling technique was adopted to select the subjects. The data on selected aggression were assessed using "Anand Kumar and Shukla" questionnaires and competitive anxiety was assessed by administering the Sports Competition Anxiety Test questionnaire of Martein. Independent "*t*"-test was employed separately for both the selected variables to find out the significant difference if any between the means of the two selected groups. For testing the Null hypothesis, the level of significance was set at 0.05. The findings of this study showed significant difference between the Lawn Tennis and Badminton Players in aggression. However, no significant difference was found between the Lawn-Tennis and Badminton Players in competitive anxiety.

Keywords: Lawn tennis players, Badminton players, Aggression, Competitive anxiety

INTRODUCTION

Sports Psychology is a science in which the principles of psychology are applied in a sport or exercise setting. These principles are often applied to enhance performance. However, the true sport psychologist is interested in much more than performance enhancement and sees sport as a vehicle for human enrichment. A win-at-all-costs attitude is inconsistent with the goals and aspirations of the best sport psychologist. The sport psychologist is interested in helping every sport participant. Taken as a whole, sport psychology is an exciting subject dedicated to the enhancement of both athletic performance and the social-psychological aspects of human enrichment.

Lawn Tennis

Lawn Tennis is a racket sport that can be played individually against a single opponent (singles) or between two teams of two players each (doubles). Each player uses a tennis racket that is strung with cord to strike a hollow rubber ball covered with felt over or around a net and into the opponent's court. The object of the game is to play the ball in such a way that the opponent is not able to play a valid return. The player who is unable to return the ball will not gain a point, while the opposite player will.

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Badminton

Badminton is a racquet sport played using racquets to hit a shuttlecock across a net. Although it may be played with larger teams, the most common forms of the game are "singles" (with one player per side) and "doubles" (with two players per side). Badminton is often played as a casual outdoor activity in a yard or on a beach; formal games are played on a rectangular indoor court. Points are scored by striking the shuttlecock with the racquet and landing it within the opposing side's half of the court.

Aggression

Since aggression is an inevitable reality of life, it erupts in the society in almost all spheres of life and for variety of reason. It is impossible to escape from the society in almost all spheres of life and for variety of reason. It is impossible to escape from aggression and sports are no exception to it.

Anxiety

Anxiety is a term used to describe the combination of intensity of behavior and direction of an impact or emotion. The direction of characteristics of anxiety is negative in that it describes subjective that is unpleasant.

Purpose of the Study

The prime purpose of this present study was to find out the significance of difference in the selected psychological variables of aggression and competitive anxiety level between Lawn Tennis and Badminton players.

Significance of the Study

1. The findings of study may contribute to determine the aggression and competitive anxiety level of Lawn Tennis and Badminton players.
2. To render guidelines to the coaches and teachers to improve the performance of athletes at the time of competition by modifying the desired level of aggression and competitive anxiety.

Hypotheses

On the basis of review of related literatures, discussion with the experts and scholar's own understanding it was hypothesized that -

H_1- There would be significant difference in aggression between Lawn Tennis and Badminton players.

H_2- There would be significant difference in competitive anxiety between Lawn Tennis and Badminton players.

METHODOLOGY

Thirty (30) male players, 15 from each game of Lawn Tennis and Badminton, age was ranging from 18 to 25 years from University of Guru Ghasidas Vishwavidyalaya, Bilaspur were selected as subjects for the purpose of the study. Purposive sampling technique was adopted for the selection of 30 subjects.

Selection of Variables

For the present study, aggression and competitive anxiety were chosen as criterion variables.

Selection of Tools and Criterion Measures

Aggression

Aggression was assessed using "Anand Kumar and Shukla" questionnaire and score was recorded in number with the help of aggression questionnaire answer key.

Competitive anxiety

Competitive anxiety was assessed by administering the Sports Competition Anxiety Test (SCAT) questionnaire of R. Martein and score was recorded in number with the help of SCAT questionnaire answer key.

Collection of the data

The data pertaining to this study were collected on the selected subjects by administering the aforesaid questionnaires. Before the distribution of questionnaires, researcher explained the purpose of the study to the subjects explicitly so that they could give their correct responses.

Statistical Treatment

The data pertaining to this study were obtained from responses given by the selected subjects in questionnaires were marked according to the key and then statistically analyzed using "*t*"-test to find out the significant difference if any between the means of two selected groups.

FINDINGS

Findings pertaining to the selected psychological components, that is, aggression and competitive anxiety are presented in the Table 1 given below.

It is evident from the above Table 1 that significant difference is found in the variables of aggression (t=2.66>2.025). It is also observed that insignificant difference is found in the variable of competitive anxiety (t=0.25>2.025) at 0.05 level.

DISCUSSION OF FINDINGS

Findings of the study revealed that aggression was shown significant difference is between Lawn Tennis and Badminton

Table 1: Description of Mean, S.D., and t-ratio for the Data on selected variables of lawn tennis and badminton players

Variable	Group	No. of Subjects	Mean	Standard Deviation	Standard Error	t-ratio
Aggression	Lawn Tennis Players	15	10.55	1.90	0.75	2.66*
	Badminton Players	15	12.55	2.78		
Competitive Anxiety	Lawn Tennis Players	15	19.35	2.00	4.42	0.25@
	Badminton Players	15	18.25	3.94		

*Significant at 0.05 level Tabulated $t_{0.05}(28)$=2.025, @Not Significant at 0.05 level

Players, it may be because Badminton players possess higher level of aggression as compared to Lawn-Tennis players, it may be attributed to the fact that Badminton is such a sport which needs a lot of aggressiveness while perform smash with maximum power and maximum power can only be generated while a person becomes highly aggressive, hence such result might have occurred in this study.

CONCLUSION

Recognizing the limitations of this study and on the basis of findings the following conclusions have been drawn-

1. There is significant difference between the Lawn Tennis and Badminton players in aggression.
2. No significant difference was found between the Lawn Tennis and Badminton players in competitive anxiety.

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Research Article

Effect of specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa

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ABSTRACT

(Physical Fitness, 2019) Physical fitness plays a very important role in overall development of an individual's body. Thus, making them feel good about themselves. Physical fitness comprises of two concepts: General fitness and specific fitness. Physical fitness is generally achieved through exercise, correct nutrition, and enough rest. (Body Weight Exercise, 2019) Bodyweight exercises are strength training exercises that use the individual's own weight to provide resistance against gravity. Various individuals who know the importance of yogic practices perform yoga. In teaching profession, it is very important to have a balance state of mind and physical fitness so that the teacher can efficiently discharge their duties physically and mentally. Therefore, because of this, the researcher felt the need to study and understand the effect of specific exercise program on the flexibility and muscle endurance of the pre-service teachers of Goa ($n = 20$). (The FITT Plan for Physical Activity, 2019) The specific exercise program was developed with combination of three exercises related to yoga and three specific body weight exercises and were face validated. The purpose of the study was to see the effect specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa, standardized test were used to measure flexibility and muscular endurance. Pre-test data were collected, 3 weeks intervention program was implemented and post-test data were collected. Data analysis and interpretation were done using descriptive statistics from Statistical Packages For Social Science software. The mean scores of pre-test and post-test with respect to flexibility of sample group were 39.10 cm and 42.05 cm, respectively. However, the standard deviation of pre-test was 3.07 cm and post-test was 2.89 cm. Similarly, the mean scores of pre-test and post-test with respect to muscular endurance of sample group were 21.95 cm and 25.85 cm, respectively, and the standard deviations of pre-test and post-test were 3.11cm and 2.73cm, respectively. On comparing the means using paired sample *t*-test of pre-test and post-test scores of muscular endurance, the mean difference was 3.90, the calculated "*t*" value was 16.28, and for degree of freedom 19. It showed significant difference at 0.05 level ($P = 0.000$). Moreover, on comparing the means using paired sample *t*-test of pre-test and post-test scores of muscular endurance, the mean difference was 3.90, the calculated "*t*" value was 16.28, and for degree of freedom 19. It shows significant difference at 0.05 level ($P = 0.000$). As both the physical variables had positive effect from specific exercise program, it was concluded that there was a significant effect of specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa.

Keywords: Specific exercise program, Pre-service teacher, Flexibility and muscular endurance

INTRODUCTION

(Body Weight Exercise, 2019) Bodyweight exercises are strength training exercises that use the individuals own weight to provide resistance against gravity. Bodyweight exercises can enhance a range of bio motor abilities including strength, power, endurance, speed, flexibility, coordination, and balance. This type of strength training has grown in popularity for both recreational and professional athletes. Bodyweight training utilizes simple abilities such as pushing, pulling, squatting, bending, twisting, and balancing. Movements such as the push-up, the pull-up, and the sit-up are some of the most common bodyweight exercises. Various yoga exercises are performed by individuals who know the importance of yogic practices. Yoga plays an important role in reducing stress and increases flexibility of an individual. (Exercise and the brain, 2019)Exercise increases the blood flow to the brain. It is said that exercise can improve mental health and

maintain good emotional stability as well as increase physical fitness. Working out can improve one's mental alertness and it can reduce fatigue and a reduction in stress levels. Being fit can improve one's self-esteem and increase opportunity for social interaction. Teachers should be physically fit to discharge their duties efficiently. Therefore, because of this, the researcher felt the need to develop a specific exercise program with combination of three exercises related to yoga and three specific body weight exercises keeping in mind the FITT method (frequency, intensity, time, and type) (The FITT Plan for Physical Activity, 2019) with face validity to study and understand the effect of specific exercise program on the flexibility and muscle endurance of the pre-service teachers of Goa.

METHODOLOGY

(Creswell, Educational research: planning, conducting and evaluating quantitative and qualitattive research, 2008) In this study, quantitative research method was used. The aim of the researcher was to find out the answer to an inquiry through numerical evidence. Pre-test and Post-test single group research design were used on the sample. The population was all students enrolled for bachelors in education program or integrated program (B.Sc., B.Ed/B.A B.Ed) in the state of Goa affiliated to Goa University. Total of twenty pre-service teachers were part of the study and were selected through random sampling. Specific exercise program was developed with combination of three exercises related to yoga and three specific body weight exercises keeping in mind the FITT method (frequency, intensity, time, and type). It helped in developing the program (The FITT Plan for Physical Activity, 2019). The specific exercise program was face validated. Pre-test data were collected, 3 weeks intervention program was implemented and post-test data were collected. The raw data were fed in excel sheet. Then, the data were interpreted in statistical packages for social science software for data analysis. Data interpretation was done using descriptive statistic and paired sample *t*-test. The purpose of this research was to study the effect specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa. It was hypnotized that,

H^1-1 There will be significant effect of specific exercises program on the flexibility of the pre-service teachers of Goa. H^1-2 There will be significant effect of specific exercises program on the muscular endurance of the pre-service teachers of Goa.

Variables for the Study

- Independent variable: Specific Exercise Program.
- Dependent variable: Flexibility and Muscular Endurance.
- Testing variable: V-Sit and Reach Test and 1 min Sit-up Test, Both standardized.

RESULTS AND INTERPRETATION

Descriptive Statistics

The descriptive statistics are computed to describe the nature of the data. These statistics provide the summary of various measures of the sample. In this statistics, the score expressed the value of mean and standard deviation of mean of pre- and post-test of physical variables that are flexibility and muscular endurance.

As per above Table 1, the mean scores of pre-test and post-test of v sit and reach test with respect to flexibility of sample group were 39.10 cm and 42.05 cm, respectively. However, the standard deviation of pre-test was 3.07 cm and post-test was 2.89 cm of v sit and reach test with respect to flexibility of sample group.

As per Table 2, the mean scores of pre-test and post-test of 1 min sit-up test with respect to muscular endurance of sample group were 21.95 cm and 25.85 cm, respectively. Moreover, the standard deviations of pre-test and post-test were 3.11 cm and 2.73 cm, respectively, of 1 min sit-up test with respect to muscular endurance of sample group.

Hypothesis Testing

The purpose of this research was to study the effect of specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa and the testing hypothesis is as follows:

Testing of hypothesis H^1-1

There will be significant effect of specific exercises program on the flexibility of the pre-service teachers of Goa.

Table 1: Indicating the mean scores and standard deviations of pre- and post-test of v sit and reach test with respect to flexibility of sample group (*n*=20)

Component	Test	Mean score (cm)	Standard deviation
Flexibility	Pre-Test	39.10	3.07
	Post-Test	42.05	2.89

Table 2: Indicating the mean scores and standard deviations of pre and post-test of 1 min sit-up test with respect to muscular endurance of sample group (*n*=20)

Component	Stage	Mean score (cm)	Standard deviation
Muscular endurance	Pre-Test	21.95	3.11
	Post-Test	25.85	2.73

Observation

From the above Table 3, we observed that on comparing the means using paired sample *t*-test of pre-test and post-test scores of flexibility the mean difference is 2.95, the calculated "*t*" value is 10.69, and for degree of freedom 19. It shows significant difference at 0.05 level ($P = 0.000$).

Interpretation

From the above observation, it is seen that there is significant difference hence research hypothesis is accepted. Therefore, to conclude, there is a significant effect of specific exercises program on the flexibility of the pre-service teachers of Goa.

Testing of Hypothesis

There will be significant effect of specific exercises program on the Muscular endurance of the pre-service teachers of Goa.

Observation

From the above Table 4, we observed that on comparing the means using paired sample *t*-test of pre-test and post-test scores of muscular endurance the mean difference is 3.90, the calculated "*t*: value is 16.28, and for degree of freedom 19. It shows significant difference at 0.05 level ($P = 0.000$).

Interpretation

From the above observation, it is seen that there is significant difference hence research hypothesis is accepted. Hene, it is concluded that there is a significant effect of specific exercises program on the Muscular endurance of the pre-service teachers of Goa.

Table 3: Indicating the testing hypothesis of flexibility

	Paired Differences					
	Mean	Std. deviation	Std. error mean	t	Df	Sig. (2-tailed)
Pre-Test Score and Post-Test Score	2.95	1.23	0.28	10.69	19	0.000*

*Significant at 0.05 level

Table 4: Indicating the testing hypothesis of muscular endurance

	Paired Differences					
	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Pre-Test Score and Post-Test Score	3.90	1.07	0.24	16.28	19	0.000*

*Significant at 0.05 level

DISCUSSION

From Tables 1-4, we observed that specific exercise program had positive effect on physical variables, that is, flexibility and muscular endurance. Therefore, the set of hypothesis that stated there will be significant effect of specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa was accepted. The mean scores of pre-test, post-test of flexibility and muscular endurance show that 3 weeks of specific exercise program with combination of three exercises related to yoga and three specific body weight exercises were enough to increase the performance of selected physical variables of the pre-service teachers of Goa were accepted. The result of the present study revealed that short term specific exercise program for 3 weeks could also be included in B.Ed colleges for pre-service teachers.

This finding of the present study could be supported by the findings of a research on Exercise and body image: A meta-

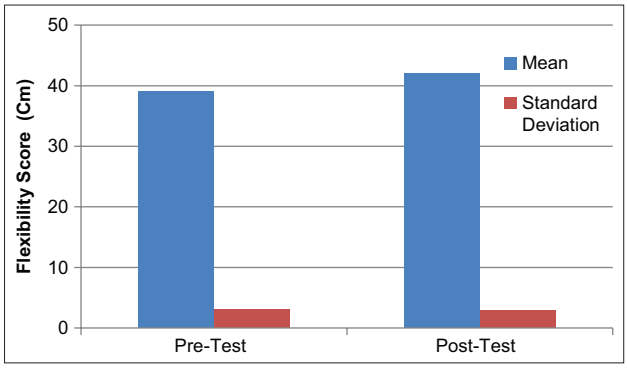


Figure 1: Indicating the graphical representation of means scores and standard deviations of pre and post-test of v sit and reach test with respect to flexibility of sample group.

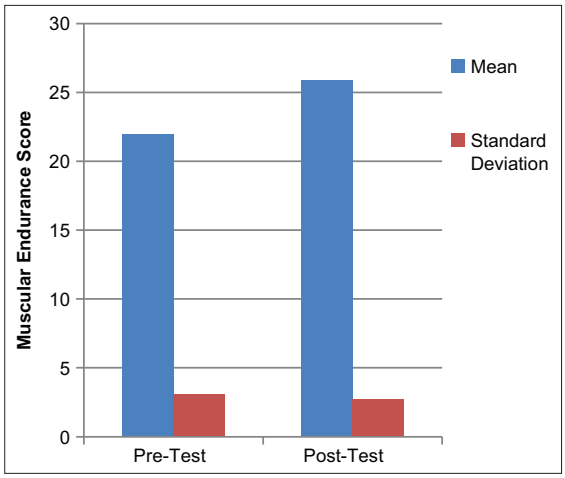


Figure 2: Indicating the graphical representation of means scores and standard deviations of pre and post-test of 1 min sit-up test with respect to muscular endurance of sample group

analysis. (Hausenblas and Fallon, 2005) They performed extensive literature searching strategies and located 121 published and unpublished studies that examined the impact of exercise on body image. Primary study results were coded, and meta-analytic procedures were conducted. Studies were grouped into intervention (i.e., exercise *vs.* non-exercise group post-exercise intervention body-image scores), single group (i.e., pre- *vs.* post-exercise intervention body-image scores), and co relational (i.e., exercisers *vs.* non-exercisers body-image scores) effect sizes. Small effect sizes (that were weighted by sample size), that were significantly different from zero, indicated that: (a) Exercisers had a more positive body image than non-exercisers (b) exercise intervention participants reported a more positive body image post-intervention compared to the non-exercising control participants; and (c) exercisers had a significant improvement in body image scores following an exercise intervention. They concluded that exercise was associated with improved body image is moderating variables and implications for exercise prescription to improve body image. Similarly, the present study could also help in building body image of the pre-service teachers.

CONCLUSION

The purpose of this research was to study the effect specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa. As per the study, it has been seen that specific exercise program had positive effect on physical variables, that is, flexibility and muscular endurance of the pre-service teachers of Goa. The results suggested that on comparing the means using paired sample *t*-test of pre-test and post-test scores of muscular endurance the mean difference was 3.90, the calculated "*t*" value was 16.28, and for degree of freedom 19. It showed significant difference at 0.05 level ($P = 0.000$). Moreover, on comparing the means using paired sample *t*-test of pre-test and post-test scores of muscular endurance, the mean difference was 3.90, the calculated "*t*" value was 16.28, and for degree of freedom 19. It shows significant difference at 0.05 level ($P = 0.000$). As both the physical variables had positive effect from specific exercise program, it was concluded that there was a significant effect of specific exercises program on the flexibility and muscular endurance of the pre-service teachers of Goa. This study may offer new frameworks for research, and further study on effect of specific exercises program on the psychological variables of the pre-service teachers could be taken as a research topic.

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Research Article

Effect of Pilates exercise on fat mass and fat free mass on school students

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ABSTRACT

The aim was effect of Pilates training on fat mass and fat free mass on school students. School students 12–17 years age from the Chaitanya school of Gandhinagar City, Gujarat, India. Total 60 school children were selected as subjects for the sample of the present study, in which 30 students were included in the Pilates training group and 30 students were included in the control group. The Criterion measurement of fat mass and fat free mass through by body composition analyzer machine. Statistical technique such as analysis of covariance was applied to know the effects on Pilates training group. Mean difference was examined at 0.05 levels using least significant difference analysis of covariance test. It is hereby clear that, due to Pilates training, significant improvement is seen in the performance of subjects of Pilates training group with body composition analyzer machine with comparison to the control group. Noteworthy improvement is seen fat mass and fat free mass of the subjects selected through 12 weeks training. It is hereby clear that, due to Pilates training, significant improvement is seen in the performance of subjects of Pilates training group in fat mass with comparison to the control group. Noteworthy improvement is seen in fat free mass of the subjects selected through 12 weeks training.

Keyword: Analysis of variance, Body composition analyzer machine, Pilates training, School students

INTRODUCTION

In recent years, a profound evolution of Pilates has occurred. The Pilates industry reached a tipping point (a point of critical mass) in the mid-to late 1990s, whereby it morphed from a little known form of exercise into something with a devout but small following including dancers, singers, circus performers, and actors to a mainstream fitness regimen practiced in many households. The creator of Pilates Joseph H. Pilates was born in Germany, December 9, 1883, and began his interest in health and physical conditioning to improve his own personal medical problems. He moved to England in 1912 to training military police and detectives in self-defense. In 1917, during World War I, he worked to rehabilitate the sick and wounded in a prison camp on Britain's Isle of Man. Here, he began building his equipment using springs, mattresses, and his own creativity.

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Mr. Pilates left for New York with the opportunity to train Max Schmeling, the German boxer who first became famous in America. He wanted to find a new life and he opened his first studio in the early 1920s. During this transition, he met his wife Clara, who was an important part of the development of his practice of Contrology. He began training men, women, celebrities, and dancers. Martha Graham and George Balanchine, two notable choreographers, referred many of their dancers after realizing its benefits to Pilates method that he referred to as Contrology. He defined Contrology as "the comprehensive integration of body mind and spirit." Dancers became stronger, more flexible, and helped rehabilitate their injuries.

Knowing all about your body composition can help you determine the general state of your overall health. Even if you appear to be healthy on the outside and weigh in at a seemingly normal weight on the scale, you may still have an unhealthy or altered body composition.

Body composition is the body's relative amount of body fat to fat-free mass, the latter of which is made up of your organs,

Table 1: Analysis of covariance of mean scores of as fat mass experimental groups and a control group

Test	Groups		Analysis of variance				
	Pilates	Control		Sum of classes (SS)	*df*	MSS	*'F'*
Pre test mean	9.103	9.783	A	6.936	1	6.936	1.482
			W	271.431	58	4.680	
Post-test mean	8.197	10.323	A	67.841	1	67.841	19.701*
			W	199.723	58	3.444	
Adjusted mean	8.450	10.070	A	38.384	1	38.384	44.634*
			W	49.019	57	0.860	

*Significance level at "*F*"=0.05 (1.58)=4.006 and (1.57)=4.009

Table 2: Analysis of covariance of mean scores of as fat free mass experimental groups and a control group

Test	Groups		Analysis of variance				
	Pilates	Control		Sum of classes (SS)	*df*	MSS	*"F"*
Pre-test Mean	49.260	50.760	B	33.750	1	33.750	1.187
			W	1648.524	58	28.423	
Post-test Mean	48.037	51.147	B	145.082	1	145.082	5.826*
			W	1444.304	58	24.902	
Adjusted Mean	48.720	50.464	B	44.714	1	44.714	32.926*
			W	77.408	57	1.358	

*Significance Level at "*F*"=0.05 (1.58)=4.006 and (1.57)=4.009

bones, muscle, and body tissue. If your ratio of body fat is much higher than your fat-free mass, then you could be putting yourself at risk for severe health problems such as obesity, high blood pressure, type 2 diabetes, heart disease, fatigue, cancer, and more.

Although body fat is generally associated with poor health, some fat is actually necessary for overall good health, as it can help protect internal organs, regulate hormones, and provide us with energy. Body fat should typically make up about 5% of total body weight in men and about 12% of total body weight in women.

Aim of the Study

The aim was effect of Pilates exercise on fat mass and fat free mass on school students.

Selection of Subjects

Students 12–17 years age from the Chaitanya school of Gandhinagar City, Gujarat, India. Total 60 school children were selected as subjects for the sample of the present study, in which 30 students were included in the Pilates training group and 30 students were included in the control group.

Criterion Measurement

S. No.	Variable	Test	Measurement
1	Fat mass	Body composition analyzer machine	Kg.
2	Fat free mass		Kg.

Statistical Process

Statistical technique such as analysis of covariance was applied to know the effects on Pilates training group. Mean difference was examined at 0.05 levels using least significant difference analysis of covariance test.

RESULT OF THE STUDY

In the Table 1 above, performance of fat mass *"F"* ratio of pre-test was found to be 1.482. Comparing it with Table value (4.006), it was found insignificant at 0.05 levels. The *"F"* ratio of post-test was found 19.701 comparing it with Table value (4.009) it was found significant at 0.05 levels. In addition, the *"F"* ratio of Adjusted was found to be 44.634.

In the Table 2 above, performance of fat free mass *"F"* ratio of pre-test was found to be 1.187. Comparing it with Table value

(4.006), it was found insignificant at 0.05 levels. The *"F"* ratio of post-test was found 5.826. Comparing it with Table value (4.009), it was found significant at 0.05 levels. In addition, the *"F"* ratio of Adjusted was found to be 32.926.

CONCLUSION

- It is hereby clear that, due to Pilates training, significant improvement is seen in the performance of subjects of Pilates training group in fat mass with comparison to the control group. Noteworthy improvement is seen in fat mass of the subjects selected through 12 weeks training
- It is hereby clear that, due to Pilates training, significant improvement is seen in the performance of subjects of Pilates training group in fat free mass with comparison to the control group. Noteworthy improvement is seen in fat free mass of the subjects selected through 12 weeks training.

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Research Article

Yog and development

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ABSTRACT

In this whole world based on male and female energies because God (nature) has ultimate power of reality. It is based on $E=mc^2$(Einstein), Newton's IIIrd law, and law of attraction, all three factors are playing everywhere in this world. Female is the largest voltage of this world. It is said that a sound mind resides in a healthy body. If your mind is sound and body is healthy, your performance can be better in all the activities you carry out in our day-to-day life. Yoga can play a very crucial role in maintaining healthy body and provide peace to a human being Yoga can also help all round development. This paper is an attempt to show the benefit of Yoga for overall development of health and how it is helpful for all round development. Moreover, an ancient scripture of mythology is introduced and the ways in which they are helpful for maintaining health and also for all round development.

Keywords: Yoga, Saptashati, Women, Meditation, Wishes, and spiritual ascension, Purity of thought, Positive radiance

INTRODUCTION

Yoga is a very old practice which has been in existence since ages in India. The word Yoga originated from the Sanskrit language. It denotes union of bridge that specifies the practice of yoga brings together the one's body, mind, and spirit. Yoga includes several physical postures which are called Asanas. These postures combined with breathing techniques (pranayama) and meditation (Dyana), makes the goals of a sound body and a quiet, peaceful mind complete. Sri Durga Saptashati is an ancient scripture of mythology. While the tales and fables in this scripture, highlighting the heroics of Mother Goddess Durga, are known to all and widely discussed in traditional culture, the real power of the scripture lies in the mystic meditation revolving around the scripture. This secretive meditational process of Durga Saptashati lay encrypted in a spiritual code for ages. It was kept as a closely guarded secret to avoid it falling into the wrong hands. However, the merciful Healing Master Avdhoot Baba Shivanandji took it on himself in the contemporary times to revive this supremely powerful but forgotten spiritual practice. Babaji reckoned that in the present milieu of conflict, war, rebellion, strife, epidemics, incurable diseases, natural disasters, catastrophes, pain, and suffering, mankind was becoming increasingly disconnected with itself. He felt that time was ripe to overhaul such a vitiated atmosphere with something which could not only arrest this slide but universally resurrect a congenial environment for good health, peace, happiness, and an overall harmonious existence for all living beings. Thus, Babaji decoded and distillated the 13 chapters and 700 verses of the Durga Saptashati scripture. What came through was a very powerful gist of Beej Mantras or seed syllables. Each Beej Mantra is or seed syllables each Beej Mantra is a living entity and invokes the goddess in some form.

Each syllable has great sanctity and purifying capacity there are three units in the meditation, corresponding to the divine Trinity of Goddesses Mahakali (kill the vices), Mahalaxmi(Bestows infinite material and spiritual wealth), and MahaSaraswati (imparts great wisdom) and so the devoted practitioner is blessed with 11th of the soul with every passing chapter of the process.

The Demons which Goddess Durga overpowers in the various story legends of the Durga Saptashati are actually all bad habits of ego, criticism sycophancy, greed, and the cascade of misdeeds which have occupied our lives because of ignorance

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as the practitioner of these meditation follows the procedure the intimate connection with the God is that gets established kills the negativity within helping us internalize the real essence of Durga Saptashati which is renunciation of all kinds of devilish tendencies.

The defining element of these meditation is that it is known to be the giver of great bones. Moreover, with Babaji having moulded such a complex, long-drawn meditation into a succinct process it has become tailor-made for the fast paced modern times.

The greatest asset of Durga Saptashati Sadhna is that it helps us learn the real meaning of renunciation and detachment by guiding us toward the practical aspect of spirituality. Hence, we realize that the devil of Mahishasur, Madhu-Kaitabh, Shumbh-Nishumbh, and Raktabeej is not external entities but symbolic of bad qualities within us. Saptashati is a facilitator in us becoming aware of the fact that when we kill the bad tendencies we are showered with great boons, material wishes, and spiritual ascension.

IMPORTANCE OF DURGASAPTASATISADHANA

Durga Saptashati Sadhna is the perfect example of how the power of sound and vibration when blended with the emotion of devotion can prove to be my tea beneficial turning the chant of syllables into a meditation in motion.

Regular conduct of these purifying practice prices the vibration of the region where it is done, thus its exponents talk of its great capability of restoring peaceful and normal order across the word if done in every nook and corner collectively. Saptashati syllables grant infinite boons of diverse variety on the devoted practitioner the benefits through uncountable are summarized below.

1. Balances the ambient energy with image positive radiance
2. Create a protective shield around the factor which helps at every juncture
3. Triggers personality and character development
4. Cleanses the mind of doubt and ambiguity
5. Forces great love and warm along family members when done at home
6. Aspire the individual on the path of virtuousness
7. Imparts the rare combination of purity of thought prosperity and wisdom
8. Rises the vibration of the practitioner and automatically his family
9. The quotient a very smooth effect on the body, mind, and soul.

Over and above days, it is said about the Durga Saptashati meditational chance that day possesses the power of England or a 180 degree turn around even for the one who finds himself totally down and out in every sphere of life or for the person who is on the verge of total breakdown.

The Infinite benefit of Durga Saptashati Sadhna instant near the positive while paying the individual with an appreciable amount of creative energy.

CONCLUSION

Thus, this type of meditation which is based on the ancient scripture of mythology “Sri Durga Saptashati” is very helpful for developing.

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Research Article

Yogic exercises for physical fitness and immunity

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ABSTRACT

Exercise is the chief and best system to maintain good health. Exercise is defined as physical activity that is planned, structured, and repetitive and its objective is the improvement or maintenance of physical fitness. It is important to distinguish the terms exercise and physical activity. In the modern push button age, the involvement of physical activity becomes less to execute the daily routine work. This leads to less physical fitness and variety of diseases. This necessitates the human being to perform balance exercise daily to avoid the health related problems. All parts of the body, which have function, if used in moderation and exercised become healthy, well developed, and age more slowly. If unused and left idle become defective in growth, liable to disease and age more quickly. Exercise of moderate intensity confers important health benefits.

Keywords: Physical fitness and physical education, Yogic exercise

INTRODUCTION

People of both sex and all age groups are benefit from regular exercise. Greater health benefits can be achieved by increasing the intensity and frequency of exercise. Exercise also impairs mental health. People mostly give exercise for skeletal muscle and failed to practice suitable exercise regiments to involved cardiac muscle, lungs, and other vital organs. Regular and ideal exercises reduce the risk of premature mortality in general and of coronary heart disease hypertension and diabetes mellitus in particular. Exercise is one of the best systems of disease management.

Physical activity is any bodily movement produced by the skeletal muscles that result in the expenditure of energy. Enthusiasm for exercise, physical activity, and fitness is an unprecedented one exercise and physical activity is integral parts of a healthy life style. Within the past decade tremendous interest has been shown in exercise. However, it appears that only a small percentage of the population participates in vigorous exercise sufficient frequency, intensity, and duration to sustain and adequate level of health related fitness.

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Objective of the Study

To know the impact of yogic exercise on physical fitness and immunity.

Yogic exercise for maintaining physical fitness and immunity.

Breathing Practice

The yogic breathing exercises are advised to practice in the first. The exercises are intended to have an inner awareness and there by enhance of coordination of the body, breath, and mind.

1. Stand erect: Bring up the arms to horizontal position, palms pressing each other, and fingers pointing forward
2. Move the arms backwards as much as possible while inhaling. The arms swing back with shoulders as hinges in the same horizontal plane. Chest is expanded
3. Bring the arms back to front position while exhaling fully. Repeat ten rounds.

Hands-stretch Breathing

1. Interlock the fingers, in front of the chest, and palms inwards

2. Inhale slowly, stretch the arms straight out while twisting the interlocked hands, palms, and facing outwards
3. Exhale. Bring the hands back. Palms on the chest with relaxation. Repeat ten times
4. Repeat the same movements in oblique (45^0) and vertical planes.

Ankle-stretch Breathing

1. Stand erect keep the hands straight down and palms facing forward
2. While inhaling, raise the hands and stretch up the body on the toes. The hands with interlocked palms facing upwards and the arms stretched
3. While exhaling bring the hands down completely retracing the steps stand on the soles. Repeat five times.

Jogging

1. Stand erect and place the fists loosely on the chest. Start skipping on the toes and touching the heels at the back in a relaxed way
2. Increase the speed gradually and come to a steady jogging speed
3. Carry on deep rhythmic breathing and relax the whole body during jogging. Continue for a while
4. Switch over to the forward jogging by raising the knees to the chest level. Repeat for a while
5. Continue the practice with side jogging by spreading the leg sidewards and raising the heels upwards by bending the knees. Stand a while and perform Mukha Dhoti relax in standing position.

Mukha Dhouti (Cleaning Through a Single Blast Breath)

1. Stand with a slight forward bend of the trunk, palms on the thigh, and legs about a meter apart
2. Inhale deeply and expel the air forcibly as in a jet through the mouth continuously. This is done by the help of the diaphragm by prolonged exhalation
3. Repeat several times.

Front and Back Bending of Waist

1. While inhaling, stretch up the hands and bend backwards
2. Return to the vertical position and bend forward while exhaling
3. Touch the ground with palms, if possible. Comes up and bend backwards during inhalation. Repeat four or five times. With practice, you can touch the ground at the back with hands as in Cakrasana and come up.

Side Bending

1. Deep the legs about a meter apart
2. Raise the hands sideways parallel to the ground while inhaling
3. Bend to the right till the right and touches the right hell while exhaling. Bend in the same plane
4. Look at the palm of the left hand directing forwards. Come up with inhalation. Repeat four or five times
5. Repeat the same on the left.

Twist

1. Stand erect with hands spread out parallel to the ground, feet about ½ m apart
2. Keeping the legs firm on the ground twist to the right, right hand straight, and left hand bent at the elbow touching the chest
3. Exhale continuously during the twist
4. Come back while inhaling
5. Repeat on the left side
6. All twisting should be above the waist. Below the waist, maintain the body straight and firm. No bending at the knee joints
7. Repeat with increase speed.

CONCLUSION

People who better know about the yogic exercises movements methods of performing exercise benefits more and likely to develop the habit of exercise. Adherence to an exercise program, the mode of exercised should be convenient and enjoyable helps to improve the physical fitness and immunity of all types of people.

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Research Article

Challenges and opportunities in physical education in India

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INTRODUCTION

If "Education is the manifestation of divine perfection already existing in man" then certainly physical education is the substantiation of that perfection. In the 21st Century – physical education goes beyond the theme "an integral part of total education" and manifests itself as a vast education along with its multi-dimensional approach – from traditional school settings to home, community, work-site, commercial setting, medical setting, and corporate setting and became a major issue in the application side of the splendiferous development of science and technology. Physical education is very important to student's health and overall well-being. The Centers for Disease Control and Prevention stated that over the past 3 years. There are some major points toward challenges in physical education.

We are in an era, where we love sports and realize the importance of sports. Playing sports (game) in schools and colleges level need not be considered just as a hobby. One can build their career in physical education to see various career options in it. Physical education aims to provide children and young people with learning experiences that enable them to develop the knowledge, motivation, and competence to live a physically active life. Physically, morally, intellectually, and socially within an educational context where pupils are valued and cared.

Integration of physical education and sports in educational institutions of all levels. This has been in the agenda of the previous policies, but the implementation has left much to be desired. The spectacular progress achieved by countries such as Japan, China, Germany, and Korea are attributed to their strong commitment to physical education and sports oriented education in the institutions all levels. The development of most countries over the world, point out that the single most important factor which can bring about improvement in all spheres of life is sports education. It is high time that the government prepares sports oriented curriculum and advice state governments to follow in educational institutions including medical and engineering as are done in some institutions in Tamil Nadu.

Sports activities in the schools are considered as the spine in educating and cultivating the students through the various cultural and recreational activities. These sports activities encourage investing the leisure time, appreciating the responsibility, respecting self and others, and developing the ability to make the right decision. School sport is an educational and economical system that pumps cadres of the young people for the competitive sports and opening to the international markets (Oudat *et al*., 2009).

Physical education is one of the important aspects of the educational and teaching processes, especially in the present era, in which high values are set for the physical activity, as it has many positive effects on the individual. The positron emission tomography (PET) is one of the basic pillars of the educational process, which its level and status in the community depends, to a wide extent, on the role and level of the teacher's performance and his/her achievement of the tasks and educational responsibilities that he had to accomplish (Husain *et al*., 1999).

In many countries, teaching the physical education is facing several challenges (Hardman, 2009), such as decreasing in the teaching time, curriculum, shortage in equipment, negative view of the teachers as well as students, and guardians about physical education.

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Objectives

1. To develop highly scholars in the field of physical education
2. To improve vision toward physical education and sports
3. Perfection in the area of specialization
4. Aware of emerging issues such as health, fitness, wellness, and technology.

CHALLENGES

The scope of physical education is vast and the problems included there in are baffling indeed. The problems that generally stare in the face of effective organization of physical activities in the schools are lack of adequately qualified physical education personnel, lack of facilities for medical examination, lack of properly developed playground, an academically loaded curriculum, lack of time; lack of funds, lack of provision of mid-day meals, and the practice of double shifts.

In every school, there should be an organizer of games and sports who may be designated as P. E. T, or Games Superintendent. The person should be appointed on ground of aptitude and interest in games. Though P. E. T. will be in sole charge of the organization of physical activities in the school yet other teachers should be assigned duties to assist the P. E. T. in his work.

Misconception of Physical Education

Physical education is rest period between academic class and anyone can teach physical education. Interactive video games are fun, can get a person's heart rate up, and get the blood pumping. Many people believe that active video games are quality physical education but do our children need to spend more time using media? At present, children and teenagers spend over 7 h/per day using media. Playing video games can also lead to repetitive strain injuries as well as soft tissue injuries from uncontrolled movements, factures, falls, and contusions. The movements in video games are limited by the design of the game.

While video games are enjoyable, children need to explore a variety of movements through a daily physical education program. These movements help build the brain body connection which helps to improve athleticism that can be applied in real world situations.

PHYSICAL EDUCATION IN NOT NECESSARY

Physical education is being reduced in schools and there is very little information on physical education for homeschoolers. Many people involved in education feel that there is not enough time to focus on math, science, and reading so physical education gets cut or neglected.

Lack of Physical Education Syllabus

Lack of physical education syllabus at primary, secondary as well as college level. The main aim of impart the better physical education didn't see any more.

Coverage of Media

Media had given special preference to selected sports due to which other sports are neglected. Media should try to develop and take interest in all kind of sports. Less prime-time coverage than individual sports

Jobs

The chance to get jobs bright in selective sports that is also a big factor. In such sports, even you play state level you get higher administrative jobs while in other sports you represent national you hardly get job.

Schemes

Universities are having maximum youth power with tremendous resources. They are running schemes such as NCC and NSS successfully in affiliated colleges. Compared to these outputs, the sports talents are found insignificant.

Courses

The colleges have power to contribute to the promotion of sports environment in country. They need to be properly revamped, short term courses should be replaced by long term courses with wider range of subject and their specialization. Vocational or self-employment or career oriented courses be launched in these colleges.

Monitoring Council

There should be required a motoring council consisting of physical education such as All India Council of Physical Education instead of NCTE. Who could monitor all physical education institutes?

Responsibility

This is not only the responsibility of the government but also the responsibility of every those people who are linked with physical education and sports. We have never fulfilled our duties but just completed our formalities due to which poor performance in physical education and sports.

Opportunities

Physical activity must be learned; hence there is a need for thinking on the part of the intellectual mechanism, with a resulting acquisition of knowledge. Physical activities are essential for the development of a child's scientific insight, intelligence, and superior type of reflective thinking. There are various career options in sports academy, health clubs, sports goods manufacturing companies, and in the areas of marketing. Furthermore, there are opportunities as a commentator, sports journalist, sports trainer, school/college teacher (physical training), and many more. Sports persons on

retiring from active play can also look forward to satisfying jobs in assignments such as umpires and referees. Furthermore, in a country such as ours where country spas and yoga centers are at a rise, one can also use his/her expertise for a job in such places.

Player, Teacher/Trainer Opportunities

1. Player: state, national, and international level medalist.
   Qualification: 12th pass, Opportunity areas: Government, semi government organizations, private organizations, professional sports organization, and companies, for Medal Winners in Maharashtra a 5% quota for government jobs

2. Physical education teacher: Degree: B.P.E., B.P.Ed., M.P.Ed., M.Phil.
   Opportunity areas: Primary, secondary, higher secondary, and international schools,

3. Director of physical education and sports:
   Degree: M.P.Ed., Ph.D., SET/NET
   Opportunity areas: Senior College and Universities. SET/NET.

4. Trainer: For various games/asst. trainer/athletics director/sports information director/training and conditioning coach.
   Degree:Sports Authority of India - NIS (1 year) and certificate course (6 weeks).
   Opportunities:Central and state government sports offices, private sports organization, sports entrepreneur, military, and private training camps and clubs.

HEALTH AND FITNESS SECTOR

Public interest toward health and physical fitness has been remarkable in the past decade. People are experiencing the benefits of regular exercise. The field of fitness generates the opportunity to earn money but more importantly own health can be maintained. Those who are in this field are always energetic, happy, and enthusiastic.

1. Fitness trainer/personal trainer/gym trainer
   Education: Diploma in fitness training, fitness trainer certificate course, personal trainer course, or B.P.Ed., M.P.Ed., NIS (fitness), etc.
   Opportunity area: Various fitness centers, gymnasiums, training centers, health clubs, figure saloon, own business, or personal clients.

2. Sports massage therapist/assistant
   Education: Diploma in integrated sports massage, certificate course in sports massage, diploma in massage, sports massage course, and government recognized certificate and degree courses.
   Opportunity areas: Hospitals, private clubs, sports clubs or centers, personal business, support staff for various sports, military training institutes, etc.

3. Sports medicine specialist/assistant/sports medicine physician
   Education: Diploma in sport medicine.
   Opportunity areas: Private hospital, own business, clubs, private sports center, member on medical squad of International, and nation level players.

4. Sports and fitness nutritionist/Sports physician
   Education: Certificate course in sports nutrition, diploma in sports nutrition.
   Opportunity areas: Consultant in private hospitals, own business, tie-up with various sports clubs, weight control spa, squad member of medical team, etc.

5. Sports psychologist/psychotherapist
   Education: Post graduate diploma in sports psychology.
   Opportunity areas: Own business, personal advisor to sportsperson, and consultant with various famous teams (Support staff member).

6. Physical therapist/Physical therapy assistant/growth and development expert/sports massage therapist
   Education: Degree course in physical therapy and master's in physical therapy.
   Opportunity areas: Support staff at national and international level teams, private business with famous sports clubs, and military training institutes (Private consultant)

7. Lab technician/assistant: Education: Sports science laboratory technician course
   Opportunity areas: Private institutes and research institutes studying physical changes in sports players.

Sports media

1. Sports journalist/sports news reporter/sports writer/sports columnist/sports editor/sports publisher, etc.
   Education: Bachelor in sports journalism/television journalism/radio journalism
   Opportunity areas: Private sports media, for example, newspapers, periodicals, private institutes publishing sports articles, free-lance column writer, etc.

2. Sports photographer/sports videographer/camera operator (Spider cam) Sports data operator/data analyst/internet sports producer, etc.
   Education: Certificate courses on photography, videography, data operating and data analyzing and, experience certificates.
   Opportunity areas: Private institutes live telecasting national and international sports events, and personal business.

3. Sports critic/sports talk show host/interviewer/radio sports producer etc.:
   Education: Sports broadcasting training, cinematography course, expert of sports field, and talented and experienced player of particular game.
   Opportunity areas: Radio and telecasting private companies, private organizations telecasting local to international (professional) competition, own business opportunity.

Sports management area

1. Sports manager
   Education - Certificate course in sports management, bachelor of sports management, post graduate diploma in sports management, etc.
   Opportunity areas - Mega events organized by pro sports franchises.

2. Recreation officer/sports center manager/sports association manager/sports development officer/assistant supporting coach/athletics management officer/sports agent/senior manager/event or facility officer/safety officer/consultant/membership director/outdoor recreation planner/travelling secretary/marketing director/executive director/stadium manager/sports event co-coordinator/equipment manager/score board operator/food manager
   Education: B.A. in sports management, advance diploma in food management, advance diploma in cricket management, and experience from private mega event managing institute.
   Opportunity areas: Companies organizing mega sports event, sports related competitions, commercial groups organizing sports events, cruise jobs, sports equipment producing companies, sports management companies, sports marketing companies, sports advertising companies, small and large sports organizations, recreation club, sports complex, government sports offices, BCCI, ICC, football federation, hockey federation, YMCA, YHA, YWCA, similar government undertaking and self- financed institutes, private security organizations, etc.

PRODUCTION AND SALE OF SPORTS EQUIPMENT

1. Sports equipment seller/manager/Retailer of sportswear: Person with knowledge of various sports and anyone who is interested to work in this field.
   Opportunity areas: Private retail sports equipment manufacturer/seller.

2. Sports equipment manufacturer and wholesaler/sportswear manufacturer and wholesaler. Person with knowledge of various sports and anyone interested in this field and who can invest capital for business.
   Opportunity areas: International companies researching changing needs and requirements of sports and sportspersons providing requirement and comfort, safety and support for high performance standard.

3. Sports equipment production industry/sports facility manager/product designer in sports: In Dept, Detailed knowledge in various sports, study of required sports equipment, person aware of modern and upcoming changes in the field, and diploma in sports technology.
   Opportunity areas: National and international sports equipment producing industries.

4. Sports equipment manufacturing technician/researcher/material engineer sports: Diploma in sports technology, advance diploma in sports engineering (foreign degree) manufacturing system engineering in sports, etc.
   Opportunity areas: various industrial groups providing sports material in national and international market.

5. Sports equipment production skilled and unskilled workers: Person trained in technical education and person who can work as unskilled worker.
   Opportunity areas: Industries manufacturing units for sports equipment.

FIELD OF YOGA

(1) Yoga trainer/yoga teacher/yoga therapist/yoga instructor/yoga aerobics instructor/yoga research officer/yoga and naturopathy: Education: Certificate course in yoga, teacher's training course in yoga, course in fitness-diet-yoga, B.A. in yoga, B.Sc. in yoga science and yoga therapy, diploma in yoga, M. Sc. in yoga science and yoga therapy, inner engineering, etc.
Opportunity areas: Resorts, gymnasiums, training institutes, health centers, housing society, yoga institutes, personal yoga training center, etc.

PRIVATE BUSINESS IN SPORTS FIELD

1. Self-owned private sports organizations: Clubs providing latest training in various national and international sports, fitness centers, aerobic dance clubs, health club, dance studio, swimming training school, waters ports enters, adventure sports center, (water base, air base, and land base) various sports academy, sports school (Government krida-parabodhini), laughter club, organizing sports expose, sports NGO, sports tourism, etc.
2. Game officials (Referees and judges):
   Education: Passing technical official or referee exams of games at the state, national, and international level.
   Opportunity areas: Government, semi government, private, and sports association organized competitions, game official in state, national, and international competitions organized

by major private companies and organizations. Career in sports, fitness, and physical education is in vogue today. The immense opportunities in the field of sports are attracting students studying in all streams. There is also a demand worldwide, for traditional sports unique to our country, facilitated through some formal an informal courses.

- Teacher
- Assistant professor
- Sports manager
- Physical therapist
- Physical education
- Trainer health
- Health educator
- Coach
- Fitness instructor
- Sports journalist
- Occupational therapist
- Athletic trainer
- Recreation worker
- Dance medicine and science
- Sports management
- Sports medicine.

CONCLUSION

The study intended to highlight challenges of physical education and in going to highlight those, physical education has been discovered as man's appreciated possession as it satisfies. There may be more and more esteemed opportunities in physical education provided we ponder over it in general and professional education in physical education. Thus, there are various opportunities after the master degree of physical education as mention above. In general, teachers are thinking about only jobs, but there are many opportunities other than jobs which can lead the m to be successful in the life.

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Research Article

A study of competitive state anxiety in male and female inter-collegiate ball badminton players

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ABSTRACT

This study was designed to examine the level of competitive state anxiety among intercollegiate basket ball players. Two components of anxiety, that is, the level of cognitive anxiety, somatic anxiety, and self-concept were assessed between the genders. The samples included 50 male and 50 female basket ball players between the age of 18 and 25 years from various colleges of S.G.B Amravati University, Amravati. Anxiety was measured using the Competitive State Anxiety Inventory-2 by Martens *et al*. The result indicated that there was significant difference according to cognitive and so mative anxiety between male and female players. Moreover, also it revealed that there was no significant difference in self concept between genders. Recommendations for future research were also discussed.

INTRODUCTION

Clearly, anxiety exerts a variety of effects on athletics performance. These effects vary based on sport, gender, and level of experience. To facilitate peak performances of athletes, sport psychologists must consider the three different facts of anxiety: Cognitive anxiety, somatic anxiety, and self-confidence. Competitive anxiety contains two sub components: Cognitive and somatic anxiety. Cognitive anxiety is characterized by negative thoughts, inability to concentrate, and disrupt attention. Somatic anxiety is ones perception of their physiological arousal such as rapid rate, tense muscles, and butterflies in the stomach. Self-confidence is an emotion or state of mind zornin only associated with athletic success. Confidence is usually a result of an athlete anticipating success in their upcoming event.

A great deal of research has been devoted to the effect of anxiety on sport performance. Cognitive anxiety and somatic anxiety have been found to exert a powerful influence on performance. However, self-confidence account for a greater proportion of variance in performance than cognitive or somatic anxiety (Hardy, 1996). The research with its focus on cognitive anxiety and self-confidence provided some insight to their effect on athletic performance, the interaction of these variables with somatic anxiety powers a better understanding of the true effects.

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SUBJECTS

The participants of the study were 100 male and female ball badminton players who had played for intercollegiate ball badminton tournament held at Degree College of Physical Education Amravati in 2013.

Tools

The Competitive State Anxiety Inventory-2 (CSAI-2) developed by Martens was used as tools for the data collection. The CSAI-2 contained three subscales in cognitive anxiety, somatic anxiety, and self-confidence. CSAI-2 also consisting of 27 sports related: Multidimensional items. Each item is rated on a 4-point scale range from 1 (“not at all”) to 4 (“very much so”). The lowest score possible for each subscale is 9 and the highest score 36.

Statistical Analysis

The *t*-test was used for analyzing the data obtained on cognitive anxiety and somatic anxiety from the male and female inter-collegiate ball badminton players.

Table 1: Showing the *t*-test comparing the male and female players pertaining to cognitive anxiety, somatic anxiety, and self confidence

Gender	Male	Female			
n	50	50			
Variable	**Mean**	**Mean**	**"*t*"**	**Significant**	**Mean Difference**
Cognitive anxiety	18.360	20.840	5.59	Significant	2.480
Somatic anxiety	16.740	19.940	6.97	Significant	3.200
Self-confidence	31.020	30.720	0.50	Not Significant	0.300

Table value at 05 level of significance=1.98

RESULTS

The *t*-test analysis indicated the differences in cognitive anxiety and somatic anxiety between male and female ball badminton players. Table 1 shows the results of the *t*-test analysis. Female players had recorded higher scores in cognitive and somatic anxiety than mate players did. It also indicated that both male and female players had same level of self-confidence.

DISCUSSION

The purpose of this study was to describe and compare the anxiety differences between the genders. Results showed that there was a significant difference between the cognitive and somatic anxiety, that is, female had more cognitive and somatic anxiety than male. The reason may be related to differences in personality, mode of thinking, or cognitive structure between males and females, and also physiological arousal can influence performance as a result of individual's interpretation of their physiological symptoms.

However, in the self-confidence aspect, both male and female players had the same level of confidence. This shows that the strongest predictor of self-confidence has been found to be the amount of ability that an individual believed he or she had. Here, both male and female players believed that they have the high level of self-confidence in the competitive sport situation.

CONCLUSION

It was proven that competitive and somatic anxieties are higher in females than in male counterparts. Form this, investigation result was insignificant for self-confidence. This is contrary to several previous researches, which state that self-confidence was higher in males than in females. Future inquiries need to explore the effects of anxiety and along self-confidence with several other variables.

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Research Article

Sports and level depression in young sports men

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ABSTRACT

In the beginning of the 21th century, many circumstances took place in Jammu and Kashmir which were very disturbing and had terrible impacts among people here. War, social crisis, changing, and at the end transition, led to a permanent tension state and the same is meant to be considered as normal until reaching a certain degree. In these situations, the level of depression among adolescents can be higher. The intention of this research has been to verify the level of depression among adolescents and young sportsmen, precisely sport influence on the level of depression. In this research is included total of 130 respondents, 65 disciples, and 65 young sportsmen from Jammu and Kashmir. Survey was anonymous, and included disciples and sportsmen respondents, were 17–18 years of age. Descriptive statistics and procedures for determination of the importance of diversity between arithmetical average (t-test and variable analysis) are the statistical analyzes that were used. The final results after statistical processing show that, young sportsmen have lower level of depression than their colleagues that do not do sports. We can conclude that, by doing sports we can contribute toward decreasing the level of depression.

Key words: Adolescents, Depression, Disciples, Young sportsmen

INTRODUCTION

Definition of a man as a dynamic system and organized integrated system is seen as such, because this system contains certain subsystems which while functioning are fully depending to each other (Malacko, 1986). In the field of anthropology various conation factors that are responsible for modalities human's behavior, depending on age and gender, and have a significant influence on normal functioning of these subsystems and also influence normal development of general human health. From conative factors that are many, depression is a big worldwide problem which is one of the disease not only as the oldest disease prescribed from medicine but also as one of the most frequent nowadays health disorder. Depression is a frequent mental disorder, loss of interest and satisfaction, decreased energy, sense of guiltiness or lack of values, sleeping disturbance or appetite, and weak focusing (Novovic *et al*., 2009). According to the World Health Organization assessments until 2020 depression will become the second largest health problem in the world, but if we look at females only, it will be number one health problem in the world (WHO, 2012). Some researchers have concluded that, people that permanently do physical and sport activities can improve their general and health condition, and have more internal power and amenity, which are positively reflected in all their life fields (Stone and Klein, 2004 according to Sharkey and Gaskill, 2008). It is truly obvious that people who frequently perform sport activities realize numerous benefits which reflect in their quality of life. For physical activities, benefits have written (Hadzikadunic, 2004; and Guyton and Hall, 2008) as many other authors did, by looking at physical activity from social, psychological, and physiologic aspects, that show the impact of physical activity on human's general health aspects. Psychometric characteristics according to past assessment version, known as the beck depression inventory (BDI) have been confirmed on numerous and various samples, especially samples with clinical depression (Beck *et al*., 1996; and Steel *et al*., 1997) and adolescents on depression (Kumar *et al*., 2002, and Steer *et al*., 1998). It has been confirmed that through BDI-II successfully was determined adolescents with depression and adolescents without it. The intention of

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this research is to confirm the difference among two groups of adolescents: The group that does sport activities and the group that doesn't do sport activities, in level of depression according to, BDI.

METHODS

In this research participated 130 adolescents, students of 17–18 years of age of Khanamas public higher secondary Lawaya pora Srinagar high schools, precisely 65 young students who regularly play football, basketball, handball, and volleyball, and 65 young students who doesn't regularly do sport activities. For measuring the level of depression among both groups, a testing according to Beck has been applied, Instrument BDI –second edition (BDI-II: Beck *et al*., 1996), that is a test for measuring the level of depression. Assessment of the level of depression is made for past 2 weeks. The BDI-II also contains 21 questions, each answer being scored on a scale value of 0–3. The highest possible total for whole test would 63 and the lowest possible score for the test would be zero. The standardized cut-offs used differ from the original. The depression level is evaluated according to the following alignment: 0–13 minimal depression, 14–19 mild depression, 20–28 moderate depression, and 29–63 severe depression (Beck *et al*., 1996). Instrument has been translated and applied with the editor's permit. Participation in research of the adolescents was in volunteer basis. For processing of the data, basic statistical parameters were applied, minimum score (Min), maximum score (Max), arithmetical mean (Mean), standard deviation (Std.Dev), measure of asymmetry distribution (Skewness), and degree of homogeneity of distribution (Kurtosis). For the assessment of the difference between two independent groups in arithmetical averages has been applied t-testing (Independent Sample Test).

RESULTS

In Table 1 is shown basic statistical parameters of depression level according to Beck: Minimum score (Min), maximum score (Max), arithmetical mean (Mean), standard deviation (Std.Dev), measure of asymmetry distribution (Skewness), and degree of homogeneity of distribution (Kurtosis). Among sportsmen minimum result is Min=2 level of depression, while maximum result Max=14 level of depression. Arithmetical average Mean=6.18 level of depression, whereas standard deviation Std.Dev=3.20. Measure of asymmetry distribution Skewness=0.638, is positive which shows that the arithmetical average is higher and most of results are with low values. Degree of homogeneity of distribution Kurtosis=−0.232, shows that height of curve is platocurtical. Among students non sportsmen minimal result is Min=3 level of depression, whereas maximum result is Max=21 level of depression. Arithmetical average is Mean=10.03 level of depression, whereas standard deviation Std.Dev=3.83. Measure of asymmetry distribution Skewness=0.760, is positive (epicurtical) which shows that arithmetical average is higher and most of other results are lower. Degree of homogeneity of distribution Kurtosis=0.447 shows that height of curve is mezzo cortical.

DISCUSSION

This research of transversal meaning as other researches shows that all problems in kinesiology are m multidisciplinary. It is not possible to treat a kinesiology problem without treating all anthropologic factors. In framework of anthropologic factors, pathologic conative factors are characteristics of a personality in where exists a tight and important connection in between them, distributed in continuative meaning. Its characteristic consists on that in where their increased intensity decreases the adoptive degree, precisely as higher as pathologic conative factor is the adoptive ability is lower (Momirovic. 1971). Having in mind that increased conative factors intensity decreases the adoptive degree, especially in adolescence phase; our efforts in this research were to find out if it can be influenced by applying sports on these factors. Instrument BDI-second edition (BDI-II: Beck *et al*., 1996). The outcome difference between adolescent's students who actively do sports and those who don't in level of depression, tested by BDI-II, shows that physical activity has significantly influenced on decreasing the level of depression, that complies with many opinions that sport has great positive effect on curing the depression (Cascua, 2002). The review of the potential of sports in the fight against depressive disorders calls into play many sports, practiced in appropriate places, depending on specific programs, and under the supervision of specialized and professional sports figures, which can become real tools to help depression. These include dance especially practiced with freedom and creativity, recovering the playful spirit that often gets lost in the development and operation of a group or team sport such as volleyball or basketball (Amorosi. 2006). The average result of level of depression on population that are non-active in sports, in this research is average, compared to results that are taken from other countries on population of late adolescence. The average of points from BDI-II in our sample of students who belong to medium adolescence is higher compared with some other countries, Mean=10.03, compared with Serbia students in where the arithmetical average is lower, Mean=8.02, (Novovic *et al*., 2011), among the students from Iceland arithmetical average of level of depression is Mean=8.80 (Amarson *et al*., 2008) students from Canada, arithmetical average is Mean=9.11 (Dozois *et al*., 1998), whereas the highest value of the level of depression is found among American students in where the arithmetical average is Mean=11.03 (Storch *et al*., 2004),

Table 1: ANOVA

Variables	*n*	Min.	Max	Mean	Std.Dev	Skewness	kurtosis
Sports men	65	2.00	14.00	6.1846	3.20104	0.638	234
School boys	65	3.00	21.00	10.0304	3.83638	0.760	442

and among students from Kuwait in where the arithmetical average is Mean=15.50 (AlTurkait *et al.*, 2010).

CONCLUSION

In the annual report of year 2002, the WHO 2002, it is stated that the improper way of feeding and the lack of sports activities are the crucial factors for development of many non-transmittable chronically diseases and are considered being as cause of death up to 60% of cases in whole world. Based on the actual findings that state that the influence of sports activities in preventing and curing the psychic disorders are important, this is considered to be the basement of this research too. The intention of this research was to confirm the influence of sports activities on level of depression tested with instrument the BDI-II. The research shows that we have an important statistical difference between students who belong to medium adolescence that do sports activities and those who don't. The results also show that physical activity has influenced significantly on decreasing the level of depression and we can conclude that it is the best and most efficient therapy on preventing and curing the depression. Therefore, physical activity and sport should be considered also as one of the important changes of the life style, which can influence on level of depression. To understand in a better way the influence of physical activities in decreasing the level of depression, the researches should be of longitudinal character and the treatment of physical activities should be at least of 6–12 months' time period.

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Research Article

Effect of selected plyometric training on arm and leg strength of volleyball players

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ABSTRACT

To achieve the purpose of this study 40 male college level volleyball players who were in various colleges of Tehsil Devsar of district Kulgam, Jammu and Kashmir were randomly selected as subjects. The age ranged from 17 to 23 years. The selected subjects were divided into two groups and each group consists of 20 subjects, that is, 20 subjects for experimental group and 20 subjects for control group. Experimental group underwent training program for 6 days/week for 6 weeks, but control group does not participate any training program for 6 weeks. The data were collected on arm and leg strength measured using push-ups and vertical jump, respectively. In the present study, random group design was used. "t" test was applied to find out significant difference between the experiment and control group. The level of significance was fixed at 0.05 level of confidence. The study showed significant effect of plyometric training on arm and leg strength of volleyball players.

Keywords: Arm strength, Leg strength, Volleyball players

INTRODUCTION

The word training has been a part of human language since ancient times. It denotes the process of preparation for some task. This process invariably extends to a number of days and even months and years. The term training is widely used in sports. There is however, some disagreement among sports coaches and also among sports scientists regarding the exact meaning of this word.

Sports training are the main component and the basic form of preparing the sportsman. In other words, it is systematically planned preparation with the help of various exercises. The content of sports training includes all the basic types of preparation of the sportsman. Systematic training improves the athlete's fitness level. It is the basis of his preparedness for sports achievements. The physical exercises, which are used in training, have an impressive effect on the physical development of an athlete.

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Hence, sports training must be understood as a specialized process of all-round physical conditioning aimed at the preparation of sportspersons for performance in games and sports. Sports training are a systematic and regular process, which are generally used for a longer duration. Sports training should be based on scientific facts if we want to get good results in competition. If it is not possible, it should be based on the results of successful practices.

Volleyball is the second most popular sports in the world today surpassed only by soccer. William G. Morgan invented it in 1895 when he was the director of physical education at Y.M.C.A. Holyoke, Massachusetts. Calling it Mintonette he attempted to meet the needs of the local middle-aged businessmen who found the game of basketball to be too strenuous. The new game caught on quickly because it required only a few basic skills (that of handball, basketball, and tennis), easily mastered in limited practice time by players of varying fitness levels. In 1896, Alfred T. Halstead named it as volleyball. As the game progressed, many changes occurred in it. The Japanese added volleyball to the Olympic game program in 1964. This contributed significantly to the growth of this game during the past five decades.

Training schedule for selected exercises				
S. No.	**Exercise week**	**Week (1–2)**	**Week (3–4)**	**Week (5–6)**
1.	Bounds	5 Times 2 Sets	10 Times 3 Sets	15 Times 4 Sets
2.	Side to side ankle hops	5 Times Sets	10 Times 3 Sets	15 Times 4 Sets
3.	Double leg hops	5 Times 2 Sets	10 Times 3 Sets	15 Times 4 Sets
4.	Lateral cone hops	5 Times 2 Sets	10 Times 3 Sets	15 Times 4 Sets
5.	Medicine ball chest pass	5 Times 2 Sets	10 Times 3 Sets	15 Times 4 Sets
6.	Push up with one clap	5 Times 2 Sets	8 Times 3 Sets	10 Times 4 Sets

10 s rest after each repetition

METHODOLOGY

This study was aimed to find out the effect of plyometric training on arm and leg strength of volleyball players. 40 male volleyball players of age group 17–23 years. The subjects were divided randomly into two equal groups of 20 subjects in each group, that is experimental group and control group. 6 weeks training program was given to experimental group and the control group did not practice any specific training during the period of 6 weeks. The subjects were selected from Tehsil Devsar of district Kulgam and K. Data collected were analyzed at 0.05 level of significance and "*t*" test was applied to find out the effect of plyometric training on arm and leg strength of volley ball players. The study showed significant effect of plyometric training on arm and leg strength of volley ball players.

Training Program

Experimental group undergo 6 weeks plyometric exercises. The post-test was taken after 6 weeks schedule of plyometric exercises.

RESULTS

To study the effect of plyometric training on arm and shoulder strength of volleyball players was computed through "*t*" test and then hypotheses were tested at the 0.05 level of significance.

The Table 5 shows that the mean of post-test of control group and experimental group is 9.6 and 12.6, respectively, and their calculated "*t*" is 5.445 which was greater than tabulated *t* is 2.021. Hence, the above table indicated that there was significant difference found between control and experimental groups.

The Table 6 shows that the mean of post-test of control group and experimental group is 59.05 and 62.25, respectively, and their calculated "*t*" is 3.223 which was greater than tabulated *t* is 2.021. Hence, the above graph indicated that there was significant difference found between control and experimental groups.

Table 1: Push ups between the means of pre- and post-tests of control group

Test	Mean	S.D.	M.D.	Ot	Tt
Pre-test	9.3	1.526	0.3	0.642	2.093
Post-test	9.6	1.429			

Table 2: Vertical jump between the means of pre- and post-tests of control group

Test	Mean	S.D.	M.D.	Ot	Tt
Pre-test	59.1	3.83	0.05	0.041	2.093
Post-test	59.05	3.818			

Table 3: Pull ups between the means of pre- and post-tests of experimental group

Test	Mean	S.D.	M.D.	Ot	Tt
Pre-test	9.7	1.976	2.9	4.601	2.093
Post-test	12.6	2.010			

Table 4: Vertical jump between the means of pre- and post-tests of experimental group

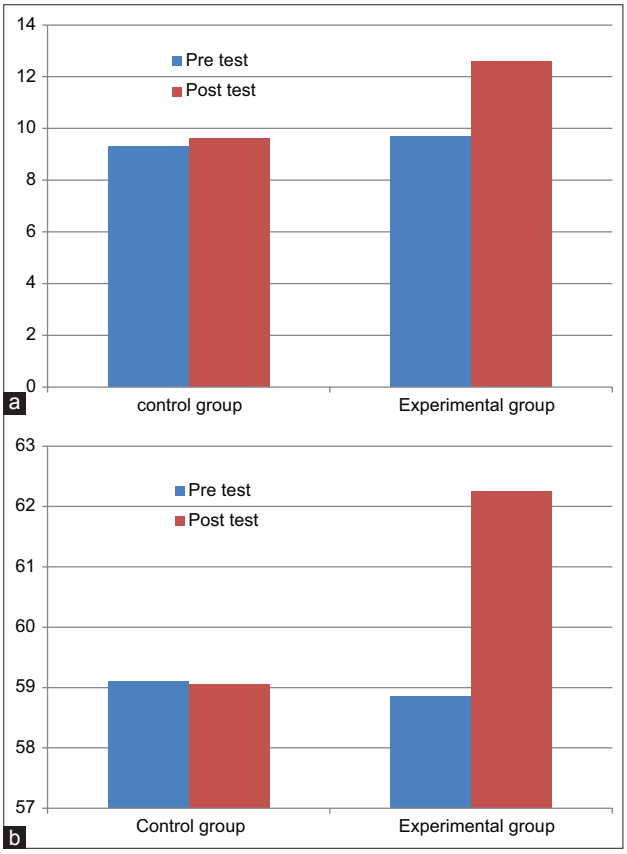
Test	Mean	S.D.	M.D.	Ot	Tt
Pre-test	58.85	2.777	3.4	4.329	2.093
Post-test	62.25	2.268			

Table 5: Pull ups between the means of post-tests of control group and experimental group

Groups	Mean	S.D.	M.D.	Ot	Tt
Control	9.6	1.429	3	5.445	2.021
Experimental	12.6	2.010			

Table 6: Vertical jump between the means of post-tests of control and experimental group

Groups	Mean	S.D.	M.D.	Ot	Tt
Control	59.05	3.818	3.2	3.223	2.021
Experimental	62.25	2.268			



Graph 1: (a and b) Graphical representation of mean difference between pre test and post test of control group and experimental group

Findings

From the above results the present findings of the study are.

1. Insignificant difference was observed between the pre-test and post-test of control group in push-ups and vertical jump of volleyball players because calculated *t*-values are less than the tabulated *t*-value of 2.093 at 0.05 level of confidence
2. Significant difference found in pre-test and post-test of experimental group in push-ups and vertical jump of volleyball players because calculated *t*-values are greater than the tabulated *t*-value of 2.093 at 0.05 level of confidence
3. Significant difference found in post-test of control group and experimental group in push-ups and vertical jump of volleyball players because calculated *t*-values are greater than the tabulated *t*-value of 2.021 at 0.05 level of confidence.

From the above findings significant difference observed in arm strength and leg strength within group and between groups, hence researcher hypothesis is accepted.

CONCLUSION

In the control group, there is insignificant difference found between pre-test and post-test in arm strength and leg strength. In the experimental group, there is significant difference observed between pre-test and post-test in arm strength and leg strength. There is also significant difference observed between post-test of control group and experimental group in arm strength and leg strength.

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Research Article

Nutritional requirements for junior wrestlers

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ABSTRACT

Nutrition is the study of foods and nutrients and their effect on health, growth, and development of the individual. Sports Nutrition applies nutrition principles to sport with the intent of maximizing performance. Becoming an elite athlete requires good genes, good training, conditioning, a sensible diet, and rest. All athletes need strength, endurance, agility, speed, flexibility, and muscular coordination for better performance. Optimal nutrition is essential for peak performance. Nutritional misinformation can do as much harm to the ambitious athlete as good nutrition can; Success in sports depends on three factors - genetic endowments, the state of training, and nutrition. Specialized exercise training is the major means to improve athletic performance and proper nutrition is an important component of the total training program. This research paper brings broader understanding of strategies for balance diet to Junior Wrestlers. The rational for the study stems from the need and a search to gain greater achievement in athlete. Diet affects performance, and the foods that we choose in training and competition will affect how well we train and compete. Athletes need to be aware of their nutritional goals and of how they can select an eating strategy to meet those goals. The investigator focuses on the role of nutrition for increasing muscle mass and strength, as well as the potential for nutritional choices to influence competition day performance.

Keywords: Growth and development, Health, Nutrition, Wrestler

INTRODUCTION

Nutrition is the selection of foods and preparation of foods, and their ingestion to be assimilated by the body. By practicing a healthy diet, many of the known health issues can be avoided. Good nutrition is important for everyone, diet for athletes plays major role while competition. Athletes' need for calories is greater than the common person, ranging from 2000 to 5000 calories a day, depending on gender. Proper nutrition for athletes is one of the most important training factors. It makes effects on the comprehensive sports performance of the athlete. Without proper fuel and nourishment for the body, athletes will not attain their full athletic potential. The full benefits of a consistent and well-designed performance enhancement training program require a balanced, healthy, nutrient-dense diet. Having proper nutrition for athletes is crucial to performance enhancement and we strongly urge each athlete to treat it that way. Athletes are all different, and there is no single diet that meets the needs of all athletes at all times. Individual needs also change across the season and athletes must be flexible to accommodate this. Getting the right amount of energy to stay healthy and to perform well is a key to success. This research paper is an attempt to make awareness about nutrition among junior wrestlers to make their performance better. There are few nutritional guidelines for wrestlers and other athletes, who is expected to give the positive outputs to a practitioners.

Definition

Nutrition: Oxford Advance Learner's English Dictionary: defines nutrition as "the process of providing or obtaining the food necessary for health and growth."

The Medicine Dictionary

Defines nutrition as "the process of taking food and using it for growth, metabolism, and repair." Nutritional stages are ingestion, digestion, absorption, transport, assimilation, and excretion.

Wrestlers

Wrestling is type of Combat game. Wrestling is played globally in both freestyle and Greco-Roman styles. In the women's

category, wrestling is played only in the freestyle category. The world-class wrestling competition consists of different weight classes ranging from35 kg to130 kg depending on the age group. These wrestling events rely primarily on the development of power through anaerobic energy, the phosphocreatine, and glycolytic systems for energy.

Nutritional Components for Wrestler

Carbohydrate

Carbohydrate is a key nutrient for energy supply. Athletes must be aware of foods that can fulfill their carbohydrate needs and make these a focus of their diet. Carbohydrate should ensure an adequate intake of Vitamins and minerals. This is best achieved by including a wide variety of nutrient-dense carbohydrate sources such as Grains, cereals, fruits, vegetables, and sweetened dairy products in the diet. Protein: Proteins foods are important for building and repairing muscles, but a varied diet containing everyday foods will generally supply more than enough protein. Well-chosen vegetarian diets can also fulfill protein needs from vegetables, fruits, beans, legumes, grains, animal meats, oils. Maintaining hydration is important for performance. Fluid intake before, during, and after exercise is especially important in hot climates. Moderate portions of lean sources of protein such as lean meat, skin-free chicken, eggs; low-fat dairy foods, lentils, and tofu should also be on the menu. Supplements might be useful for convenience or accuracy of ingested amounts. Because of adaptive responses, a higher protein intake results in greater protein oxidation. If protein intake reduced suddenly, the oxidation rate remains high for some time and the athlete risks short-term negative protein balance. Salt: Salt replacement is important when sweat losses are high. Athletes are cautioned against the indiscriminate use of dietary supplements. The side effects of high protein intake have been largely overestimated. Risks reported in the literature include kidney damage and bone demineralization. Kidney damage has never shown in otherwise healthy individuals. Calories: Athletes and Fitness Enthusiasts need the same essential nutrients that non-active people need with varied increases in their caloric needs as well as some increase in macro and micronutrients. Therefore, it is essential to explore and assess these increased nutritional needs of athletes before, during, and after competition. Nutrition and the dietary requirements for sporting events require careful programming. The body requires food not only for energy but also for anabolic and reparative processes. Special attention is required for food intake pre and post-training, and during competition, to maximize energy stores, minimize fatigue, and to assist with tissue regeneration. Creatine: Creatine can enhance power and increase muscle mass, however, the extra weight gain can negatively impact performance. The most important effect of creatine seems to be that more work can be done during high-intensity training programs. Data remain equivocal, but, importantly, none of the available studies has reported impaired performance. Furthermore, some data indicate increased glycogen storage when carbohydrate is co-ingested with creatine. Fat: Fat is an important energy source (20–35% of calories) for wrestlers and should not be eliminated from the diet. Dietary fat plays an important role in the absorption of vitamins, insulation and protection of organs, and the production of hormones. Fat should make up no more than 30% of calories. Fat provides essential fatty acids, and athlete's body uses it as an energy source, particularly if his activity lasts longer than an hour. In fact, it can provide up to 75% of the energy endurance athletes needs for the long-term aerobic performance, the athletes needed for protein, higher if involved in resistance training. Junior Wrestlers Nutritional Needs: A Wrestling consists of an all-out effort for a long period of time. Athlete's performance is determining by the ability to achieve maximal velocity and to limit the loss of power as he progresses. Biomechanical, neuromuscular, and metabolic factors all influence performance. Nutritional support for wrestling performance is a popular and widely covered topic. However, most sports nutrition research has focused on Power, Speed, and endurance performance.

Wrestlers need to consume sufficient carbohydrates to fuel training needs and however carbohydrate requirements, do not reach the level of endurance-type athletes. Wrestlers need to be mindful of maintaining low body fat levels. They need to eat a sufficient variety and quantity of food to meet nutritional requirements and allow for the development of muscle mass. Diets need to be nutrient-dense. Energy-dense foods such as cakes, pastries, soft drinks, chocolate, alcohol, and takeaways should be used sparingly. Appropriate snacks need to be included before and after training to maximize performance during training and to promote recovery. Snack foods such as yogurt, fresh fruit, low-fat flavored milk, and sandwiches are all nutritious fuel foods and make good snacks. Low-weight category Wrestlers require low body fat levels whilst being strong and muscular. Low body-fat levels usually occur naturally for male athletes. However, male Wrestlers often need to reduce total body mass leading into the competition phase. Some of the additional muscle mass gained in off-season. Weight training is not sport-specific, therefore needs to be trimmed to achieve an ideal body composition. Female Wrestlers often need to manipulate their food intake and training to achieve their desired body fat levels. Wrestlers need to reduce their body fat level. The wrestler's nutrition has not received the attention it deserves. It can have a profound effect on recovery from training and competition, training adaptations and power to weight ratio. Fight day foods and drinks should be individually tested so that the chance of gastro-intestinal (GI) discomfort is minimized. Careful consideration of what not to eat is probably more important than what is going to eat.

Nutritional guidelines for Wrestlers

1. Maintaining energy levels during training, carbohydrate intake should be sufficient to maintain glycogen stores

during training. Wrestlers need carbohydrate 5–8 g/kg/day per kg of body weight per day. Good sources of carbohydrates include whole-grain breads and cereals, fruits, and vegetables

2. Energy intake should be carefully considered if increased muscle mass is desired, energy intake should be increased; if muscle mass is optimal, energy intake should be maintained and perhaps monitored
3. It is essential for junior group wrestlers to consume between 1700 and 2000 calories per day depending on their weight group. High school and college wrestlers need to eat at least 1700–2500 calories per day. During very hard training, wrestlers may need an additional 1000 calories per day
4. Protein intake is likely adequate for the majority of Wrestlers, but if energy intake is increased a portion of this increase could, and perhaps should, be protein. Wrestlers typically need 1.2–1.7 g protein per kg of body weight per day. If calorie intake is restricted for quick weight loss, protein needs may increase to 2.0 g kg per day. Good sources of protein include fish, chicken, turkey, beef, low-fat milk, yogurt, cheese, nuts, and soy foods (tofu, soy nuts, and soy burgers)
5. Type of protein and timing of protein ingestion should be considered if increased muscle mass is the goal
6. Fight day nutrition should be developed individually with the goal of avoiding gastrointestinal distress and dehydration
7. Creatine supplementation may enhance increases in muscle mass and strength, but Wrestlers must consider the extra weight gain associated with creatine use. Creatine may help athletes in sports with short bursts of activity, such as wrestling. Creatine may also help your muscles to recover, which could help you to train harder. It can be taken at a dose of 3–5 g/day. Weight gain is common with creatine supplementation. For this reason, wrestlers may choose to avoid this supplement. Creatine is not recommended for athletes younger than 18 years because it is not known whether it is safe for people in that age group
8. Wrestlers need at least 1 g of fat per kg of body weight per day. Choose heart-healthy fats, such as canola oil, olive oil, and nuts.

Calorie guidelines

Weight	Total calories/day to maintain weight	Total calories/day to lose weight (reduce by 250–500 calories/day)	Total calories/day to gain weight (add 500–1000 calories/day)
125 lbs	2500 calories	2000–2250 calories	3000–3500 calories
150 lbs	3000 calories	2500–2750 calories	3500–4000 calories
175 lbs	3500 calories	3000–3250 calories	4000–4500 calories
200 lbs	4000 calories	3500–3750 calories	4500–5000 calories
225 lbs	4500 calories	4000– 4250 calories	5000–5500 calories
250 lbs	5000 calories	4500–4750 calories	5500–6000 calories

Carbohydrate guidelines

Weight	Grams of carbohydrates to consume per day	Grams of carbohydrates to consume 2 hours pre workout	Grams of carbohydrates to consume immediately post workout
125 lbs	313 g	110 g	45–85 g
150 lbs	375 g	135 g	50–102 g
175 lbs	438 g	157 g	60–120 g
200 lbs	500 g	180 g	68–136 g
225 lbs	563 g	202 g	77–153 g

Protein guidelines

Weight	Grams of protein to consume per day
125 lbs	63–125 g
150 lbs	75–150 g
175 lbs	88–175 g
200 lbs	100–200 g
225 lbs	112–225 g

Recommendation top 10 foods to include in diet for junior wrestlers:

Fresh fruits- high in vitamins, minerals, fiber, and carbohydrates, these nutrient powerhouses will give you an energy boost!

Whole grains- bread, pasta, cereal, rice, oatmeal- these should be the staple of your diet and included daily. These carbohydrates packed foods will help keep your muscles fueled for competition.

Low-fat dairy products or soy- Include dairy or soy products 3 times/day to help increase your intake of bone-building calcium and Vitamin D, and protein, potassium, and riboflavin. Greek yogurt also provides double the protein of regular yogurt! Make a fresh fruit smoothie with dairy/soy to go!

Lean meats- chicken breast, beef sirloin, pork tenderloin, and deli meats such as roast beef, ham, and turkey provide protein-

rich sources to your diet, as well as iron and zinc. Include a protein source at every meal and snack!

Vegetables- dark leafy greens, as well as brightly colored vegetables, are low in calories and are exploding with Vitamin C, A, folic acid, potassium, and iron just to name a few. You can't ever go wrong with raw or plain steamed veggies.

Nuts and seeds: rich in Vitamin E, healthy fats, and fiber, these little portion-controlled snacks can help you feel full for hours!

Fish (canned or baked/broiled): Tuna, salmon, and halibut are rich in Omega-3s, which help to reduce inflammation in the body after a hard workout. Eat fish 3 times/week for a heart healthy fat and lean protein source.

Baked Potatoes/Sweet Potatoes- bursting with Vitamin C, potassium, and carbohydrates, these are a great addition to a meal. Eat the skin to increase your fiber intake and top with light sour cream or mash with low-fat milk.

Peanut butter-a heart healthy fat and protein source that can be carried with you and added to bread, fresh fruit, pretzels, or crackers for a quick meal or snack. Do not leave home without it!

Eggs-rich in protein, choline, and Vitamin D, they can be included at breakfast, or as an on the go snack. Scramble in the microwave for 1 min and add to an English muffin and a slice of cheese for your own breakfast sandwich.

Avoid Foods During Wrestling Season

Soda and energy drinks- contrary to popular belief, these concentrated sugary beverages will strip you of energy and contribute excessive calories. Also, once your body processes the caffeine, you will feel lethargic. Carbonated beverages can also cause GI upset during competition.

Fried Foods: Fried meats, fries, and fast foods contribute high levels of fat and calories to your intake and will leave you feeling bloated and uncomfortable.

Candy, Pastries: These items are very calorically dense and provide little to no nutritional value. They often take the place of healthier snack foods, therefore, reducing the overall nutrient content of your diet.

Full-fat Chips and Hot Cheetos: Substitute these with low-fat baked chips or pretzels to help provide healthy carbohydrates to your muscles.

Concession stand items such as nachos and pizza: These high-fat items may be an option for your fans, but they are not good options for you to consume. These will delay gastric emptying and you will go on the mat with your muscles starving for energy.

In this review, we focus on the role of nutrition for increasing muscle mass and strength, as well as the potential for nutritional choices to influence competition day performance. Nutritional support for athletes often considered for two general situations: Training and Competition.

DISCUSSION

Junior wrestlers training focused on developing lean body mass capable of generating the power necessary to carry the athlete as rapidly as possible. Adaptations to training are specific to the mode, intensity, and duration of the exercise. These adaptations stem primarily from the exercise stimulus on the muscle fibers but may influenced by nutritional factors. Nutrition most certainly will influence muscle hypertrophy and this aspect of nutrition is usually the focus for Wrestlers. Besides specific Wrestling training, weight training with the goal of developing muscle mass is the primary form of training throughout the year. However, it is important to recognize that optimum mass may not equal maximum mass for Wrestlers. At some point, the power to- mass ratio may begin to decline with extra mass regardless of composition. Some aspects of the nutritional influence on training adaptations also covered in other reviews in this issue.

CONCLUSION

There is an urgent need to examine and study new perspectives of nutrition for junior wrestlers.

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Research Article

Comparison of speed and exhale capacity between inter university long distance runners and hockey players

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ABSTRACT

Physical fitness is very much essential component for success in every step of life. Speed and exhale capacity helps individual to perform well; either it is comfortable or adverse situation of life. Sometimes speed and exhale capacity enhances the physical fitness of any individual, which hampered the smoothness in the pathway of life. The researcher has taken the study entitled comparison of speed and exhale capacity between inter-university long-distance runners and hockey players. The aim of this investigation was to compare the speed and exhale capacity between inter-university long-distance runners and hockey players of SantGadge Baba Amravati University, Amravati. In the current study, forty male students were selected at random by purposive sampling technique; from inter-university long-distance runners and hockey players of SantGadge Baba Amravati University, Amravatiin Maharashtra. Twenty male players were selected from long-distance runners and another 20 male players were selected from Hockey. The age group was ranging from 18 to 25 years. The variables selected for the research work like that speed and exhale capacity. The data of speed was collected by 100 m sprint and exhale capacity was collected by wright peak flow meter/spirometer. After that collected data was put into Microsoft Excel to develop Master Chart and then "t-test" was used for the statistical treatment. To test the hypothesis the level of significance was set at 0.05 level of confidence, after the statistical analysis of data related to the speed and exhale capacity between inter-university long-distance runners and hockey players, it was found that there is significant difference in speed and exhale capacity between inter-university long-distance runners and hockey players of SantGadge Baba Amravati University, Amravati. Hence, the researcher's pre-assumed is accepted.

Keywords: Amravati university, Comparison, Exhale capacity, Hockey players, Long distance runners, Speed

INTRODUCTION

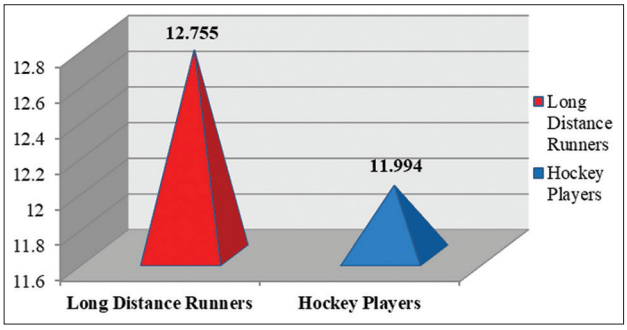
Physical Fitness

Fitness is the capability to live a complete and balanced life. A totally fit person has a healthy and happy outlook toward life. Fitness is the young man's absolute necessity. It breeds self-reliance and keeps man mentally alert. Physical fitness is important for human beings to adjust well with his environment as his mind and body are in complete harmony. It is generally known that physical fitness is an important part of the normal growth and development of a child, a generic definition regarding the precise nature of physical fitness has not been universally accepted. Through investigation and scholarly examination, it is clear that the multi-dimensional features of physical fitness can be divided into two areas: health-related physical fitness and skill-related physical fitness. The intelligent men of all ages and races, white, brown, yellow, and black, cultured or barbarians, savages, back to the cavemen, made use of the power of mind over body. As you advance with your working out you will find that mind is the most important part of training.

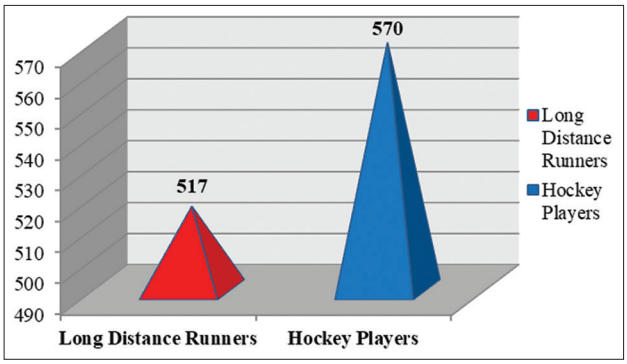
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Speed

The quickness of muscle movement or the rate of change of body movement is known as muscular speed. Literality speed is measured by allocating distance by time in short run. Though, in sports, time of sprint of 60 yard. The dash itself is considered as a measure of one's speed in its place of



Graph 1: Graphical representation of mean difference of speed between long distance runners and hockey players



Graph 2: Graphical representation of mean difference of exhale capacity between long distance runners and hockey players

converting it in meters per second it is noted as seconds per 60 yard or per 30 m etc. Speed is the rate of motion, or consistently the rate of change in position, often stated as distance traveled per unit of time. A subdivision of speed is rapidity, which is the capability of the central nervous system to contract, relax or control muscle function without the involvement of any preliminary stretch.

Exhale Capacity

Exhale capacity is the total amount of air that can be forcibly expire after a complete inspiration has been used frequently as a measure of competence of the respiratory system. Although it measures the approximately capacity of the lungs, latest information indicates it is of little use in predicting the ability to perform tasks of endurance. Obviously, other factors are more important. For example, any limitations of the oxygen carriage system to the cells will reduce the effectiveness of the delivery; regardless of vital capacity is the ability to take in more air per unit of time with rarer, but deeper inspiration, thus prolonging the onset of fatigue in the respiratory muscle.

Objectives

The main purpose of this study was to compare the speed and exhale capacity between inter University long-distance runners and hockey players of SantGadge Baba Amravati University, Amravati.

Hypothesis

On the basis of literature searched and the researcher's own perception it was hypothesized that there will be significant difference in speed and exhale capacity between inter-university long-distance runners and hockey players.

METHODOLOGY

Source of Data

In the present study, subjects were selected from inter-university long-distance runners and hockey players of SantGadge Baba Amravati University, Amravati.

Selection of Subjects

Forty male subjects (20) from Long Distance Runners and (20) from Hockey were selected for the collection of data. The age group was ranging from 18 to 25 years.

Sampling Method

The subjects were being selected using purposive sampling method.

Criterion Measures

Following are the criterion measures which were responsible for collection of data, to testing the hypothesis.

S. No	Variables	Equipment's
01	Speed	100 meters sprint
02	Exhale capacity	Peak flow meter/spirometer

Collection of Data

For collection of data, the subjects were given full administration of the tests. The data of Speed was collected by 100 m sprint and the data of Exhale Capacity was collected by wright peak flow meter/spirometer. After that collected data was put into Microsoft Excel to develop Master Chart and then "*t*-test" was used for the statistical treatment.

Level of Significance

To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study.

Statistical Analysis of Data

After the collection of data from Long-Distance Runners and Hockey Players of SantGadge Baba Amravati University, Amravati, the raw data were converted into standard one by using a statistical technique "*t*-test" for testing of hypothesis.

Table 1: indicates that the mean of the speed of long-distance runners is 12.755 which is greater than the mean of hockey players which is 11.994. So this means difference is found as 0.761. The calculated value of "*t*" is found as 2.892

Table 1: Comparison of speed between long-distance runners and hockey players

Game	Mean	S.D.	Mean difference	Degree of freedom	O.T	Tabulated "t"
Long distance runners	12.755	0.895	0.761	38	2.892	2.024
Hockey	11.994	0.763				

Table 2: Comparison of exhale capacity between long-distance runners and hockey players

Game	Mean	S.D.	Mean difference	Degree of freedom	O.T	Tabulated "t"
Long distance runners	517	64.991	53.3	38	2.786	2.024
Hockey	570	56.101				

which is greater than tabulated "*t*" which is 2.024 at 0.05 level of significance. It is concluded that the speed between long-distance runners and hockey players is significant. Hence, the hypothesis which was given by the researcher is accepted.

Table 2: Indicates that the mean of exhale capacity of long-distance runners is 517 which is less than the mean of hockey players which is 570. Hence, this means difference is found as 53.3. The calculated value of "*t*" is found as 2.786 which is greater than tabulated "*t*" which is 2.024 at 0.05 level of significance. It is concluded that the exhale capacity between long-distance runners and hockey players are significant. Hence, the hypothesis which was given by the researcher is accepted.

CONCLUSION

In the beginning of this study, it was hypothesized that there will be significant differences in speed and exhale capacity between inter-university long-distance runners and hockey players of SantGadge Baba Amravati University, Amravati. But after the statistical analysis of data related to the speed and exhale capacity of long-distance runners and hockey players, it was found that there is a significant difference in speed and exhale capacity between inter-university long-distance runners and hockey players of Sant Gadge Baba Amravati University, Amravati. Hence the researcher's hypothesis is accepted.

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Research Article

Basic consideration and paradigm shifting of physical education and sports in India

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ABSTRACT

It is clearly understood that physical education is not only a physical activity but a process for the development of man as a whole. It is not only acquisition of some technical skills but must take into account other aspects which are also important, though physical activity is its main role. It develops courage to stand against odds and to face life squarely. It molds man's personal and group relationships. It is intimately connected with mind. It shows that peace of mind or spiritual developments are very much concerned with physical education. It is now very much connected with biological, sociological, psychological, philosophical, economic, political, and cultural aspects of life.

Keywords: Basic consideration, Physical education and sports, Paradigm shift, Present status and India

INTRODUCTION

Physical activity has been quite natural to existence. Not only birds and animals but even insects exert themselves physically as otherwise blood cannot run in the veins properly and life cannot survive. They have to exert themselves physically to provide food and shelters and to protect themselves. Birds have to fly and made nests. Fishes have to swim to find their food and survive. Animals go in search of their food. The carnivorous animals kill other animals to satisfy their appetite. Everyone, a bird, animal or man has to exert itself for safety.

History of Physical Education

The history of physical education can be conveniently divided into three parts-the ancient, the past, and the present. In the ancient comes Egyptian, Chinese, Indian, and ancient Greek civilization-a time when with the exception of Greece, Europe and America were quite uncultured. America in fact was not known and Africa with the exception of Egypt was quite an unknown and backward continent. Hence, Greek was the gateway for all civilization and culture and physical education from the east to the west. The Roman civilization came into being after the fall of Greece. We still practice the features of these ages as yoga of the Aryans, and Olympics of the Greek, and marital art of the Chinese. Time has not been able to erode their importance.

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Deification of Physical Education

Edward Hitch Cock

Physical education as understood is a cultivation of power and capabilities of student as will enable him to maintain his bodily condition in the best working order providing at the save time for the greater efficiency of his intellectual and spiritual life." In other words, "Physical education should improve the mass of students and to give them as much health, strength and stamina as possible to enable them to perform the duties that await them after they leave their college" Brownhill and Hagman: "Physical education is the accumulation wholesome experiences through large muscle activities that promote growth and development."

Aim and Goal of Physical Education

The aim and goal of physical education are very broad-based. It does not touch only its physical well-being. It

shall benefit the whole individual and he/she should be in a position to promote well – being of the society. It shall increase physical, mental, and intellectual capabilities for benefit of the society. It should help him in developing the quality of leadership.

Purpose of Physical Education

Physical education involves the process of acting in a particular way. The purpose is closely linked with its aim and includes determination, courage, bravery, change in behavior, and alteration in lifestyle. It is enjoyable and various patterns of exercises fulfill various needs which go on changing in a fast-changing world.

Objectives of Physical Education

Physical education achieves hygienic, remedial, educative, and recreative objectives, improves health, remedies illness and injury, increases knowledge about the movement of the body, and an increase in fun and enjoyment and reduction of tension. In the beginning of the present century, physical education programs in addition to organic assumed psychomotor and intellectual character.

Later in 1934, the objectives of physical education were extended to include mental health, mental efficiency, emotional maturity, and social and moral character in addition to physical efficiency. In 1965, the American Association for health, physical education and recreation stated five main objectives of physical education:

1. To help children move in a skillful and effective manner in all selected activities in which they engage, in the physical education program, and also in those situations that they will experience during their lifetime
2. To develop an understanding and appreciation of movement in children and youth so that their lives will become more meaningful, purposive, and productive
3. To develop an understanding and appreciation of certain scientific principles concerned with movement that relates to such factors as time, space, force, and mass energy relationships
4. To develop through the medium of games and sports better interpersonal relationships
5. To develop the various organic systems of the body so they function in fullest possible way.

Physical Education and Quality of Life

Quality of life means all aspects of life which makes a man really happy. It means happiness, health, well–being, enjoyment, fun, leisure. Conversely, it includes absence from pain, misery, disease, safety from harm, and freedom from oppression. It cannot be denied that a feeling of fitness and that of well – being add to the happiness and well–being of life.

Paradigm Shifting of Physical Education and Sports in India

Nowadays, physical education and sports have started receiving serious attention and encouragement. On one hand, there is a greater realization for developing optimum physical fitness for a full and active life in the modern times, which has become necessary because mechanization in all fields of life has reduced the use of muscles resulting in lowering standards of physical fitness and efficiency. On the other hand, the carry-over value of the sport has been fully realized. In fact, sport has become a cultural phenomenon that has affected many if not all areas of social life.

Participation and performance in physical education activities play an important role in attaining educational goals. "Education in its broadest sense, means preparation for life. It should help each individual to become all he/she is capable of becoming. Education must be concerned with developing optimum organic health, vitality, emotional stability, social consciousness, knowledge, wholesome attitude, spiritual, and moral qualities.

Education may also be termed as the process by which the individual is shaped to fit into the society which maintains and advances the society order. It is a systematic process designed to make man more rational, mature, and knowledgeable. Education is the modification of behavior of an individual for his/her own happiness, for his better adjustment in society, and for making him a successful citizen contributing something original to society.

Second, the prime goal of the education system is to achieve "All-round development of the students" this can not be gain without physical education and sports. Central and State Government also providing special facilities for outstanding sport persons. 5% reservation in Government and private sector job. 4–5% additional marks in 10th and 10+2 board examinations for sportspersons. These are the facilities provided by the Government for the Sports persons, for motivating pupil to participated in the sports and physical education activities.

Physical education not the actively itself, but the achievement of the human potentials, contained within the activity. In other words, the goal is the development of all human personal qualities that are essential for successful and satisfying participation and performance in physical education activities. The participant, however, may not be aware of this ultimate goal. His/her interest is generally in the activity alone and this is as it should be. It is the teacher and parents who will channelize this desire, interest, or motivation for participation and performance in activities that encourage personal achievement.

In India too central and State Governments have been providing financial out-lay, besides training personnel and developing facilities for mass participation in sports so that our standards may improve and we are counted among the leading nations in the field of sports. Unfortunately, the pace and achievements have not been satisfactory. Various agencies and individuals besides the governmental authorities are interested in finding ways and means for popularizing sports among the children so that a satisfactory base is established.

CONCLUSIONS

In the present-day society, greatest importance is attached to mental skills or achievements. Physical education is, therefore, likely to be neglected. If there is no mental growth, physical education would turn out to be brute force and very harmful for human society. However, it cannot be forgotten that vigour and vitality of a nation depend upon physical capability and strength.

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Research Article

To develop physical, mental, and intellectual abilities in the students through sports

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INTRODUCTION

Today we are living in the 21st century. We are very lucky to have the most modern time in the world. The world today is so advanced that nothing is impossible. According to a survey, we have a higher rate of depression among students up to the 12th standard. In rural areas, the proportion is around 11% and the proportion of children under the age of 18 is higher. In this regard, the need to seriously consider mental health has been underlined. At the same time, we are experiencing a great change in this age, which is that competition has created fierce competition in all fields today. If you want to survive in this competition, it is very important to have that kind of skill ability experience. When a person acquires these skills, abilities, and experiences, he is 13–6 years old. (Teenage) At this age, we are taking secondary education, at the same time the hormones in the body are changing, at the same time real guidance is needed.

Looking at the realities of the twenty-first century, children's TV. Chi's craze, mobile, addiction, proximity to laptops, WhatsApp, Facebook, and electronic media is not a huge craze, but a state of insanity is engulfing them. Blind imitation of Western culture, new beliefs of prestige, showing and viewing obscene scenes. The use of social media is becoming dangerous for the present generation. Therefore, it is very important to take care of their mental health. That is why you need to understand Indian educational thinking as well as the importance of physical education.

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Indian Educational Thoughts

From the words education and learning, the idea of education of the ancient Indians is clear.

The word "Shas" is derived from the Sanskrit root "Shikshan." Governance means teaching, regulation, control, discipline, instruction, etc. From "vid" to "vidya" vid means understanding, acquiring knowledge, regulating the mind, and acquiring knowledge are considered to be the basic meanings of education. In the Rig Veda - Training is what makes a person self-reliant and selfless. That is, education makes one self-reliant and selfless.

1. Kautilya- Training for patriotism and country is education
2. Swami Vivekananda - Education is the development of the divine potential in human beings
3. Mahatma Gandhi - Education is development. Education is the holistic development of a person by developing dormant abilities in children. This includes physical, mental, and spiritual development.

Western Thoughts

1. Aristotle - Creation of a healthy mind in a healthy body (establishment of a healthy mind in a healthy body) means education. Education develops the power of the human mind
2. Pestology - Education is the natural, harmonious and progressive development of human instincts
3. John Dewey - The process of living by constantly adjusting to life through experience is called education.

The modern concept of physical education is similar to the broader approach to education and the current educational transformation. Physical education is primarily education. It is a process similar to the modern concept of education. In

the past, the term education was used in the information that was taught to the children in the school. Now the concept of education has changed over time.

Education inculcates many values in children at school or outside of school. It is through education that they try to develop the qualities they possess. Education helps a child to develop knowledge, skills, and character and eventually, he can become a good citizen. Physical education is now considered an integral part of all education. The development of the body or the development of the intellect cannot take place independently. The brain and the nervous system are the means by which the intellect and the mind develop. The educational approach is that the child participates in the learning process with body and mind has now become commonplace. The idea that physical education should not only develop or strengthen the muscular system, but also the development of body, mind and intellect should be achieved through education. It is important to achieve holistic development of a person through physical education. Swami Vivekananda says, "Young people should have both the qualities of student and player so that the young person will be strong and strong physically, mentally and intellectually." From this, efforts should be made to develop physical, mental, and intellectual abilities at the secondary school level.

"Life is a playground." According to the situation, human beings should play their part with a playful attitude and while playing it, it is appropriate to face difficulties, calamities, joys and sorrows, and victories and defeats with a smile. Sport creates such an attitude. Sport is also important in life because along with physical ability, other important qualities of a person are developed through sports. Most people view sports as a form of recreation and exercise. In fact, sports also develop other latent qualities in a person. That is why sports have been given importance in enhancing physical ability in personality development.

In terms of personality, physical ability is not just labor, but the ability to work long hours in any business can only happen if you are in good health. This means that health is an important part of personality. Good health is the ability to work in any situation and in any environment. The ability to work long hours builds confidence in a person. Confidence is a key to a good personality. In addition, a healthy body maintains the concentration of the mind and the person becomes efficient in that work. This means that good health builds confidence and concentration in individuals.

Through this game, the following qualities are developed in the students and the physical, mental and intellectual abilities are developed in the students as follows

Development of Physical Efficiency

Physical performance is developed through physical education or sports. Even if you get tired when you do not get tired of doing something, it disappears quickly. The wear and tear of the body fill up quickly. Therefore, it can be said that the development of the intestines has been satisfactory. The development of the intestines is not natural, it is difficult. In wars and natural disasters, such forces are tested. The power of such intuition is gained through the study of physical education. Body growth is good from 12 to 22 years of age. Therefore, physical education has been given an important place in school and college life.

Skill Development

Definition of Skill "Skill is the act of doing more and more work in a very graceful manner and not making one's own impression."

Skills are required in every aspect of daily life, not just in sports or physical education. Sports, as well as physical education, should develop the skills of various physical, mental, emotional, abilities of a person which can be used to lead a happy and contented life.

Personality Development

An inclusive definition of personality is given by G. W. Alport. – "Personality is the dynamic organization of race-minded organizations that establish characteristic adjustments to the situation." That is, personality consists of the body, the mind, and the adjustment of circumstances.

The following factors are essential for the development of this personality.

(1) Health. (2) Development of decision-making power (3) Emotional development (4) Development of personal qualities (5) Development of social qualities If these five qualities are developed then we can say that personality is well developed.

Inter-school sports competitions can challenge a person's ability and emotions. Hard work, perseverance, determination, development can help in personality development through sports competitions as well as through sports.

Use of Time Wisely

Through physical education and intercollegiate sports competitions, it is possible to take advantage of the time and make the best use of it. Taking a trip to get information, instilling in the students a love for sports, writing, reading, drawing plays, looking at the records of sports magazines, looking at skills, etc. can inculcate team spirit in sports.

Development of Business Efficiency

The purpose of physical education is self-reliance. A person needs some minimum physical ability while doing any business strength, balance, physical, mental health, etc. Capabilities that are useful for business are created through physical education.

A player succeeds in business only when he can make quick and accurate decisions.

CONCLUSION

There is no need to develop mental health, physical health, and intellectual capacity separately. When physical capacity is created, mental health and intellectual development go hand in hand.

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Research Article

General theory and methods of training

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ABSTRACT

System and Situation for high-level sports performance can be achieved by proper training plans. GTMT is a systematic attempt to control and execute the training plan. GTMT is useful for performance diagnostics, identify sports talent, create fitness norms, Application of different methods of training, motor development, and planned and controlled training process.

INTRODUCTION

Extraordinary performance in games and sports at the National and International levels is a dream of every player/Athlete/Coach. It can be achieved by well planned training and coaching program under expert coaches and trainers in best sports facilities and infrastructure. Sports science, sports medicine, and sports technology and techniques have been playing a very important role in the making of an elite athlete. For training of sportspersons on scientific lines and to impart knowledge coaches must be aware of the general theory of different subject (Sports medicine, exercise physiology, biochemistry, physiotherapy, sports anthropometry, biomechanics, kinesiology, training methods, sports psychology, and research methodology. knowledge of these subjects is a strong scientific backup for training and coaching methods.

Classification of Sports

Sports are classified into four types:

According to the type of sportsman activity and the subject of competition

(a) Events with maximum intensity of activity where the result is depending upon the physical abilities of the sportsman. Eg: Boxing, gymnastics, track and field, swimming, etc.

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(b) Events based on using vehicles or devices where the result is depending on external forces and the ability of the sportsman to control them. Eg: Cycling, equestrian, bike race, car race, sailing, yachting, etc. (c) Events in which the activity is aimed at shooting at different targets. Eg: Archery, shooting, bowling, bollards, etc. (d) Events related to the abstract way of thinking. Eg: Chess, bridge, etc.

Olympic events classification

(a) Events with cyclic type of physical activity. Eg: Rowing, walking, running, swimming, etc. (b) Events based on speed, strength abilities. Eg: Jumps, throws, sprints, weight lifting, etc. (c) Events based on co-coordinative abilities. Eg: Gymnastics, diving, synchronized swimming etc. (d) Ball games Eg: Football, volleyball, handball, hockey, basketball, etc. (e) Combat sports. Eg: Judo, wrestling, wushu, taekundo, etc. (f) Complex events Eg: Decathlon, triathlon, pentathlon etc.

According to the way of competitive result definition

(a) Measurable events (Those events can be measured in different metric units) Eg: Track and field, swimming, cycling, weight lifting, etc. (b) Events evaluated by points according to the accuracy, difficulty, artistry of the competitive movement execution. Eg: Synchronized swimming, gymnastics, etc. (c) Games and combative either with limited competitive time or limited score or fast victory events. Eg: Football, volleyball, handball, basketball, hockey, tennis, table tennis, badminton, wrestling, judo, fencing, etc. (d) Complex events (They are those events in which the final result is contributed by many events)

According to the aim of the technique

(a) Endurance sports: In this sports, the movement will be economical. Eg:- Long-distance running. (b) Sprint sports: These sports produce fast movements with minimum possible time. Eg: Sprint events. (c) Power Sports: In these sports, they produce maximum power. Eg: Jumps, throws, weight lifting. (d) Technical sports: In these sports to master the technique. Eg: Gymnastics (e) Regulatory sports: In these sports to control the external forces Eg: Rowing, yachting, sailing, etc. (f) Team games: In this sports to execute the technique with co-ordination. Eg: Football, hockey, volleyball, etc. (g) Combative or dual Sports: In these sports to overcome the opponents. Eg: Judo, wrestling, wushu, etc.

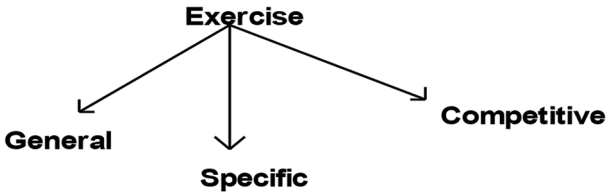
TRAINING MEANS AND METHODS

Training material or immaterial objects, means and methods which are used to achieve the aims of training are called training means.

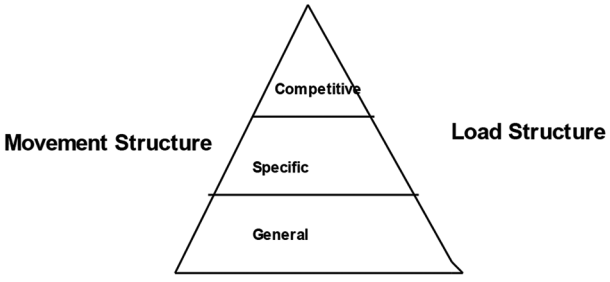
It is classified into 2 types: (I) Principle means (II) Additional means

Principle Means

Exercise is the main weapon of a coach to improve fitness of a player, but what type of exercise should be done, that will be decided by the coach.



Another classification is on the basis of its load and movement structure. According to the movement structure and load structure the aforesaid classification of exercise can be made.

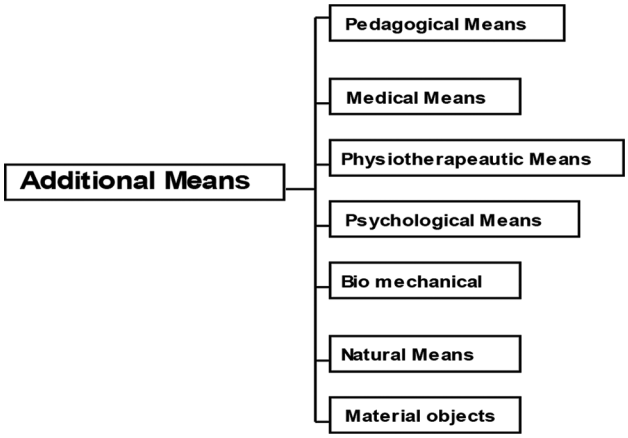


General Exercise

It is for the improvement of general fitness, co - coordinative abilities, general tactical efficiency, recovery and relaxation, etc. This is used in preparatory periods and all periods for recovery and relaxation and maintenance.

Specific Exercise

Improvement of specific motor abilities, technical skills, etc. It is used in preparatory and competitive periods.



Competitive Exercises

It is used for the achievement of top form, the perfection of skills under competition conditions, perfection of tactical efficiency. It is used in competition and preparatory periods.

Pedagogy: It is a science of principles of teaching.

Sports Training

It is a pedagogical process, It is based on scientific principles, Aiming at the preparation of a sportsman and Better performance in the competition.

Aims of Sports Training

Condition/physical fitness, technical skills, tactical efficiency, and education.

Characteristics

Performance/competition oriented process, hidden reserves are being exploited, daily routine is controlled, based on scientific knowledge, Perfection of means and methods, educational process, coach play's leading role and planned and systematic.

Sports Performance

Unity of execution and results of a motor action/complex motor actions measured/evaluated according to the socially determined norms.

There are 2 types of performance - Competition performance and training performance

Principles of Talent Identification

Talent identification and its development has become an important area of research in sports. Talent alone is no guarantee for winning a model. Talent identification has become more complicated by the fact that it must also take into

consideration the possibilities of development. The following are the principles of talent identification.

1. It is a long term process
2. It is a future performance structure
3. A wide range of factors to be considered
4. It should be progressively more specific
5. Less trainable factors should be given more weight age
6. Large population of children is a basic necessity.

Types of Plans: Micro Plan, Meso Plan and Macro

- Micro cycle (1 week/5–10 days)
- Meso cycle (it is of medium duration of 3–7 weeks)
- Macro cycle (it is the biggest duration of 4–12 months).

CONCULSION

The aim of GTMT is the preparation of long-term coaching and training plans for sportspersons based on age, gender, and experience. The plans should consider the competition schedule.

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Research Article

Role of nutritions for players

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ABSTRACT

Nutrition in sports is essential for the performance of every player. It is beneficial not only for players but also for all human beings. Participation in physical activity (PA) is essential for physical and mental health of children. Adolescents taking part in sports have high demands of nutrients due to additional needs of increased PA besides growth, development, and wellness. Most of the people in our country are suffering various diseases, it is only because of improper schedule of timings of food. They all are running behind name, fame as well as wealth. Therefore, we can say that only nutrition can help them. The health and nutritional status may be compromised in this population due to a lack of proper nutritional counseling. Furtherore, misinformation about healthy and nutritious foods by the media targeting school-going children can be quite hazardous. The purpose of this review article is to represent the nutritional needs of adolescents participating in different games and also to empower and to each adolescent to know about the importance of nutrition during participation in PA or games; hydration level (Fluids) that deliver nutrients involves proper fueling and recovery for sports players.

Keywords: Adolescences, Balanced diet, Endurance, Nutrition

INTRODUCTION

Balance nutrition is most useful for the performance of the player. Sports nutrition is a broad interdisciplinary field that focuses on the science behind and application of proper nutrition during exercise. Sports nutrition can be defined as the application of nutrition knowledge to a practical daily eating plan focus on providing the fuel for physical activity (PA), facilitating the repair and rebuilding process following hard physical work, and optimizing athletic performance in competitive events, while also provide the essential nutrients. The ideal diet for an athlete is not very different from the diet recommended for any healthy person. It can be beneficial for acquiring the target as well. The approach to nutrition in sports is different from that of nutrition for overall health. This blog post helps to shed some light. A proper diet will reduce these disturbances in performance. The key to a proper diet is to get a variety of food and to consume all the macro-nutrients, Vitamins, and minerals needed. Sports nutrition is a specialization within the field of nutrition that partners closely with the study of the human body and exercise science.

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Macronutrients are providing calories or energy to the body. The purpose of macronutrients is to promote healthy cellular growth, metabolism and to maintain normal body functions. The macronutrients, as suggested by the name "macro," are needed in the body in large amounts to provide the full and proper effect. There is three types of macronutrients viz. carbohydrates, proteins, and fats. Carbohydrates, proteins, and fats are essential for the development of the muscles and bones for sports performance.

Carbohydrates

Carbohydrates are stored in the body in a form of glycogen, which can be used during PA. Carbohydrate is necessary to meet the demands of energy needed during exercise, to maintain blood glucose level, and replenish muscle glycogen store. During sub-maximal exercise, carbohydrates in the body are the major source of fuel.

Protein

Protein is needed for nutrient transfer in the blood, connective tissue support, and the repair of tissue in response to periods of exercise. Protein is essential for every cellular activity. Most of the cellular components are made by proteins and helps in the production of hormones from endocrine glands.

Fats

Fat is primarily used as a fuel during low to moderate-intensity exercise. Fat is also engaged in providing structure to cell membranes, helping in the production of hormones, lining of nerves for proper activity, and make it easier for the process of absorption of fat-soluble vitamins.

Vitamin and Minerals

Vitamins are required in wide variety of body functions and operations which helps to sustain the body healthy and disease-free and need of vitamins are very less but it requires constantly. The function of minerals is for structural developments of tissues as well as the regulation of bodily process and it turn the food in energy.

Water

The human body can survive for a long duration without any of the micro and macronutrient but not without water. The body is made of 55–60% water, representing a nearly ubiquitous presence in bodily tissues and fluids. In athletics, water is important for temperature regulation, lubrication of joints, and the transport of the nutrients to active tissues. It regulates the body temperature, cushions and protects vital organs, aids the digestive system, acts within each cell to transport nutrients, and dispel waste.

Fuel for Exercise

When carbohydrate is delivered at desirable rates during or after endurance exercise, protein supplements appear to have no direct performance increasing effect. Carbohydrate and fat are the two major fuel sources oxidized by skeletal muscle tissue during prolonged (endurance-type) exercises.

Sports Nutrition

It is the study and practice of nutrition and diet with regards to improving anyone's athletic performance. Nutrition is an important part of many sports training regimens, being popular in strength sports such as body building. Good nutrition can enhance sporting performance. A well-planned, nutritious diet should meet most of an athlete's vitamin and mineral needs, and provide enough protein to promote muscle growth and repair. Achievement and maintenance of the body weight and physique depends on the nutritious diet and also reduced risk of injury and illness of the players. Balance nutrition maintains the confidence before the match and maintains the consistency in achieving high-level performances in matches.

Benefits of Sports Nutrition

There are many benefits of nutrition not only for sports person but also for all human beings. The ideal diet for an athlete is not very different from the diet recommended for any healthy person. And while certain sports require the athlete to fit a certain weight group or body fat, the benefits to nutrition in sports spans beyond just aesthetics. Sports nutrition can only withstand the sportsmen for giving top performance as well.

1. It enables you to train longer and harder in accomplish the target. And also get benefit in the overall performance in sports
2. It delays onset of fatigue according to the sports nutrition
3. It maintains a healthy immune system of the players for completing target as well
4. It enhances performance of the players in order to take participation in all sorts of games
5. It improves recovery due to sports nutrition for the players as well
6. It improves body composition as sports nutrition is very important for all players
7. It reduces potential of injury from the field. It can be helpful nutritional benefit of the players
8. It helps with focus and concentration according to the sports nutrition as well.

FACTORS INFLUENCING NUTRITION

There are many factors which are affecting sports performance. Differing conditions and objectives suggest the need for a player to ensure that their sports nutritional approach is appropriate for their situation. Factors that may affect players nutritional needs include type of activity (aerobic vs. anaerobic), gender, weight, height, body mass index, workout or activity stage (pre-workout, intro-workout, recovery), and time of day (e.g. some nutrients are utilized by the body more effectively during sleep than while awake). Most culprits that get in the way of performance are fatigue, injury, and soreness. It is ideal to choose raw foods, for example, unprocessed foods such as oranges instead of orange juice. Eating foods that are natural means the player is getting the most nutritional value out of the food. When foods are processed, the nutritional value is normally reduced.

Supplementary food can recover the essential energy for the players. Dietary supplements contain one or more dietary ingredients (including vitamins; minerals; amino acids; herbs or other botanicals; and other substances) or their constituents are intended to be taken by mouth as a pill, capsule, tablet, or liquid. Athletes may choose to consider taking dietary supplements to assist in improving their athletic performance. There are many other supplements out there that include performance-enhancing supplements (steroids, blood doping, and human growth hormone), energy supplements (caffeine), and supplements that aid in recovery.

Sports nutrition can be defined as the application of nutrition knowledge to a practical daily eating plan focused on providing the fuel for PA, facilitating the repair and rebuilding process following hard physical work, and optimizing athletic performance in competitive events, while also promoting overall health and wellness. The area of sports nutrition is often thought to be reserved only for "athletes," which insinuates the inclusion of only those individuals who are performing at the elite level. In this text, the term athlete refers to any individual who is regularly active, ranging from the fitness enthusiast to the competitive amateur or professional. Differences may exist in specific nutrient needs along this designated spectrum of athletes, creating the exciting challenge of individualizing sports nutrition plans.

Water is essential for life, without water there is no life. In players point of view water give them natural energy with positivity. Water deserves to be highlighted because of its vital roles within the body. The human body can survive for a much greater length of time without any of the macro- or micronutrients than without water. The body is 55–60% water, representing a nearly ubiquitous presence in bodily tissues and fluids. In athletics, water is important for temperature regulation, lubrication of joints, and the transport of nutrients to active tissues. In addition to plain water, water can be obtained from juices, milk, coffee, tea, and other beverages, as well as watery foods such as fruits, vegetables, and soups. Sports nutrition professionals need to be creative in helping athletes to determine how to consume adequate amounts of energy and nutrients while making meal planning easy, convenient, and quick. Good nutrition can enhance sporting performance. A well-planned, nutritious diet should meet most of an athlete's vitamin and mineral needs, and provide enough protein to promote muscle growth and repair. Foods rich in unrefined carbohydrates, like wholegrain breads and cereals, should form the basis of the diet. Water is a great choice of fluid for athletes to help performance and prevent dehydration.

Objectives

At the time of final performance, a player is supposed to be well-nourished, uninjured, fit, focused, and ready to compete. Sports nutrition is not just about calories to achieve weight or body composition goals; nor is it all about protein for muscles or carbohydrates for fuel. Nutritional and eating habits have been of specific interest in sports, especially given their impression on athletic performance. General recommendations need to be suggested by sports nutrition experts to accommodate the specific requirements of individual. The players will learn the techniques of it and how to use the energy in order to choose the appropriate food before, during and after competition.

Players will learn what foods are "optimum recovery foods" and how those foods enhance recovery. The student will learn the different nutritional demands of resistance and endurance.

Carbohydrates such as fruit, bread pasta, and cereals are common sources of glucose. Glucose, or commonly called sugar, is an important energy source that is needed by all the cells and organs of our bodies. It is a large molecule produced in the liver, although it is also stored in the muscle and fat cells.

Glycogen is the main way the body stores glucose for later use. Glycogen glucose is a monosaccharide (or simple sugar) also known as grape sugar, blood sugar, or corn sugar, is a very important carbohydrate monosaccharide sugar carbohydrate. Muscle cell glycogen appears to function as an immediate reserve source of available glucose for muscle cells. Is the molecule that functions as the secondary short-term energy storage in animal cells (Nonoxidative System to produce energy) molecule energy storage animal. Glycogen muscle glycogen can be replenished through proper diet and nutrient timing. All strenuous activity, exercise or games, will deplete glycogen. Fatigue causes failure of glycogen depletion, it causes fatigue, and depletion increased susceptibility to overuse injuries, colds, and GI problems. Weight loss increased heart rate, insomnia, painful muscles, moodiness, fatigue, depression, and irritability and persistent poor performance, thus sports nutrition results many bright output in this field.

RECOMMENDATIONS

1. It's not your weight that matters; it's what constitutes your weight. Find a way to learn if you have too little muscle or too much fat and find a strategy (exercise and eating well) that increases muscle and lowers fat. The number on the scale might stay the same, but you will look better, perform better, and will be healthier
2. Building muscle requires a combination of resistance power. Saving a good distribution of nutrients to sustain tissue health
3. If you are an athlete, you need about double the protein as the right times and when in a reasonably good energy balanced state. Randomly eating more protein doesn't accomplish what the body needs
4. Meal skipping, or eating in a pattern that fails to satisfy energy requirements in real time, creates many problems including higher body fat levels, lower lean mass, and greater cardiometabolic risk factors
5. Inadequate intake of fresh fruits and vegetables may alter the microbiome, resulting in higher body fat percentage and reduced athletic performance. Consuming plenty of fresh fruits and vegetables helps to sustain good bacterial colonies that live in the gut. Additional benefit: Fruits and vegetables give you the carbs you may lack for maximal performance
6. There is no perfect food, and if you keep eating the same foods because you believe it's good for you, you place yourself at nutritional risk. There is no substitute for eating a wide variety of foods that are well-distributed

throughout the day. You don't get too much of anything potentially bad, and you expose tissues to all the nutrients they need

7. The best exercise performance occurs when you have enough energy to support the exercise. If you frequently post-load by consuming the energy (calories) after the workout/competition, be aware of the potential health and performance consequences
8. Sustaining the best possible fluid balance is important for many reasons, including sustaining heart stroke volume, sustaining sweat rates, enabling delivery of nutrients to working cells, and enhancing removal of metabolic waste products from cells
9. Putting stress on muscles through exercise isn't enough to reap the full health benefits. You must give muscles an opportunity to recover from the stress so that they can benefit from the exercise. Adequate sleep is important by helping to sustain appropriate eating behaviors and muscle recovery
10. Stress levels impact eating behavior. High-stress levels can lead to the consumption of energy-dense foods that are high in fat and sugar. Find a strategy for stress reduction that can help you sustain optimal nutrition, which will positively influence both performance and health.

CONCLUSIONS

Diet is of great importance to athletes, the key to achieving an optimal sports diet in relationship to peak performance and good health is balance. Athletes must fuel their bodies with the appropriate nutritional foods to meet their energy requirements in competition, training, and recovery. If these nutritional needs are not met, there is an increased risk of poor performance and health issues. The use of a nutritional supplement within established guidelines is safe, effective, and ethical. Hundreds of studies have shown the effectiveness of creatine monohydrate supplementation in improving anaerobic capacity strength and lean body.

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Research Article

Sports biomechanics

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ABSTRACT

Sports biomechanics is a technique or method used to keep a watch on the athelete to minimize the risk of injury and improve sports performance. It also helps in preventing the risk of injuries and boosting the confidence of the athelete and bringing the best performance of the athlete. Mechanics is a branch of physics that is concerned with the description of motion/movement and how forces create motion/movement. Biomechanics is traditionally divided into the areas of kinematics which is a branch of mechanics that deals with the geometry of the motion of objects, including displacement, velocity, and acceleration, without taking into account the forces that produce the motion while kinetics is the study of the relationships between the force system acting on a body and the changes it produces in body motion. In terms of this, there are skeletal, muscular, and neurological considerations we also need to consider when describing biomechanics. Biomechanics uses computer simulations, mathematical modeling, graphical analysis, and measurements.

Keywords: Mechanics, Motion, Movement, Sports

INTRODUCTION

Biomechanics is used by athletes, coaches, and teachers to bring the best performance in the game at the right time in the sports. Biomechanics goes hand in hand with the physiological and psychological abilities and neurological/mental skills of the athlete. It is applied to monitor the physical health of the athlete while practicing or working on skill and game improvement which will help them to perform better or bring good results. Various techniques such as 3d analysis, force plate analysis, high-speed video analysis are used. The following are some of the areas where biomechanics is applied, to either support the performance of athletes or solve issues in sport or exercise:

- The identification of optimal techniques for enhancing sports performance
- The analysis of body loading to determine the safest method for performing a particular sport or exercise task
- The assessment of muscular recruitment and loading
- The analysis of sport and exercise equipment, for example, shoes, surfaces, and rackets

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- Biomechanics is utilized to attempt to either enhance performance or reduce the injury risk in the sport and exercise tasks examined.

Principles of Biomechanics

It is important to know several biomechanical terms and principles when examining the role of biomechanics in sport and exercise.

Biomechanics in Sport and Exercise

Biomechanics uses techniques including mathematical modeling, computer simulations, and measurements to enhance sport performance and reduce injury. It can be applied to a wide variety of sport and exercise activities in order to:

- Identify optimal movement patterns to improve sport-specific techniques
- Analyze muscular recruitment and loading to determine the safest method of performing a particular task/movement
- Assist in developing proper movement habits which can be maintained long-term (maximizing performance and minimizing injury risk)
- Analyze sport and exercise equipment eg. shoes, surfaces, racquets, etc.

Biomechanical testing can take place in the laboratory or in the field, during training or competition. There are a wide variety of testing procedures in biomechanics depending upon the sport and also depending upon the skill within the sport. Testing methodology is determined based on the problem that needs to be answered and in consultation with the coach and athlete. Some typical biomechanical testing methods are:

- 3D analysis. Appropriate for many sports especially those involving complex body movements and where very accurate, detailed information is needed. Typically 3D analysis is done using high-speed 3D motion analysis systems in a laboratory. Force Plate Analysis. Typically used for walking, running, and landing activities and used in conjunction with 3D motion analysis systems. Useful for determining impact, braking, and propulsive forces; calculating joint kinetics; and, weight transfer in dynamic activities
- High-speed video analysis. High-speed cameras, such as Photron, can operate up to 1000 Hz. Very useful for qualitative analysis of high-speed movements and impacts
- EMG. Used for measuring muscle activity. Often combined with 3D motion analysis and force plate testing. Generally only used for higher-level analysis
- Competition analysis. Competition analysis where relevant performance variables are determined, e.g. athletics: split times, stride rate/length; rowing/kayaking: splits, stroke length/rate
- Accelerometers, Gyroscopes, and Lasers. Used to determine the technical characteristics of an athlete's motion.

Importance of Biomechanics in Sports

- Improves performance in sports
- Improvement in technique
- Prevents sports injuries
- Helps in research work
- Creates confidence in players.

Importance of Biomechanics in Physical Health and Sports

1. Prevent sports injuries:- It helps in preventing injuries by proper practicing and working on the body. By doing proper warmup before and after the practice. It also helps in the process of rehabilitation of the injuries
2. Improvement in technique:- The improvement in technique can be done by bringing the knowledge of the teacher or coach in the game. Various upgradation in skills and practice techniques can be applied for better results
3. Improves performance in sports:- By analysis of the body mechanics we can bring change in skills that will lead to proper health of the athelete. That will help in performance in sports
4. Creates confidence in players: - If the body remains in proper fit, healthy and proper shape, it will boost the confidence of the player.

Newton's Laws of Motion

Newton's Three Laws of Motion explain how forces create motion in sport. These laws are usually referred to as the Laws of Inertia, Acceleration, and Reaction.

1. Law of inertia - Newton's First Law of inertia states that objects tend to resist changes in their state of motion. An object in motion will tend to stay in motion and an object at rest will tend to stay at rest unless acted upon by a force. Example - The body of a player quickly sprinting down the field will tend to want to retain that motion unless muscular forces can overcome this inertia
2. Law of acceleration - Newton's second law precisely explains how much motion a force creates. The acceleration (tendency of an object to change speed or direction) an object experiences is proportional to the size of the force and inversely proportional to the object's mass ($F = ma$). *Example* - When a ball is thrown, kicked, or struck with an implement, it tends to travel in the direction of the line of action of the applied force. Similarly, the greater the amount of force applied, the greater the speed the ball has
3. Law of reaction - The Third Law states that for every action (force) there is an equal and opposite reaction force. This means that forces do not act alone, but occur in equal and opposite pairs between interacting bodies. *Example* - The force created by the legs "pushing" against the ground results in ground reaction forces in which the ground "pushes back" and allows the player to move across the court (As the Earth is much more massive than the player, the player accelerates and moves rapidly, while the Earth does not really accelerate or move at all).

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Research Article

Study of the effect of Pranayama on anxiety level of the students

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INTRODUCTION

Anxiety is a psychological term. Anxiety disorders are the most common form of psychiatric disorders in the sports person. It can affect on the performance of the player in any game. Pranayama is a relaxation technique that helps to create a balance. It usually includes a number of physical postures, meditation and breathing techniques. While the goal of Pranayama and Yoga historically has been to create a spiritual state of unity, it is also practiced to produce physical and emotional well-being. Research suggests that Pranayama can balance anxiety. Studies have shown that Pranayama can have positive benefits for students or especially sports person with several types of mental health problems or conditions, such as including depression, anxiety, schizophrenia etc. The present paper is about the Pranayama and its effect on the anxiety level of the higher secondary students while playing any game. It is observed by the researcher that students or player take too much pressure before performance in the game. Their anxiety level increases in such types of competitions. Due to that reason, researcher tried to give Pranayama practice continuously to the students to minimize the anxiety level of the students. In the present article, researcher tried to Study of the Effect of Pranayama on Anxiety level of the students.

Objectives of the Study

1. To find out the meaning and reasons of anxiety of the higher secondary students.
2. To know the opinion of the students about the use of Pranayama.
3. To know advantages and limitations of the Pranayama by the students.
4. To study frequency and extent of the regular Pranayama practices by the students.
5. To find out whether the students well aware about using Pranayama in day today life.
6. To study the effect of Pranayama on anxiety level of the students.

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Need and Importance of the Study

1. Researcher thought that the present study is useful and important to find out the effect of Pranayama on anxiety particularly about the players of higher secondary level students.
2. According to the researchers, the present study is required to collect the suggestions and opinion about the reasons of anxiety and its remedies through Pranayama.
3. Need of the present study is to know advantages and limitations of Yoga in day today life of the students. This study pointed out the effect of Pranayama on reducing unnecessary anxiety of the students.
4. This research is useful for the getting knowledge about whether the students well aware about Pranayama in day-to-day life.
5. It is very necessary to understand the problem of anxiety. The present study is also useful to identify controlling factors about anxiety and such types of disorders. This study gives guideline to use the Pranayama to reduce the anxiety level of the students.

RESEARCH METHODOLOGY

Research Method

According to the objectives of the research, researcher used Experimental Method for the present research to achieve the objectives of the research.

Sampling

For the present research, researcher selected the 30 students who are players in higher secondary schools with the help of purposive sampling for answering through Google form questionnaire.

Tools for Data Collection

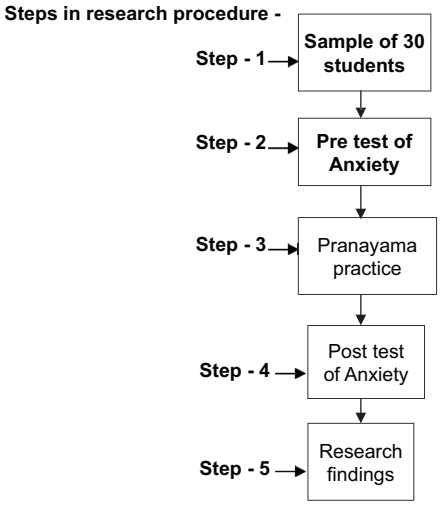
For the present research researcher used questionnaire for the present research to collect the data. Questionnaire was prepared according to the objectives of the research.

Statistical Tools

Researcher collected the data and analyzed it with the help of mean and percentage as statistical tools for interpretation

Research Procedure

1. Researcher observed the anxiety of the students before the performance of the students in game. Then it is decided to reduce it because it has bad effect on their game. It is decided to use pranayama for the students regularly for their mental health and study the effect of Pranayama.
2. Researcher selected the sample of 30 students for the research. Researcher observed that there is much anxiety in students about sports. Selected students are from higher secondary schools play for their school. It is pre-test.
3. After that researcher regularly conducted the Pranayama classes for them. Special experts of Yoga and Pranayama were appointed to give them practice.
4. After completion of the Pranayama class, researcher again measured the anxiety level of the students and also other parameters. It is the post-test.
5. At the end, the researcher collected the data and with the help of statistical tools, it is analyzed and interpreted.



Data Analysis and Interpretation

After the analysis researcher interpreted the data using the proper statistical tools the conclusions mean the research findings are pointed out which are given below.

Research Findings

1. It is observed that students know very well the meaning and reasons of anxiety. Regularly Pranayama practice can reduce anxiety of the students.
2. Practice of Pranayama produces physical and emotional well-being. Pranayama can balance the mental and physical health of the students.
3. Pranayama is not only limited to be effective to mental health disorders but physical disorders as well. Pranayama practice positively affects on the unnecessary anxiety of the players. It reduces the anxiety of the students.
4. Students who have regular Pranayama practices can control the anxiety and it is beneficial to give best performance in the game.
5. After this study, it is observed that students are now well aware about using Pranayama in day-to-day life.
6. According to the research, it is pointed out that Pranayama is beneficial to the students to balance the mental and physical health during the competition.
7. It is also observed that students take interest in doing Pranayama because it helps for their mental and physical health. They do practice of Pranayama regularly.

CONCLUSIONS

It is observed that regular Pranayama practice produces physical and emotional well-being. Pranayama is not only limited to be effective to mental health disorders but physical disorders as well. Students who have regular Pranayama practices can control the anxiety. Pranayama practice positively affects on the unnecessary anxiety of the players. It reduces the anxiety of the students According to the research, it is pointed out that Pranayama is beneficial to the students to balance the mental and physical health during the competition. Pranayama can increase the performance of the students in particular game.

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Research Article

Effect of training methods on physical fitness variables among tribal and non-tribal high school students

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ABSTRACT

Physical fitness analysis of training methods in this program. Training methods are particularly study on comparison physical fitness between circuit training methods and fartlek training method. Circuit training is an excellent means to improve endurance, speed, and strength. Circuit training involves six to twelve exercise stations with exercises for various muscle groups of the abdomen, back, legs, and arms arranged in a circle. Circuit training is based on the principle of easy to severe, simple to complicated, and general to specific exercises. In addition to endurance, speed and strength, circuit training can also help develop resistance power with the help of a partner. Circuit training is a type of exercise also known as interval training. It combines resistance exercise with aerobic exercise that is performed in intervals. Circuit training gyms have stations set up in an alternating fashion from a resistance machine to a jogging platform or bike for cardio exercise. This type of exercise can be done outside of a circuit training gym by simply alternating between resistance and cardiovascular exercise. Fartlek training method is a challenging workout that pushes runners outside their comfort zone fartlek combines a mix of warm-up pace, speed work, sprinting, and cool down into a constant interval session designed to increase your heart rate. Fartlek training improves speed and muscular endurance. It supported aerobic and anaerobic fitness. It involves alternating between periods of hard exercise and rest. Physical fitness is a multifaceted continuum extending from birth to death, affected by physical activity; it ranges from optimal activities in all aspects of life through high and low levels of different physical fitness to serve disease and dysfunction. A fit nation can be economically progressive if the citizens have sufficient capacity to work efficiently and gain in productivity. Hence, health must be regarded as a normal and primary need of the community. It is a primary factor it helps the growth and development of the body. An optimum growth is important for efficient existence in a biologically adverse and economically competitive world. Health is a basic need for the development of physical skills, agility, strength, and endurance necessary to execute the daily routine work. Health is required to plan a daily program of healthful physical activities so that people develop vitality and skills for an efficient and economic adult life. It is through health education that people can gain the knowledge and the insight by which adult life is rendered fruitful and satisfying. The opportunities for practicing proper health habits are provided in schools by a good program of 'health education'. Health education may help the pupils to continue to strive during adult life to maintain their capacity for work and gain resistance and immunity against avoidable diseases.

PHYSICAL FITNESS

The physical fitness and wellness are interrelated to each other. Physical fitness is the sum of the fine motor abilities namely strength, speed endurance, flexibility and coordinative abilities. The most important aim of sports exercise is to improve and maintain the physical fitness and wellness of the human being. Exercise is an essential element in the achievement and maintenance of physical fitness and wellness of human being. Physical fitness covers organic fitness as an individual. The main components of physical fitness are speed, strength, endurance, flexibility, agility, cardiovascular fitness, and co-coordinative ability.

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THE STUDY FOCUSED ON PHYSICAL FITNESS INTERLINKED SCIENTIFIC PRINCIPLES OF ANATOMY AND PHYSIOLOGY

Human physiology is the science of the mechanical, physical and biochemical functions of humans in good health, their organs, and the cells of which they are composed. The

principal level of focus of physiology is closely homologous to corresponding aspects of animal of human physiological, and animal experimentation has provided much of the foundation of physiological knowledge. Anatomy and physiology are closely related fields of study: Anatomy, the study of form, and physiology, the study of function, are intrinsically tied and are studied in tandem as part of a medical curriculum. Conventionally, the academic discipline of physiology views the body as a collection of interacting systems, each with its own combination of functions and purposes.

SIGNIFICANCE OF THE STUDY

The various actions in sports and games are so fast it is difficult to justify the performance of a player without analyzing them. It is also essential to ascertain the development of players in various factors affecting performance. The topmost teams in national or international have come up because they have evaluated the performance of their players in training and competitions and worked hard to reach world level through long term systematic and scientific training. This study is to analysis the effect of circuit training and fartlek training on physical fitness variables on tribal and non-tribal high school students.

OBJECTIVES OF THE STUDY

The purpose of the study is to find whether or not any significant difference found on physical fitness variables of tribal and non-tribal high school students in relation to their circuit training and fartlek training.

Hypothesis

- There may not be any significant difference on pre-test and post-test of physical fitness variables of tribal high school students in relation to their circuit training.
- There may not be any significant difference on pre-test and post-test of physical fitness variables of tribal high school students in relation to their fartlek training.
- There may not be any significant difference on pre-test and post-test of physical fitness variables of non-tribal high school students in relation to their circuit training.
- There may not be any significant difference on pre-test and post-test of physical fitness variables of non-tribal high school students in relation to their fartlek training.

Delimations

The study is delimited in the following aspects.

- The study was confined to the tribal and non-tribal high schools students.
- The study was selected from High School Students.
- The study is to restricted to physical fitness variables.
- The test is administrated on the boys who are within the age group of 12–15 years.
- Numbers of samples are restricted to 80 members from each group and 40 tribal and 40 non-tribal high schools students in Telangana State.

Limitations

The things concerned to climate conditions, health habits, and physical fitness variables are beyond the control of the investigator.

Operational Definitions

1. Circuit training is a form of body conditioning or Endurance training/resistance training using high-intensity aerobics. It targets strength building or muscular endurance. An exercise "circuit" is one completion of all prescribed exercises in the program.
2. Fartlek training is simply defined as periods of fast running intermixed with periods of slow running. Fartlek training runs are very simply form of a long-distance run.
3. Fartlek training means "Speed play" this is Swedish word its continues training with interval training.
4. Physical fitness is the total functional capacity (adaptation of various systems of the body) to perform a specific task.

REVIEW OF RELATED LITERATURE

Introduction

In the chapter, the researcher has presented the review of literature and review of related literature to the problem under study.

Maity (1983) conducted a study to compare physiological and physical fitness variables between tribal and non-tribal High school students of Murekatha Nehru Bidya Bhawan shown in Midnapur district of West Bengal. The subjects chosen for the study were between the age of 14–17 years. It was observed that tribal students were significantly superior in peak respiratory flow rate and speed endurance and anaerobic lower than non tribal's.

Brar (1985) conducted a study on the comparative effect of circuit training and interval training method on selected physiological measurements and running performance of females, age ranging between 12 and 16 years. The training methods are effective in lowering conventional resting pulse, conventional resting systolic and diastolic bold pressures. These training methods also brought about improvement in hemoglobin content. The two methods of endurance development have similar training effects with respect to running performance, cardiovascular blood pressure, hemoglobin fat percentage. The control group did not show any significant change in running performance in 800 m, cardiovascular endurance, and selected physiological measurement.

METHDOLOGY

Introduction

In the preceding chapters, the researcher has presented introduction and the review of literature, and review of related literature which is supporting and substantiating the present research study. The study under report forces on effect of training method on physical fitness variables among tribal and nontribal high school students on basics of their performance the team or individual players selected of the sports and game, which is the order of the day in everlasting sports scenario.

Design of the Study

The study has focused on the diagrammatic presentation experimental design hereunder.

Sample of the Study

The study was formulated based on the simple random sampling. The samples were collected from 80 tribal and non-tribal high school students. There were divided into two equal groups 40 tribal and non-tribal circuits training group and 40 tribal and non-tribal fartlek training group of 12–15 years were considered for the study.

The sample of the study

Groups	Category of the subjects	Number of subjects
Circuit Training	Tribal	20
	Non Tribal	20
Fartlek Training	Tribal	20
	Non Tribal	20
Total		80

Tools Used

The following physical fitness parameters were administrated on tribal and nontribal high school students after systematic training of circuits training and fartlek training.

Physical Fitness Variables

1. Strength - Standing broad jump
2. Speed - 50 m flying start
3. Agility - Shuttle Run
4. Endurance - Cooper test (12 min Run/Walking).

Data Collection Procedure

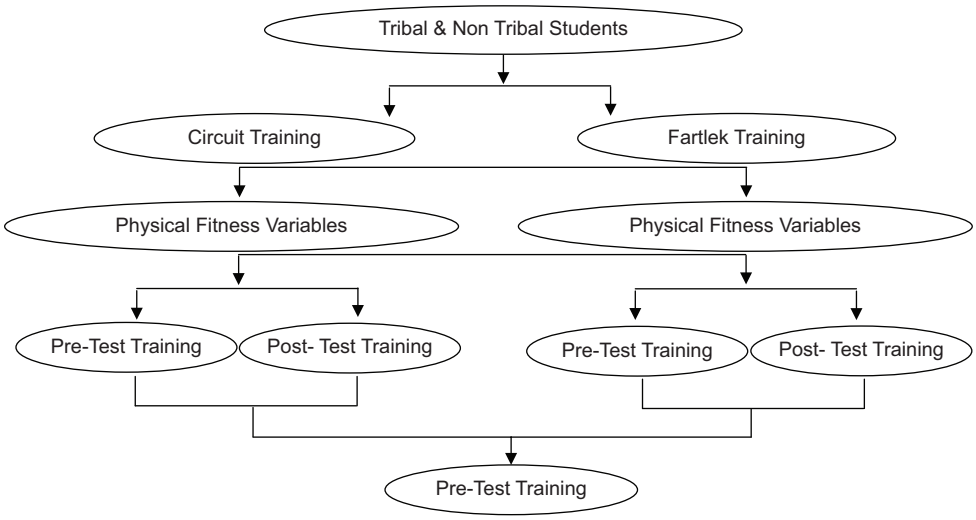
Eighty tribal and non-tribal high school students have been selected for the study and they have under gone circuit training and fartlek training for 45 days. The pre-test was taken, and then the post-test was administrated after the systematic training of circuit training and fartlek training. The following test was administrated on tribal and nontribal high school students are physical fitness variables.

Statistical Techniques Used

The investigation under will study the effect of training methods on physical fitness variables among tribal and non-tribal high school students. To find out the difference between tribal and nontribal high school students and nontribal students of physical fitness variable among the selected variables the means requires deviation, and finally-'t' test was computed. The study under the report requires multidimensional statistical procedures which will result into the minute finding of the research study.

Recommendations

Tribal students basically have been good posture good physic and strong body physical fitness. They are most eligible for physical education learning, training and coaching in different games and sports activities. They are also agency area villages



and follow climatic conditions among summer, winter, and raining seasons. Its gradually grass wood level physical fitness development of the activities. Regularly tribal students involve participating different activities such as runs, jumping, throws swimming, climbing hills and trees. Non-tribal students they are not interested to participate in sports activities in daily life, that's why they are not focus in games and sports activities and also health habits like eating, different genetically changes of their life style in urban areas and city culture.

CONCLUSIONS

Tribal students and non-tribal students giving to equal sports training methods in this research program. Sports academies, associations, federations, and institutions are not directly supported to tribal students. But Tribal students have more popularity sports activities in their villages but they are not having opportunities in routine period. Tribal students will be trying to give good performance in different sports and games better than non -tribal students. On-tribal students having more opportunities but they are not using facilities in routine period for sports development in their career. Oral tribal students were better than non-tribal students.

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Research Article

A comparative study of eye-hand coordination among the players of different playing position in handball

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ABSTRACT

The purpose of the study was to compare the Eye-Hand Coordination among elite junior handball players playing at different positions. One hundred and thirty boys' elite handball players (Goalkeeper – 23, Right and Left Back – 36, Right and Left Wing – 32, Center – 23, Pivot – 16) from the top eight teams of Junior National Handball Championship selected as samples on the basis of purposive sampling. The age of subjects between 15 and 19 years. Mirror drawing test was used to measure the eye-hand coordination of handball players. To compare the depth perception one way ANOVA test was used. After statistical treatment, result showed no significant difference between the handball players of different playing positions. It was also found that the players, playing at pivot position was better than the players of other playing positions.

Keywords: Comparative study, Boys handball players, Elite, Eye-hand coordination

INTRODUCTION

Handball, also known as team handball is an Olympic sport and plays in the rectangular area of 40 × 20 m. A team of handball consists of 14 players in which seven playing and seven extras. Duration of handball game is 30-10-30 minutes. Mainly there are five different playing positions in handball including Goalkeeper, Center, Right and Left Back, Right and Left Wing, and Pivot. There are certain rules to play handball. International Handball Federation is the governing body of World Handball. In India handball is governed by the Handball Federation of India.

Handball is a sport in which success is determined by a combination of fundamental qualities, including strength, power, speed, and endurance. This sport is appealing but difficult to perform because it combines creativity with speed, strength, and coordination. (Sporis *et al.*, 2010) Handball game required high-level fitness, psychomotor skills, and well-coordinated movements. Handball is related with vision and visual skills. Depth perception and eye-hand/foot coordination are very important factors in handball.

Address for correspondence:

Coordination is the capacity to move smoothly and efficiently by combining diverse bodily components. This ability is required in almost every discipline to attain better levels of performance. It enables athletes to efficiently and effectively complete a set of movements. Most of the games require a good coordination. Different games require different types of coordination. In football foot eye coordination is required. The majority of the skills, such as catching, throwing, and striking a ball, need good eye-hand coordination. (Daniel and Robert, 1978).

The synchronization of eye and hand movements is known as hand-eye coordination. Hand-eye coordination is required for any task that needs visual and hand motions to be coordinated. Gripping items, catching and tossing a ball are some examples of hand-eye coordination. Eye-hand coordination is a part of psychomotor ability of an individual which is very important for success in the field of sport. This talent is required in

almost every discipline to attain better levels of performance. To improve performance in handball, a high level of coordination, such as hand-eye coordination, is necessary. It enables an athlete, to efficiently and effectively complete a set of movements.

Significance of the Study

The findings of the study may aid coaches or PETs in understanding the relevance of eye-hand coordination according to the playing positions of the handball players because the performance of any player is dependent on many psychomotor factors, one of which is eye-hand coordination.

Review of Related Literature

(Gogoi and Pant, 2017), carried out a research to compare the eye-hand coordination between attackers and blockers in volleyball. They found no significant difference in eye-hand coordination between attackers and blockers. Forty volleyball players (20 attackers and 20 blockers were chosen as subject from BVDU and local volleyball club. The subjects were between the ages of 20 and 25. Beashel and Taylor 1997, Hand-eye coordination test was used to collect data of eye-hand coordination of the players. In order to analyze the data t-test were used and level of significance was.05.

(Patel and Chaudhary, 2015), conducted a study to compare the reaction ability among the different playing positions in handball. Result of the study showed significant difference among the players of different position in terms of reaction ability. Overall 50 male handball players, 10 players from each position, i.e. Goalkeeper, Left Shooter, Center back, Right Shooter, Left winger, Pivot Player, and Right Winger from Different Universities of India were selected as subject for the study. Age ranged between 16 and 24 years. The ball reaction exercise test was used to measure the reaction ability. To compare the reaction ability among different playing positions of handball players, one-way ANOVA was used at.05 level of significance.

Statement of Problem

To compare the eye-hand coordination among the elite junior handball players playing at different positions.

Hypothesis

It was hypothesized that:

There will be no significance difference in eye-hand coordination among the elite junior handball players playing at different positions.

METHODOLOGY

To compare the eye-hand coordination 130 boys' handball players (Goalkeeper - 23, Right and Left Back - 36, Right and Left Wing - 32, Center - 23, and Pivot – 16) from the top eight teams of Junior National Handball Championship selected as samples on the basis of purposive sampling. The age of subjects between 15 and 19 years. Mirror drawing apparatus was used to measure the eye hand coordination. In order to compare the eye-hand coordination among the players of different playing positions one way ANOVA method was applied and the level of significance chosen for the study at.05 level of significance.

RESULT AND DISCUSSION

In this study hand-eye coordination of elite junior handball players was assessed with emphasis on their playing positions. Five playing positions namely goalkeeper, back, wing, pivot, and center were taken into consideration. The junior elite handball players completed the activity on mirror drawing apparatus by tracing a star in a specified time of 60 s. The errors committed while tracing were counted. Lower errors while tracing were considered as better hand-eye coordination.

Results obtained through One Way ANOVA indicate that the hand-eye coordination in elite junior handball players occupying positions in the court namely goalkeeping (M=22.11), right and left back (M=25.60), right and left wing (M=23.73), Pivot (M=21.71) and Centre (M=23.67) did not differ significantly. The F ratio of 1.11, which is statistically non-significant, confirms this finding. Although F-test did not produce statistically supported results, Least significance difference was used to assess even the slightest of difference in hand-eye coordination in elite junior handball players based on their playing positions, and the statistical findings are reported in Table 3.

Table 1: Descriptive statistics of scores on eye hand coordination of elite junior handball players based on playing position (N=130)

Groups according to playing position of junior elite handball players	*n*	Eye hand coordination (Errors while tracing)	
		Mean	S.D.
Goalkeepers	23	22.11	4.78
Back (Right and Back)	36	25.60	8.49
Wing (Right and Back)	32	23.73	7.59
Pivot	16	21.71	6.21
Center	23	23.67	8.69

Table 2: ANOVA summary

Source	df	Sum of squares	Mean squares	F	Sig.
Between Groups	04	251.126	62.781	1.11	p>.05
Within Groups	125	7068.011	56.544		
Total	129	7319.137			

Table 3: Comparison of mean scores on eye hand coordination among elite junior handball players based on their playing position

Least significant difference test with significance level 0.05		
Mean (I)	**Mean (J)**	**Mean difference (I-J)**
Goalkeepers	Back	−3.48
	Wing	−1.61
	Pivot	0.40
	Center	−1.56
Back (Right and Left)	Wing	1.86
	Pivot	3.88
	Center	1.92
Wing (Right and Left)	Pivot	2.01
	Centre	0.052
Pivot	Center	−1.96

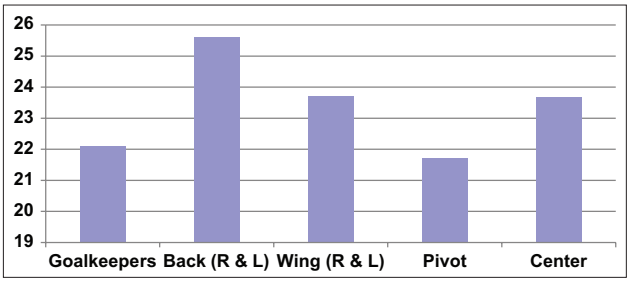


Figure 1: Graphical representation for comparison of eye-hand coordination between scores of various playing position players

The graphical representation for Comparison of eye-hand coordination between scores of various playing position players shown in Figure 1.

As per Table 3 no significant difference was found in hand-eye coordination of elite junior handball players based on playing positions i.e. goalkeepers, wingers, back, pivot, and center although hand-eye coordination of elite junior handball players occupying pivot position was better than the players of other playing positions.

The pivot in handball players denotes attacking player. The pivots role is mostly in 6 m line at the baseline of the opposition team. Pivot is a crucial position because its association with center back is essential in gaining advantage by exploring the weak area of opposition and always searching for gaps in opposition defense. The pivot more often than not plays a role of shooter either unbalanced or both feet of the ground. Hence, there is no surprise that players occupying pivot position in handball have better hand eye coordination than the players from other playing position but not to a significant extent.

CONCLUSIONS

The result of the present study showed no significant difference among the handball players of different playing position. It was also concluded that the players who are playing at pivot position have better eye hand coordination then other position's players. concluded that, National level junior handball players were better than state and district level junior handball players in-depth perception. It was also concluded that depth perception is very important to improve the performance.

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Research Article

Student's attitude towards outsourcing physical education in schools across Maharashtra

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ABSTRACT

The phenomenon of outsourcing is in great demand in the 21st century. The outsourcing Physical Education implies that the designing of curriculum and the trainers required to implement the Physical Education curriculum is entrusted to external agencies. The purpose of the study was to find out the attitude of students towards Outsourcing Physical Education program. For this purpose data was collected from ten focus groups of students from different schools from the state of Maharashtra which has outsourced physical education in their schools. Data were collected through semi-structured face-to-face interviews. Further the data were analyzed through thematic and phenomenon approach, where in the data were divided into segments and codes. Further into themes and the themes were interpreted.

Keywords: Outsourcing physical education, Focus group, Semi-structured face-to-face interview, Segments and codes, Thematic and phenomenon approach

INTRODUCTION

Participation in physical activity is the right of every child. Physical education perhaps is the best opportunity for children to actively participate in physical activity organized by the physical education teacher. For every individual to showcase their talent require a better platform and physical education is the best platform for them to showcase their talent in their respective games. Physical education teacher act as a talent search personnel, who organizes various events as per the interest of the students and availability of the infrastructure and facilities. School organizes various intra-mural competitions as well as extra-mural competitions in order to give students maximum opportunities to enhance their skills and to build up competitiveness among them. Further, the Physical education teacher plays very important role in motivating students to explore their skills and also guides students to go for personal coaching if the student is capable of achieving glory to the state or nation. It is the responsibility of the physical education teacher to organize physical education class in such a way that each and every child participate in that and keep themselves physically active. In the present competitive world, people are looking for better quality of life and career. In this regard outsourcing of physical education will play a major role in meeting these expectations.

Address for correspondence:

Objectives of the Study

1) To find out the attitude of students towards outsourcing physical education.
2) To find out about physical education curriculum
3) To find out about physical education environment
4) To find out about physical education resources
5) To explore 'Best practices' by outsourcing physical education.

METHODS

The outsourcing schools from the state of Maharashtra are the population in this study. The Phenomenological study requires participants who can give examples of relevant experiences that they have personally lived through (Jones *et al.* 2013, p. 120). Hence, focus group of students from outsourcing schools were

selected. The participants were selected purposively. The researcher selected participants who could provide the required information to achieve the objectives of the study.

Instrumentation

The face-to-face Semi-structured interview was conducted to collect information. The interviews have some structure and guide the researchers to achieve a specific aim of exploring a phenomenon or eliciting participants' thoughts and feelings (Jones *et al*., 2013, p. 50). In a Semi-structured interview, the researcher presents the same topic to all the participants, but the order of questions and the wordings differ in each interview. The interviews were carefully planned, using interchangeable topic and question sequence. The researcher, after interacting with experts, literature review, and personal experience, finalized the areas based on which the interview questions were framed. Main aspects that were covered while interviewing the focus group of students were:

- Physical Education Curriculum
- Physical Education Resources
- Physical Education Environment
- Best Practices in Physical Education.

Procedure of the Study

Research problem was formulated based on concerns arising on the rising issues in physical education. The interpretive phenomenological approach was adopted as this study tries to understand and interprets the lived experiences of focus group about the phenomenon. The sample size was ten focus groups from schools. After the selection of the participants, an informed and written consent to take part in the study was taken from the participants. The main aim was to gain a deeper understanding of the phenomenon of physical education. Face-to-face semi-structured interviews were scheduled wherein the researcher had a set of questions on an interview guide. During the interviews, the researcher probed interesting areas that arise from participants' interests and concerns. In the analysis, the interviews were transcribed, and the researcher identified statements made by the phenomenon. Then, these statements were thematized, which are also called meaning units. The goal of organizing the meaning units of creating themes was to manage information that ultimately enabled the researcher to describe the phenomenon (Pitney and Parker, 2009, p. 124). The transforming step attempts to distill the phenomenon down to its essence or the meaning of the experience (Pitney and Parker, 2009). In this study, the researcher first described the participants experiences based on emergent themes. Next, how the participants experienced the phenomenon and what it meant to them is explained, to transform the data, the researcher captured the expression and language that the participant used to described their experiences (Pitney and Parker, 2009). In this process, the researcher has tried to explain what is learnt in a manner that captures its essence and does justice to the participant's experience and yet presents the general meaning of the phenomenon (Pitney and Parker, 2009)

Analysis and Interpretation

In this study, the goal was to understand the attitude of students towards outsourcing physical education program. The dominant theoretical themes that were generated from the analysis of the transcripts of the participant's interviews are described. The interview transcripts provided data based on the participants perspectives towards the outsourcing physical education Program.

Physical Education Curriculum

The outsourcing companies design curriculum on the international guidelines with the help of experts appointed by them. While designing curriculum the experts consider the Indian environment. The curriculum designed is very much structured in nature. To implement curriculum in smooth way lesson plans are provided to physical education specialist. The interviewed students felt the class conducted by physical education specialist much more organized and planned. They stated that all the classes were active in nature and also they were taught variety of skills related to sports as well as theory. The students revealed that with outsourcing the curriculum has been updated as they are exposed to variety of activities whereas in In-house it used to be mostly Mass PT exercises and free play.

FG 1 "During the Physical education class we learn lot of sports skills and its very enjoying."

FG 3. "We had our teachers conducting classes were first in lower classes but she just used to let us play on the ground. But now we are taught according to the physical education syllabus"

FG 4 "teachers explain each and every skill concept very carefully it is much easier understand and practice"

The Frequency of the Physical Education classes is very less on an average two classes per week if any students want to devote more time they have to wait after class and opt for the sports specific clubs the students feel that the frequency of physical education classes should be increased so they can learn and practice effectively

FG 2 "We only get two classes per week I think they are not enough they should at least increase classes by 4-5 classes per week"

FG 1 "our schools offer sports club options after class hours some of us opt for that to learn sports"

Physical Education Resources and Environment

To have a collaboration with any school, the outsourcing companies demands for infrastructure and facilities within the campus. The outsourcing company provides school with physical education specialist, coaches, and the equipment

required to run the curriculum smoothly. The maximum use of equipment during PE class helps to save waiting time of the students.The interviewed students were satisfied with the facilities and the equipment available as compared to the in-house program. They were of the opinion that with outsourcing they spent more time actively as before the student-equipment ratio was on an average 10:1. The students also stated that the playgrounds and indoor hall have been upgraded since outsourcing companies took over physical education program.

FG 4 "now we all get equal time with equipment mostly one equipment such as ball is shared by two of us"

FG 3 "in comparison to before we get to practice with better sports equipment, also our indoor hall and playground has been upgraded"

Physical education programs in the schools should be focusing on all the students rather than students who take part in inter-school events. Students felt that with the outsourcing companies they all were actively involved in the program whereas during the in-house most of the time inter-school players were given prominence to improve their skills during class. Most of the students stated they felt the class more enjoying and were eager to learn

FG 3 **"**before sir used to involve only sports players for demo and all, but now we all are given opportunity"

FG 2 "I find the class more enjoyable as I am involved in all the activities"

Best Practices in Physical Education

To participate in PE class wearing PE uniform is mandatory. Students have to wear PE uniform on the day of PE class. Further the school organizes after school coaching classes for the students in different games. The outsourcing company provides specialized coaches in various disciplines. Many students expressed that they feel comfortable to take part in physical education activities wearing PE uniform, the school uniform is used to create hindrance while take part in physical education activities**.** Due to the setting sports specific clubs by the outsourcing companies, the students expressed that they were very eager and happy because they were given an opportunity to practice and learn sports-specific skills irrespective whether they are part of inter-school team or not.

FG 1 "we feel it is easy to participate in physical education activities due to uniform before it used to be difficult as school uniform was not comfortable for sports."

FG 4 "the sports club setup in schools have helped me a lot to improve my skills in basketball, I do not have ground at my place so I can play here".

The awards and felicitation go in a long way to motivate students to take part in physical education and sports. The students felt more motivated and eager to perform well at school and interschool activates. The number of participants also improved as a result of this.

CONCLUSION

The goal of the study was to understand the attitude of students towards outsourcing physical education in school for this purpose the schools who moved from in-house program to outsourcing program were selected for study the results are as follows. The students felt the outsourcing programmeto be more update and inclusive as the activities conducted was structured and program was strictly followed. The students stated that the student equipment ratio and the quality of playgrounds both indoor and outdoor have improved as a results of outsourcing.

Many students are of the opinion that sportspersons need support and motivation so the opportunities and the encouragement provided in form of felicitation and financial support to students by the outsourcing program is appreciable. Furthermore, the environment created by the companies were conducive to all. The best practices followed by the companies are noteworthy and should be replicated in the in-house physical education curriculum.

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Research Article

Study of aggression of urban and rural players

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ABSTRACT

This study was conducted at the level of aggression. This study was limited to the aggression of urban and rural athletes and delimited athletes in team event tournaments. The population they used for the study included 50 urban and 50 rural athletes from the West zone and All India Inter-University tournaments. This study sampled was 100 athletes. Thus, the level of aggression of most urban and rural athletes was found to be high-level aggression.

Keywords: Aggression, Urban and rural athletes

INTRODUCTION

Sports psychology is an improvement in your visualization and mental game skills and helps you identify through limited ideas and adopt a healthy view of your game. The mainly part common character of sports psychologists is to coach to improve psychological skills. Mental sports experts help increase self-belief, focus, calm, and power in the subject's performance.

In psychology, aggression means that it can cause physical or mental harm to oneself, others, or things in the environment. This type of behavior focuses on harming a person physically or mentally. As aggression increases, sports performance increases, but there comes a time when the increasing aggression decreases rather than increases. Excessive aggression is a form of emotional imbalance, an outburst of anger, in which one's thinking and concentration are reduced. One of the main benefits of practicing yoga is that it helps reduce aggression. Having aggression is a common thing these days which has a devastating effect on the body and mind. Aggression causes people serious problems like sleeping pain, neck pain, back pain, headache, and rapid heartbeat, sweating in the palms, dissatisfaction, anger, insomnia, and inability to concentrate.

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As aggression increases, so does the effectiveness of the game, but there comes a time when growing aggression tends to reduce rather than boost. Excessive aggression is a structure of emotional disparity, the effect of anger that impairs view and assiduity. Aggression is a common occurrence today that wreaks havoc on the body and mind. Aggression on people causes serious problems such as drowsiness, sore throat, back pain, headache and rapid heartbeat, sweating in the palm, frustration, anger, insomnia, and lack of attention. it is believed that the sport involves high levels of stress, bad and serious competition among young people tips. Emotions such as anger, fear, anxiety, stress, happiness, aggression, and hope. can have an effect on changes in physical condition, while mental symptoms will affect athlete's performance. Therefore, the effect of an emotional disorder on the player should be taken into account as it can affect the overall mental balance, the performance of the player which will affect the performance of the player.

Objectives of the Study

1. To study aggression level on rural athletes.
2. To study aggression level on urban athletes.

Hypotheses

There would be team competition in urban and rural athletes differ significantly with respect to the aggression level.

Limitation and Delimitation

This study was limited to Solapur District athletes. The study was delimited to aggression level tested of urban and rural athletes.

Sampling

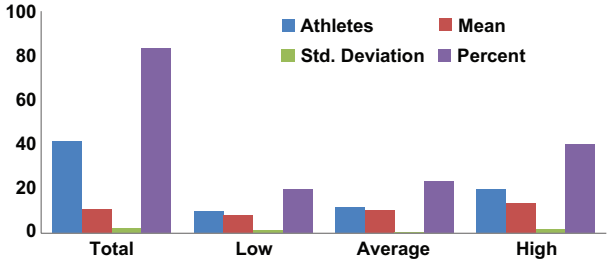
This research, athletes from Solapur district has been studied. Only 50 urban and 50 rural athletes are involved. These athletes are from West zone Inter-University and All India Inter-University.

Tool Used for collected data: The aggression test was selected to be Sports Aggression Inventory constructed and standardized by Prof. Anand Kumar Shrivastava and Prem Shankar Shukla.

Statistical Method: Mean; Standard deviation; "T" Values

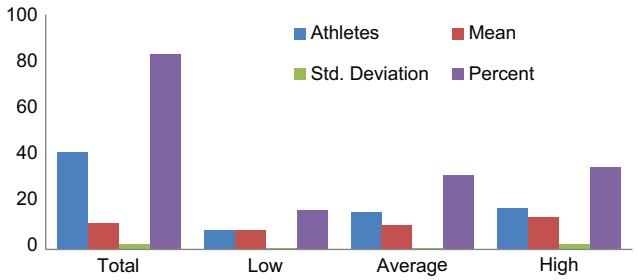
Findings

The aggression level on rural athletes				
Aggression level	**Total**	**Low**	**Average**	**High**
Athletes	50	12	14	24
Mean	13.26	9.83	12.43	16.58
Std. Deviation	2.66	1.64	0.51	2.36
Percent	100.00	24.00	28.00	48.00



The aggression level of rural athletes mean scores and S.D. scores of low level aggression was 9.83 and 1.64 also percent for 24%, mean scores and S.D. scores average level aggression was 12.43 and 0.51 also percent for 28%, mean scores and S.D. scores high level aggression was 16.58 and 2.36 also percent for 48%, and mean scores and S.D. scores total aggression level was 13.26 and 2.66.

The aggression level on urban athletes				
Aggression level	**Total**	**Low**	**Average**	**High**
Athletes	50	10	19	21
Mean	13.32	10.10	12.53	16.67
Std. Deviation	2.73	0.88	0.51	2.56
Percent	100.00	20.00	38.00	42.00



The aggression level of urban athletes mean scores and S.D. scores of low-level aggression was 11.10 and 0.88 also percent for 20%, mean scores and S.D. scores average level aggression was 12.53 and 0.51 also percent for 38 %, mean scores and S.D. scores high-level aggression was 16.67 and 2.56 also percent for 48%, and mean scores and S.D. scores total aggression level was 13.32 and 2.73.

Hypothesis: There would be team competition in urban and rural athletes differ significantly with respect to the aggression level.

Athletes	Mean	Std. Deviation	Players	df	"*t*" value
URBAN	13.32	2.73	50	49	0.194
RURAL	13.26	2.66	50		

Table indicates that mean of urban and rural athletes was 13.32 and 13.26 and standard division where 2.73 and 2.66. The "*t*" value of tamed was 0.194 and table value for df 50 was 2.364 at 0.01 level of Significance and 1.660 at 0.05 level. The table reveals that there was significant difference of aggression level was found in ("*t*" = 1.675, $P < 0.05$).

CONCLUSIONS

- Thus the level of aggression of maximum urban athletes was found high-level aggression.
- Thus the level of aggression of maximum rural athletes was found high-level aggression.
- Hypothesis: The table indicates that mean of urban and rural athletes were 13.41 and 13.31 and standard division where 2.04 and 2.67. The "*t*" value of tamed was 0.470 and table value for df 99 was 2.364 at 0.01 level of Significance and 1.660 at 0.05 level. The table reveals that there was significant difference of aggression level was found in ('*t*' = 1.675, $P < 0.05$, $P < 0.01$) so research hypothesis was rejected. Thus the level of aggression of most urban and rural athletes was found to be high-level aggression.

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Research Article

Psychological grounding for attainment of ones zenith pertaining to performance in sports competition

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ABSTRACT

The study overviews the diverse techniques in to the context. Sport psychologists approve the significance of psychological training of athletes for crest performance. To attain crest performance in sports competitions, coaches and athletes ought not to base their viewpoint on physical training and sport skills alone rather should combine both the mental and physical aspects of performance. During sport competitions athlete should cross the threshold of competition with the appropriate mindset so as to accomplish finest performance. The extent of a sport psychologist to athletes or sports team in this regard cannot be overemphasized; hence the sport psychologist is in a situation to endow with the desirable therapy to athletes who are psyched-out by personal, motivational, and environmental factors. The piece, therefore, suggested among others that athletes should be advised for practicing mental and psychological skill training and, quicker rehabilitation of an injured athlete. This would help to attain triumph in crest performance.

Keywords: Crest performance, Sports skills, Psychological skills, Attention and personality

INTRODUCTION

Many authors delineate psychology basically as the study of the science of human behavior which is a development on the perceptive of the notion over the characterization set by William (1965) that psychology is science of mind. It endeavors to examine and comprehend the underlying process that contributes to behavioral alteration. It attempts to ascertain why organisms act in a different way by accepting, analyzing, predicting, and controlling behavior of organisms consequently that branch of science which is apprehensive with the behavior of organisms. The establishment of psychology as a self-determining discipline detaches from the discipline of philosophy and biology. It is attributable to the German psychologist Wilhelm (Max) Wundt (1832–1920).who published a book on the principle of physiological psychology in 1873 and the book became the first major textbook of experimental psychology. Wilhelm is also well-known for his concern of the first psychological laboratory in Leipzig in 1879. Hayes (1998) observed that psychology as a formal branch of knowledge is usually well thought-out to date from the 1880s, with the work of the pioneer of psychology-Wilhelm Wundt and others, earlier it was understood as branch of philosophy. Three most influential philosophers helped the growth and development of psychology, namely, Descartes, Locke, and Charles Darwin. Sports psychology is the application of psychological principles and ideas to sports situation. Vealey in Wuest and Bucher (2006) asserts that Sport and exercise psychology is a systematic scholarly study of the behaviors, feelings, and thoughts of people occupied in sports, exercise, and physical activity. Sport psychology is a discipline of sport science and it applied to sports performers in athletic situations. The discipline of sports psychology is associated with attempts to study individuals in sports situations, analyze, and described in order to alter, envisage behavior through different psychological resources. Wuest and Bucher (2006) posited that sport psychologists today work with athletes to assist them perform at their finest phase. They work with professional/ national sports teams, a few professional athletes that compete at an elite level, such as in figure skating, sports coaches may take on the service of a sport psychologist to facilitate them attain their goals. Knowledge of sport psychology is significant

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to coaches at all levels. It can assist coaches more fully to the Journal of Education understand the psychological impact of their coaching behaviors and decisions on athletes. Coaches may put together data from sport psychology for the preparation of performers for competition and employ data during competition to assist their teams perform at their utmost possible level. Hornby (2004) defines crest performance as the point when somebody is best and most successful in performing a task. Athletes and coaches always believe they only practice longer and harder to reach this crest performance. They are uncertain to integrate psychological tools in the training and performance in quest for excellence, athletes are constantly experimenting with new ways to boost their performance. The discipline of sport performance became gradually more significant to put together the mental and physical aspects of performance. Traditionally, no attention is set to the cognitive aspects of performance.Experts and performers devoted mainly of their interest to the physical factors of performance.

Determinants of Sports Psychology Therapy

In several sports competitions unlike problems present themselves and may subsequently affect the athletes performance output. This issue arise from the following factors. (i) Personal Factors: Researchers have investigated the effects of many different types of personality factors on performance viz extraversion-introversion, aggressiveness, independence, leadership, and determination in sport. Some researchers sought to address the question of whether sport influences personality, some of the researchers indicated that there were owing to personality differences between athletes and non-athletes. Still, other researchers undertook the task of identifying the psychological differences between elite athletes and their less successful counterparts. One of the questions was whether it would be possible to predict the success of an athlete's based on his or her personality characteristics. Vealey (2000) describes personality as the sole combine of the psychological characteristics and behavioral tendencies making individuals dissimilar from and similar to each other. Anshel (1997) states personality as traits possessed by an individual that are enduring and stable. Because traits are enduring and stable, they predispose an individual to consistently act in certain ways in most but not all situations; thus, an extent of certainty to an individual's action. Fisher *et al*. (1997) suggested, psychological dispositions- brand persistent ways of concerning to people and situations may be more encouraging in studying athlete's psychological characteristics and, personality traits are linked to predispositions. The personality trait of supremacy, trait anxiety, and internal Locus of manage are linked to the Type A disposition. The research focused on the bond between personality trait and sport performance. Researchers addressed questions like whether athletes vary from non-athletes, an athletes in certain sports be well-known from athlete in other sports by reason of their personality. The extremely skilled athletes have different personality profiles than less skilled athletes in the same sport. There are certain personality traits that predict an athlete's victory in a sport. According to Wuest and Bucher (2006) investigated and revealed the contradictory reactions to each of the questions. Personality factors, therefore, relate to the individual athlete's attitude, intelligence, emotional state, interest, and sociability. It involves physical ability and level of skill attained. Each of these factors when well-developed are manipulated to generate exceptional outcome; on the other hand if they are neglected they are bound to build tribulations. (ii) Motivational Factors: Anxiety and Arousal-Many athletes reported their performances are adversely affected by being too anxious/aroused for an athletic competition. The goal of coaches, physical education teachers, and sport psychologists is therefore to optimize an individual's performance. To achieve this goal they should consider the effects of anxiety as defined by Levitt (1980), as a subjective feeling of apprehension accompanied by a heightened level of physiological arousal. Physiological arousal is an autonomic response, results in the body. Examples of this phenomenon seen in athletes are sweaty hands, frequent urination, augmented respiration rate, amplified muscle tension, and elevated heart rate. Anxiety is usually classified in two ways. It refers to an individual's inclination to categorize environmental events as either frightening/non-threatening. Anxiety is an emotional response to a specific situation that consequences in feelings of fear, tension, or apprehension (e.g. apprehension about an upcoming competition). Sports psychologists investigated the effects of both state and trait anxiety on athletes 'performance. Coaches and physical education teachers also frequently attempt to find the findings of the effects of best possible level of arousal that allows individuals to perform their best. Too low or too high arousal stage may have a negative blow on performance. Arousal at low level of individual is associated with behaviors as low motivation, in attention, and inappropriate and sluggish movements. A high level of arousal in an individual is associated with such behaviors as descent in coordination, inappropriate lessening of attention, distractibility, and a lack of flexibility in movement responses. It is essential for each individual to find his or her optimal level of arousal for a set activity. Nevertheless, no one knows for exactly how to consistently attain this perfect state. A variety of approaches are engaged by physical educated exercise science and sport professionals in search of the goal. Techniques include "Pep talks," make use of motivational slogans and bill boards, relaxation training, imagery, and in several cases the professional service of a sport psychologist. Motivational factors have both internal and external influences on the athlete and are broadly categorized under intrinsic and extrinsic motivation may be both positive and negative. Motivation constitutes a essential prepared psychological therapy in sports coaching. Additionally strategies to help athletes manage their anxiety and arousal. Coaches ought to be prepared to work with athletes as individuals and find out which approach is finest for them. However, being able to control an athlete's anxiety/arousal level throughout the competition is an exceptionally vital skill for maintaining a elevated level of

performance expertise. Attention an individual's performance is to a great extent influenced by his/her attention to the undertaking. The individuals shall find, select, and spotlight on pertinent cues to be successful in performing the task [skill or game]. Not only the individual distinguish between relevant and irrelevant cues, but also he she must maintain the necessary attention focus, or the performance will be less than optimal. Therefore, an athlete who is under aroused may pay attention to the crowd or be thinking about an opponent instead of concentrating on the game. Similarly, an athlete under high stress may be thinking about his or her own anxieties instead of concentrating on task-relevant cues like observing the ball. According to Ndiffer (1993) attention is the ability to direct senses and thought processes to particular objects thoughts, and feelings. To be triumphant, an individual should match his or attentional focus with the task demands that often changes as the performance progresses. The individual must be able to change speedily back and front between the various attentional styles at will. Goal-setting is essential in many of the unlike environments in which physical education, and sports leaders' works. It is to help students in schools, athletes, sports teams, clients rehabilitating an injury, or adults involved in fitness program. Goal-setting is vital both as a motivational strategy and a strategy to modify behavior or improve performance. It is also used in intervention strategy to set right problems/redirect efforts. According to Weinberg (2002) a goal is that which an individual tries to achieve. It is the object/aim of action. Goal-setting focuses on precise level of proficiency to be achieved within a definite period of time. Goals can be categorized as outcome goals, performance goals, and process goals. An example of an outcome goal is to win first place at the senior games, regional track meet at end of the season. Outcome goal is achieved and influenced in part by the capability and take part in of the opponent. Performance goals refer to the individual's actual performance concerning personal level of relation to personal levels of accomplishment. Goal process focus on how a particular skill is performed. Increased axial rotation by the swimmers in backstroking, following through on tennis backhand may be two examples of processing goals for the improvement of techniques. As technique improves, improvements in performance are likely to follow. (iii) Environmental Factors: Environmental factors are in a straight line linked to the competitive condition, and external to the athletes, such as the availability of team sports, eligibility, geographic restrictions, and sporting body organization structures, crowd, attitude of team mates' attitude of the coach. Aspect of the social environment also plays a function, such as family expectation, peer pressures and socialization and Journal of Education. Optimistic environmental situations create elevated quality performance while negative factors generate problems for the athletes. Summary/Conclusion-Athletic situation generally encompasses all happenings in skills learning, practice, and competition processes in association to performance environment. Each athlete is exceptional since of his individual characteristic that is dissimilar from others and is treated in sports psychology. Hence the process of studying and assessing sports situations and the reaction, adaptation, tolerance, and coping of the athlete with changes in athletic environment affords the sports psychologists the opportunity to find solutions to the associated problems. It is also their accountability to shape the attitude of the sportsmen and women towards encouraging orientation to support participants through counseling and guidance. According to Wuest and Bucher (2006) what individuals say to themselves during performance may be positive or negative. These though, an associated feelings can manipulate self-confidence, which in turn impacts performance. The relevance of sports psychology and a sports psychologist to crest performance in sports competition is a major one. The sports psychologist usually employs a range of psychological strategies, techniques, and principles to enhance athletes out-put in competitions and assist them to reach their crest in the competitions. Recommendations: (i) Stress management techniques, coping strategies, and mobilization of social support through education involving some. Interventions (ii) Maximum concentration on the task at hand and shifting out other distractions should be made. (iii) The athletes to practice mental and psychological skill training accordingly (iv) Athletes to develop adequate focus to eliminate external variables may disapprovingly affect performance. (v) Quicker rehabilitation of wounded athlete is suggested hence be careful to achieve the performance. (vi) Athletes are advised to attain a mastery of basic skills and it would facilitate the reduction of injury to athletes also.

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Research Article

A survey on relationship between BMI obesity and physical activity level among women in bohra community

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ABSTRACT

Good health is viewed differently by different people. A common man in the street may consider good health is nothing more than not being sick, for housewife good health is doing all household chores and take care of her family, for career-oriented housewife take care of herself and her family as well doing at her workplace while others may view it having good grooming and being able to play any sports. Woman unknowingly, tend to place undue stress while fulfilling their duties, that leads to neglecting their own health. For women after her marriage and pregnancy very difficult to manage with continue good health due family responsibilities. After a certain age woman undergoes some physiological and psychological changes. Very difficult to finding a time for exercising or physical activities.it leads to deteriorating in her health. Woman face various health problems due to lack of physical activity such as Obesity and that leads to problem of Cardio-Vascular diseases like coronary artery diseases, heart attack and stroke, that eventually endangers their health. So participation in any physical activity is very important and maintaining their level. BMI is primarily the cheapest way to measure obesity in a very large population of community. In Islam, women face many restrictions such as their dress code like burkha (paradah) and lacking awareness about good health or fitness. In cities, women health awareness is generally created through magazines, media, social media, etc. but in the remote villages of India, the condition is much worse. Bohra community could set an example for other communities. Bohra community, which is a trader community and is well educated amongst the other sects of Islam. Their uniqueness makes community differ from others. Bohra community's unique identity amongst other sects is their ability to follow such customs like following a spiritual leader, implementing schemes such as community kitchen that makes greater impact on women's life and they are free to do other things such as pursuing their own education, child's education, empowering themselves. This study aims to create awareness about their overall good health and physical fitness among women in DawoodiBohra community. This study was conducted on 375 women staying in the various residential complex around Mumbai. The study was conducted by measuring anthropometric measurements such as BMI using Full Body scanner and calculated percentage of body fat Physical Activity Level score was collected by filling questionnaire ofInternational Physical Activity Questionnaire. The statistical analysis was done using Vassar Stats computational package. Correlation and regression were used to find out relationship between BMI Obesity and Physical Activity Level. The study concluded that there is a positive relationship between BMI and Obesity. There is a negative significant relationship betweenObesity and Physical Activity Level among women in Bohra community.

Keywords: BMI, Obesity, Physical activity level, Women, Bohra community

INTRODUCTION

Women has got to play multifarious role in her life, she has got to maintain her own health and wellness also as lookout of the health of others round her. She needs to have accurate and timely health information and support from health professionals in order that they can understand the importance of health. Women's health is important not just for themselves but also for future generations.

When a women health having a normal body temperature, blood pressure, hemoglobin, percentage of body fat, RBC/ WBC counts, total cholesterol/HDL ratio, basal metabolic rate, aerobic capacity, blood sugar tolerance, bone density

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with respect to health standards specific to one's age, sex, race, physical activity, etc. possessing normal values indicate that body has enough resistance to fight all the challenges or threats to health without the need of frequent treatments. Such a state of health is named as Positive health[1]. To maintain positive health women needs to exercise and maintain physical fitness but women carries more of the work burden of the household and hence have little time to take care of their healthiness and no time for physical activities. So they face lots of health issues Obesity and it leads to diabetics, coronary heart diseases, etc.

BMI

BMI is a simple method to correlate risk of health problems with loads of other related means relating these factors amongst a given population. "Body mass index" (BMI) that was calculated by the formula as physical body weight divided by squared height. The higher the value of BMI, the higher is one's food intake. The BMI lower to 22 indicates lesser quantity of diet being taken than the specified amount of food while BMI greater than 25 indicates more amount of food intake than the needed quantity and low physical activity level of an individual is assessed as overweight. The BMI reaching 30 indicates obesity and high risk of getting weight-related diseases like atherosclerosis, type 2 diabetes, heart condition, hypertension.[1,2] BMI may be an assessment tool which will specify whether a person is underweight or if they need a healthy weight, excess weight, or obesity.[3] The person who's BMI is outside the healthy range, it may lead to increase their health risks significantly.

Obesity

Obesity refers to the excess accumulation of fat in the body which is related to many health problems. Obesity results in many number of problems such as diabetes, High vital sign, coronary failure, cancer (cancer of prostate and cancer of the colon, rectum), gallstones, and gall bladder.[4]

Physical Activity Level

Physical Activity Level is express a person's daily physical activity as variety and is to estimate a person's total energy expenditure. As per a study published within the journal Sport and Health Science, being overweight with lack of physical activity can reduce the efficiency of your system. However, staying physically active all day long can help to enhance the response of your system and even reduce the respiratory problems. Women should get 60 min or more physical activity daily. They should engaged in aerobics, muscle- strengthening and bone strengthen activities daily to improve their health and reduce their risk of developing chronic disease.[5] International Physical Activity Questionnaire is an instruments designed primarily for the population surveillance of physical activity among adults. According to WHO for adults aged 18–64, physical activity includes leisure physical activity (for example walking, dancing, gardening, hiking, and swimming), transportation (e.g. walking or cycling), occupational (i.e. work), household chores, play, games, sports or planned exercise, within the context of daily, family, and community activities.[6]

BMI and Obesity

According to Ranasinghe BMI strongly correlate with BF % estimated by bioelectrical impedance, in this sub-population of South Asian adults. This relationship was curvilinear in nature and was significantly influenced by age and gender.[7]

According to Akindele's study, there is a strong positive association between BMI and BF%, and age and sex are predictors of this association.[8]

BMI and Physical Activity Level

According to Kesavachandran (2006); a cross-sectional study was done on physical activity maintains normal grades of BMI. It was resulted that BMI grades correlate with body fat and percentage of body fat related to individuals physical activity level and with future health risks.it concluded that regular physical activity helps in reducing the risk overweight or obesity.[9]

According to Weinstein *et al*., studied the joint effects of physical activity and body mass index on coronary heart disease risk in women. The risk of Coronary Heart Diseases associated with elevated body mass index is considerably reduced by increased physical activity levels. It was concluded that higher body mass index and physical inactivity were individual predictors of CHD.[10]

Obesity and Physical Activity Level

Worldwide obesity has nearly tripled since 1975. In 2016, quite 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese. About 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese. Most of the world's population in countries where overweight and obesity kills more people than underweight. It shows that how inactivity impact on individual's health.

Women should get 60 min or more physical activity daily. They should engaged in aerobics, muscle- strengthening and bone strengthen activities daily to improve their health and reduce their risk of developing chronic disease.[5]

Women in Bohra Community

Bohra sect belongs to the Ismaili branch of Shia Islam, which mainly resides in India, Pakistan, Yemen, US, UK, and Gulf countries. This community largely follows the directives issued from time to time by their holiness, Dai Mutlaq, in their common language, Lisan-ul-dawwatis traditional language, and their next special identity is their by the common traditional attire, Ridah for ladies and Pyjama and Saya, White Topi with

a golden border for men. In all cities round the world, they follow a community kitchen from where just one time food is served to every and each family named Faizal Mawaid-ul-Burhaniya. This way women are having time to work and be financially independent. Empowering the women and equal opportunities to the boys and girls to urge western education, along with the normal values of Islamic education are characteristics of the community.[11] Being a trader and rich community they have sedentary lifestyle. The women in bohra community is having sedentary lifestyle leads to less burden of work at home. It results in higher percentage of body fat and facing lots of health risk such as back pain, frequent headache, frequent cold cough, diabetes, high blood pressure, etc.

Rational of the Study

This is a progressive Muslim community that is a sub-sect of Shia Islam and has numerous developed tendencies among the community's members. Women are the most important members of the family, yet no research has been done on their fitness in the DawoodiBohra community. This research will raise awareness of the Bohra women's physical fitness and health dangers.

Objectives

- To study the relationship between BMI and Obesity among women of the community.
- To study the relationship between BMI and Physical Activity level among women of the Bohra community.
- To study the relationship between Obesity and Physical Activity level among females of the Bohra community.

Hypothesis

This study will help in establishing the relationship between BMI, Obesity, and Physical Activity Level among the women population of Bohra Community in and around Mumbai.

METHODOLOGY

The design of the study was survey method. The study was planned to conduct a survey research on BMI Obesity and Physical Activity Level of women population in Bohra community in and around Mumbai. Omoron body analyzer was used for calculating the percentage of body fat. BMI would be calculated using anthropometric measurement. Obesity was calculated with the help of the Healthy percentage of Body fat chart. This chart was based on the World Health Organization (WHO) and Institute of Health Recommendations. Physical Activity Level was calculated using IPAQ questionnaire.

Analysis and Data Analysis

The statistical analysis was done using Vassar Stats computational package. Correlation and regression was used to find out the relationship between BMI and Obesity, BMI and Physical Activity Level, Obesity and Physical Activity Level

Interpretation and Result

The observed value of r (358) = 0.8055 shows a positive correlation between BMI and Obesity which indicates statistical significance. The slope = 0.947726 shows a linear relationship between BMI and Obesity at $P = 0.001$ level of significance.

Interpretation and Result

The observed value of r (358) = -0.0693 shows a negative correlation between BMI and Physical Activity Level which indicates statistical significance. The slope = -0.00983 shows a linear relationship between BMI and Physical Activity Level at p = 0.001 level of significance.

Relationship between BMI and obesity									
	X	Y	ΣX	ΣY	X^2	Y^2	R	r^2	Slope
N	358								
Mean	25.3497	34.1243	9075.2	12216.5	235892.74	424962.53	0.8055	0.6488	0.947726
Varience	16.3556	22.6415							
SD	4.0442	4.7583							
SE	0.2137	0.2515							

Relationship between BMI and physical activity level									
	X	Y	ΣX	Σ Y	X^2	Y^2	R	r^2	Slope
N	358								
Mean	25.3497	1.5112	9075.2	12216.5	235892.74	935	−0.0693	0.0048	−0.00983
Varience	16.3556	0.329							
SD	4.0442	0.5736							
SE	0.2137	0.0303							

Relationship between obesity and physical activity level									
	X	Y	ΣX	Σ Y	X^2	Y^2	R	r^2	Slope
N	358								
Mean	34.1243	1.514	12216.5	542	424962.53	934	−0.0336	0.0011	−0.00398
Varience	22.6415	0.3177							
SD	4.7583	0.5637							
SE	0.2515	0.0298							

Interpretation and Result

The observed value of r (358) = −0.0336 shows a negative correlation between Obesity and Physical Activity Level which indicates statistical significance. The slope = −0.00398 shows a linear relationship between BMI and Physical Activity Level at $P = 0.001$ level of significance.

CONCLUSION AND RECOMMENDATION

- BMI has great impact on women health. It's easiest and cheapest method for keeping a view on overall health.
- To create an awareness among women arrange health expert talk about BMI, Obesity and Physical Activity Level, fitness and health.
- Motivate women for regular exercise and aware them for their fitness level through BMI.
- Arrange recreational activities only for women and encourange and motivate them to participate.

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Research Article

Physical exercise as the source of mental and physical well-being

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ABSTRACT

Health has two broad aspects - physical and psychological state. Physical health means that honest body health. Regular physical activity (exercise), sensible nutrition, and adequate rest offer physiological condition. It is thanks to improved nutrition, health care, standards of living, and quality of life, their height, and weight typically increase. Exercise reduces levels of corticosteroid, which causes several health issues, each physical and mental. Being physically active will assist you feel stronger and higher able to do daily activities. Additionally to the physical advantages, being active conjointly helps one feel higher mentally and showing emotion, thus one might have exaggerated quality of life.

Keywords: Fitness, Health, Physical exertion, Skills, Sports, Well-being

INTRODUCTION

The English word "health" means "wholeness, a being whole, sound or well", Medilexicon's medical dictionary gives three definitions for health, One of them is: "The state of the organism when it functions optimally without evidence of disease or abnormality" World Health Organization (WHO) defines it as "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." According to the Ottawa Charter for Health Promotion in 1986, the WHO said that health is: "A resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities."

Health has two broad aspects - physical and psychological state. Physical health means that an honest body health. Regular physical activity (exercise), sensible nutrition, and adequate rest offer physiological condition. It is thanks to improved nutrition, health care, standards of living and quality of life, their height and weight typically increase. Physical eudaimonia is outlined as one thing an individual can do by developing all health-related elements of his/her way". Life science says that fitness reflects a human cardiometabolic process endurance, muscular strength, flexibility, and body composition. To stay healthy area unit should embrace correct nutrition, bodyweight management and abstain from abuse, avoid habit, bear in mind sexual behavior (sexual health), hygiene, and obtaining the proper quantity of sleep. In alternative words condition has been outlined as a group of attributes or characteristics that folks have or win that relate to the flexibility to perform physical activity. Another definition by Howley and Frank that has further descriptive info is: condition may be a state of well-being with low risk of premature health issues and energy to participate in an exceedingly sort of physical activities. Whereas either may be a sensible definition, most consultants agree that condition is each four-dimensional and ranked.

Physical exercise is very important for maintaining condition and may contribute absolutely to maintaining a healthy weight, building and maintaining healthy bone density, muscle strength, and joint quality, promoting physiological well-being,

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reducing surgical risks, and strengthening the system. Mental health is expounded to people's psychological feature and emotional well-being. An individual WHO enjoys sensible psychological state does not have a psychological disorder. In line with WHO, psychological state is "a state of well-being within which the individual realizes his or her own talents, will address the conventional stresses of life, will work profitably and productively, and is in a position to form a contribution to his or her community". Mental and condition is extremely vital issue of health, For being emotional well-being area unit should assess emotional health often, take into account the actual demands or stresses one is facing and the way touching him. If one should take a possibility from worries and issues. Short time on a daily basis to mental fitness provides important advantages in terms of feeling assured.

The President's Council on condition and Sports - a study cluster sponsored by the government of the United States. Supply wide scope for condition. It divides conditions relying on: (1) Metabolic, (2) Morphological, (3) Bone integrity, and (4) Other.

And additional provides:

1. Health related (i) Body composition, (ii) vas fitness, (iii) Flexibility, (iv) Muscular endurance and (v) Muscle strength
2. Skill related (i) Agility, (ii) Balance, (iii) Coordination, (iv) Power, (v) Speed, (vi) response time and (vii) Other
3. c. Sports related: (i) Team sport, (ii) Individual sport, (iii) life and (iv) Other.

A comprehensive fitness program of a private focuses on one or additional specific skills and on age or health-related wants like bone health many of us cite mental, social, and emotional health as a very important a part of overall fitness. this is (often|this can be) often given in textbooks as a triangle created from three points, they'll conjointly forestall or treat several chronic health conditions brought on by unhealthy way or aging.[5] figuring out can even facilitate folks sleep higher. To remain healthy its vital to have interaction in physical activity. Specific or task-oriented fitness may be a person's ability to perform in an exceedingly specific activity with an inexpensive potency for specific coaching prepares athletes to perform well in their sports.

For Examples:

1. A hundred m sprint: associate exceedingly in a very sprint the contestant should be trained to figure an aerobically throughout the race
2. Marathon: during this case, the contestant should be trained to figure aerobically and their endurance should be settled to a most
3. Several fireplace fighters and law enforcement officials endure regular fitness testing to work out if they're capable of the physically stern tasks needed of the task
4. Troopers of the us. Army should be able to pass the military condition check (APFT)
5. Hill sprints, this coaching needs tier of fitness to start with, the exercise is especially sensible for the leg muscles. the military usually trains doing mountaineering and races.

Physical exercises are generally grouped into three types:

1. Flexibility exercises, such as stretching, improve the range of motion of muscles and joints
2. Aerobic exercises, such as cycling, swimming, walking, skipping-rope, rowing, running, hiking or playing tennis, focus on increasing cardiovascular endurance
3. Anaerobic exercises, such as weight training, functional training, eccentric-training or sprinting and high-intensity interval training, increase short-term muscle strength.

FOLLOWING ARE THE CATEGORIES OF PHYSICAL EXERCISE

Strength training, Agility training, Eccentric training, Resistance training, Interval training and Continuous training.



Sometimes for physical exercise the terms "dynamic" and "static" are used. Physical exercise is used to improve physical skills. Physical skills fall into the following general categories: Cardiovascular/respiratory,endurance, Stamina, Strength, Flexibility, Power, Speed, Coordination, Agility, Balance, and Accuracy.

THE BENEFITS OF FITNESS

1. Exercise reduces levels of corticoid, that causes several health issues, each physical and mental
2. Frequent and regular aerobics has been shown to assist forestall or treat serious and grave chronic conditions such as high vital sign, obesity, heart condition, kind a pair of polygenic disease, insomnia, and depression

3. Endurance exercise before meals lowers glucose over constant exercise when meals.

A 2010 review of printed research recommended that exercise typically improves sleep for many folks. It helps sleep disorders such as sleep disorder. The optimum time to exercise perhaps 4–8 h before hour, although exercise at any time of day is helpful, with the doable exception of significant exercise taken shortly before hour, which can disturb sleep.

According to a 2005 study, exercise is that the most suggested various to sleeping pills for resolution sleep disorders. Exercise is a healthy, safe and cheap thanks to attain additional and higher sleep. Worldwide there has been an outsized shift towards less physically rigorous work. This has been in the middle of increasing use of mechanized transportation, a larger prevalence of labor-saving technology within the home, and fewer active recreational pursuits. Personal fashion changes but will correct the dearth of work up.

Proper nutrition is as necessary to health as exercise. Once physical exercise, it becomes even additional necessary to possess a decent diet to confirm that the body has the right quantitative relation of macronutrients while providing ample micronutrients, so as to assist the body with the recovery method following strenuous exercise.

THE BENEFITS OF PHYSICAL FITNESS

Assertiveness (being able to ask for what you need and make decisions), confidence and feeling able to do things, emotional stability (less troubled by life's challenges and disappointments), independence, memory, having a positive mood, perception (better at noticing what's going on around you), positive body image (feeling good about the way you look), feeling of well-being and self-worth and self-esteem (feeling good about the way you see yourself).

IT ALSO HELPS TO DECREASE IN

Anger, anxiety (worry and fear), confusion, depression (you'll likely be better at preventing, reducing, and managing depression), headaches and stress and tension (you'll likely be able to cope with stress better).

CONCLUSION

Being physically active will assist you feel stronger and higher ready to do regular activities. Additionally to the physical advantages, being active conjointly helps one feel higher mentally and showing emotion, thus one might have exaggerated quality of life.

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Research Article

Self-assessment and self-management

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INTRODUCTION

The purpose of this course is to expose the various strategies and techniques that will enable individual to become a successful student in the post-secondary environment steps in Successful Goal Setting and Achievement, Learning Styles, and Anxiety/Stress Management.

GOAL SETTING AND ACHIEVEMENT

Characteristics of goals how to break down goals where goal setting can go wrong goals should be realistic. The goal of winning a marathon after 2 weeks of training is an unrealistic goal. Use what individual have accomplished in the past to set a reasonable goal for the future.

GOALS SHOULD BE

Self-chosen. Individuals are much more likely to achieve a goal that person sets for himself than one that has been set for individual; goals should be moderately difficult: A goal that is too hard or too easy will decrease individual motivation and won't show individual what individual were really capable of accomplishing

Use what individuals have accomplished in the past as a guide; goals should be specific, for example, getting an "A" in Math and a "B" in Geography is a lot more specific than just saying that individual would like to get good grades this semester. Goals should be measurable. Individual was more likely to give up if individual can not see any progress toward individual goals. For example, getting an "A" on individual midterm is measurable progress toward getting an "A" in the class. Goals should be positive, Say what individual do want to accomplish instead of what individual do not want to do. For example, try "I will attend all classes", instead of "I won't skip any classes". Goals should be flexible if it looks like individual cannot reach individual original goal, be flexible and redraw individual plan. Goals should be Associated with a deadline, when do individual plan on accomplishing this goal, in a month, day, or year? Goals should be written down; it will serve as a better reminder to keep individual motivated. Where goal setting can go wrong, when goal setting is disorganized, For example, keep personal and academic goals separate. Where goal setting can go wrong; when goals are unrealistic, For example, becoming a company CEO immediately after graduation is an unrealistic goal. Where goal setting can go wrong; when individual set goals that are "beyond" individual control, for example, winning the lottery is definitely beyond individual control. Where goal setting can go wrong; when goals are vague, for example, "becoming successful" or "becoming a better student" are not clear goals to work toward. Where goal setting can go wrong; when individual set too many goals, for example, at any 1 time individual should focus on achieving only three or four goals how to break down and achieve goals.

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SUMMARY

Goals with certain characteristics will enable individual to be more successful in goal setting and achievement. Breaking down large goals into parts will help individual to see what steps individual will need to complete on the way to accomplishing individual goal. Homework assignment: Apply what individual have learned set an academic or personal goal. select one personal or academic long-term goal and break it down to the steps individual will need to achieve in the next year, next 6 months, next month, next week, and tomorrow.

LEARNING STYLES

What is a learning style?
How individual develop a learning style?
What's individual learning style?

How information on individual learning style can help to improve individual learning, what is a learning style? An individuals' characteristic and preferred way of gathering, interpreting, organizing, and thinking about information. Individual style includes the type of environments individual like to learn in, individual preferences for working with others, and the way individual perceive information. No single style of learning has been shown to be better than any other.

HOW DO INDIVIDUAL DEVELOP A LEARNING STYLE?

Learning styles develop over time as a result of an individual's inherent preferences and experience with his/her environment they can and do change over time. How can information about learning styles improve individual learning? Individual may be more satisfied and more productive if individual is studying with methods compatible with individual style. Right now individual may be studying with methods incompatible with individual style and not know it. Individual can experiment with building up less-preferred styles so that individual can be equally comfortable with different tasks and in different learning environments. Complete the learning style assessment.

SUMMARY

Individual learning style influences the way that individual perceive and process information. By knowing individual learning style, individual can employ methods and strategies to make studying and learning more productive. Without this information, individual may make studying and learning more difficult for individual self without even realizing it. Apply what individual have learned, Write full description of how individual like to learn. Answer the following questions: "How do I learn best?" What time of day do I learn best? What kind of environment do I learn best in? Do I learn better alone or with others? What study strategies are (or would be) particularly helpful for individual? How will individual be changing individual study methods now that individual is aware of individual learning style?

ANXIETY/STRESS MANAGEMENT

What is stress? What causes stress? Strategies to reduce stress, Strategies for dealing with stress.

WHAT IS STRESS?

Stress is the way that individual reacting physically, mentally, and emotionally to various conditions, changes, and demands in individual life. Many students experience varying levels of stress each semester. High levels of stress can affect individual physical and mental well-being and academic performance.

SYMPTOMS OF STRESS

Headaches, Nervous stomach, Change in appetite, Rapid breathing, Rapid heart rate, Sweaty palms, Irritability and Anxiety, Reflect on a stressful situation write a brief description of a recent situation that caused individual stress. Summarize individual mental, emotional and physical states at the time.

What causes stress? Anxiety: uneasiness and distress about future uncertainties. What causes stress?

Stress can be occurred due to changes in life's expectations or demands example marriage, divorce, pregnancy, illness, bills, and increasing demands of a university course load. What causes stress? Disorganization: feeling unprepared and powerless. What causes stress? Physical Constraints, Example Stress can cause physical exhaustion, lack of good exercise, and diet strategies. What causes stress? Time constraints: multiple projects and deadlines.

TAKE THE ANXIETY/STRESS ASSESSMENT

Use the results of this assessment to pinpoint specific causes of stress in individual life. What (if any) control do individual have over these areas of individual life? Make a list of things that individual can do to lessen individual stress.

STRATEGIES TO REDUCE STRESS

Take control- manage individual time instead of letting it manage individual. Use a to-do list, follow a written plan, set goals, and follow through. Procrastination is a major cause of stress. Make a realistic list of things individual need to do each day. Start doing the most important things first. That way, even if individual does not finish the list, individual get the most important things done? strategies to reduce stress, Take a break. Sometimes it is better to get away from the situation for a short time- take a brisk walk, focus on pleasant thoughts. Then, go back to the task feeling refreshed and ready to go tackle whatever it is individual have to do. Strategies to reduce stress, Work on individual attitude. Put things into perspective- try not to take individual so seriously. Think positive- "If individual think individual will fail, or think

individual will succeed, individual are probably right". -Henry Ford.

Strategies to reduce stress get help. See individual instructor, go to tutoring, and participate in study groups. How to form a study group: Keep in touch with friends and family, and develop a support group. Strategies to reduce stress, Physical stress busters eat right, exercise regularly, and get plenty of rest. Strategies to reduce stress, practice, practice, practice.

Build individual confidence- do extra math problems, practice test-taking at home, rehearse individual speech a couple of times before the presentation.

SELF-REFLECTION

Go back to the stressful incident that individual described in the first part of the lesson and list some strategies for dealing with the situation, and some things individual could have done to prevent it from being stressful. Furthermore, list some ways individual can avoid a reoccurrence of such a situation in the future.

Strategies for dealing with stress: No one can avoid stress all the time. In a stressful situation, try these tips to help individual overcome the effects of stress. Strategies for dealing with stress, Join the crowd.

Even though individual may think individual is the only person in the world who is experiencing stress, the fact is that everyone experiences it sometimes. Strategies for dealing with stress, Talk to someone. Find someone individual trust, discuss the problems and look for solutions. Strategies for dealing with stress.

Put it in perspective. Chances are, this is only one small part of the rest of individual life. Strategies for dealing with stress visualize, Sit comfortably and think of a favorite place. Imagine individual self in a successful situation. Strategies for dealing with stress, breathe; sit quietly, and breathe deeply and slowly. Continue for five or six breaths. It is calming and the extra dose of oxygen increases the brain's thinking ability. Strategies for dealing with stress, its all in individual head... and shoulders.

Roll individual head loosely in a wide circle. Repeat 5 times. Tighten right shoulder and raise it as far up as possible and hold, then relax slowly. Repeat with left shoulder. Repeat with both shoulders. Strategies for dealing with stress, Go on a diet; Eating light and avoiding sugars can help with performance and lessen stress. In a stressful situation like an exam, have a light meal of mostly protein. Remember, a heavy high carbohydrate meal can put individual to sleep. Strategies for dealing with stress, Lighten up; Take responsibility for individual feelings. When individual get angry, take a break and cool down before individual act. Strategies for dealing with stress, Use it; A little stress is a good thing- athletes use it to increase performance. If individual are experiencing a small amount of anxiety, it can help to keep individual active and alert. Use it to increase individual performance.

SUMMARY

Stress is mental, emotional, and physical tension, strain, and/or distress. The signs of stress are classic. Individual may get a headache, stiff neck, backache, become irritable, lose individual temper, and individual may feel exhausted and find it hard to concentrate. When these symptoms appear, recognize them as signs of stress and find a way to deal with them. Just knowing why individual was feeling the way that individual are may be the first step in coping with the problem. Apply what individual have learned. Write about a situation where individual would normally experience a high level of stress, (i.e. taking a test, giving a presentation, etc). Is stress a bad thing? Can it be used to increase individual performance? How would individual do this? What coping strategies can individual use to help individual deal with the situation?

CONCLUSION

"Work style determines how to approach everything from dealing with paperwork to interacting with clients. Take these two things to discover the work style and learn how to work with it -- not against it -- to be productive, avoid frustrations and get ahead."

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Research Article

Sports and community health

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INTRODUCTION

Aristotle has said that "man is a social animal" on the account Madder and page has said that "mans birth in society brings within the absolute need of society itself". Physical education and sports activate offering many opportunities for socialization and development of social qualities in individuals and sociology with us knowledge of human relations in society and various problems arising out of such relation can guide us properly for achieving social objectives of organizing physical education and sports programmer. Sociology teach us to lay emphasis on social co-operation or the sprite of "GIVE and TAKE" in common experience to promise efficiency and he medium of physical education and sports. Such quality's such as broadmindedness narrow-mindedness and sportsman ship etc.

The role of sports developing social capital the building of group of mutual interest, acting together to achieve their objectives, including though sport volunteering. Ex. College team. The role of sport promotion pre-social and diminishing anti-social behavior.

Example: strategies for encouraging groups with low level of sports participation to became involved with perceived benefits to promoting social community health. What do you get out of sports recreation The study found 20 ways sports and recreation benefits for people-the overwhelming response was that sports and recreation delivered substantial benefits individual familiar and the community. The improves physical well-being teacher fair play and respect builder and self-esteem. Provide an opportunity to meet other develop self-discipline and a commitment. Life skills such as respect for others provide a sense of community builds communication skills. Builder stronger family relationship community pride. Develops leadership skills improve ability to care with stress or difficult situations creator tolerant communities reduce anti-social behavior in the community makes the community safer crates.

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Human behavior can be modified. It is conditioned and directed by the social force. Especially in the early stage of human development interest and attitudes are not inborn they are acquired though life experience. Character and personality are shaped thought the process of socialization in a social environment an such environment an individual can not behave lives a wolf or tiger must learn to behave in socially acceptable ways and contribute something though the good of society.

Activities of physical education and sports being mostly in group activate provide a social environment thought which an individual can develop many socially acceptable form of behavior and qualities in individual is one of the important objectives of physical Education Since physical Education Programmers consist of mainly games and sports which require group participation. They offer many opportunities for the development of social qualities Physical activates being form of play appeal to the participant and give them pleasure. Individual easily earn desirable forms of behavior and many social qualities in such an atmosphere. In this atmosphere an individual, is educated or a member of social group. He learns a way of group Act accordingly to its standers accept its rules and in return is accepted by the group some of the social qualities we can develop in individual though physical Education and (sports) Yoga.

a. Sympathetic
b. Helpfulness

c. Tolerance
d. Patience
e. Group and Harmony
f. Sportsmanship.

SYMPATHETIC ATTITUDE

Physical Education activities bring individual of different economic stats caste, religion and social customers, etc on ne common platform when they interact with other members of the group. Through such contacts, they often develop friendship sympathy, love, and affection for others. Such feelings are particularly noticeable in victories, defeats, and accidents, etc.

HELPFULNESS

No one is perfect in himself and cannot survive in this world without help in individual is dependent on other for many thing in life seeking help and helping others is a social necessarily of human being, This "give and take" attributed helps in achieving our objectives of physical education a player in often required to help others. In learning skill or to save some on from injure or accident common aim of the group offer result in player helping one another such situation in games and sport develop in participants helpful and co-operation nature.

TOLERANCE

In games very often situations arise when condition may not be favorable to an individual. An incorrect uprising decision an undesirable action or foul committed by an opponent can arouse passions physical education Programmers teach provocations and respect the dictions even if they are wrong such situation develop in individual the attitude of tolerance.

PATIENCE

Success cannot be achieved in life thought shortcuts or by being impatience patience and perseverance or continuous hard work are keys to success in all walks of life patience during training for various games is essential because skill are learned slow patience is often called for in game situation impatience in such situations does not help. If often results in making mistakes.

SPORTSMANSHIP

Obedience of rules, fair play courtesy, modesty, etc. are some of the qualities of sports manship by curbing indiscipline on the playfields and encouraging fair play and obedience or fuel, physical Education Programmers help in developing g sports manship. Displaying social qualities and behaving like a sport man is not vary natural with person, such qualities need to be taught instead of showing courtesy, fairness, and consideration for other some individuals refer to take things they want and do the things they wish to do in ruthless manners and without any consideration for others.

CONCLUSION

Social potentialities of games and sports were realized by the ancient Greeks, they had been successful in inculcating some high ideals through ancient Olympic Games. French baron Pierre de Coubertin who believed in the social potentialities of games new life to the Olympic movement by organizing the modern Olympic Games in the year 1896. This our faith in the utility of games and sport as means of developing social qualities need to be strengthened further and plans must be made to develop acceptable social values through effective programmers of physical education and sports.

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Research Article

The role of physical director and sport psychologist in sports and sport psychology

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ABSTRACT

The aim of the present research was to highlight the impact of sports psychology on human beings and on their physical fitness. Sports psychology took its knowledge from many related fields of science such as biomechanics, psychology, kinesiology, and physiology. It is an interdisciplinary part of science in which the study of how psychological elements changes the thinking and behavior of human being and how actively participation in sports affect physical as well as psychological factors. Sports psychologists and physical directors teach behavioral and psychological strategies to athletes and students for the development and improvement in their performance and experience. In addition to instruction and training of psychological skills for performance improvement, applied sport psychology may include work with athletes, coaches, and parents regarding injury, rehabilitation, communication, team building, and career transitions. It was firstly the field of physical educators not researcher which may explain the lack of consistent history. Although, many people who believe in sport psychology tried to explain the various phenomenon connected with physical activity.

Keywords: Sports, Psychology, Physical Director

INTRODUCTION

The origin of sports psychology traced back in Europe and largely in Germany and the first sport psychology laboratory was established in 1920 by Dr. Carl Diem in Berlin. In this period America felt that their performance in sports was not good as compare to other countries, especially soviets. Hence, this led them to focus on sport psychology and increase the performance of their athletes. The Soviet Union and the Eastern countries were well aware of the importance of sport psychology and hence they are more deliberate in the advancement of sport psychology. The creation of the Sports Institute is still playing important role in the countries. Coleman Griffith developed and taught the first sport psychology courses named "Psychology and Athletics" at the University of Illinois In the year 1923 and he became "The Father of Sport Psychology" in the United States. He is also known as the "The Prophet without disciple" because none of his students follows him and continued his new study area sport psychology. Later in the 1960s, his works are starting to gain attention.

Griffith, as an American was worked as a professor of educational psychology at the University of Illinois. While working at the University of Illinois he performed comprehensive research on sport psychology. He acted on vision and attention of basketball and soccer players and was interested in their reaction times, mental awareness, and muscular tension and relaxation. Coleman Griffith started working on the psychology of sport at the University of Illinois funded by the Research in Athletics Laboratory in 1925. From 1925 to until the closing of laboratory, i.e., 1932 he conducted research and practiced sport psychology. Athletic performance and the physiological and psychological requirements of sport competitions were investigated by using the laboratory study; where it was also found that how different factors influence athletic personality and performance. Griffith was the first person to talk about the job of sport psychologists and talk about the tasks that they should be capable of doing. He mentioned this in his 1925 published work "Psychology and its relation to athletic competition". According to Coleman

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Griffith, the main task was to adapt psychological knowledge to sport, and the last task was to use the scientific method and the laboratory for the purpose of discovering new facts and principles that can aid other professionals.

Griffith made several contributions to the field of sport psychology, but most notable was his belief that field studies such as athlete and coach interviews could provide a more thorough understanding of how psychological principles play out. Griffith devoted himself to rigorous research, and also published for both applied and academic audiences, noting that the applicability of sport psychology research was equally important with the generation of knowledge. Finally, Griffith recognized that sport psychology promoted performance enhancement and personal growth. He shares his findings and knowledge to the coaches and all of us and helped to develop the knowledge of psychology and physiology on sports performance. He published two major works during this time: The Psychology of Coaching (1926) and The Psychology of Athletics (1928).

The study of sports and education found different categories of sports display different mental health. Overall, female athletes are more likely to develop a psychopathology, such as anxiety, depression, or eating disorders. The only problem that is more prevalent in male athletes is drug and alcohol use. These are consistent with the general public, as well. Anxiety, depression, and sleep problems are most common in highly aesthetic sports, such as gymnastics. Eating disorders are more prevalent in athletes than the general public. For women eating disorders are highly prevalent in aesthetic, racing, and fine motorsports, and least prevalent in team ball sports. Eating disorders are most prevalent for men in high combat and contact sports. There are more problematic eating behaviors in sports that place an emphasis on thinness and weight dependence. This demonstrates that mental health problems are highly related to not only sport person but also to the common people and the remedy for this is to develop the sports psychology. In order to develop and to create better citizens and athletes to our country we need to focus on the following three things:

1. Embrace and enhance the interdisciplinary nature of sport psychology
2. Advance development of graduate education and training in sport psychology
3. Advance job opportunities for practice in collegiate, olympic, and pro sports.

These three points are very crucial for the near future in our country. It will not only make our physical health strong but will also receive several medals in sports such as in Olympics.

Unfortunately in India, we never take sports seriously. Same thing happens in college also except 10% of remaining students and staffs too think that there is no benefit and future in Sports Education. However, the COVID-19 pandemic and research in the field of sports and connection of psychology all is related with one another like overlapping. If we are physically fit then our mental health will be stable this assumption accepted mostly.

Danish and Hale in 1981 proposed that a human development model be used to structure research and applied practice. Both were also contended that many clinical psychologists were using medical models of psychology to problematize sport problems as signs of mental illness instead of drawing upon the empirical knowledge generated by sport psychology researchers, which in many cases indicated that sport problems were not signs of mental illness.

As Martens argued for applied methods in sport psychology research, the increasing emergence of practitioners of sport psychology including sport psychology consultants who taught sport psychology skills and principles to athletes and coaches, and clinical and counseling psychologists who provided counseling and therapy.

CONCLUSION

More recently, the role of sport psychologist and physical director needs to increase the demand for anger management for athletes. Sport psychologists, as well as physical directors, have needed to address this topic and provide strategies and interventions for overcoming excessive anger and aggression in athletes, and techniques for athletes to manage emotions. Hence, it is very important to all of us to understand the role as a sport psychologist being a physical director. By understanding and with the knowledge we can manage stress and can make everyone fit and healthy by influencing and telling them the benefits of sport and sport psychology.

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Research Article

Attitude of physical education students toward mobile learning: Effect of pandemic

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ABSTRACT

The COVID-19 pandemic has had an impact on educational systems all around the world. Goal has proposed online education through several platforms. The present study was carried out with the goal of assessing physical education students' perceptions of online learning in India during the COVID-19 lockdown periods. The purpose of this study was to find out the attitude of physical education students toward mobile learning. In this study, 150 subjects were taken in which 75 male as well as female subjects were selected from rural areas of Buldana District, and 75 male as well as female subjects were taken from urban areas of Buldana District. The subjects were selected through simple random sampling method. After collection of data, the mean value, the standard deviation, and critical ratio as an appropriate statistical technique were applied to realize the objective of the study. The mean value depicted shown that mean value of urban areas physical education students is higher than that of rural areas physical education students. It was found that the urban areas physical education students are more inclined than rural areas physical education students toward mobile learning.

Keywords: Attitude, COVID-19, Mobile learning, Physical education

INTRODUCTION

It is not only emotions of the effective determinants of the personality patterns, but it also helps to control the growth of children development. The worldwide COVID-19 pandemic has seen an extraordinary impact on human behavior and well-being. Demographic characteristics and personality features have been demonstrated to independently impact whether people use adaptive or maladaptive coping strategies. The present worldwide pandemic produced by COVID-19 has had a massive impact on the general public's emotional stability. Given the increase in the number of incidents, humanity is confronted with a plethora of psychological issues, ranging from those connected to taking measures and preserving safety to those caused by separation and mourning. Because of the unexpected closure of schools, the official was obliged to propose immediate distance learning to guarantee that children were not idle during the illness pandemic. As a result, for the time being, the old technique (face-to-face teaching) has been supplanted by E-learning. In comparison, affluent nations to developing countries found that developing countries confront challenges such as poor internet access, inadequate knowledge of ICT (Information and communications technology) usage, and a lack of content growth.

Today's students have grown up with enormous access to digital technology developed during the past decades of the 20th century. Educators are trying their best to provide every possible key to learn better. The key to success is the ability of educators to design and develop pedagogically sound opportunities and environments that enhance learning. M-learning is the acquisition of any knowledge and skills using mobile technology. It is defined as the ability to access and manipulate data and communicate using a mobile. It is also referred to as wireless learning. It enhances mobility of the learner, interaction with portable technology, learning in a mobile society, and access to information so that people

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can update their knowledge continuously to satisfy the demands as also to improve cultural experiences of life. As Mark Prensky (2001) maintains that today's students are no longer the people, the present educational systems have been designed to teach. Today's students have enormous access to digital technology and display characteristics such as digital fluency and familiarity with new technologies never before imagined, they are digital natives. They are the speakers of the digital language of computers, mobile telephones, the internet, and other associated technologies, they are Generation C. Generation C typically produce and share digital content, such as blogs, digital images, digital audio or video files, and SMS messages.

Hypotheses

There is significant difference between rural and urban areas physical education students toward mobile learning.

METHODOLOGY

Source of Data

The subjects were selected from the rural and urban areas of Buldana district.

Selection of Subjects

Seventy-five male as well as female physical education students were selected from rural areas of Buldana District, and 75 male as well as female physical education students were taken from urban areas of Buldana District.

Sampling Method

The subjects were selected through simple random sampling method.

Criterion Measures

Following are the criterion measures which were responsible for collection of data, to testing the hypothesis.

Present Attitude Scale

There were 43 items on the attitude scale. Each item was accompanied with "Strongly Agree"(SA), "Agree"(A), "Indifferent"(I), "Disagree"(D), and "Strongly Disagree"(SD) categories. The problem before researcher was to study the attitude of graduate students toward teaching through mobile learning. The researcher felt that the study should be based on impartial attitude of students. The importance of attitude scale was obvious and it should effectively prove its usefulness to the researcher's study. To measure attitude toward mobile learning the researcher followed Likert method which is more pragmatic in nature so far as administrative, economic and time facilities are concerned. Thus in the investigation for measuring the attitudes, Likert method was used. Following scheme has been used for the scoring of responses:

	SA	A	I	D	SD
Favorable statements	5	4	3	2	1
Unfavorable statements	1	2	3	4	5

The higher the score on the attitude scale, the more favorable is the attitude of students toward mobile learning.

Collection of Data

For the collection of data, the subjects are given full administration of the tests which are used for the collection of data in the study.

Analysis and Interpretation of Data

This chapter consists of information of statistical technique that was used after the classification and tabulation of the data. For the present study entitled as "Attitude of Physical Education Students toward Mobile Learning."

Statistical Technique Employed

The mean value "Eq. (1)" and the standard deviation "Eq. (2)" for the scores of all the subjects were calculated with the help of following formula:

$$M=A.M+\Sigma fx^1/N\times I \quad (1)$$

$$S.\ D.=i\sqrt{\Sigma fx^2/N-(\Sigma fx^1/N)^2} \quad (2)$$

Here, A.M stands for Assumed Mean, F for frequency, X for coded value, I for Interval, N for Total number of cases, Σfx^2 for Sum of the product of frequencies and squared deviations, and Σfx^1 for sum of the product of frequencies and deviations keeping in view the algebraic signs.

In the study, critical ratio "Eq. (3)" as an appropriate statistical technique applied to realize the objective of the study. Formula used is given below:

$$C.R=|M1-M2|/SEDM \quad (3)$$

Here, M_1–M_2 stands for difference between two means and SEDM stands for Standard error of differences between means.

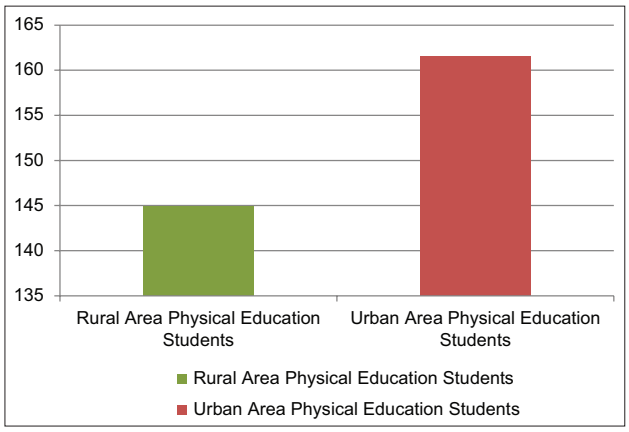
RESULTS AND FINDINGS

The data collected were carefully edited; scientifically analyzed, systematically classified, tabulated, and interpreted. The mean attitude score of urban and rural students calculated is presented in Table 1. The critical ratio value calculated is also presented in table.

Result reveals the mean attitude scores of urban students (161.5) and rural students (144.93). The critical ratio value (4.25) is

Table 1: Mean difference between physical education students from rural and urban area of Buldana district toward mobile learning

Variance	M	SD	DM	CR	Level of significance
Rural area physical education students	144.93	13.7	6.45	4.25	Significant
Urban area physical education students	161.5	12.21			



Graph 1: Mean difference between physical education students from rural and urban area of Buldana district toward mobile learning

found to be significant at 0.01 level of confidence. The mean value depicted show that urban students mean value is higher than rural students. It means that the attitude of urban area physical education students toward mobile learning in Buldana District is more favorable than the rural area physical education students. It is found that the urban area physical education students are more inclined than rural area physical education students toward mobile learning.

CONCLUSION

It means that there is a significant difference in the attitude of physical education students belonging to the rural and urban area of Buldana district. Therefore, the formed hypothesis that "There is significant difference between rural and urban area physical education students toward mobile learning" is accepted. The urban students seemed to be favoring the concept of learning through mobile applications. Mobile technologies have provided unique opportunities for educators to deliver educational materials efficiently, and to support the cognitive and social process of student learning.

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Research Article

Effect of selected yoga asana on obesity

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ABSTRACT

Obesity is one of the leading causes of death in twisted societies. Obesity mellitus is common in India, as it is in other areas of the world. It is also described as an infection of unusual starch digestion as a result of an unsettling effect in the relationship between saturated visceral fat and abdominal obesity around organs.

INTRODUCTION

Obesity is one of the main sources of death in twisted nations. Obesity mellitus is a basic in India, as in different parts of the world. It is likewise portrayed as an infection of strange starch digestion because of an unsettling influence in the connection between saturated fat in the blood and accumulation of fat around organs. It is described by high amount of body fat and is related with a reasonable number of confusions vascular, renal, heart disease, diabetes, high blood pressure, neurological, and numerous others.

METHODOLOGY

For the present study, the data were collected from 40 male diabetic patients of Akola city. They were divided into two equal groups; one group was the control group while the other was experimental group.

The experimental group was subjected to an experimental treatment in which a set of 13 yogic practices were performed on 6 days per week between 6.30 am to 8.00 am total period of experimental was 7 weeks. The control group was instructed not to practice yogasanas during the period of experiments.

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Seven Weeks Training Program for Experimental Group:-

S. No.	Name of Yogic Practices	Duration
1.	Padmasana	5 min
2.	Viparitkarani	4 min
3.	Suvarnagasana	4 min
4.	Shalabhasana	4 min
5.	Pavan Muktsana	4 min
6.	Vakrasana	4 min
7.	Pachimotanasana	4 min
8.	Vajrasana	6 min
9.	Yoga Mudra	4 min
10.	Halasana	4 min
11.	Bhujangasana	4 min
12.	Chakrasana	4 min
13.	Shavasan	15 min

RESULTS

The difference between the mean scores of the final test of the two groups was tested for statistical significance by computing the “t” ratio.

The Table 1 reveals that the 7 weeks of yogic training reduced the blood sugar and blood pressure. It is statistically significant.

Table 1

Parameters Studied	Score (*n*=20)	Mean	M.D.	"t" ratio
Blood sugar	Initial	286.20	80.24	4.02**
	Final	198.67		
Blood pressure	Initial	125.10	8.60	2.22*
	Final	120.42		

**Significant at 0.01 level, *Significant at 0.05 level

Table 2

Parameters studied	Group studied (*n*=20)	Mean	M.D.	"t" ratio
Blood sugar	Yoga	198.67	115.62	4.89
	Control	316.28		
Blood pressure	Yoga	120.42	12.67	3.72
	Control	129.25		

Significant at 0.01 level

It is clearly observed that from Table 2, the blood sugar and blood pressure have reduced significantly in the experimental group compared with control group.

DISCUSSION

Two past studies (Doer et al. 1975 and West et al. 1975) have shown that the marked improvement in Glucose tolerance (particularly in fasting blood glucose) is accompanied by an increase in plasma insulin response.

It is seen that all our patients included in this study had reduction in fasting blood sugar in 7 weeks yogic training and yogic relaxation technique which makes the patients calm and relaxes him from environmental stress.

CONCLUSION

This study very effectively shows the marked reduction in blood sugar, especially fasting blood sugar, after the regular practice of yoga. Yoga is much superiors to the conventional exercise program advised to diabetics such as walking and running. Running and walking have practical difficulty of enough space time etc., and it poses future problem to the elderly diabetic.

Yoga can be practiced indoors; it needs minimum space after yoga the subject is relaxed and calm. Yoga will be particularly advantageous to those diabetics belonging to the low socio-economic setup. Yoga is not a replacement for drugs. Many can reduce drugs if they practice yoga regularity and sincerely.

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Research Article

Construction and standardization of shooting test for senior male basketball players

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ABSTRACT

The study titled "Construction and Standardization of Shooting Test for Senior Male Basketball Players" was conducted on 25 senior male basketball players. The main objective of this study was to construct and standardized an appropriate "shooting skill test" to select senior male basketball players. The study was limited for senior male basketball players from Pune University who participated in Inter Zone Championship. The study was delimited to shooting skill test which is necessary for the outstanding performance of shooting in the game basketball. Researcher was not found any appropriate test battery after going through a range of study reviews, books, and published articles. Then, the researcher selected most important skill of basketball for the study; that is shooting. The test was standardized by determining the objectivity, reliability, and validity. Test retest method was used for reliability, correlation between different observers for objectivity and face validity was taken in to consideration for the standardization of the test. The "r" value of validity of skill tests found 0.917. The Reliability of skill test found 0.884 and the objectivity of skill test found 0.897. These are significant at the 0.01 level. Descriptive analysis was done by testing the mean, median, and standard deviation. The normality of the scores was tested through skewness and kurtosis. The distribution of scores resides in the normal range of probability curve. The findings indicate that the basketball players must be selected on the basis of shooting test so that the team gets better shooters for shooting. The "Tests" can be successfully administered to discriminate between basketball players for selection. Selection committee and coaches can use these tests as "selection criteria" for district, university, state, and national basketball teams. This study will give players a guideline and target to prepare themselves for selection. Hence, researcher recommends the use of test, norms.

Keywords: Basketball, Construction, Finding, Shooting, Skewness and kurtosis, Standardization

INTRODUCTION

The games such as korfball, netball, and basketball were not that popular in rural India and it was at initial stage. It is famous in few cities. Compare to European or U.S.A. players, our Indian players do not have that much overall technique and tactics of both the games. If we want to compete with European or U.S.A. players, we have to raise the standard of physical fitness, technique, and tactics of our basketball players. Whenever the researcher observes the game of European or U.S.A. players, the main difference he observed that the shooting, passing, and footwork of those players were very high standard compare to Indian players. By the nature of the game, basketball is very dependent on the physical qualities such as power and speed. Skillful players can score high and help to restrict the score of opponents; obviously it helps to win the match. We will get good results if we select the players having the skills and qualities of shooting accuracy, passing, catching, and footwork. However, the researcher surprisingly noticed that less standardized skill tests are available for basketball at present. Therefore, the proper selection criterion is highly essential select the quality players from the available sources. Shooting skill is highly important skill in basketball. Matches can win through the good score and to restrict the opponents score; best quality shooting is essential. That is why the researcher decided to work on this topic, construction and standardization of shooting test for

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senior male basketball players. Researcher had gone through the same study conducted on the game korfball, netball, and baseball for state players of Maharashtra.[1]

Objectives of the Study

- To design and construct shooting test for senior male basketball players
- To standardized the constructed shooting test for senior male basketball players
- To prepare norms shooting test for senior male basketball players.

METHODS

This study needs survey of basketball players to prepare norms that is why researcher used survey method[2] for it.

Population and Sample

The study is delimited to 25 senior male basketball players from Pune University who participated in inter zone championship from there respected zones those are Pune City, Pune District, Nasik, and Ahmednagar (n = 25).

Equipment's

The equipment's used for the test were measuring tape, three official basketballs, shooting post, whistle, officially marked ground, scorecards, etc.

Procedure

Permission from organizers and Board of Sports was granted for data collection.

Assistance from trained persons was taken during the data collection.

The sample was informed about the objectives of the study.

Demonstration and one trial were given to each subject before final data collection.

Shooting test was conducted for all the samples one by one and collected the data.

Description of the Test

As over hand shoot is used in basketball, it is necessary to understand the kinsiological analysis of shooting style before designing the test. Researcher had gone through the books such as Training in different skills. Researcher also had a discussion with basketball experts to understand basketball shooting technique. After that the researcher studied the book regarding test and measurement[3] to understand test construction. The subject should stand behind the free shot line holding the basketball in his hand, facing toward the shooting post. When the whistle blows, the shooter shoots the ball toward the shooting post following official action of basketball shooting. The shot can be attempted from the free shot line. The official should intimate the shoot signal by whistle to the tester.

The test should past till the three shots get over. Each subject will be allowed to get ready in 30 s for next shot.

Scoring

The number of successful shot will be considered for the scoring. Each successful shot will get three marks and unsuccessful shot get zero.

Data Analysis

For the analysis of collected data SPSS version 20.0 and Microsoft Office Excel 2007 was used as a tool. Descriptive statistics was used for obtaining mean and standard deviation.[4] The percentile method was used to prepare the norms. This test is constructed to measure the shooting ability and accuracy of the shooter. Shooters had given three chances each and the chance converts then three points and if fail then zero. Average of three chances considered for analysis.

The Descriptive of Shooing Test

Result based on scores

From the Table 1, it is clear that the mean of score for shooting test is 1.9600, median is 2.0000, mode is 2.0000, std. deviation is 0.78951, skewness is 0.073, and kurtosis is –1.351. We can say that the skewness and kurtosis of scores are normally distributed.

From the Table 2, it is clear that the players obtain grade very good can achieve the score of 3.000 points. Those who obtain grade good can achieve the score of 2.000–2.6000 points. Those who obtain grade satisfactory can achieve the score of 1.500–2.000 point and less than 1.000 is poor.

Table 1: The descriptive statistics of shooting test

Statistics		Score
N	Valid	25
	Missing	0
Mean		1.9600
Median		2.0000
Mode		2.00
Std. Deviation		0.78951
Variance		0.623
Skewness		0.073
Std. Error of Skewness		0.464
Kurtosis		–1.351
Std. Error of Kurtosis		0.902
Minimum		1.00
Maximum		3.00

Table 2: Percentile norms of shooting test

	Score	Grade
n		
Valid	25	
Missing	0	
Percentiles		
5	1.0000	Poor
10	1.0000	
15	1.0000	
20	1.0000	
25	1.0000	
30	1.5000	Satisfactory
35	2.0000	
40	2.0000	
45	2.0000	
50	2.0000	
55	2.0000	Good
60	2.0000	
65	2.0000	
70	2.2000	
75	2.6000	
80	3.0000	Very Good
85	3.0000	
90	3.0000	
95	3.0000	
99	3.0000	

RESULTS AND DISCUSSION

The statistical analysis clearly showed that the mean of shooting test score is 1.9660. From the skewness and kurtosis of scores, we can say that the scores are normally distributed. Result of norms based on scores showed that when the players having shooting test score is 1.0000 and below 1.000 then the players gets five percentile, whereas when players shooting test score is two then the players gets 50 percentile and players record score is 3.0000 then players gets 99 percentile.

CONCLUSION

Shooting test can measure the shooting skill of senior male basketball players.

Shooting test is valid, reliable, and objective.

The norms of the test are gradable and can be useful to identify senior male basketball shooter having a good level of skill performance.

RECOMMENDATION

One can study and prepare norms for other skills of basketball such as dribbling, passing, and footwork.

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Research Article

Sports engineering

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ABSTRACT

Sports engineering means implementation of engineering principles in sports for safety of sportsman and enhance human performance. Sports engineering is often involvement of the technical application of maths and physics to unravel sporting problems. These might include designing sports equipment, building sports facilities, analyzing athlete performance, developing performance and safety standards, regulating standards, ensuring safety requirements are met, and developing coaching and training tools. First, and most significantly for the athletes, technology has led to the event of higher safety equipment and therefore the testing of that equipment. Intensive data analysis also can help athletes understand once they are in danger for injury, by tracking their physical motions. All sports are involved a selection of different fields, one of the different fields that features innovative impact on this industry is engineering. When it includes all sports, there are different equipment and implements used during practicing different sports. Engineering industry and extreme sports industry have on the verge of giving supreme safe performance and technology for the participants in sports. Since engineering field and extreme sports have emerged, engineers have come up with new advanced and develop ways to increase and style equipment and manufacture techniques for the major sports industry. Engineering field concentrates on problems through the implement of creativity. Sports engineering is focused with projects as different testing and creating advanced equipment for a way grater and safe performance.

Keywords: Sports engineering, Engineering principles, Safety, Performance, Technical application

INTRODUCTION

Sports engineering may be a new area of study that has existed for several years. The term "sports engineering," therefore, implies the design, development, and research into external devices employed by athletes, sports men, and sports women to strengthen their performance. The nature of sports engineering is taken into account and an effort for the recent popularity of sports engineering is given. The development of sports engineering started approximately from 1990's and described the implement of technology and sport evaluate with the alliance of technology becomes step jumps in performance while coaching or training result in larger increases in sports performance. Sports engineers are the main cause in designing and developing new equipment as per sportsman's demands, besides looking at the performance of the sportsman, the equipment itself, also as their interchange.

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Sports activity helps to increase health significantly, including blood circulation and overall physical performance. Then, it develops body more flexible and responsive. Moreover, sports help to increase brain activity also, making it the simple thoughts help create ante aging illnesses system. Sports play key role in every once growth and development. They help within the improving psychological condition and body fitness. Because of participation in sports activity, an every once develops many skills and confidence that are helpful for developing their personality. Sports engineering is often involvement of the technical application of maths and physics to unravel sporting problems. These might include designing sports equipment, building sports facilities, analyzing athlete performance, developing performance and safety standards, regulating standards, ensuring safety requirements are met, and developing coaching and training tools. When it includes extreme sports, there is variety of equipment and implements used while practicing and performing sports activities. Engineering industry and extreme sports industry wear the brink of supply an ultimate safe performance and technology for the participants. From when engineering field and extreme

sports have come together, engineers have come up with new developed ways to make stronger and improve equipment and manufacture techniques for the major sports industry. Sports Engineering is not limited to the present field and will often even be linked to disciplines such as physics, mathematics, biomechanics, computing, and aeronautical engineering. The common divisor is that each one of our members is applying their research skills and background within the world of sport. People often get confused between sport scientists and sports engineers. Whilst there are often tons of cross over, a somewhat simplified explanation is that a sport scientist is interested what is happening inside the athlete such as how much oxygen they are using, which muscles are working the foremost etc., whereas as sports engineers, we are interested in the external factors for example how the athlete may interact with the equipment or the environment. An obvious overlap comes in biomechanics where sports engineers develop motion capture systems to quantify an athlete's movement; this data are then interpreted by sports scientists to completely understand the athlete's performance.

SPECIAL SPORTS EQUIPMENT

Many sportsmen have developed their own playing equipment during their improvement performance. As football becomes the very popular sport within the 21st century, the manufacture material of the football has totally changed all over the world; from being made out of animal material, to being replaced with more layers of polyester or cotton. As the sporting equipment industry developed, because players performance enhance. This is because of the real fact that the equipment and implements are more efficient, light in weight, and stronger it forming a bio-mechanical system, interacting with the athlete. Since the huge adoption of wearable, new sport equipment tends to be electronics and connected to deliver data performances. Sports engineering may be a fast-growing field of engineering which encompasses the planning and production of sport equipment and facilities, performance measurement and athletic feedback systems, and therefore the study of kinematics and biomechanics as they pertain to sport. The field overlaps other fields of science and engineering, including physics, engineering and materials science, and far of practitioners hold degrees in those fields instead of in sports engineering specifically. While sports engineering is not a documented field among pre-college students, professional societies are working to vary that.

SPORTSWEAR

Specific consumer goods with footwear used for sports or physical exercise. Sport-specific clothing is worn for many sports and workout, for practical, for easiness in movement or safety purpose. Specific sport-specific clothing embodies tracksuits, shorts, T-shirts, and polo shirts. Specialized clothes include swimsuits, diving or surfing wet suits, ski suits, and leotards. Sports footwear involves trainers, soccer boots, riding boots, rolling skates, and ice skates. For many sports athletes wear a mix of assorted things of clothing such as sports shoes, pants, and shirts. In some sports, protecting gear may have to be worn, similar to helmets; gloves ext. Sports fabric is a technical material that helps the wearer feel comfortable during exercise. The type of tissue required depends on the intensity of the exercise, and therefore on the activity. Yoga clothing should use fabrics with excellent elasticity, which may be necessary for freedom of movement. The material must be knitted. If long-distance running clothing has excellent water transport performance and allows sweat to penetrate from the inside, it can provide the wearer with good wearing comfort. To the surface of the clothes. Sportswear for outdoor sports during cold session or winter sports should use suitable fabrics with very good thermal insulation quality. Sportswear is usually very light so as not to disturb the wearer. The best sportswear for certain sports (such as cycling) should not create resistance or be too bulky. On the other hand, sportswear should be loose enough and not restricting exercise. Some sports have a specific style. Some physically dangerous sports require protective equipment, such as fencing, football, or hockey.

Standardized sportswear can also be used as a uniform. In team sports, opponent teams are usually identified by the color of their clothes, while individual team members can be identified by the number on the back of the jersey. Some sports will use special clothing to differentiate the roles in the team. For example, in volleyball, the freeman (defensive expert) wears a special color for his teammates. In sports such as football, goalkeepers use contrasting colors or patterns. Clothing can show the present status or past achievements of the member. In the cycling event, the rainbow shirt represents the world champion. In major road cycling competitions, the race director and auxiliary category leader wear a jersey of a certain color. It is widely used to promote athletes or team sponsors. Some sports have rules that limit the size or design of sponsorship badges. The name and logo on the clothes.

THERMAL PROPERTIES IN SPORTS WEAR

Sportswear design must consider the thermal insulation needs of the wearer. In hot situations, sportswear should allow the wearer to remain cool; while in cold situations, sportswear should help the wearer to remain warm. Sportswear should even be ready to transfer sweat far away from the skin, using, for instance, moisture transferring fabric. Spandex may be a popular material used as base layers to take in sweat. For example, in activities such as skiing and hiking this is often achieved using layering: Moisture transferring (wicking)

materials are worn next to the skin, followed by an insulating layer, then wind and waterproof shell garments.

MOISTURE WICKING FABRIC IN SPORTS WEAR

Moisture wicking fabric is a high-tech fabric that can absorb moisture from athletes' skin. They transfer sweat from the body to the outside of the fabric, where it can evaporate. These fabrics are usually soft, light, and elastic, so they are very suitable for sportswear. Moisture transport means that the material is absorbent and can leave a moist tissue barrier on the skin. Dry moisture wicking is the latest form of moisture transport. It is a delicate two-strand fabric that destroys physical phenomena. Sweat pushes it through the hydrophobic layer into a naturally absorbent outer layer, such as cotton, where it is supported by evaporative cooling, leaving the skin completely dry. Microclimate bacteria cannot grow on dry skin. This broad category of materials is used to make clothing such as T-shirts, running, and cycling clothes. Styrofoam eyes, socks, sportswear, and shirts are used for any physical activity that aims to keep the skin as cool and dry as possible. Moisture wicking fabrics are used to make clothing for outdoor activities, such as hiking, fishing, mountain biking, skiing, and hiking. As garments made from these fabrics were accepted, more and more changes appeared on the market.

PROTECTIVE SPORTS GEAR

Sportswear also includes various protective equipment required for contact sports such as lacrosse, boxing, and hockey. Depending on the movement and location, different types of protective equipment are required. Equipment types include: Helmets, protective gear, elastic pads, shin guards, shoulder pads, joint supports, and protective gloves.

HEAD GEAR

Head gear is required for many sports with high risk of head injuries such as cricket, boxing, and cycling ext. Injuries associated with the top have the potential to cause serious damage to the spine and should be life-threatening. Although sports such as rugby and boxing do not require participants to wear head protection, trainers or referees may prefer to count on the player's history of head related injuries. Certain positions of some sports may require different kind of protections. For example, goaltenders for hockey wear differing types of face masks compared to other positions. They even have thick gloves with arm pads and shin guards to protect them from the high impact of pucks. In baseball, catchers and batters wear head gear for cover against the high velocity pitches. Head gear of varied kinds must meet the standards of protection set by various organizations. Helmets for American football must be regulated by the National League or the National Collegiate Athletics Association. Although new rules of safe play are in effect, players are still in peril of brain damage thanks to repeated blows to the top. Football players are more likely to develop some brain related illness during or after their football career reference to other sports.

EYE AND FACE SHIELD

Sports of all kinds may require eye or face protection counting on the players' need. Face masks are available different forms for various sorts of sports. In lacrosse and American football, the masks are metal rods attached to the helmet to hide the face. While optional, face masks which may be seen in basketball or rugby is plastic masks that are usually molded to suit the players face. Such masks are worn to attenuate additional damage to an already injured a part of the face. Eye protection is a further support provided by sports goggles. Goggles could even be worn in lieu of glasses or contacts. Goggles are reliable within the incontrovertible fact that they are doing not move around while the player is in motion and that they protect the attention from foreign objects. For swimmers and divers, goggles keep the water far away from their eyes, thus improving visibility.

MOUTH GUARDS

Mouth guards are utilized in many sports including but not limited to rugby, lacrosse, boxing, athletic game, hockey, American football, basketball, hockey, and various martial arts. Mouth guards reduce the danger of sport related dental injuries. Contact or some team sports have a risk of causing injuries related with the mouth, jaw, teeth, and oral soft tissues. Wearing mouth guards are not required in any sports but the players are recommended to.

CONCLUSION

Sports engineers have made the acute sports more popular and this is an outstanding example of how this industry has created a worldwide trend over the world. International events just like the extreme sports within the Olympics provide a platform for people to return together and support their country from different nations. We could see extreme sports participants come from overseas representing their countries and getting supported by their families. Furthermore, athletes might be role models where people search to them. If you ask young children who their role models are, mostly they might name athletes whom they need been following. Eventually, the next generation will be more interested into these risky sports due to the influence inspired by other participants, and the new higher technologies developed all over glob.

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Research Article

Easy approach to get free of belly fats

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ABSTRACT

If there were statistics of the most desired places to lose fat from, the abdominal area will most likely be the absolute winner. Belly fat is incredibly common and it is not unlikely to see that even slim people have a tummy that they would gladly want to get rid of.

There are no miracle quick diets, pills, or exercises that will help we lose tummy fat, not only because the stomach is one of the most stubborn fat spots for many people but also because "spot reduction" is impossible. We will have to work out our whole body and get control over our diet. Moreover, this is not an easy task.

Many of we have been trying to lose tummy fat the wrong way such as starving. Our self or performing 100–500 crunches a day. Unless we are genetically blessed with flat abs, we can do all the crunches in the world, but without proper nutrition and cardiovascular exercise, a flat stomach is nearly impossible.

A small change in diet and daily habits can have an astounding weight loss and body firming effect. Depending on what activities we engage in, and even more importantly what activities we disengage doing can mean the difference between weight loss success and failure. Below are some tips and basic information about on how to get rid of tummy fat:

1. Get more sleep; 2. Avoid Trans-fat; 3. De-stress regularly; 4. Drink lots of fluid; 5. Eat the right food at the right time; 6. Avoid Beer; 7. Exercise Regularly.

CONCLUSION

Our body will lose fat evenly, over time. The good news are we do not have to change the whole world. For maximum weight loss to occur we only need consistency, to do the same things over and over again. These simple weight loss tips will get we started and help we to consistently lose more and more tummy fat, as long as we stick with them.

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There are no miracle quick diets, pills, or exercises that will help we lose tummy fat, not only because the stomach is one of the most stubborn fat spots for many people but also because "spot reduction" is impossible. We will have to work out our whole body and get control over our diet. Furthermore, this is not an easy task.

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1. GET MORE SLEEP

People who sleep very little are diminishing their bodies' ability to burn calories. Some people think that losing sleep will make them lose weight. In a way, it can be said that this is true. However, we will lose weight in an unhealthy manner. This could also lead to grave health conditions, so better make sure that we get at least six to eight hours of sleep every day.

2. AVOID TRANS-FAT

Trans-fat is a product of hydrogenation, a process used by food manufacturers to increase product shelf life. Not only are Trans-fats primary culprits in increasing a person's chances of having heart disease, they also contribute to the formation of layers in our abdomen. Commercial baked goods - such as crackers, cookies, and cakes - and many fried foods, such as doughnuts and French fries - may contain trans-fats.

3. DE-STRESS REGULARLY

Stress can contribute to packing in unwanted pounds in the mid-section. Stress causes our cortisol level to skyrocket. Increased cortisol levels have been linked with increased desire to eat and also contribute to fat production. Engage in activities that help we relax to avoid increasing our waist measurement and also to lower our risks of developing heart disease and other stress-related conditions.

4. DRINK LOTS OF FLUID

The suggested amount of water to drink is around 33 ml of water for every kg of body weight, that is, 2.3 liters for a 70 kg person (around 1/2 ounce for every pound i.e. 60 oz for a 120 lb person). Much of our body is made up of water. Not drinking enough water will leave us under-hydrated or even dehydrated. Since weight loss depends on how the body eliminates wastes, the body must stay hydrated.

5. EAT THE RIGHT FOOD AT THE RIGHT TIME

Eat whole grains because they are good for reducing excess pounds on the waistline. Do eat breakfast to give us energy and to prevent us from binging during the latter part of the day when our metabolism does not work as fast as it does during mornings. To increase protein intake, we should also have lean meats such as chicken.

Eat more frequently. Avoid starvation at all costs, as this signals our body to get into famine mode and thus the body holds fat very effectively. If we eat more frequently with the right combination of food, there is no doubt we will definitely speed up the fat burning process and gradually lose tummy fat real quick.

6. AVOID BEER

If the mere thought of giving up beer is breaking our heart, then drink moderately. Do not binge. Lessen the amount of beer we drink or do so moderately. Why not switch to wine? A glass of wine has only 70 calories. It is still an alcoholic beverage and is just as refreshing. Although, limit it to a glass or two. Drinking should always be done in moderation.

7. EXERCISE REGULARLY

Incorporating tummy exercises, such as sit-ups and crunches, to our basic cardio regimen will help strengthen our core. A stronger core or midsection, will help we to build lean muscle mass. It is this lean muscle that helps us losing tummy fat faster. Adding this to a total body workout that exercises all parts of our body will turn it into a fat-and-calorie-burning machine. Of course we can engage in other exercise programs that we like, just make sure we do it regularly and properly.

CONCLUSION

Our body will lose fat evenly, over time. The good news are we do not have to change the whole world. For maximum weight loss to occur we only need consistency, to do the same things over and over again. These simple weight loss tips will get we started and help we to consistently lose more and more tummy fat, as long as we stick with them.

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Research Article

The impact of sports engineering on sports

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ABSTRACT

Sports designing can be considered as another designing discipline. It overcomes any barrier between two particular fields: Sport science and designing. Sports engineers are dependable in planning and building new gear dependent on competitor's requests, other than estimating the presentation of the competitor, the actual hardware, just as their connection. It is without question that designing and innovation play had a significant impact not just in working on the exhibition of a competitor, yet in addition in making sports really engaging and safe. This article gives an understanding into what designing and innovation have meant for sports from multiple points of view changing it from only a previous chance to really intriguing and cutthroat world occasions. Aside from the effect of designing in sports, the historical backdrop of the use of designing and innovation in sports is likewise expounded. Moreover, research directed in related fields overall is featured. A short outline of sports designing examination in Malaysia is additionally introduced.

INTRODUCTION

Sports designing are a somewhat new designing discipline that has made advances over the recent many years. Notwithstanding, the presence of its quintessence originates before hundreds of years before. Sports were utilized by extraordinary researchers to depict the wonder of science and the other way around. It is not remarkable that the overall population could not recognize the distinction between sports designing and sports science. Sports designing might be characterized as the specialized utilization of science and physical science to take care of brandishing issues through plan, advancement and investigation into outer gadgets utilized by competitors to improve their presentation. On the other hand, sports science is defined as the examination as far as movement, physiology, biomechanics, and brain research of a competitor. The best games designing exploration applies sound designing standards to gear and uses sports science aptitude to evaluate the further developed exhibition of both the competitor and the hardware. Sports designing are another space of study that has existed for a long time.

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This opposing remark is clarified on the off chance that it thought about that the mechanics of tennis were examined by Sir Isaac Newton more than 300 years before (Newton, 1671) and by Lord Rayleigh over 100 years before (Rayleigh, 1877). In fact, large numbers of the world's extraordinary researchers have utilized game to clarify science and the other way around. It is as of late, notwithstanding, that the term "Sports Engineering" has been utilized. Sports engineers are the people who lead concentrates in plan and worked of new gear dependent on the prerequisites of competitors. They check the conduct of hardware, competitors, and their connection in a controlled climate. Furthermore, they likewise show and mimic the powers following up on competitors and their gear (Finite Element Analysis) or mimic the wind stream around hardware (Computational Fluid Dynamics). Some of them work together with overseeing bodies to evaluate the impacts of rule changes or understanding injury risks. In the past part of the 1990's, Sheffield University is credited similar to a solid defender in beginning the field by getting sorted out the first and second International Conferences on the Engineering of Sport, held in Sheffield, UK in 1996 and 1998 individually. The worldwide Sports Engineering Association (ISEA) was set up on the second meeting. The third meeting was held in Sydney in 2000 and the fourth in Japan in 2002. The gathering keeps on acquiring fascination and interest

from sports engineers around the world. An aggregate of 181 oral moderators associated with the sixth gathering held in Germany in 2006, which was the most noteworthy number of interest recorded. The tenth gathering of the series will be hung on July 2014 at the Sheffield Hallam University (UK). One of the points of the ISEA is to co-ordinate sports designing examination and to go about as a worldwide conversation gathering. Sports engineering is the authority diary of the ISEA, which starts its distribution in 1998 and is the longest running diary in the field of sports designing and innovation.

THE RISE OF SPORTS ENGINEERING

As expressed before "sports designing" has existed for quite a while. It is as of late that the expression has been characterized. The justification this may be because of the huge individual monetary prizes related with sport. This relationship has additionally existed down the ages. In any case; sixteenth century rounds of tennis were generally played for significant bets settling on the "out" decision critical (Morgan, 1989) thus in certain rounds of Real Tennis in the 1500's, a wire going through eyes was utilized as the dead ball line to such an extent that when it was struck by a ball it gave out a particular commotion. Almost certainly, the justification the ascent in sports engineering is the expanded support in sport and the monetary benefit to be made by gear makers. A few evaluations put the worldwide athletic gear market at $80 billion (SGMA, 1997). Singular organizations, for example, Mizuno, Nike, Callaway, and Decathlon effectively have deals in overabundance of $1 Billion. The Sporting Goods Manufacturers Association (SGMA, 1997) gauges that grown-up sports members spend roughly $700 each year on athletic gear. In the UK, interest in sport has expanded from 39% in 1977 to 64% in 1996 (characterized as % of grown-up populace taking part in about a month past to study; Taylor, 1998). Exercises that have made the greatest additions are strolling, swimming, stay in shape, and cycling.

THE PROS AND CONS OF SPORTS ENGINEERING

Sports engineering can help competitors and sports people further develop execution. The standards of game exist, be that as it may, to ensure the respectability of game. Innovation can be perilous if the ramifications are not thought of and frequently administering bodies think that it's troublesome if not difficult to switch choices (Gelberg. 1998). At times innovation goes excessively far and changes the game such a lot of that authentic wearing examination becomes outlandish. Sports engineers have the capacity both to improve and annihilate game and care should be taken that they do not do the past mentioned. Here and there, sports designing are the new virus war - it possibly works if everyone has it.

The Impact of Engineering in Sports

People have utilized apparatuses and innovation to improve the things we do. In sports, it is without question that designing and innovation play had a significant impact not just in working on the exhibition of a competitor, yet in addition in making sports really engaging, yet protected. There are gigantic quantities of innovation being applied in different games. Henceforth, to give some examples, we have classified the advancements applied in sports into four unmistakable designing disciplines, in particular materials designing, computational demonstrating, instrumentation, just as plan, and ergonomics.

Materials Designing

Materials designing in sports incorporate the advancement of new material materials that are utilized in athletic apparel, creation of new materials to be utilized in athletic gear and improvement of new materials for sports playing surface. Advances in material for bathing suit are an illustration of material designing in sports that affect competitor's presentation. Early advances in bathing suit configuration were to make the bathing suit as little as conceivable to decrease drag. Then, at that point, nylon was created in 1950's, which supplanted the customary woolen texture that will in general assimilate water during the race. The presentation of Lycra in 1980's empowered suits to be less expensive, better fitting, and more agreeable to wear.

Computational Demonstrating

Computational demonstrating is normally utilized in all designing disciplines to address complex frameworks. Among remarkable computational displaying techniques are computational liquid elements (CFD) and limited component investigation (FEA). CFD is a part of liquid mechanics that utilize mathematical strategies and calculations to take care of and examine issues that include liquid streams, while FEA is a mathematical procedure for discovering inexact answers for limit esteem issues for differential conditions.

Instrumentation

Instrumentation that includes sensors and electronic parts likewise assumes a significant part in propelling games to an unheard of level, for example, the video innovation that helps official's choices. An unmistakable model would be the Hawk-Eye framework utilized in tennis. Bird of prey Eye utilizes an organization of on court cameras to follow the direction of the ball and uses demonstrating procedures to foresee where it lands. Falcon Eye was presented in 2005 and the framework currently offers players three difficulties to umpire choices. Disputable line calls would now be able to be settled by calling up the Hawk-Eye reference framework. Bird of prey Eye choice stands regardless of whether it contrasts from that of the umpires. The acknowledgment by players, authorities, and observers for the utilization a computational Decision Review System demonstrates that the game of tennis

is one that is continually advancing, accepting innovation, and utilizing it to work on the game for all included.

Plan and Ergonomics

The methods of running, trekking, and skiing, for example, have created and work on step by step, thus do the competitors' requests of ergonomic apparel. In 2008 Beijing Olympics, the British cycling crew won seven of the ten gold awards advertised. One of the variables adding to this wonderful exhibition by British cyclists was the suit that they were wearing. One prominent component of the suit is the "hot jeans". This makes their muscles cool down. The suit that was made of Lycra-like material is furnished with battery-controlled strips that warmth up the muscles to 35°C, subsequently convey an expansion in power when the race starts.

CONCLUSION

This paper managed the verifiable viewpoint, the effect just as momentum research concerning sports designing. Sports designing, fundamentally, are the combination between the information on sports science and the standards of designing. It is obvious that, despite the fact that sports designing have been thought of/considered as a generally new field of study, its quality or the way of thinking behind it very well may be followed back hundreds of years before. It is obvious that this field monstrously affects sports and surprisingly more so at this present day. With the fast progression of innovation and cutting edge research, sports designing have without a doubt turned into a distinct advantage, rethinking sports apparent by man once previously.

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Research Article

Homogenous group formation its classifications in respect to body build category of the secondary school boys of Amravati region

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Received: XXX **Acceptance:** XXX

ABSTRACT

Critical endeavor of the coaching is the foundation of individuality enlargement. Bodily tutoring is the fundamental ingredient of absolute enlightening course of action. In attendance are personality differences experiential among all individuals. The most important complicatedness of the bodily learning teachers and instructors are the Homogeneity of the players in respect of their Body Build Category. Such factors must be considered as the formation of teams for variety of games. Classification of groups in respect of their Body Build Category might be productive for the improvement of a choice of games and related activities. There were many authors who attempted to from such homogeneous assemblies all the way through the globe. Such attempts were made by Hughes, Williams McCloy, Neilson, Trieb, and Cozen. in the present study it was attempted to form the Homogeneous Group in Respect to Body Build Category of the Secondary School Boys of Amravati Region. For this study 524 healthy male students of the Amravati region were selected, and carry out the testing of Body Build. Scott Motor Ability test was applied for testing the performance. Performance Criterions were Basketball throw, four-second dash, standing broad jump, wall pass. After the statistical treatment, the factor Body Build in secondary school age was found to at the lowest correlation with motor ability ($r = 0.57$) with the coefficient of determination was ($R^2 = 0.3249$) as compared to the factor as Body Build.

INTRODUTION

The finishing plan of the schooling is the groundwork of individuality development. Physical education is the fundamental part of complete educational process. There are individual differences observed among every person. The major difficulty of the physical education teachers and coaches is the Homogeneity of the players in respect of their Body Build. Such factors must be considered as the formation of teams for variety of games. Classification of groups in respect of their body build might be fruitful for the development of various games and related activities. No doubt every individual has its own physique and body type. Such type differences in the body structure is the great problem for the physical education teachers and coaches in the selection of squad for the training purpose. In fact, individual differences are responsible for their motor ability developments. In the present, it was attempted to form homogeneous groups on the basis of European schools. In the European schools, they were crack the solutions by formulating the following equation:

$$Coefficient\ of\ correlation\ R^2 = Age\frac{w}{h}$$

This formula was used for the classification of the Amravati Region Boys for the Body Build. The intention of the schoolwork was to evolve and suggest a process for homogeneous groups of secondary school boys of the Amravati region based on statistical evaluation of the coefficient of determination of the biometric factors of age, Body Build individually. In the various combinations with respect to the motor ability and shifting the best correlate their formation. it was hypothesized that some of the attribute combination of height, and weight were age Body Build might yield a basis for new method of forming

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groups for boys in secondary school. The study was supposed to be significance as there was not any study that suggests the better and satisfactory combination of homogeneous groups' method was available for the secondary boys of the Indians.

For the goal of homogeneous group construction, an attempt was made through the past studies completed in the same field. Bovard and Cozen study incidentally counterpart in which they divided the groups in middleweight, lightweight, and heavyweight. Further studies carry on the proved that these are not fulfilling conditions for the homogeneous group formation. Reilly established the classification plan by the boys and girls known as age-grade-height weight plan. This study was attempted only for the students of 5th, 6th, 7th, and 8th grade boys and girls. Further Hetherington and Stolz and modified the formulation. Another modification was made by Neilson and Cozen, McCloy, and many more authors. Joseph in 1969 Suggest the new formulation of Homogeneous group formation which was widely accepted.

In the in attendance study, it was attempted to form the Homogeneous Group in Respect to Body Build Category of the Secondary School Boys of Amravati Region. For this study 524 healthy male students of the Amravati region was selected, and carry out the testing of Body Build. Scott Motor Ability test was applied for testing the performance. Age was recorded from the Admission register of the school. Weight was measured on school uniform with bared foot and recorded in kilograms. It was recorded near to 0.25 kg. The age group of the subjects was ranges from 135 months to 246 months. Weight ranges from 21 kg to 66.5 kg. The reliability measures of Body Build were absolute criteria of reliability followed.

Performance Criteria was the Scoot Motor ability test. The scoring was made through two methods first one was composite score method and the other was the performance score individuals was adopted.

The statistical treatment to the available data was completed through six categories.

Category 1 Age Body Build of individually in respect to the performance was determined. Category 2 body build indices based on indices was calculated with the following relations.

Weight = Height ratio (w/h) ratio; Quatelet's Index (w/h^2) Inverse Ponderal Index ($h/\sqrt[3]{w}$) and Tuxford Index ([w/h] × [3.08−Age in months]/235).

Category 3 Body Build Index was calculated by multiplying age in relation to performance. The coefficient of the determination (R^2) of the independent variables under the linear regression model and the multiple regression model were obtained by the use of the SPSS model.

Table 1: Reveals that the coefficient of determinants R^2

S. No.	Variable	R^2	R (r)	b	F value
1.	$Ages\frac{w}{h}$	1.2369/10=0.124	0.352	0.57	73.92
2.	$Ages\times\frac{w}{h^2}$	0.061	0.246	63.91	33.67
3.	$Ages\times\frac{h}{\sqrt[3]{w}}$	0.46	0.216	0.004	25.40
4.	$Ages\times\frac{\sqrt[3]{w}}{h}$	0.42	0.206	7.01	23

$F_{tabulated}$ at 0.01 level of Significance=6.69<$F_{calculated}$ values

FINDINGS

The computed values of coefficient of determination (R^2) of age, Body Build, the regression coefficient values (b) which provide the information on the weightages of these factors in prediction, the coefficient of zero order correlation. The calculated values are mentioned in Table 1.

Table 1 reveals that the coefficient of determinants R^2 which was provides information on the percentage of contribution in the prediction of performance was observed to be greater in respect of age, Body Build.

CONCLUSION

Among the factors of age, Body Build in secondary school age is found to bear the lowest correlation which occurs next in order there is no significance difference between these factors hence it was concluded that performance and age, Body Build category differs accordingly it varies with the facts of Age, Body Build. Thus, it was concluded that the formation of the homogeneous group might be fruitful in the section of any team event.

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Research Article

A theoretical and practical approach on proprioception assessments and training aspects for balance control in relation to volleyball performance and injury prevention

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ABSTRACT

Proprioception helps the players to perform better in volleyball game and avoid injuries. Receptor nerves called proprioceptors are located in the muscles, joints, and ligaments. Balance and proprioception exercises help to prevent ankle sprains in volleyball game. The present aimed to identify the theoretical and practical approach on proprioception assessments and training aspects for balance control in relation to volleyball performance and injury prevention. The achieve the purpose of the study investigator reviewed 56 articles related to the terms proprioception, balance control, co-coordinative abilities, sports performance and proprioception, and sports injury prevention. Based on the review articles, it is concluded that proprioception plays an essential role in balance control is arguably the most important aspect of this investigation. Central processing of joints proprioceptive information, along with other sensory information, enables integration for postural and balance control. When assessing joints proprioception for generalization to applied situations, the method used should have ecological validity and allow proprioceptive signals to be integrated in the central nervous system, to reflect the signal-noise nature of central processing in sports activities. In addition, joints proprioceptive interventions, passive or active, should therefore be predicated on discriminating signal from noise in central processing, to attain optimal outcomes.

Keywords: Proprioception, Training. Balance control, Sports performance

INTRODUCTION

Proprioception is an important tool used by the motor control system, enabling improvements in movement skills and building correct movement patterns that are the resulting outcomes carried out almost automatically. Affected proprioception has been shown to be an important sports injury predisposing factor. Further, measures of proprioception in functional movements enable us to understand the effects of practice and other intrinsic factors, such as fatigue (Rosker and Sarabon, 2010).

Proprioception helps the players to perform better in volleyball game and avoid injuries. Receptor nerves called proprioceptors are located in the muscles, joints, and ligaments. Balance and proprioception exercises help to prevent ankle sprains in volleyball game.

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Statement of the Problem

The present study entitled "A Theoretical and Practical Approach on Proprioception Assessments and Training aspects for Balance Control in relation to Volleyball Performance and Injury Prevention."

MATERIALS AND METHODS

The investigator reviewed 56 articles related to the terms proprioception, balance control, co-coordinative abilities, sports performance and proprioception, and sports injury prevention. Total 25 articles were directly related to the purpose of study and are considered for final assessment.

The investigator found the following tests which are directly related to measure the balance ability in relation to proprioception. The methodological aspects and procedure of the tests were given below.

1. Long Nose Test, 2. Functional Balancing Tests
a) Static Balance Test
b) Dynamic Balance Test

The Nelson Balance Beam Test, Description of Test Area and Balance System SD Biodex:

Orthopedic and Sports Medicine:
1. Bilateral Balance Activities
2. Unilateral Balance Activities
3. Bilateral Upper Extremity Activities.

Fall Prevention

1. Bilateral Exercises 2. Unilateral Exercises:

Training Mode Formats Include

- Postural stability, Limits of stability, Weight shift, Maze control, Random control, and Percent weight bearing training.

DISCUSSIONS

The effects of stability training on performance enhancement are well documented in the literature (Angelaki *et al*., 2008 and Aniss *et al*., 1953, Bravata *et al*., 2007 and Brockett *et al.,* 1997). Butcher *et al.* (1953) showed that trunk stability training may provide a more stable pelvis and spine from which the leg muscles can generate action, may better link the upper body to the lower body, and may enhance leg muscle activation, thus promoting optimal force production during sporting activities such as a vertical jump (Boyd and Roberts, 1953, and Brockett *et al.*, 1997). Atsushi Imai *et al*. conducted a 12-week stabilization exercises program for youth soccer players, and found significant improvements in maximal oxygen consumption, vertical jump, and sprint performances (Brocklehurst and Robertson, 1982). The aim of the present study was to evaluate different studies in relation to proprioception and balance control and to identify means and methods of measures of different testing. Furthermore, to find out the training aspects for the improvement of proprioception and balance control ability for volleyball players and injury prevention measures.

CONCLUSIONS

- Proprioception plays an essential role in balance control is arguably the most important aspect of this investigation.
- Central processing of joints proprioceptive information, along with other sensory information, enables integration for postural and balance control.
- When assessing joints proprioception for generalization to applied situations, the method used should have ecological validity and allow proprioceptive signals to be integrated in the central nervous system, to reflect the signal-noise nature of central processing in sports activities.
- In addition, joints proprioceptive interventions, passive or active, should therefore be predicated on discriminating signal from noise in central processing, to attain optimal outcomes.

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Research Article

The effect of agility training programme on raiding skills of boys Kabaddi players age between 18 and 25 years

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Received: XXX **Acceptance:** XXX

ABSTRACT

The aim of the present study was to develop the raiding skills of boys Kabaddi players from Sai Seva Krida Mandal Itkheda has been its favorite game for large period. This age ranged between 18 and 25 years students from M.S.M. College has been taken for raiding skills of Kabaddi players as a subject who has been participated in the intercollegiate competition and organize by Department of sports Dr. B.A.M.UNI. Aurangabad. The findings and developing of raiding skills of boys Kabaddi players ability of the players we have conducted 6 weeks agility training program and physical exercise for the students to participation in the pre and post-test analysis. The pre and post-test data were related and preserved carefully for statically by using group samples. In the case of shuttle Run Table 3 shows mean score of pre and post-test. Mean score of pre-test is 15.6134 s and the post-test is 15.5196 s and pre-test SD is 0.8271 s and post-test SD is 0.7957 s and from Table 6 mean gain is 0.0829 s.

INTRODUCTION

Olsen enrolled 42 college males in Agility training classes per and post-tests for 1 RM strength absolute muscular endurance and relative muscular endurance were given for the bench press and leg press. Treatment consisted of two works out sessions. Subjects were required to complete 2 sets of 10 exercises. Both sets of an exercise were completed before and moved to the next. A work rest ratio was 100 s/10 s was used. Pre and post-test mean changes were analyzed using "*t*" test and dependents' analyses. Mean changes between pre and post-tests for 1 RM strength in the bench press and leg press, a absolute and relative muscular endurance in the bench press were statistically significant ($P < 0.05$). Non-significant changes were found for the test of relative muscular endurance in the leg press ($P > 0.05$).

According to Kamble's Study

It was concluded that the experimental group improved physical fitness significantly in comparison to control group It was observed that the control also improved the physical fitness because of their regular practice schedule Therefore, the present study seems to be justified. Charles Frank studied an effect of heavy resistance Agility training of the pattern of muscular development, as indicated by strength, girth, and endurance measures of the right elbow flexors were studied using as subjects 34 grade 7 students. It was found that heavy resistance exercises did produce significant increases in size, strength, and endurance of right elbow flexors.

The review of literature presented above revealed that in some experiments on Agility training could show significant improvement in the factors of physical fitness and some other did not agree with the results. Such multiplicity in opinion was the source of inspiration for the justification of undertaking the present study.

In this paper 'a study of the effect of agility training program on raiding skills of Kabaddi players was examined. Here, study of Kabaddi players ranging their age from 18 to 25 was studied for understanding their improvement. This study was limit to Sai Seva Krida Mandal Itkheda in Aurangabad district. The Sai Seva Krida Mandal Itkheda has been selected here for sample because of their reasons.

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1. Sai Seva Krida Mandal Itkheda has a rich tradition of Kabaddi game for the past 5 years
2. The coaching and training facilities are available on large scale
3. Sai Seva Krida Mandal Itkheda is big and new club in Aurangabad.

Objectives

Every research requires specific objectives. In this work following objectives have been selected. To study the performance of boys Kabaddi players in the pre and post-training phase.

1. Evaluate the Agility training program and to suggest remedies to improve it
2. To understand the positive effects of agility training on raiding skills boys Kabaddi player
3. To study the performance of agility the boys Kabaddi players while raiding skills in the Kabaddi games
4. To develop new strategies of training and improvement to the raiding of the boys Kabaddi players.

METHODOLOGY

Sample

Here in this study experiment of agility training was conducted on 40 Kabaddi players. Pre and post-training improvement was examined by conducting experiments and records were maintained. Agility training program was conducted through the 6 weeks on 20 players and the training was be improve through two modules, i.e., (a).

Training for raiding: In order to improve the boys Kabaddi player performance in raiding skills. The agility training was conducted after this training improvement of the players' performance is evaluated.

Finally, scale test was conducted to understand improvement in the raiding skills of Kabaddi players. The procedures adopted in agility training are as under.

Variables

Experimental group and Control group.

Findings

After completion of 6 weeks agility training program and physical exercise all the subjects participated in the post-testing program which was conducted such as pre-test.

The post-test data were also recorded and preserved carefully for statistical analysis by using "*t*" test. In this analysis of data Table 3 shows mean score and standard deviation of pre and post of the selected variable of the controlled and experimental group. Table 4 shows paired samples correlations of per and post-test of the selected variables in case of controlled and experimental group. The comparison of mean gain and "*t*" value of pre and post-test of the controlled and experimental group have been presented in Table 3. Table 3 is a group statistics in which mean gain and standard deviation of the controlled and experimental group have been presented. Comparison of mean gain between the controlled and experimental group using Independence sample test has been presented in Table 3.

Shuttle Run

Purpose to measure agility.

Procedure

The student stand walks at one of the line with the two raiding at the other line. On the signal the student run to the raiding, takes one and returns to the starting line, and places the raiding behind that line. He then returns to the second raid which he carried to the starting line on his way back. Two students could run at the same time if two timers are available.

Instructions on the signal "Go" you must run as fast as you can to the net line pick up a Raiding. You should return the raiding over the second line where you place it on the mat. Do not throw it you return for the second raid and this time, you may run across the starting line as fast as you can without placing the raiding on the mat. Scoring the score is the elapsed time recorded in seconds and tenth of a second for the best of twotrial

Group statistics					
	Group of the participants	***n***	**Mean**	**SD**	**SEM**
Shuttle run mean gain	Experimental group	20	0.5167	0.52118	0.05212
	Control group	20	0.3341	2.99731	0.29973

Paired samples statistics				
	Mean	***n***	**SD**	**SEM**
Shuttle run pre test	11.4672	20	1.16176	0.11618
Shuttle run post test	10.98	20	1.094	0.109

Paired samples statistics				
	Mean	***n***	**SD**	**SEM**
Shuttle run pre test	11.2094	20	0.97342	0.09734
Shuttle run post test	12.1661	20	9.95128	0.99513

RESULTS ON SHUTTLE RUN ANALYSIS

In the case of shuttle Run Table 3 shows mean score of pre and post test. Mean score of pre-test is 15.6134 s and the post-test

is 15.5196 s and pre-test SD is.8271 s and post-test SD is.7957 s and from Table 6 mean gain is.0829 s.

The mean score of pre and post-test of the experiment group is 15.4681 s. And 14.6811 s and pre-test SD is 0.9814 s post-test SD is 0.76717 s respectively and from Table 6 mean gain is 0.8218 s. Thus, the within group comparison of the experimental group result shows there is improvements in the performance of shuttle run. Comparison of mean gain between the control and the experimental group reveals in Table 4. That the mean gain in case of shuttle Run of the control group is 0.0829 s. And the experimental group is 0.8218 s and their "*t*" value is 11.761 s. From Table 5 is significant at 0.05 level. Therefore the hypothesis sort in case of Shuttle Run is accepted. Graphically represented in Figure 4.1 has been accepted.

Thus the mean gain in Agility (as assessed by shuttle Run test) is evident in the experimental group as compared to the controlled one. Therefore, the Ho_3 has been accepted.

CONCLUSIONS

The investigate within the limitation of the study made the following conclusions.

1. Selected agility training program for 6 weeks period has improved raiding skills of the subjects of 18–25 years of age
2. Selected agility training program for 6 weeks period has improved the raiding skills of Jr. and Sr. Kabaddi Players.

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Research Article

Pilates practice on core fitness of intercollegiate male track and field players

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ABSTRACT

The purpose of this study was to examine the "Pilates practice on core fitness of intercollegiate male Track and Field players". It was an experimental study in which pre-test and post-test non-equivalent groups design was used. In this study, 20 male Track and Field players mean of age (21.17 ± 2.10) were selected as sample by using purposive sampling technique from Dadasaheb Bidkar Art's Science and Commerce College, Peth, Tal. Peth Dist. Nashik Maharashtra. Players were equally divided into, Experimental group (n = 10) and Control group (n = 10). Minimum muscular fitness test was conducted on both the groups obtained data were analyzed using Independent sample t-test. The results showed that the descriptive statistics gain of pre and post-tests of subjects on Test 1 Abdominal and Psoas muscles, Test 2 Abdominal muscles without Psoas, Test 3 strength of Psoas and Lower Abdominal muscles, Test 4 strength of the Upper Back muscles, Test 5 strength of the Lower Back muscle and Test 6 strength of Back and Hamstring muscles was evaluate significant effect shown. To determine the effect of Pilates practice on core fitness of intercollegiate male Track and Field players. It was also researcher concludes that there was improvement of core strength performance of experimental group as compared to control group due to the treatment given.

Keywords: Core fitness and intercollegiate track and field players, Pilates practice

INTRODUCTION

Pilates is a very effective exercise that combines both eastern and western concepts by including yoga (a mind-body method), breath, flexibility, relaxation, strength, and endurance. It is well designed to enhance both physical and mental well-being. Pilates training also strengthens the deep, core muscles and improves movement, efficiency, and muscle control. Pilates is excellent for fitness, conditioning, and improving the overall quality of life. Pilate's process uses both the floor and specialized tools in order to complete exercises. Pilates is original exercise method which caters to each and every one, of all body types, and all fitness abilities. Pilate's main purpose is to organize the mind, body, and breathe to build up sleek and strong abdominal muscles and a strong and agile back. Pilates aims to develop physical harmony, balance, and conditioning. Pilates for the body work out it actually provides; toned and strengthened core muscle groups, heightened body awareness, injury prevention, improved flexibility and control, developed posture and balance, and comfort of movement through daily life. Kraus - Weber tests for muscular fitness are not designed to determine the optimum level of muscular fitness but rather to determine whether or not the individual has sufficient strength and flexibility in the part of the body upon which demands are made to normal daily living. Lot of awareness is seen among the people of our country regarding the level of physical fitness.

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MATERIALS AND METHODS

Method of the Study

The present study was an experimental research which was conducted with a purpose to examine the pilates practice on

core fitness of intercollegiate male Track and Field players such as muscular strength and flexibility.

Research Design

True experimental design was used for this study to check the hypothesis; this research was based on pre-test and post-test non-equivalent group design.

Method of Sampling

For the present research whole population a total number of 20 intercollegiate male Track and Field players were selected who had failed into three to six test items on the basis of purposively method of sampling technique from Dadasaheb Bidkar Art's Science and Commerce College, Peth, Tal. Peth Dist. Nashik.

Selection of Variable

The study was selected the variables of core strength and Kraus - Weber's minimum muscular fitness test consist of six items that indicate the level of muscular strength and flexibility of key muscle group.

Procedure of the Study

The researcher collects the subjects from population and given to them instruction about the importance about study and explain Pilates program and Kraus - Weber tests. Total numbers of 20 male Track and Field players mean of age (21.17 ± 2.10) were selected as sample by using a simple random sampling technique from Dadasaheb Bidkar Art's Science and Commerce College, Peth, Tal. Peth Dist. Nashik, (n = 20) they were equally divided into, Experimental group (n = 10) and Control group (n = 10). Used of purposively sampling technique. The selected subjects were pre-tested by Kraus - Weber minimum muscular fitness tests and 6 weeks Pilate's practice which was given 6 days in a week was manipulated only on experimental group not control group. After Pilates practice both group's i.e., experimental and control groups, were post tested for data collection.

Statistical Tools

After data collection, data of pre-test and post-test of both the groups, i.e., experimental and control group, compared by independent sample t-test and interpretation were drawn. The level of significance was kept at 0.05 to test the hypothesis.

RESULTS OF THE STUDY

The obtained results are present in the following table which represents the results of descriptive analysis and independent sample *t*-test to compare the mean of group's, i.e., experimental and control groups [Table 1].

Table 2 shows the mean of gain in the experimental and control group were compared with independent *t*-test. The calculated

Pilates training program pilates practice training program of 6 weeks for track and field players			
Exercise	**Sets**	**Reps**	**Rest**
Warm-ups (8–12 min)			
Shoulder bridge preparation	3	8–10	1 min
Leg lifts	3	8–10	1 min
Toe taps	3	8–10	1 min
Single leg stretch	3	8–10	1 min
Side bend preparation	3	8–10	1 min
Side kicks	3	8–10	1 min
Side leg lifts	3	8–10	1 min
Swan dives	3	8–10	1 min
Leg pull front prep (hovers)	3	8–10	1 min
Pull down	3	8–10	1 min
Crisscross	3	8–10	1 min
Plank hold	3	30–60 s	1 min
Cooling-Down (5–10 min)			

Table 1: Descriptive statistics

Test	Group	*n*	Mean	SD
Strength of Abdominal Plus Psoas Muscles Test	Experimental	10	7.33	5.20
	Control	10	1.33	5.07
Strength of Abdominal Minus Psoas Muscles Test	Experimental	10	7.33	5.83
	Control	10	1.67	5.30
Strength of Psoas Lower Abdominal Muscles Test	Experimental	10	7.00	5.35
	Control	10	1.33	4.34
Strength of Upper Back Muscles Test	Experimental	10	7.33	4.49
	Control	10	1.33	5.07
Strength of Lower Back Muscles test	Experimental	10	7.67	5.04
	Control	10	0.33	3.19
Floor Touch Test	Experimental	10	8.33	3.79
	Control	10	1.00	3.05

"*t*" value of subjects in Test 1 Abdominal and Psoas muscles, Test 2 Abdominal muscles without Psoas, Test 3 strength of Psoas and Lower Abdominal muscles, Test 4 strength of the Upper Back muscles, Test 5 strength of the Lower Back muscle, and Test 6 strength of Back and Hamstring muscles was 4.52, 3.93, 4.50, 4.84, 7.34, and 8.25, respectively. To determine the effect of Pilates practice on core fitness of intercollegiate male Track and Field players, independent sample *t*-test was used at 0.05 levels of significance in relation to pre and post-test of Kraus-Weber's minimum muscular fitness tests.

Figure 1 graph shows that there was a significant improvement in minimum muscular fitness tests of experimental group due to treatment.

Table 2: Independent sample *t*-tests

Test	Group	Mean Difference	"*t*" value	Sig. 2–tailed)
Strength of Abdominal Plus Psoas Muscles Test	Experimental Control	6.00	4.52	0.00
Strength of Abdominal Minus Psoas Muscles Test	Experimental Control	5.66	3.93	0.00
Strength of Psoas and Lower Abdominal Muscles Test	Experimental Control	5.66	4.50	0.00
Strength of Upper Back Muscles Test	Experimental Control	6.00	4.84	0.00
Strength of Lower Back Muscles test	Experimental Control	8.00	7.34	0.00
Floor Touch Test	Experimental Control	7.33	8.25	0.00

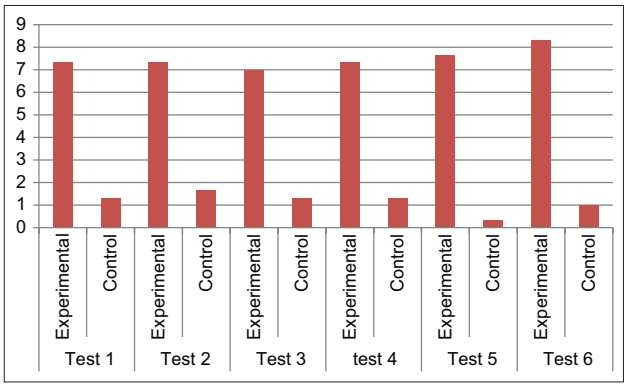


Figure 1: Comparisons of group mean experimental and control groups track and field players

DISCUSSION OF FINDINGS

Discussion on the results of Kraus-Weber minimum muscular fitness test consists of six items which indicate the level of muscular strength and flexibility of key- muscle groups are given as; It was observed from the finding that the effect of Pilates practice on improving core fitness of intercollegiate male Track and Field players from Tables 1 and 2 shows that there was a significant difference between experimental group and control group of subjects regarding to the all test items. This indicates that Pilates practice had a positive effect on core fitness of the experimental group. Therefore, the set hypothesis that there was significant effect of the Pilates practice on improving core fitness of intercollegiate male Track and Field players was accepted. This finding was supported by Singh *et al*. (2010) studied the effect of Suryanamaskar on muscular endurance and flexibility among inter college student the results shows that muscular endurance and flexibility was significantly improved in group A compared with the control one, and it was also concluded that Suryanamaskar may be recommended to improve muscular endurance and flexibility.

CONCLUSION

On the basis of the result obtained in the study, the researcher made the concluded that 6 weeks Pilates practice was significantly effective on core fitness improved of intercollegiate male Track and Field players which indicate the level of muscular strength and flexibility of key-muscle groups and also the findings of this study may be helpful to the intercollegiate male Track and Field players to doing regular practice of Pilates to improve their health and fitness.

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Research Article

Common bad habits or carrying school bags its impact on deformities of school-going male and female children's

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ABSTRACT

Existing study was taking for the evaluation of common bad habits or carrying school bags its impact on deformities, i.e. postural deformities. The deformities were considered to be kyphosis, ervical curve and hunchback, and thoracic Curve. The population of the study consists of male students from various Schools from the Buldhana district. Population consisted of 500 male and 500 female students. It was observed from comparison of means hump back Cervical Curve deformities were measured in cm and were divided into two categories. In rural areas, hunchback Cervical Curve deformities normal range 450 subjects were found which was ranging from 0 to 1 cm and in hunchback Cervical Curve deformities range 50 subjects were found which was above 1 cm. Similarly, in urban area hunchback Cervical Curve deformities normal range 291 subjects were found which is ranging from 0 to 1 cm and in hunchback Cervical Curve deformities range 109 subjects were found which was above 1 cm. As per the hypothesis, it shows from the study that urban area male students were having Cervical Curve deformities more than the rural area male students, so the research hypothesis is accepted at the level of significant 0.05. It was observed from comparison of means Kyphosis Thoracic Curve deformities were measured in cm as all the subjects from rural and urban areas were within the normal range, therefore there was no significant difference, hence no further analysis has been done and it was concluded that there was no significance difference between rural and urban area male students. As per the hypothesis, it shows from the study that urban area male students were similar in hunchback Thoracic Curve deformities, so the research hypothesis was rejected. It was observed from comparison means of selected anthropometric measurements that some of the sub-hypothesis is accepted at the significant level 0.05. Urban area male students are having significant difference in means ratio than the rural area.

Keywords: Cervical, Kyphosis and curve

INTRODUCTION

In the present study, there was a comparison of deformities of urban and rural area male school-going students age ranges from 10 to 16, i.e. learning in the class from 5th to 10th. The number subjects were 500 each from rural and urban area. The research scholar had taken male students enrolled in the session 2015–2016 as subjects sample for the research work. To carry on study research scholar had taken 1000 school-going students out of which 500 students from the rural area and another 500 students from the urban area of Buldhana district of Maharashtra State of India. The research scholar had considered 20 schools from urban area and 20 schools from rural area, i.e. 1000 subjects (500 subjects from urban area and 500 rural areas). The scholar had taken 25 male students from rural area from each school and urban area 25 students from each school. The researcher had used simple random sampling technique for the selection of subjects. The investigator was extremely eager paying attention to study the assessment of deformities of urban and rural area male students.

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In country region, existence fashion was extremely dissimilar as compare to city area. Rural area's Schools students had to work at home as well as in the fields. Areas males needed new trends of physical activity, health awareness programs, for example., aerobics, running, swimming, fitness exercise programme, yogic mudra, kriyas, and other exercises. Males body posture is very flexible, it increases and decreases of

size due to the child birth. Their spinal cord bone is a just like a bendable tube. And males require 22–24 percentages of body fats also 1800 kcal which has been recommended by the W.H.O. The males' spine muscles are not so active by doing day-to-day activities. In rural area male students, they don't get balanced nutritional diet and also they have to work very hard in the field and at home. In urban and rural area the causes of posture deformities are as follows:

- Heredity and environment
- Nutritional diet
- Exercises
- Use of computer facilities
- Walking style
- Carrying the School bags
- Sitting positions
- Cycling.

Substantial strength is the element of humans' life. Rural areas some of males are very introverted by nature in every respect. May be it is related to health awareness, nutrition, and other aspects. Health awareness and motivation toward physical fitness will give a balance body posture and reduce large size and other problems. Hemoglobin plays a major role in the development of other body posture. Nowadays urban area males are more conscious about health education as compare to rural areas. Academic education should also include physical fitness and health awareness, i.e., body posture and anthropometric measurements. Every school should organize seminars on health awareness programs related to body posture and should focus on balanced and nutritional diet. By these, they will get knowledge of body posture deformity and physical fitness.

Nourishment is the most important determinant of wellbeing and the resolution of many nutritional problems of community healthiness concern requires certain assessment data. Within count, to nutritional intake methodologies, questionnaire material, hematological tests, and nutritional biochemistries the assessment of nutritional status requires a series of stature, weight, and other anthropometric dimensions.

For the research of postural deformities, i.e., Kyphosis Cervical Curve and Kyphosis Thoracic curve in males Schools students. As per the researcher's opinion and discussion with the guide and experts, there was dissimilarity in male school students of urban and rural area. It was an assumption of researcher that there will be a difference in postural deformities.

To collect the data research scholar had visited all the Schools of urban and rural areas for taking permission by the Head Master for his research work. The School Head Master cherished investigate intellectual topic and accepted that his research work will give positive changes in posture deformities of males. To determine significances differences in the mean of male Schools children i.e., urban and rural areas from Buldhana -District. Self-determining model *t*-test was taken to mean for excellent results. *t*-test was applied to assess the significance of different between two areas, i.e., schools from urban and rural area.

Therefore the research hypothesis there was no significance difference between urban and rural areas male School students from Buldhana District here the research hypothesis was rejected. As per the hypothesis, it shows from the study that urban area male students were having Cervical Curve deformities more than the rural area male students, so the research hypothesis was accepted at the level of significant 0.05. As per the hypothesis, it shows from the study that urban area male students were similar in Kyphosis. Thoracic Curve deformities, so the research hypothesis was rejected. As per the hypothesis, it shows that urban area male students were having significant difference in measurements which were Lack of Nutritional diet, lack. As per the hypothesis, it shows that urban area male students were better in walking style and sitting Posture, standing Posture, lying Posture, but the rural students were good in Carrying the School bags, cycling, and daily routine work, etc.

It shows from comparison means of Group Statistics- postural Deformities in the urban areas mean was 18.925 as compare to rural area means 19.854. Similarly, comparison of Cycling and carrying school bags means the difference between urban and rural area was 0.929. This difference was observed when tested by independent *t*-test', value was found 0.820 which was not statistically significant at 0.05 significance level ($P = 0.412$) for 998 degree of freedom. Therefore the research hypothesis there was no significance difference between urban and rural areas male School students from Buldhana District therefore the research hypothesis was rejected.

CONCLUSION

The difference was observed amongst the rural and urban area boys of School going students of Buldhana District. Urban area male students were better in cervical curve deformities compared to the rural area male students. It proves that rural area male students were better in rural students were good in carrying the school bags, cycling, and daily routine work, etc. It might be due to the exercises, walking style and sitting posture, standing posture, lying posture, daily routine work, etc, than the rural areas.

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Research Article

Innovative teaching techniques in physical education

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ABSTRACT

The purpose of the present study was identified the innovative teaching techniques in physical education. The new innovative teaching techniques were created interest and aware of school going students in health. Another strategy used in physical education class is 80/20 Rules, which mean that the physical education teacher tries to keep the students active 80% of class duration. Hence, the researchers have studied the innovative teaching techniques of different countries. He concluded that innovative teaching techniques were too effective in other countries. He recommended that it may be followed in future in India from the schools.

Keywords: Innovative teaching techniques, Physical education

INTRODUCTION

Now a day the awareness of health and wellbeing among the society is too serious. The health is the predominant factor for all ages. Every individual and the people of the country would become disease free lives. The peoples want to provide the good health to their child and the next generation. Hence, the educationists have to design the new curriculum from the gross root itself that is schools. As the trend has in foreign new innovative teaching techniques are being used in their regular physical education programmers at schools. Hence, the new innovative teaching techniques in physical education programmers have to be introduced in India to take care and the promotion of next generation. Physical fitness among young people has now found itself at the forefront of society's scrutiny. According to the Centers for Disease Control (CDC), obesity among children between the ages of 2 and 19 has more than doubled in recent years, leaving students susceptible to the development of diabetes, complex joint issues, and a host of other serious health problems.

Many physical fitness educators have taken it on themselves to drastically reduce these statistics over the course of the next decade. Although the improvements in technology have somewhat contributed to the dangerously sedentary lifestyles of many young people, it can also be harnessed to reverse these health concerns. With instant access to almost anything at any given time, technology can be used to improve fitness and potentially save lives. It is just a question of how it is used.

Here are some new innovative practices to be discussed.

MODERN WELLNESS-TRACKING TECHNOLOGY

One way that educators can make physical wellness more interactive is by implementing fitness monitors, such as the Fitbit or the Nub and into their classes. These lightweight, wearable activity trackers provide a wide range of real-time data. They can be used to help students become more aware of their body's processes as a whole, or simply to learn their peak heart rate levels to achieve maximum physical fitness. Electronic activity trackers record step counts, quality of sleep cycles, and a host of other personal metrics to ensure that students stay active throughout their developmental years. The attention to detail creates a feeling of ownership, fostering a sense of responsibility to maintain that state of wellness for the future. It is said that children should remain active for at least 60 min a day to meet proper health standards. Fitness trackers

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can help make sure kids reach this simple but key goal in their physical education classes and also in their daily lives.

MUSIC AND DANCE AS MOTIVATION

When it comes to movement in physical education, there is no better motivator than music. With this universal truth in mind, educators have developed new teaching methods based on viral dance crazes, such as the Cupid Shuffle and the Konami.

Dance Revolution music game. Not only does learning choreography together create a sense of camaraderie among classmates and teachers, but it also provides a great workout. Students can improve their coordination, strengthen their social interactions with one another and reduce stress levels during exam time.

ACTIVE GAMING PLATFORMS

Technology-based hobbies have become so ingrained in the lifestyles of students that we often forget that they can serve as a valuable tool. Exergues or active gaming programs, such as Hop sports and Kindest Xbox, invite users into a comfortable and familiar environment, while offering an opportunity for moderate-intensity physical activity. The best part about this exercise source is that it can be continued outside of school. Many students have their own gaming consoles and could take their physical education class inspiration to a whole new level at home. It is becoming increasingly important for teachers to use every outlet at their disposal to improve the health of their students. Some physical education teachers have found the key to success is utilizing what young people love the most and very often, that is, the new advancements in technology. By creating interactive and entertaining lessons with activity tracking, music, dance, and gaming, teachers can improve student wellness practices not only in school, but in the decades to follow.

CONCLUSIONS

The major and important fact in developing one's health is to educate them to do regular physical activity in their day to day life. The thing should achieve it from the school children. The curriculum is to be designed in educational institution have include the innovative teaching techniques in physical education programmers. The innovative practices and programmers are the motivating and increase the practitioners in schools.

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Research Article

The psychological problems of frontiers while fighting novel COVID-19 epidemics

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ABSTRACT

The novel COVID-19 deadly disease has thrown an unparalleled confront for cerebral health across the country. The option of getting impure with novel COVID-19, a sickness with no obvious distinct action protocols and unsure outcomes has surprised the world. With the sickness now dispersal in dissimilar parts of the country, the obtainable physical condition uncertainties schemes are really stretched. As the fight becomes long-drawn, the well-being care workers in the forefront have become mainly susceptible to cerebral stress. Doubts about danger of disease to self and their families, sufficiency of defense, long working hours, and being in quarantine and separation from families can lead to harsh emotional distress among health professionals. If not effectively recognized and extra-vagance, such anxiety can change into more unrelenting sickness, even foremost to desperate conclusion and sentiments. Emotional difficulties have been again and again linked to decreased ability at work and the anxiety faced at work can deteriorate cerebral sorrow.

Keywords: Health, Frontiers, Novel COVID-19

INTRODUCTION

Crossways the earth, there has been rising gratitude of they require to offer logical health support to forefront worker of novel COVID-19 deadly disease. Cerebral health issues among health care workers are well recognized even before the novel COVID-19 deadly disease.

To date, both the complete and entity responses to address cerebral health issues among frontline worker have been erratic. Structured and secret cerebral health services for health workers exist in very few settings, primarily in high-income countries. Health workers carry on to be determined by a civilization of "presenters" with little "self-care." Thus, any system of cerebral health support set up in India during novel COVID-19 will keep hold of significance and durability beyond this time. Across the world, there has been increasing gratitude of the need to offer cerebral health support to frontline worker in the novel COVID-19 deadly disease.

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Cerebral health issues among health care workers are well recognized even before the novel COVID-19 deadly disease. Multiple studies have consistently reported higher rates of depression, anxiety, substance use, poor life satisfaction, and suicide among frontline worker as compared to the general population.

MENTAL PROBLEMS OF FRONTLINE WORKERS FIGHTING NOVEL COVID-19

Many health-care workers such as police and government officials from the front-line of a new unsure fight against novel COVID-19. Most fret about receiving impure, taking diseases to their families, sufficiency of protection, access to food, liquids and rest, and separation from families. The broad spread communal and financial disturbance has also crashed most frontline workers. This has shaped a cycle of concern, fret, and sorrow. If not efficiently recognized and knob, this can

change into more severe agony, even leading to in the depths of misery opinion and emotions. It is thus a matter of precedence to address these concerns to ensure positive cerebral health and early interventions for frontline workers in novel COVID-19 handling settings.

SOURCES OF NERVOUSNESS

- Fright of experience to self and transmitting to family
- Anxiety regarding individual defense gear
- Fright of family well-being if requiring quarantine/ isolation
- Indecision of amount of hold up from organization
- Hold up for individual and family needs with growing work demands
- Lack of information and communication.

POINTERS OF INTELLECTUAL HEALTH COMPLEXITY AT WORK PLACE

- Decreased job presentation and output
- Changes in contact with coworkers
- Speedy changes in temper, annoyance outbursts, weeping spells etc.
- Reporting to work under the influence (alcohol/drugs)
- Poor reminiscence
- Restlessness/irritability
- Sleepiness
- Impaired physical ability and daily functioning.

APPEARANCES OF CEREBRAL HEALTH PROBLEMS BETWEEN FRONTLINE WORKERS

Most frontline personnel in attendance with emotional troubles are "normal people" who have been over unusual stressor. Most may show more than one emotional presentation. For example, nervous people may also have features of despair and drink alcohol to reduce signs. These emotional commotions may be linked to the many psychosocial stressors in the wake of the deadly disease. Hence, organization plan primarily needs to focus on mitigating the psychosocial stressors to the extent possible. Finally, a vast majority of people recover impulsively over time or with brief emotional inputs. Therefore, presence of emotional disturbances does not unavoidably imply a psychiatric analysis. However, medical descriptions of particular domains help ensure suitable selection of involvement.

- Burn-out (the commonest)
- Distress and nervousness related to novel COVID-19
- Sleep disturbances
- Pre-accessible mental health problems.

Burn-out (The Commonest)

- Emotional fatigue
- Decreased sense of execution
- Poor reminiscence
- Restlessness
- Lethargy.

SUFFERING NERVOUSNESS RELATED TO NOVEL COVID-19

- Not being capable to stop or manage upsetting
- Feeling depressing, crying spells
- Feeling anxious
- Being so impatient that it is hard to sit still
- Feeling incompetent at work
- Becoming easily irritated
- Lack of sleep and decreased appetite.

CEREBRAL HEALTH ENCOURAGEMENT POLICIES: SET UP PSYCHOLOGICAL HEALTH HOLD UP SCHEME

All novel COVID-19 healing centers to be offered with a chosen psychological well-being hold up network for workers. Preferably, both psychiatric and counseling services need to be made available. The frontline workers also need to be made aware of the various possible psychological health support systems available nearby. A district level helpline for all frontline workers is helpful.

IMPROVE PSYCHOLOGICAL HEALTH CONSCIOUSNESS AMONG FRONTLINE WORKERS

Administrators should promote alertness about psychological health and nervousness. It could be by organizing consciousness classes, anxiety managing workshops etc. Team meetings may also be used to talk about common psychological health issues that arise out of working under difficult situations.

COMMUNICATION

Make sure good eminence communication with accurate information updates front line workers need to be aware of the instructions for testing, quarantine, healing, and any other issues. The State Government issues periodic guidelines which can keep changing depending on the situation, and it is important that health-care workers are made aware of the same. Have regular team meetings even if it is brief. The assistance

to overcome and develop an attachment in addition to sort out issues that may emerge because of working in stressful situations. A grievance policy should be implemented.

IMPROVE HOLD UP TO RELATIVES

Workers (especially women) doing long working hours be anxious about their family household tasks especially toward their children/elders. It is necessary that the administration support them to the scope probable.

- Kid care with safety procedure
- Flexible work agenda
- Procurement of essential provisions
- Guarantee on family being supported if quarantined/ infected.

CONCLUSION

Deadly diseases along with the disease also bring in a host of difficulties including communal and financial challenges for health-care workers. Most have to balance medical responsibilities with family chores persons might feel overwhelmed and may resist to manage problems. Alongside this, many feel nervous sometimes excessively about getting contaminated. These represent the commonest underlying reasons for anxiety/depression to present among front line workers. Hence, the psychological techniques that will benefit-problem solving.

- Enhancing social support
- Managing anxiety of the worried well
- Relaxation
- Psychotropic medications also have a role, specifically short courses of anti-depressant and anti-anxiety drugs.

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Research Article

Healthy living: The importance of diet and exercise

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INTRODUCTION

Human body is like a complex and delicate machine which comprises several small parts. A slight malfunctioning of one part leads to breakdown of the machine. In a similar way, if such a situation arises in human body it also leads to malfunctioning of the body. Exercise is one of the healthy lifestyles which contribute to optimum health and quality of life. Exercises can play a significant role in keeping the society, community, and nation wealthy.

Eating is one of the life's greatest pleasures. It is also a powerful way to enhance or impair your health over time, the food you eat affects your weight, cholesterol levels, blood pressure, insulin regulation, brain function, emotional health, and immune system.

Two areas we have the most control over are our diet and exercise. These can both have huge effects on overall health and can be some of the main factors in preventing disease and other complications later in life preventing health-care measures such as proper diet and exercise can also help your health.

A healthy lifestyle is one which helps to keep and improve people's health and well-being healthy living is a lifelong effect.

The ways to being healthy include healthy eating physical activities, weight management, and stress management. Good health allows people to do many things fit people fit nation is a slogan which emphasizes that the fit citizens are Nation's best aspects and weak ones are its abilities. It is the responsibility of every government to promote physical and mental fitness program to all citizens because it is the basic requirement to do the daily tasks effectively, it must be taken care to prevent disease too physical fitness is an ideal concept where internal and external components of persons fitness is considered. Physically, fit body is the plinth of personality. Good personality should have good physique, good appearance, good bearing capacity, and good health. The body structure of an individual is a matter of heredity but certain qualities may be acquire during the years of growth and development social interaction, education and training to improve one's personality. Here, the role of exercise plays an important role to shape physically, mentally, socially, emotionally fit person to serve the society. Exercise means by a set of physical movement. Rhythm to maintains good health and well-being which should be carried out regularly which proper rest and relaxation to get positive rest on health if improper result and relaxation the fitness of an individual is to five better and healthier and can contribute to the society.

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THE BENEFITS OF HEALTHY LIFESTYLE

The impact of good health. A healthy habit is any behavior that benefits your physical, mental, and emotional health. These habits improve your overall well-being and make you feel good healthy habits are hard to develop and often required changing your mind set. However, if you are willing to make a sacrifices to better your health. The impact can be for reaching regardless of your age sex or physical ability.

CONTROLS WEIGHT

Eating right and exercising regularly can help you avoid excess weight gain and maintain a healthy weight. According to the

Mayo clinic being physically active is essential to reaching your weight loss goals. Even if you are not trying to lose regular exercise can improve cardiovascular health boost your immune system and increase your energy level. Plan for at least 150 min of moderate physical activity every week.

If you cannot devote this amount of time to exercise look for simple ways to increase activity throughout the way for example try walking instead of driving take the stairs instead of the elevator for pace while you are talking on the phone. Eating a balanced calorie managed diet can also help control weight when you start the day with a healthy breakfast you avoid becoming overly hungry latter which could send you running to get fast food before lunch. In addition, is skipping breakfast can raise your blood sugar which increases fat storage incorporates at least five serving of fruits and vegetables into your diet per day? These foods which are low in calories and high in nutrients help with weight control limit consumption of sugary such as sodas and fruit juices and choose lean meats such as fish and turkey.

IMPROVE MOOD

Doing right by your body pays off for your mind as well the Mayo clinic notes that physical activity stimulates the production of endorphins fitness. Endorphins are brain chemicals that leave you feeling happier and more relaxed. Eating healthy diet as well as exercising can lead to a better physique you will feel better about your appearance which can boost your confidence and self-esteem. Short term benefits of exercise include decreased stress and improve cognitive function. It is not just diet and exercise that lead to improve mood. Another healthy habit that leads to better mental health is making social connections where its volunteering joining club or are attending movie coming activities help improve mood and mental functioning by keeping the mind active and serotonin levels balance do not isolate yourself spend time with family or friends on a regular basis if not every day. If there is physical distance between you and loved ones, use technology to stay connected pick up the phone or start a video chat.

COMBATS DISEASES

Healthy habits help prevent certain health conditions such as heart disease stroke and high blood pressure. If you take care of yourself, you can keep your cholesterol and blood pressure within a safe range. This keeps your blood flowing smoothly decreasing your risk of cardio vascular disease. Regular physical activity and proper diet can also prevent or help you manage a wide range of health problems including metabolic syndrome diabetes depression certain types of cancer arthritis make sure you schedule a physical exam every year your doctor will check your weight, heartbeat, and blood pressure as well as take a urine and blood sample this appointment can reveal a lot about your health. It is important to follow-up with your doctor and listen to any recommendations to improve your health.

BOOST ENERGY

We have all experienced lethargic feeling after eating too much unhealthy food when you eat a balanced diet your body receives the fuel it needs to manage your energy level a healthy diet includes,

* Whole grains * Lean meats

*Low fat dairy products *Fruit *Vegetables

Regular physical exercise also improves muscle strength and boosts endurance giving you more energy, exercises help deliver oxygen and nutrients to your tissues and gets your cardio vascular system working more efficiently so that you have more energy to go about your daily activities. It also helps boost energy by promoting better sleep. These helps you fall asleep faster and get deeper sleep. In sufficient sleep can trigger a variety of problems aside from feeling tried and sluggish, you may also feel irritable and moody if you do not get enough sleep. What is more poor sleep quality may be responsible for high blood pressure diabetes and heart disease and it can also lower your life expectancy to improve time improve sleep quality stick to schedule where you wake up and go to bed at the same time every night reduce your caffeine intake limit napping and create a comfortable sleep environment. Turn off lights and the television and maintain a cool room temperature.

IMPROVE LONGEVITY

When you practice healthy habits you boost your chances of a longer life. The American council on exercise reported on an 8 year study of 13,000 people. The study showed that those who walked just 30 min each day significantly reduced their chances of dying prematurely compared with those who exercised in frequently looking forward to more time with loved ones is reason enough to keep walking start which short 5 min walks and gradually increase the time until you are up to 30 min.

THE TAKEAWAY

Bad habits are hard to break but once you adopt a healthier lifestyle you will not regret this decision. Healthy habits reduce the risk of certain diseases improve your physical appearance and mental health and give your energy level much-needed boost you will not change your mind set and behavior overnight so be patient and take it one day at a time.

BALANCE IS KEY

*Aim to make breakfast a part of your routine

*Choose complex carbohydrates lean protein sources healthy fats and a wide variety of fruits on veggies.

Stock your veggies fridge and gum bag with healthy workout snacks the right balance of carbohydrates protein and other nutrients can help fuel your exercise routine.

CONCLUSION

Our environment does not sufficiently enable the public to make healthier your choices easily unhealthy diets and physical in activity remain among the leading causes of the major NCDS and contribute substantially to the Global burden of disease our involvement includes an increasing amount of health promotion and the provision of appropriate personalized safe and effective lifestyle.

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Research Article

A comparative study of level of tension among various events of athlete

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ABSTRACT

The purpose of the present study researcher has selected 30 athletes (10 Shot Putters, 10 Long Jumpers, and 10 Sprinters) from Shri Shivaji College of Physical Education Ground, Amravati, who were participated minimum State or Inter Collegiate Tournaments. Athletes were selected with the help of purposive sampling method. The age of the athletes was ranged between 20 and 25 years. Multidimensional Assessment of Personality Series questionnaire was distributed to player's researcher explained each and every question in Marathi so that player can give correct and relevant answers. From that questionnaire, only scores of tension were taken as record for further analysis. Statistical analysis was done on the bases of one way analysis of variance to determine the significant difference if any, if difference was found significance the least significant difference (LSD) *post-hoc* test was applied. Result shows that there is significant difference between different event athletes in reference to level of tension as the calculated value F is 9.648 which is greater than tab $F_{0.05(2,27)} = 3.354$. Since the F ratio was found to be significant, the LSD *post-hoc* test is applied to assess the paired mean difference among the different event athletes in reference to level of tension, that the mean difference value of shot putters and sprinters is 2.8, as well as long jumpers and sprinters is 2.1 which is greater than the critical difference value 1.892. Hence, this was found to be significant whereas shot putters and long jumpers were found to be insignificant. In conclusion, it reveals that sprinters were highly tensed than long jumpers and shot putters. As it is found to be significant the reason may be attributed that the "sprinters" have to be always alert and energetic, sprinters observed in conjunction with cognitive-somatic anxiety independence which is the key factors to a faster race; and it indicates their superior capability to control and regulate their own pre-race fears and the physical responses according to their needs. They are more tensed as compared to long jumpers and shot putters.

Keywords: Long jumper, Runner, Shot putter, Tension

INTRODUCTION

The involvement of psychological principles for improvement of performance in sports has received greater attention in these days. There are certain accepted psychological principles which must have to be applied, so that the athletes and players are able to show their best in performances in competition. Coaches, physical educationists, and sports scientists have always egger to know more about those psychological principles, which are helpful in improving the performance of the players. It is important to know about the role of anxiety, aggression, tension, fear, emotional phenomena such as competitive anxiety and some personality traits such as extroversion and neuroticism of the players during training as well as in competitions. However, the quality of participation of the athletes in games and sports is determined by their psychological factors also. In this modern era of competition, psychological preparation of a team is as important as acquiring the different skill of a game. It is not only the proficiency in the skill which brings victory in them but more important is the mental preparation of the players with which they play and perform their best in the competition. The application of psychological principles is also important for the performance in sports and therefore, it is given greater attention in the present days. There are certain aspects were psychological principles have to be applied during training, so that players are able to show their best performance.

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The athletes who are alert and relaxed, they take better and quicker decision during a match. An over-anxious athlete may take incorrect decision. Athletes can be more motivated when they realize that they can control their inner ability such as stress, tension, fear, anxiety, etc., hence they can perform their best at their top level.

Tension is that state of nervousness, which results from the internal forces acting in opposition to each other such in emotional reactions such as anger or fear. The Inverted-U model says that an athletic performance will lose in quality if the tension level is low as well as if the tension level is very high the performance of athlete will also decrease, however the optimal level of activation arousal, tension and motivation are the one at which an athlete performs at his best or close to his maximum. This optimal level varies from athlete to athlete and in the same athlete from time to time depending on the sport, how well learned it is (automatization) and on the interpretation of bodily arousal (fight/fight).

Athlete requires tremendous physical stamina, agility, individual proficiency, neuromuscular coordination, lung capacity, quick reflexes, intelligence, and presence of mind on the field. Hence, researcher keen to know which athlete is much tensed or under pressure which directly affects athlete to take correct and incorrect decision while performing. The purpose of the study was to compare the level of tension among various events of athlete.

METHODOLOGY

To achieve the purpose of the present study, researcher has selected 30 athletes (10 Shot Putters, 10 Long Jumpers, and 10 Sprinters) from Shri Shivaji College of Physical Education Ground, Amravati, who were participated minimum State or Inter Collegiate Tournaments. Athletes were selected with the help of purposive sampling method. The age of the athletes was ranged between 20 and 25 years. Multidimensional Assessment of Personality Series questionnaire was distributed to player's researcher explained each and every question in Marathi so that player can give correct and relevant answers. From that questionnaire, only scores of tension were taken as record for further analysis.

Statistical Analysis

Statistical analysis was done on the bases of one way analysis of variance to determine the significant difference if any, if difference was found significance the least significant difference (LSD) *post-hoc* test was applied to assess the paired mean difference among the different event athletes at 0.05 levels of significance.

RESULTS

Above Table 1 shows that there is significant difference between different event athletes in reference to level of tension as the calculated value F is 9.648 which is greater than tab $F_{0.05(2,27)} = 3.354$. Since the F ratio was found to be significant, the LSD *post-hoc* test is applied to assess the paired mean difference among the different event athletes in reference to level of tension, that the mean difference value of shot putters and sprinters is 2.8, as well as long jumpers and sprinters is 2.1 which is greater than the critical difference value 1.892. Hence, this was found to be significant whereas shot putters and long jumpers were found to be insignificant.

Table 1: Comparison of Level of Tension among Shot Putters, Long Jumpers, and Sprinters

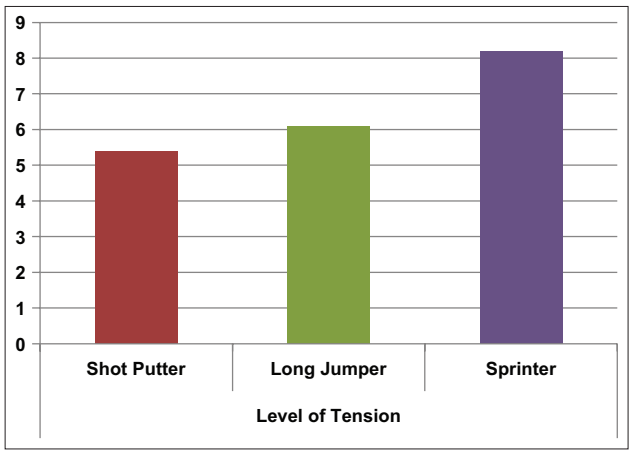
SV	SS	Df	MS	F
Between	33.2	2	16.6	9.648*
Error	46.46	27	1.721	

*Significance at 0.05 (27df) tabulated f=3.354

Table 2: Comparison of Mean of Level of Tension among Shot Putters, Long Jumpers, and Sprinters

Shot Putter	Long Jumper	Sprinter	MD	CD
5.4	6.1		0.7	1.892
5.4		8.2	2.8*	
	6.1	8.2	2.1*	

*Significant at 0.05 level



Graph 1: Mean comparison of shot putters, long jumpers and sprinters

CONCLUSION

Sprinters were highly tensed than long jumpers and shot putters. As it is found to be significant the reason may be attributed that the "sprinters" has to be always alert and energetic, sprinters observed in conjunction with cognitive-somatic anxiety independence which is the key factors to a faster race; and it indicates their superior capability to control and regulate their own pre-race fears and the physical responses

according to their needs. They are more tensed as compared to long jumpers and shot putters.

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Research Article

The role of media in the development of sports

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ABSTRACT

Media has an important role to play in bringing sports to every household in India. The role of mobile phone applications (Apps) is also important in promoting sports in the country. Today, mobile apps are being used to know the sports infrastructure in the country so that citizens are aware of the sports facilities around them. The government of India has already provided funds to six sports universities for research and development in the promotion of sports. The government is making all efforts to bring all the manufacturers to make the best sports equipment and make India a healthy and happy country. The negative phase that the country is going through at present is not hidden from anyone. Political parties are not tired of accusing each other from Parliament to the road. The extent is when the leaders, suffering from personal bias, make each other's personal and very private things public. This is not good for any leader, party, and country. In a country such as India, in the time of such crisis, whether it is media politics or the development of sports, it is playing an important role in it. How is the contribution of media to the development of sports? What is the impact of media on players? What is the importance of media in-game? This research topic has been chosen to find answers to these questions.

Keywords: Media, Sports, Development of sports, Players

DATA COLLECTION METHOD USED FOR RESEARCH

Data for the research paper have been collected from websites, books, and newspapers.

OBJECTIVE OF RESEARCH

1) To find out the importance of media in-game.
2) To study how is the contribution of media to the development of sports.
3) Understanding what is the impact of media on players.

INTRODUCTION

For any sports lover, the moment is very proud when the tricolor flutters to the tune of the national anthem. Since the "Khelo India Campaign" of the central government, the popularity of various sports has increased in Indian society. A positive atmosphere is being created for sports in different states of the country. The media should throw light on sports journalism and its challenges. Media reporting requires a holistic view of the game. Sports can show a new path to our society after the corona crisis.

This game is being played for centuries. However, this has only been documented in the past century. Moreover, while the meanings of the terms "media" and "sports" have broadened over the years; the purpose they play for each other has not changed and probably never will. Sports writing first developed in the early 19th century. The first occurrence of sports coverage occurred in 850 BC after the Greek Homer wrote about a wrestling match between Ajax and Odysseus. The Greeks also lovingly covered other sports such as throwing and boxing. However, the "newspapers" of that time were only available to the upper strata of the society and being expensive. This was the reason that only the royal and affluent class took interest in playing the game.

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Social media has a tremendous impact on Indian sports today. If you win, you will be greeted with cheers all around. However, if the team loses, then one has to be ready to face the words of abuse. Today, if a player wins a medal in sports, everyone knows his name. This was not the case till previously.

Like any Indian dish that is best served hot, the game has to be consumed when it is life to enjoy it to the fullest. If not, then all the suspense and exciting moments were missed by the fans. The need for media to cover sporting events was greater than ever. This need was addressed in April 1921, in one of the most unexpected media formats - radio. The pioneer was Pittsburgh-based Westinghouse station KDKA, which newscast live radio commentary of a 10-round boxing match-up. The first event of its kind was very well received by the general public.

There are many things in life that seem made for each other. They complement each other and none can exist together as effectively as separately. The media and sports relationship are one of those unique and long-standing companions. While the former provides on-field action, the latter is the window through which the world can connect.

Sport is very important in life. Everyone should be involved in some sport or the other. Sports bring discipline in life. Now special pages for sports are being set in Hindi newspapers also, this reflects that the environment toward sports has improved. Today, two pages of sports are published in the newspapers published from the cities of the country. This positive change is due to the increased interest in the sport.

Financially weak and women are getting encouragement for sports from the media. There should be no discrimination in sports. The social vision and market mindset toward women in sports are a challenge. Sometimes media shows cruelty in sports. A cricket team such as the West Indies, which has won for 16 years in a row and a generation has grown up watching their country's cricket team win or loses to India in the 1983 World Cup. However, this is the reality of life. The relationship between the two entities can be viewed as a one-sided affair; sports are taking over the media. However, it is similarly right that media thrives on sports as much as sports thrive on media.

THE ROLE OF MEDIA IN THE DEVELOPMENT OF SPORTS

In the economic, social, or political transformation of any democratic country, the role of the fourth pillar of that country, that is, media is very important. If we notice, the media has played a role in the freedom movement of the country. Many leaders and social workers of that time, litterateurs had done an important work of awakening the spirit of patriotism through sports, awakening the spirit of freedom through the medium of newspapers and magazines. However, at present, some electronic and print media people are tarnishing the dignity of the media by engaging in propaganda based on a particular party or individual, which is not a good sign for the political, social, economic, or sports development of any country.

In such times of COVID-19, media must play a positive role in the development of sports whether it is print media or electronic media. The media should give importance to the views of the players, things related to the development of the game, and without worrying about their "TRP." Similarly, women's debut or their success in sports should be presented in a manner that inspires women's society, along with the bad side of politics inside sports; attention should also be paid to its positive aspects. Anyway, it is said that there is no match to the power of the media. The power of the media has overturned the frames of the countries and has led many movements to their heights. Many government schemes related to sports development have been made successful. Now, the time has come for the media to recognize that power and take the young players forward in a positive direction with the right thinking in the country.

At the same time, the media should show and publish such news, events prominently, in which the cultural tradition of the country, the schemes of the government related to sports, development plans, and prosperity should be strengthened along with solving the problems related to sports development of the country.

There is a need to show some positive role models for future players in the media. Whenever people think of sports in India, they certainly think of cricketers. They feel that the chances of success are high here. Thus, they begin to invest more resources—their time, money, and effort—in sports training, equipment, and the sport as a whole. Moreover this, in turn, triggers other changes that revolutionize the sports sector, while resulting in economic growth.

The relationship between sports and advertising is traditional in nature. In fact, it is hard to imagine where sports would be today without advertising. Today, advertising has turned sports into one of the most profitable industries in the world. However, over the years, the term "sports advertising" has changed significantly. Conventionally, this included advertisements that helped corporations sell their products in front of sponsorships, television, sales, and printed materials. However, today, sports advertising also include digital marketing, social media, and digital content. Today, sports advertising can be seen as a subdivision of marketing focusing on promoting both organizations (and their products) as well as sporting events and teams. The ultimate goal of this method of marketing is to create a strategy to exploit the multiple aspects of the game to promote a brand, product, or service. These aspects include broadcasting, social media; ticket sales, advertising,

digital platforms, and community relations that are generated by the media.

Today, online streaming is now expected to carry forward the legacy of television, leveraging live events on the go. In addition, social media has enabled sports organizations to directly tell their stories to sports fans through various digital channels. Furthermore, this is the first time fans can get in touch with their favorite clubs. All these developments in media have turned sports into the profitable industry it is today. With the changing dynamics of media, the relationships shared by fans, clubs, and sports stars are also changing. It will be interesting to see how this multi-faceted relationship between the two entities takes a turn in the future.

With the help of social media, players develop a better ideology on many issues related to many sports. To enhance networking skills, players learn new things and get to know each other's ideas related to the game.

We keep thinking about drastic changes in the sports field and many sportspersons bring gold, silver, and bronze medals to the Olympics. Everything has changed in the sports arena. The attitude of the people, participation in sports, and the infrastructure and facilities available to the players has all changed. Moreover, it has caused the biggest change in the sports industry in India. As an athlete, the player can feel and see it everywhere.

Over the years, the media has done wonders in the development of the sports industry. From mobile apps and TV channels to magazines and meme pages, we must thank them for taking the sports industry to new heights. Not only this, today, there has been a big change in the media interviews and newspaper reports too. As the greater the media coverage of an event, the more it is embedded in one's system. The more the media covers it, the more conversations start everywhere. If the media thinks that the player has done wonders, then the people of India feel the same way.

CONCLUSION

The media will have to disseminate even success stories of sporting role models. One must talk about someone who never gave up on his dreams and is now one of the top athletes of India. By bringing to the fore the untold stories of these individuals, the media should show the success stories of those people. This, if amateur and professional athletes from disadvantaged athletes think of sport from the perspective of the economic divide, they will find that there are many success stories and they will continue to invest their time and effort in the game. If India has to grow in sports in the next few years, sports news and media must do so.

SUGGESTIONS

- Media reporting requires a holistic view of the game.
- Before making sports compulsory in schools, it should be made compulsory at home.
- Sports-related information should be easily accessible through mobile apps.
- The media should talk about the icon at every level so that the dreams of the local youth can also be supported.

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Research Article

Obesity and its management

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INTRODUCTION

Obesity is a major problem in the 21st century. The main reason is our changed lifestyle and wrong eating habits. Body fat never increases suddenly. The present state of the advance technology has greatly reduced the physical efforts of humans, for example, for household chores mixers and grinder make help in cooking, washing machines for washing clothes, dishwasher for cleaning dishes and pots, refrigerators in the house means do not take efforts to bring vegetables again and again from market, and walking became less frequent as trains (bike and cars) arrived at almost everyone's homes. Our generation mostly eats hybrid food, junk food, oily, and unhealthy food that is affect on obesity strongly. If we look at the history, we can see that people used to have a lot of physical efforts to do their works. Because these facilities not available at that time because of this, they had to work hard. Furthermore, they were eating healthy and full of nutritious food.

According to the WHO, 2017, survey studies have reported that globally, more than 1.9 billion adults are overweight and 650 million are obese. Globally, 40 million preschool children were overweight and approximately 2.8 million deaths are reported as a result of being overweight or obese.[1]

WHAT IS OBESITY?

Obesity means an excessive amount of body fat. Obesity creates many unwanted things, for example, poor or bad body shape also increases diseases and health problems, such as diabetes, heart disease, and high blood pressure. There are many reasons some people cannot avoiding obesity. Usually, obesity comes from unhealthy food intake, heredity, lack of exercise, and many reason are there.[2]

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DEFINITION OF OBESITY

1. A condition characterized by the excessive accumulation and storage of fat in the body

   Maloray Allison
2. Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health. A body mass index (BMI) over 25 is considered overweight, and over 30 is obese.

   World Health Organization

LEADING CAUSES OF OBESITY

Genetics

Obesity has a genetic component. Many times we see in the society whose parents are obese their children are also obese and whose parents are got a lean body and also their family members are lean their children's are also got a lean body or that type of physics. That not means that obesity is completely preordained. What you eat in your day-to-day life and what is your eating habit it can major effect on obesity.[3]

Junk Foods

Junk foods are in high calories and it is highly processed with low nutrients. These products are planned for past long on the shelf, also make to be cheap and tasty so amazingly good and so that they are hard to refuse. At the time of making junk foods manufacturer specially focus on make it tasty as possible, for that manufacturers add salt and many ingredients and trying

to increase their product sales. However, they also encourage overeating.[3]

Food Addiction

Many high-fat junk foods energize the attraction centers in your brain. At the time of making this type of foods, manufacturer adds some addictive ingredients or drugs such as alcohol, cocaine, nicotine, and cannabis. Some susceptible individuals can easily addict toward these type of junk food. These people cannot control to eat junk food for test only. Addiction is a complicated issue that can be very hard to overcome. When someone becomes addicted to junk food eating, they lose their freedom of choice and that addiction becomes a habit.[3]

Insulin

To regulate energy storage among in our body and other things, insulin hormone plays very important role. Many functions done by insulin in our body regarding energy storage. Insulin direct fat cells to store fat and to hold fat they already carry. The unhealthy, oily, and western diet remote insulin resistance in many obese individuals. This raises insulin levels all over the body, and due to this energy to get stored in fat cells instead of being available for use. Many studies suggest that high insulin levels have play a causal role in the increasing of obesity, but insulin's role in obesity is controversial still.[3]

Medications

There is many medication that may cause for weight gain as a side effect. For example, insulin, thiazolidinediones, and sulfonylureas. Clozapine, Antipsychotic medicines such as haloperidol, lithium, risperidone, olanzapine, and quetiapine. These drugs alter the function of your body and brain, and also reducing metabolic rate with is very important reason to get over weight or increasing appetite that's why peoples intake more food and cannot digest properly.[3]

Leptin Resistance

In our body, leptin hormone secretion plays an important role in obesity. It is developed by fat cells and its blood levels increase with higher fat mass. This is a reason in obese people leptin levels are especially high. Which people are living healthy life style and health conscious in their life, high leptin levels are linked to reduced appetite. Many times leptin not working properly in many obese people, because it cannot cross the blood-brain barrier. This condition is leptin resistance and it is believed this is a one of the leading reason to increase obesity.[3]

Excess Dietary Sugar

Excess dietary sugar is one of the aspects causing obesity. Sugar is a source of carbohydrate which provides energy to our body. Sugar is half glucose and half fructose. If glucose is not sufficient, as per metabolic energy high demand than fructose is used as an alternative metabolite in providing energy. Excess fructose intake in daily diet schedule may cause insulin resistance and upraised insulin levels. People get glucose from day-to-day life food consumption, but the named fructose components majority comes from added sugar. Due to all these reasons, excess dietary sugar store excess extra energy in our body and ultimately it results obesity.[3]

OBESITY MANAGEMENT

- Exercise: (1) Cardio exercise and 2) Weight training.
- Diet: (1) Eat more negative calorie food, (2) Add metabolism booster, and (3) Change some eating habits.

Exercise

Cardio exercise

In Cardio exercise, our body heart rate raises. We can say, this is in easy way this is an aerobic exercise. In this exercise, it will help us to keep continue in target hart rate zone. In that zone, where we can burn the fat and calories. At the time of doing cardio-exercise that gets your heart rate up. This type of exercise duration is much more than regular exercise and beneficial for use body fat as an energy so people use it solely for weight loss, cardio exercise has other benefits which are helpful for stay fit. Example of cardio exercise – running, swimming, zumba dance etc.[4]

Benefits of cardio exercise

- Burns excess fat
- Increases muscular strength
- Increases lung capacity
- Increases bone density
- Lowers stress
- Promotes feeling good
- Reduces risk of heart attack

Weight training

Weight training is strength training. Which exercise we do with weight in proper manner and technique for developing our muscular strength and size of skeletal muscles. These types of exercise do with weighted bars, dumbbells, or weight stacks even with our own body weight. At the time of weight training, we can focus on specific muscle effectively such as biceps, triceps muscles in the right angle, and with proper calculated weight.[5]

Benefits of Weight training

- Increase muscle size
- Increase muscle strength
- Increase muscle endurance
- It improves bone density

- Decrease fat level
- Boost energy levels.

Diet

Eat more negative calorie food

Eat more negative calories foods it will help to burn more calories at the time of digestion. For example - Arugula, Beets, grapefruit, celery, apple, orange, lemon, lettuce, broccoli, and cabbage.

Add metabolism Booster

Metabolism is a process of our body related to digestion process to make and burn energy from food. Some community sells outputs that presumably boost your metabolism. Most pretension they do this through a procedure called thermogenesis, or raised heat production. This procedure stimulates energy use and then it can increase your metabolism and thereon it helps burn calories.

Change some eating habits

- Use jiggery instead of sugar for sweetens.
- Use fresh fruit juice instead of fizzy drinks.
- Use broun rice instead of white rice.
- Use broun bread instead of white bread.
- Use minimum oil at the time of cooking.
- Drink ten glass of water or 5 liters water in a day.

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Research Article

Psychological feature to manage with sports traumatology

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ABSTRACT

It was observed that nearly 75% of all skillful players carry at least one injury during a period of practice or competitions. For the recovery, it is the requirement of an average of 21 days to 3 months or more. The time spent on the treatment might be 2–3 days but rehabilitation period or rest period may extend to 6 months. Such type of injuries had the adverse effect on the performance of the athletes. When thinking on such type of injury, I had an opinion that such incidences may occur due to certain physical deformities or had a psychological effect. Psychological aspects of injury rehabilitation, various links, tutoring, and social hold up. Rehabilitation programs must consider both the physical and psychological aspects of injury if recovery is supposed to be successful. Moreover, coaches have an imperative role to play in this course of action. Even a little amount of shared support can have a profound and significant facilitating result on a player's recovery. On the other hand, doing nothing can also have a profound effect - damaging the recovery of the very same player that the coach very much wants to be fit again. It is expected that the greater understanding of the psychology of injury needs to offer coaches with some key recommendations and strategies that can be used to make the psychosomatic rehabilitation of their players more effectively.

Keywords: Injury, Rehabilitation, Psychological Aspects

INTRODUCTION

It was studied that nearly 75% of all skillful players carry at least one injury during a period of practice or competitions. For the recovery, it is the requirement of an average of 21 days to 3 months or more. The time spent on the treatment might be 2–3 days but rehabilitation period or rest period may extend to 6 months. Such type of injuries had the adverse effect on the performance of the athletes. When thinking on such type of injury, I had an opinion that such incidences may occur due to certain physical deformities or had a psychological effect. Psychological aspects of injury rehabilitation, various links, tutoring, and social hold up. Rehabilitation programs must consider both the physical and psychological aspects of injury if recovery is supposed to be successful. Moreover, coaches have an imperative role to play in this course of action. Even a little amount of shared support can have a profound and significant facilitating result on a player's recovery.

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While physical factors such as muscle imbalance, high speed collision, over-training, and physical fatigue are the direct primary cause of such injuries, stress related psychological factors also make an indirect contribution. Loss of concentration, becoming more easily distracted and "tightening up" during game represent psychological deficiencies associated with an increased risk of injury. These deficiencies are, in turn often a consequence of the increasing "on and off the field pressures" typical of those faced by players in today's high profile game. The evidence is clear. Players with higher levels of nervous tension are more likely to experience injury, emphasizing the important role of stress management strategies. Once an injury is sustained, various psychological reactions follow. It is important that coaches have knowledge of these reactions, and understand the signs that may help to identify poor injury adjustment. Furthermore, the primary concern of both player and club is successful rehabilitation, and there are many psychological factors that can influence the quality and speed of recovery. The aim of this article is to provide an insight into the typical psychological reactions to injury, and offers key psychological recommendations that will help rehabilitation.

PSYCHOLOGICAL RESPONSES TO INJURY

The psychological effect to injury is subject to a degree of individual difference. However, most players are likely to progress through three general categories of response, with the speed and effortlessness with which they do so varying extensively.

1) Injury Relevant Information Processing - the player will focus on the pain, extent, and negative consequences of injury, and asks questions about how the injury happened.
2) Emotional disruption and Reactive behavior - the player will draw out emotional reactions such as surprise, rejection, doubt, self-misfortune, and temper turbulence such as increased worry, fretfulness, sadness, and fury.
3) Optimistic viewpoint and Coping - the player will accept the injury and exhibit a hopeful and affirmative attitude in attempting to manage.

OTHER REACTION

- Identity Loss - the player will experience a threat to/loss of personal identity. The injury forces them to unfasten from an activity that is central to making them what they are, and they lose an important part of themselves.
- Isolation - the player will feel lonely and experience separation from the team and his/her team-mates. An important element of the player's social support system is lost.
- Fear and Anxiety - the player faces an uncertain future and will worry about making a full recover, possibilities of re-injury, regaining a place in the team or in extreme cases, the ability to play again.

Lack of Confidence and Performance Decrements - the player will question his/her physical status, believing one to be more vulnerable to injury. The individual may become more tentative and cautious in play, trying to protect the injury. This translates into performance decrement, which can further erode confidence and leads to more anxiety and frustration.

SIGNS OF POOR ADJUSTMENT

Coaches are in an excellent position to identify whether a player is adjusting poorly to injury. However, without an understanding of the psychological reactions to injury, important signs of problematic adjustment may be missed, thus prolonging recovery. Look out for the following:

- Proof of anger and confusion;
- Passion with the question "at what time can I play again?"
- Refutation, reflected in remarks such as "The injury is no big deal."
- A history of corning back too soon and experiencing re-injury;
- Exaggerated bragging about accomplishments in and out of sport;
- Dwelling on minor physical complaints;
- Interpretation about letting the team down or fault at not being able to contribute;
- In excess of dependence on the physiotherapist;
- Pulling out from importance of others, such as the physiotherapist, coach, teammates, family or friends;
- Rapid mood move back and forth or unusual changes in behavior;
- Statements signifying vulnerability, such as "it does not matter what is done, I will not recover." *(Adapted from Weinberg, R S and Gould, D 1999. Athletic Injuries and Psychology. In Foundations of Sport and Exercise Psychology, Champaign, Illinois, Human Kinetics, pp. 397-411).*

PSYCHOLOGICAL ASPECTS OF INJURY REHABILITATION

The most successful injury rehabilitation programs are those that have adopted a holistic approach (i.e. one that supplements physical therapy with psychosomatic strategies to facilitate recovery). One of the roles of the sport psychologist is to equip the player with the necessary management skills to facilitate rehabilitation. The use of mental skills such as goal setting, positive self-talk, imagery visualization, Shavasana, and relaxation training has all be shown to help players to control over their reaction to injury not only deal effectively with the rehabilitation process but also to deal with setbacks should they occur.

VARIOUS LINKS

The extreme emotions that injured players' occurrence often make it difficult to establish and build relationship, yet this is middle to successful rehabilitation. The solution is to make the player feel understood and agreed, and this can be done by adopting the following dealings.

i) Having sympathy with the player will show an understanding of the injury and coupled feelings from the player's viewpoint.
ii) Showing emotional hold up and "being there" for the player will reduce the exposure and sense of loneliness.
iii) Enlisting the player as part of the planning and accomplishment of the psychoanalysis program will show a recognition of his/her role in the route, and give the player a fundamental sense of manage.

TUTORING

It is important to give the players accurate information that will help the sports persons to understand the injury in realistic terms, and the recovery process that they will undertake. This is often the most important responsibility of the physiotherapist. Furnish information queue as:

a) The nature of the injury and the medical reasons for commencing particular healing methods
b) The objectives of treatment
c) Particulars of medical procedures that will be execute
d) Possible feelings or side effects
e) How and at what time physical and psychological changes might occur.

The product is a player who experiences concerned in the treatment process, and the player who is kept in the representation is the one who has the familiarity in better psychological rehabilitation. The effect of superiority of medical information is to reduce the overstated fear of the unknown that is often caused by vague or unsatisfactory provision of information. Players refer to such deprived quality medical information as being one of the primary factors that obstruct psychological rehabilitation, as it does nothing to reduce their doubts and fears regarding the status of their injury or their prospect and future in the game.

SOCIAL HOLD UP

Injured players need social shore up. The players need to know that considerable others care about their well-being and will pay attention to their anxiety. Expectation of social support from the coach, physiotherapist, teammates, friends, and family of the injured player is so significant that it can facilitate or debilitate rehabilitation. The coach is essential to the support process, as the injured player must be completed to feel sought after the injury. There were many proofs that fine social support from coaches, where a concerted effort is made to maintain close and frequent personal contact with the player and an active interest in the individual's recovery is vital effect on recovery. Sorry to state, there is also evidence of emotional support being inadequate in practice. In one particular study of severely injured professional footballers, 67% of the sample cited a lack of listening or emotional support from their coaches as a major factor that slowed down psychological rehabilitation. Players felt that their relationship with the coach changed once they became injured. Contact became less frequent and more distant, which led the player to feel like "a difficulty," "a problem," "an outcast," and "bothersome". Such an absence of understanding encourages the player to foster the feelings of separation and emotional dysfunction that are so psychologically damaging to improvement. Sometimes coaches may feel uncomfortable or terrified to talk to the player about the injury, and intentionally avoid all talk of either the injury or the sport. At the same time as this may be difficult to beat, it is essential. Failure to do so disagree with the player the support needed to smooth the progress of psychological adjustment.

CONCLUSION

Rehabilitation programs must consider both the physical and psychological aspects of injury if recovery is supposed to be successful. Moreover, coaches have an imperative role to play in this course of action. Even a little amount of shared support can have a profound and significant facilitating result on a player's recovery. On the other hand, doing nothing can also have a profound effect - damaging the recovery of the very same player that the coach very much wants to be fit again. It is expected that the greater understanding of the psychology of injury needs to offer coaches with some key recommendations and strategies that can be used to make the psychosomatic rehabilitation of their players more effectively.

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Research Article

Effect of harness training on vital capacity of football players of Asansol

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Received: XXX **Acceptance:** XXX

ABSTRACT

The purpose of the study was to see the effect of harness training on vital capacity of football players. For this purpose, researcher has selected 40 male football players from various football clubs of Asansol, who have at least participated in state level tournaments. Football players were selected with the help of purposive random sampling methods. The age of the football players were ranged between 20 and 25 years. They were randomly assigned into two groups, that is, experimental group and control group. Experimental group has gone through 6 weeks of harness training program. A control group football player has gone through their regular training program. The experimental group football players were wore the belt around the waist with the D-ring positioned behind them. The training partner holds the handle directly behind the runner. Before starting the drill, the training partner insures that there is a slight tension in the nylon lead. Vital capacity was measured using the equipment of peak flow meter. Pre-test and pos*t*-test of control and experimental group were taken. After taking data of pre-test experimental group were gone through harness training whereas control group was gone through their regular practices. After competition of 6 weeks, pos*t*-test was conducted. Statistical analysis was done on the basis of *t*-test at 0.05 level of significance. Result shows that on the basis of mean difference there was difference between the means of pre- and pos*t*-test of control and experimental group of football players in reference to vital capacity. To see this difference is significant or not, researcher further calculated *t*-test and it revealed that there is significant difference between pre- and pos*t*-test of experimental group of football players as the calculated $t = 6.084$ is greater than tabulated $t = 2.024$. However, there is insignificant difference was found between pre- and pos*t*-test of control group of football players, as the calculated $t = 1.439$ is lesser than the tabulated $t = 2.024$. The difference may be attributed that harness training strengthen the cardiovascular system, enhance your heart and increase your muscles' blood flow, which eases your body's ability to deliver oxygen to your muscles as compared to regular training program.

Keywords: Harness training, Vital capacity, Football players

INTRODUCTION

Football game has been traced back in the year 1863 in England it was called as Soccer, at that time The Football Association in England was formed and it is the oldest football association in the world. The two types of football originated from a typical root and both have a long and unpredictably spread tribal tree. Their initial history uncovers at any rate about six unique games, shifting to various degrees and to which the chronicled improvement of football is connected and has really been followed back. Regardless of whether, this can be supported in certain occurrences is questionable. All things considered that playing a ball with the feet has been continuing for a many decades and there is positively to accept that it is a deviation of the more "common" type of playing a ball with the hands.

Football game is not just a game; it is a passion, hope, and religion for its lovers. Football game is most probably played by every nation, both of shake of enjoyment and as well as various competitions. The spectators and footballers enjoy the game of football with the great amount of merriment. Football is a game which requires strenuous continuous thrilling actions and therefore, it requires a large amount of physical,

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physiological, and psychological abilities, in spite of this the motor abilities also play an important role to give a high level of performance in football.

Motor development encompasses the development of ability which is essential to the movements and subsequent acquisition of the performance of any skill. In general, motor skills are developed from the childhood onwards when the children start to run, jump, or play. These are then gradually converted to specific motor skills, when advanced training takes place in a particular event and it goes a long way in making a person proficient in that particular field or sports. Motor fitness is concerned with the capacity to move the body efficiently without undue fatigue, with special regard to big muscle groups. It is actually a limited aspect of general motor ability, emphasis being placed on the underlying elements of vigorous physical activity, but does not include the neuromuscular coordination involved in motor skills, muscular power, agility, speed, and flexibility are added to basic physical fitness components of muscular strength, muscular endurance, circulatory, and respiratory endurance to compose motor fitness.

There are various types of training methods through which an athlete can improve his performance or fitness. These methods include weight or resistance training, plyometric training, circuit training, interval training, aerobic, or continuous training, etc. There is also some other various training methods which are unknown to many athletes these also can use to obtain the required improvement in performance as well as fitness which is mainly based on physiological parameters.

Harness training is the training given to an individual by holding his back while sprinting, this is so that when the resistance is removed from the body muscles will still activate and are faster. The affect from the harness training helps to developed the resistance and specify the training set ideally for football players. As the harness training represents the opposition tackler, this can help an athlete to increase the ability of physiological parameters making an athlete to burst through the challenge.

METHODS

The purpose of the study was to see the effect of harness training on vital capacity of football players. For this purpose, researcher has selected 40 male football players from various football clubs of Asansol, who have at least participated in state level tournaments. Football players were selected with the help of purposive random sampling methods. The age of the football players was ranged between 20 and 25 years.

They were randomly assigned into two groups, that is, experimental group and control group. Experimental group has gone through 6 weeks of harness training program. A control group football player has gone through their regular training program.

HARNESS TRAINING

The experimental group football players were wore the belt around the waist with the D-ring positioned behind them. The training partner holds the handle directly behind the runner. Before starting the drill, the training partner insures that there is a slight tension in the nylon lead.

Weak 1 and 4

Monday: Warm-up, light harness training start—fast over 30 m × 3–4, and cool down.

Wednesday: Warm-up, left leg lead ten bounds plus run out to 50 m × 2–3, and cool down.

Friday: Warm-up, 1 min easy, 2 min hard, 1 min easy; 3 min hard; 1 min easy, and cool down.

Weak 2 and 5

Monday: Warm-up, heavy harness sprints from crouch (40 m × 3–4), and 5 m cool down.

Wednesday: Warm-up, fast knee lift max speed of limb (30 m × 3–5), and cool down.

Friday: Warm-up, high knee prancing (60 m × 4–6), and cool down.

Weak 3 and 6

Monday: 5 min warm-up, heavy harness sprints (40 m × 4–5), and 5 m cool down.

Wednesday: Warm-up, thigh-high/fast knee lift/max speed of limb (30 m × 3–5), and cool down.

Friday: Warm-up, sprint stride power running over 100 m × 3–4, and cool down.

CRITERION MEASURE

Vital Capacity

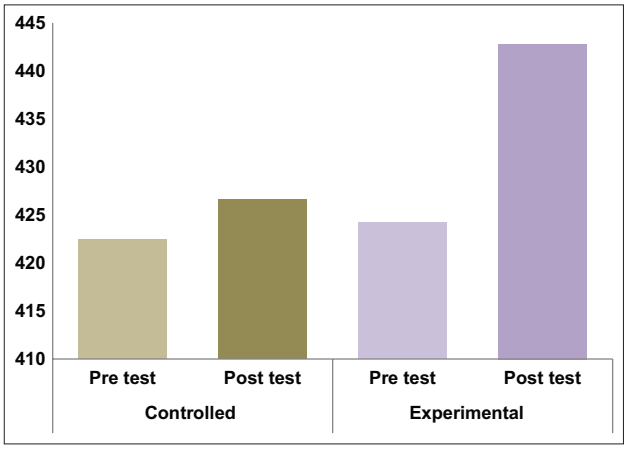
Vital capacity was measured using the equipment of peak flow meter.

Pre-test and pos*t*-test of control and experimental group were taken. After taking data of pretest experimental group were gone through harness training whereas control group was gone through their regular practices. After competition of 6 weeks, pos*t*-test was conducted.

Table 1: Comparison of pre- and post-test

Variables	Group	Test	Mean	SD	SE	MD	DF	Obt. "t"	Tab "t"
Vital capacity	Controlled	Pre	422.4	8.54	2.917	4.2	38	1.439	2.024
		Post	426.6	9.86					
	Experimental	Pre	424.2	8.78	3.057	18.6		6.084	
		Post	442.8	10.48					

*0.05 level of significance



Graph 1: Vital capacity

Statistical Analysis

To see the effects of harness training, on vital capacity of football players, the *t*-test was applied by the researcher and level of significance was kept 0.05 at 38 df.

Above Table 1 shows that on the basis of mean difference there was difference between the means of pre- and post-test of control and experimental group of football players in reference to vital capacity. To see this difference is significant or not, researcher further calculated *t*-test and it revealed that there is significant difference between pre- and post-test of experimental group of football players as the calculated $t = 6.084$ is greater than tabulated $t = 2.024$. However, there is insignificant difference was found between pre- and post-test of control group of football players, as the calculated $t = 1.439$ is lesser than the tabulated $t = 2.024$.

CONCLUSION

The above table shows that on the basis of mean difference there was much difference between the means of vital capacity of football players. To see this differences are significant or not at 0.05 level of significance. Researcher further calculated *t*-test and above table shows that there was significant difference between pre- and post-test of experimental group of football players in reference to vital capacity. The difference may be attributed that harness training strengthen the cardiovascular system, enhance your heart, and increase your muscles' blood flow, which eases your body's ability to deliver oxygen to your muscles as compared to regular training program.

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Research Article

The importance of physical activities in day-to-day life

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INTRODUCTION

Physical education is about developing an understanding of how to exercise. It may entail participating in a team activity with your peers, such as rugby, or it could impact your aerobic activity. Physical education may also have a theoretical component, as students may study muscle types and appropriate nutrition. On the other hand, physical education is very much on physical mobility, as the name implies. A physical education class, for example, could include a soccer match. Alternatively, it might consist of an hour of aerobics with a break in the middle. Lessons in physical education should be age and ability appropriate for the students enrolled in physical education. For example, more minor children lack the endurance necessary to run the distances that older adolescents can. Lessons in physical education should always be empowering. Although certain sports may include competition, it is essential to ensure that all players are having fun. As a result, good sportsmanship is a critical skill that students will acquire in physical education.

A successful physical education session will leave kids feeling energized, confident, and capable of participating in any sport or physical activity. This will ensure that they are properly prepared for the subsequent session.

Physical education is important in today's society. Only through hard labor and exercise can a person live a healthy life. Physical fitness is about more than just having a healthy physique; it is about having both physical and mental wellness. Being healthy must become a part of our everyday routine. In this day and age of technology, no one has time to play any indoor or outdoor games.

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Exercise is an essential component of maintaining excellent health throughout one's life! Exercising is also enjoyable and may be done with company. Regular exercise improves both mental and physical health. A condition or state of being that enables you to appear, feel, and perform at your best. It is the capacity to accomplish jobs that require a lot of energy while still having time to do other things, such as schooling and activities with family and friends. It is the foundation of excellent health and well-being. Fitness entails the performance of the heart and lungs, as well as the body's muscles. Fitness may also affect your level of alertness and emotional well-being. Physical exercise may also promote mental health by assisting with stress management, spiritual health by concentrating on nature and physical sensations, and social health by exercising with others. Furthermore, physical exercise may assist to reduce and postpone the consequences of ageing, as well as aid in the recovery after diseases and medical treatments. Furthermore, physical exercise may boost your confidence and, as a result, your self-esteem by assisting you in maintaining a healthy body weight and a positive body image.

It is so important to get at least 20 min of exercise on average every day. Scheduling physical education into the school day makes it so much easier to get the exercise that your body needs. It also means that children get into good habits regarding exercise from an early age, habits which they can carry into adulthood. Physical education is also important because it teaches skills such as team playing, mutual support, and also practically teaches kids how to play various sports.

Physical education lessons can be the place where the great athletes of the future can be discovered. Many physical education teachers will encourage their best athletes to try out for regional events, and that may ultimately lead to that athlete competing at a national and then international level. Even if a child is not an amazing athlete, though, physical education will leave them feeling more confident about their body: Strong,

flexible, and dynamic. Physical education can be enjoyed by absolutely everyone, at all levels. Physical activity leaves you feeling great both mentally and physically: People who exercise more generally feel more positive about their life than do people who have a more sedentary lifestyle.

Communities can come together through physical education. You can get involved, too, by setting up a sports club or volunteering to help out with physical education. Physical education can also take place after school or in the community away from the school. The importance of physical education and physical activity in our society is encouraged by a number of guiding principles entrenched in active living.

IMPORTANCE OF REGULAR PHYSICAL ACTIVITIES

- Physical education promotes a way of life that puts a high emphasis on physical activity and encourages people to enjoy and integrate physical activity into their daily lives.
- It supports the idea of individual choice in the learning environment by adjusting to the requirements, interests, and circumstances of each learner who participates.
- In addition to increasing physical and cognitive skills, it also contributes significantly to the overall well-being of all learners, including spiritual development.
- It contributes to the facilitation of learning processes that encourage critical thinking, thus having an impact on both the personal health of learners and the overall well-being of society.
- To safeguard human rights while simultaneously encouraging the development of supportive and sustainable environments, individuals are urged to engage in self-reflection and awareness.
- It discovered to be enormous sources of pleasure and happiness.
- It has the dual benefit of strengthening the body and rejuvenating the mind.
- It decreases the risk of developing diabetes.
- As a result, the risk of having high blood pressure is reduced.
- Blood pressure will be reduced in those who currently have excessive blood pressure.
- It improves the chance of preventing the development of colon and breast cancer, among other diseases.
- This supplement helps you maintain a healthy weight.
- The formation and maintenance of healthy bones, muscles, and joints are made possible with the help of this supplement.
- Assisted in the development of increased strength as well as an enhanced capacity to walk about without falling in older adults.
- It is beneficial in alleviating the symptoms of depression and anxiety.
- It contributes to the improvement of one's psychological well-being.
- This supplement aids in the control of weight, the growth of lean muscle, and the elimination of fat deposits.
- The decrease of joint swelling and pain associated with osteoarthritis is aided by this treatment.
- It aids in the alleviation of the symptoms of anxiety and depression, as well as the promotion of improvements in mood and overall feelings of well-being.
- Some women with high blood pressure may benefit from taking medication to reduce their blood pressure levels.

To be healthy in a more holistic sense, a person must be physically active, in high spirits, and free of illness and suffering to some degree to be considered well. Fitness and well-being have always been treated as though they were purely personal and individual concerns. More lately, however, health has risen to the level of a national concern, if for no other reason than that an ever-increasing proportion of our national income is being spent on health care. Individuals' levels of physical fitness tend to differ from one another. It seems to vary according to the character of a person, depending on whether he is sedentary or active in his activities and movements.

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Research Article

Intersportive differences in maximal aerobic and anaerobic capacities of male athletes

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Received: XXX **Acceptance:** XXX

INTRODUCTION

For the physiological system of the body to be fit, the systems must function well enough to support the specific activity that the individual is performing. Moreover, different activities make different demands on the organism with respect to circulatory, metabolic, neurological, and temperature-regulative functions.

Physiological fitness is specific to activity. Physiological systems are highly adaptable to exercise. Each task requires effective functioning of the appropriate system.

The longer duration and higher intensities of exertion demanded by modern competitive games call for high levels of specific fitness on the part of the players, to play to the end with undiminishing levels of skills as at the commencement of the game. Speed, strength, and endurance are interrelated, in as much as to develop one factor, attention is to be given to other two factors as well. However, physiologically, it is the anaerobic and aerobic capacities which are the limiting factors for the tasks involving high intensity of exertion and sustaining a task for longer duration, respectively.

It has been estimated that for short duration intensive exercise the energetics of muscular contraction depend on the maximal anaerobic alactic power (Prampero and Mognoni, 1981); and for prolonged endurance activity it is the aerobic capacity that plays an important role (Briggs, 1975; Lawson, 1975; Withers *et al*., 1977; and Pollock and Pate, 1980). Differences in aerobic and anaerobic capacities have been reported among athletes and non-athletes (Caru *et al*., 1975), and also among athletes in different events (Malhotra *et al*., 1972; Schreiber, 1973; and Qiau Juxiang, 1982).

The purpose of the present study was to determine the differences in maximal aerobic and anaerobic capacities of male athletes participating in different games, namely, volleyball, football, badminton, swimming, judo, gymnastics, and track and field (middle/long distance runners).

METHODOLOGY

The subjects for the present study were 56 male athletes consisting of eight from each group, namely, volleyball, football, badminton, swimming, judo, gymnastics, and track and field (middle/long distance runners), who had represented Jiwaji University in the inter university competitions. Their age ranged from 18 to 25 years. The maximal aerobic capacity was determined by the indirect method using Astrand - Astrand Nomogram (Fox *et al*., 1989) and finally the score of the individual subjects was divided by their respective body weight, so that maximal aerobic capacity was estimated in terms of ml/kg./min. The maximal anaerobic capacity was calculated following the Lewis Nomogram (Fox *et al*., 1989) and recorded in kg.-m/sec.

The one way analysis of variance was computed to compare among the different groups on maximal aerobic and anaerobic capacity. To test the significance of difference between the paired means, where F-ratio was found significant, the L.S.D. post-hoc test was applied. The level of significance chosen was 0.5.

RESULTS AND DISCUSSION

The analysis of data is presented in tables 1-4.

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Table 1: Analysis of variance of maximal aerobic capacity of male athletes in different games

Source of variance	Df	SS	MSS	F-ratio
Between	6	347.77	57.96	
Within	49	309.10	6.308	9.18*

Significant at 0.05 level. F.05 (6.49)=2.29

Table 2: Significance of difference between the paired means of maximal aerobic capacity among male athletes of different games

S. No.	Groups	Means	Mean difference				
			VB	FB	SWM	BDN	GYM	JUDO
1.	Track and field (middle/long distance runners)	63.73	7.82*	9.72*	12.91*	15.01*	20.01*	22.44*
2.	Volleyball (VB)	55.91		1.9	5.09*	7.19*	12.”9*	14 62*
3.	Football (FB)	54.01			3.19*	5.29*	10.29*	12 72*
4.	Swimming (SWM)	50.82				2.1	7.1*	9.53*
5.	Badminton (BDN)	48 72					5 0*	7.43*
6.	Gymnastics (GYM)	43.72						2 43
7.	Judo	41.29						.

*Significant at 05 level. The limit of confidence interval at 0’ level is 2 52

Table 1 indicates significant F-ratio for the maximal aerobic capacity among male athletes of different games. To test the significance of difference between the paired means, the L.S.D. post-hoc test was applied.

Table 2 indicates significant difference in maximal aerobic capacity for the track and field (middle/long distance runners) when compared with all the other groups (volleyball, football, swimming, badminton, gymnastics, and judo). The aerobic capacity of the volleyball group was significantly higher than the swimming, badminton, gymnastics, and judo groups. Significant differences were also observed for the football group when compared with swimming, badminton, gymnastics, and judo. The aerobic capacity of the gymnasts and judokas was almost similar, and was significantly lower than all the other groups.

The higher values of maximal aerobic capacity for the track and field athletes are obviously due to the reason that the athletes in the group were middle/long distance runners. Since the nature of the activity is such that it demands prolonged exercising and training runs of longer duration and distance, it is more dependent on the efficiency of the oxygen transport system (Lawson, 1975 and Withers *et al*., 1977). The non-significant differences in maximal aerobic capacity among the adjacent groups such as volleyball and football, and swimming and badminton, may be attributed to the similar nature of their activities such that the physiological demands as a result of participation in those disciplines are also similar.

The lesser values of aerobic capacity for the gymnasts and judokas are probably due to the reason that their activity is more anaerobic in nature and less dependent on the aerobic system (Horswill, 1980). It has already been indicated that even the international level gymnasts use only 35% of their maximal aerobic capacity during the execution of gymnastic routines (Montpetit, 1972).

Table 3: Analysis of variance of maximal aerobic capacity of male athletes in different games

Source of variance	Df	SS	MSS	F-ratio
Between	6	4428.21	738.03	
Within	49	5446.61	111.15	6.64*

Significant at 0.05 level. F.05 (6.49)=2.29

Since Table 3 indicates significant F-ratio for the maximal anaerobic capacity among male athletes of different games, the L.S.D. post-hoc test was applied to test the significance of difference between the paired means.

Table 4 reveals that there were significant differences in maximal anaerobic capacity for the volleyball group when compared with judo, swimming, badminton, gymnastics, and track and field (middle/long distance runners) groups. Significant differences were observed for the football players when compared with gymnasts and track and field (middle/long distance runners) athletes.

The judokas also had significantly higher maximal anaerobic value when compared with middle/long distance runners.

The reason for the higher values of maximal anaerobic capacity for the volleyball players and football players

Table 4: Significance of difference between the paired means of maximal aerobic capacity among male athletes of different games

S. No.	Groups	Means	Mean difference					
			FB	JUDO	SWM	BDN	GYM	TaF
1.	Volleyball (VB)	112.62	5.12	13.75*	14.87*	15.75*	20.62*	25.88*
2.	Football (FB)	107.50		8.63	9.75	10.63	15.50*	20.76*
3.	Judo	98.87			1.12	2.0	6.87	12.13*
4.	Swimming (SWM)	97.75				0.88	5.75	11.01
5.	Badminton (BDN)	96.87					4.87	10.13
6.	Gymnastics (GYM)	92.00						5.26
7.	Track and Field (T&F)	86.74						-

*Significant at .05 level. The limit of confidence interval at 0.05 level is 11.91

might particularly be due to the high intensive nature of their activity, exerting greater demand for the lactacid and alactacid components of anaerobic capacity. The track and field athletes had the lowest value of maximal anaerobic capacity since the athletes belonged to middle/long distance runners, and their activity is more aerobic in nature (Briggs, 1975 and Lawson, 1975) and less dependent on the anaerobic system.

CONCLUSIONS

On the basis of the above findings and discussions, significant differences exist in maximal aerobic and anaerobic capacities among male athletes of different games as follows:

1. The middle/long distance runners had higher values of maximal aerobic capacity, and the gymnasts and judokas had lower values.
2. Volleyball and football players had higher values of maximal anaerobic capacity whereas the middle/long distance runners had lower values.
3. The maximal aerobic and maximal anaerobic capacities tend to increase with prolonged exercising and intensive natures of exertion, respectively.

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Research Article

Motivation and sports performance

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ABSTRACT

Motivation plays a key part in sport, without motivation, how can you get yourself to take part and play well in sport. Motivation is the internal mechanisms and external stimuli, which arouse and direct behavior. It is generally suggested that we have two basic motives that require fulfillment, our physiological and psychological needs. Each performer has differing needs that motivate them to participate, which fall into two broad categories: Intrinsic Motivation - Involves gaining self-satisfaction or pride from achievements; the desire to challenge oneself; or simply the enjoyment of taking part, for example., an individual may decide to learn how to play squash as a form of recreation, to develop their fitness levels and to see if they can master the game. Extrinsic Motivation - Involves receiving either tangible or intangible rewards. The former includes medals, cups, certificates, or money, while the latter may involve praise from a coach, family, peer group, or the media, as well as glory, social approval, or achievement records. Many of the latter examples can be utilized to reinforce learning but should be used with care, as the over-use of extrinsic rewards can undermine the intrinsic values needed for long-term participation, for example., a novice swimmer may be encouraged to learn to swim for numerous reasons including the safety, enjoyment, social and health benefits received. However to maintain their interest, awards and badges may be used, but care must be taken to ensure the swimmer does not simply continue because of the next reward, otherwise what happens after the final award? Ideally, a performer should be motivated by a combination of intrinsic and extrinsic rewards, in order to optimize learning.

Keywords: Motivation, Sports performance

INTRODUCTION

Motivation can be described as an individual's inner will and dedication or focus to achieve a goal they have set for themselves. Motivation is a very important factor in elite level sports for the simple reason it's what makes you do what you do, if you're not motivated to be a top level athlete then you have a chance of not being the best you can be, and falling short of your goals. Motivation is started and caused by a motive which is a reason to do things that will require motivation. Below is a more in-depth explanation of motivation and its positives and negatives on sports in general and examples of specific areas.

Types of Motivation

There are two different types or forms of motivation that we can use intrinsic motivation and extrinsic motivation. Below is a detailed explanation of both forms of motivation and how they relate to sports.

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Intrinsic Motivation

Intrinsic motivation is the motivation that comes from within us, not from external sources for emotions. Someone who is intrinsically motivated does not require much external motivation from fans, money, and expectations of others. They are focused on their own inner goals that they want to achieve and their personal reasons for being in the sporting situation they are in at that moment. A sporting example of Intrinsic motivation is a Anderson Silva (MMA), before he enters the octagon he is calm and composed and is deep in thought about his motives, reasons for being there, and his hard work and dedication to get this far in his career, that is intrinsic motivation because he is getting motivated by his own sources from within and not from other rewards such as money and fame. One of the main intrinsically motivated motives are personal pride the thought of being able to better yourself and beat the challenges that you set yourself. People

who are intrinsically motivated still want to receive rewards but these rewards are not what keeps the athlete motivated to persevere through the hard times that comes with being an athlete. Intrinsic motivation is a long term reason to get involved in sports because it will take a long time for this form of motivation to die down.

Extrinsic Motivation

Extrinsic motivation is motivation that comes from outside of us not from internal sources for example personal pride. Someone who is extrinsically motivated does not require much internal motivation from personal pride, achieving goals, and enjoyment they are only focused on the rewards that come with being an athlete such as money and fame. A sporting example of extrinsic motivation is Wayne Rooney, Wayne is one of the planets best known footballers and with this status comes a lot of money and fame. Wayne is sponsored by many internationally recognized brands such as Nike, Lucozade, Coca-Cola Zero and PowerAde. He also plays for one of the biggest clubs in world football Manchester United which brings him a lot of media coverage and fame within the public. Recently, Wayne was caught in a debate with Manchester United over his weekly wages which saw a massive increase to his previous wage which shows that he is motivated by the money which is extrinsic motivation. One of the main extrinsically motivated motives is fame, being in the eye of millions of people will leave great fame upon your shoulders and is one of the main reasons people want to be professional athletes. People who are extrinsically motivated still do it for intrinsic reasons such as improving certain skill sets and becoming a better athlete on the pitch because you are motivated to become better because the better you are the better quality the extrinsic factors become. The main issue with extrinsic motivation is the rewards can lose their power and value, for example, if a footballer is being paid £200,000 a week and a £15,000 bonus for scoring a goal this won't be a main target because they already get paid a lot, meaning a loss in attraction to the reward. Extrinsic motivation is more of a short-term form of motivation and used for getting started because as mentioned above, rewards will eventually lose their value.

SOME MOTIVES THAT ARE A PART OF SPORTS ARE

Goals

Goals are something that we set to achieve our targets, for example, big goals such as, getting a gold medal in the Olympic powerlifting, or something smaller such as, improving your 400 m running time by 1second. Goals can be either big ones or as small as little improvements.

Performance

Performance is the big one that comes with being an elite level athlete because one mistake may cost you big. If an athlete has a bad performance in the game before this can be used as a motive to get motivated and improve for the next time they perform.

Persistence

Persistence is also a big part of achieving goals and is often something that we lack because of low motivation levels. If we have not got persistence in our training sessions then we won't get the results that we want which will lead to low motivation levels.

Impression

If an athlete's performance is good then this will leave a good impression with coaches, fans, and possibly other clubs or organizations. Some athletes get motivation by the support of fans and people around them so leaving a good impression is a very important part of motivation.

Each and every person has their own reasons for participating in their chosen sport and below is some of the reasons. For the social side of sports, making new friends from playing in teams and working as a unit together. Improvements on overall health and fitness for the individual, and a great source of relieving stress from work and other things. Personal pride of defying odds and people's expectations of you and doing something that you thought you might never be able to do. Possibly earning money for participating in sports both professional and semi-professional sports pay wages, or maybe participating in a tournament of some sort for charity. Peer pressure can also be a part of people's decisions to play sports, your friends might all want to play football but you might want to play rugby more, so the pressure is there for you to follow your friends and do the sports that they do. This is a very common one in today's society. Some factors that may affect the younger generation can also be related to the above ones which are more aimed at teenagers and adults.

FACTORS THAT CAN AFFECT YOUNGER PEOPLE'S MOTIVATION

Sporting Role Models

They play a big part in younger people getting involved in sports, for example, David Beckham was the role model for many younger people when he was at Manchester united because everyone wanted to be like him, from his skills even down to his hairstyles, so he provided a role model for people both young and old and gave them motivation to get into football.

Parental Pressure

Some parents can push children into play sports for many reasons, they share the same passion for the sport, the parent never succeeded in the chosen sport so wants their child to do

so and to keep kids active and in good health. Parental pressure can be both good and bad depending on the personality of the parent and the child. Motivation for the child should be high because he/she has great support from people close to them.

Prizes

Prizes are a good way of getting younger people as well as older people to get motivated and perform well, for example, if a child is playing a football match and their parents said if you score a goal today we will buy you a treat for doing so, well then the child will think I can get something extra out of this and put in a better performance and work harder.

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Research Article

Sociological and psychological aspects of sports

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ABSTRACT

Since sports and material culture have taken an important place in the life of modern man, a separate discipline has been created to study the field – sociology of sport First, it focuses on the relationship between people and sports in the context of many social institutions, such as family, education, economics, and politics. Important to understand the essence of the game is the recognition of its many varieties. There is a game for all, and there is a game for some - a game of highest achievements. In turn, the Olympics, commercial and nonprofits are included in the study. All these varieties of sports mainly fulfill their inherent social functions. Sports for all introduces people to the values of material culture, educates, and allows them to manifest themselves more clearly in work, art, and any other activity, improving their quality of life. In the presented article, views on sports psychology and sociological perspectives have been expressed.

Keywords: Socio-culture, Psychology, Science, Sports

INTRODUCTION

The more private scientific disciplines seem to "sow" with it, with extensive and in-depth knowledge in the field of material culture and sporting events. First of all, we are talking about subjects that do not consider the entire region of the region that make up the region, but only some "part" of it. For example, the theory of sports, theories, each of which studies a particular sport, the theory of physical education, theories that study individual forms of physical education (for example, physical therapy or physical education, etc.). At the same time, such private scientific disciplines are being formed that consider certain phenomena, based on specific (physical, educational, psychological, or some other) ways, from a specific or physical point of view. In this regard, a cycle of specific scientific disciplines studying physical culture and sports is also generated and spread - biomedical disciplines (sports physiology, sports biochemistry, sports anatomy, sports medicine, etc.), Social Science (Sports Affirmation, Psychology) Sports, Sports Economics, Physical Education and History of Sports, etc.), etc. Today, it has become clear that these two directions do not contradict each other, but throw light on the same object of study - human activity from different sides. An awareness of this fact encourages close collaboration between psychologists and sociologists, including the study of material culture and the problems of sport. A general trend toward such collaboration is to integrate scientific knowledge using integrated scientific research method, which provides for the integration and coordination of the efforts of representatives of different scientific disciplines, strengthening the relationship between them. One solution to this problem is to develop on the basis of physical education and sociology of sports and other sciences. These include, for example, philosophical and sociological geophysical culture and the theory of games. It is about multi-disciplinary complex theory, which does not include some narrow, unilateral approach to the study of material culture and sports, but their multilateral approach to not only sociology, but cultural studies, aesthetics, ethics, and many other philosophical disciplines. Study is also included in the study. Unlike a comprehensive theory of physical education and sports, it is not meant to cover all aspects and directions of scientific research of physical culture and sports, all scientific theories that are formed at the same time. Philosophical and sociological theory of material culture and sport includes a study of these social phenomena, which examines the social, aesthetic, moral, cultural, epistemological, logical,

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and methodological problems of material culture and sport. This means that it includes scientific disciplines that study material culture and sports, which are philosophical in nature (e.g., aesthetics of sports, sports ethics, etc.), as well as the sociology of material culture and sports too.

The Main Functions of the Theory of Sociology of Physical Culture and Sports Include the Following

1. Justification of the instrument which provides for the comprehensive physical development of the person.
2. Exploring the relationship between general and physical education.
3. The search for means for the harmonious development of the personality, as well as for the attainment of one's own potential.
4. Continuous development of new physical exercises that adapt to the constantly changing lifestyle of the individual.

SCIENCE OF SPORTS

The next integral feature of scientific knowledge is the explicit and conceptual system. The sociology of material culture and games mainly uses the hierarchical system of theory of material culture to describe particular physical culture phenomena, as well as the hierarchical system of sociology. This is due to the fact that it was at the intersection of the theory of sociology and material culture that the sociology of material culture and sport was formed. It should be noted that in all the sciences that study material culture and sports, sociology strives for a holistic study of this phenomenon compared to others, including combining and generalizing knowledge of other sciences. According to some Russian experts, some categories in the sociology of physical education and sports, they are the main object of the study of this science:

- Physical culture - the natural body of a person involved in the process of socialization and "cultivation;"
- Physical culture activity - some form of physical activity of an individual, often referred to as "physical exercise;"
- Sports - a special type of competition ("sports competition"), preparation for them, as well as related social relations, institutions, norms of behavior, etc.

CULTURE AND SPORTS

It is known that in the knowledge of any object, as a rule, there is first a stage when a science studies it, covering the entirety of the facts and problems associated with it. But with the process of deeper and more complete knowledge of the object, the accumulation of empirical material about it at a certain stage, the process begins to discriminate single science. More private scientific disciplines begin to "emerge," studying only certain aspects of the object and the problems associated with it. These different scientific theories have the same object, but different subjects of research. This historical process takes place in the field of physical culture and cognition of sports. And initially, there was only one science, which covered the whole field of events and problems associated with these objects. For a long time, such a science was the principle of physical education (sometimes called the "theory of material culture"). The process of making such special principles is not complete. This is now happening intensively. The process of isolation is being completed in relatively independent science. The aesthetics of sport, which studies the aesthetic content and esthetic values of the game, the essence and rules of consciousness, reflect the game from the esthetic point of view, as well as the field of play. Policy game as a science that studies the functioning and development of moral consciousness, moral relations, and ethical behavior in the field of sports. The agenda has relatively independent scientific disciplines such as allocation issues.

SOCIOLOGY OF PHYSICAL EDUCATION AND SPORTS AND ITS MAIN FUNCTIONS

At its core, the sociology of sport acquires knowledge about sports reality and accumulates them to achieve the following goals:

1. Study of the role of sports in human life and society;
2. Analysis of the functions and values of material culture in the development of the individual;
3. Popularization of sports in various sectors of society;
4. Study of the processes of socialization in sports, as well as the impact of global social change.

CONCLUSION

Since the sociology of sport serves as a branch of sociology, it primarily uses its hierarchical system. We are able to distinguish several categories of sociology of material culture, which are the objects of its study. First, it is directly a physical (physical) culture - it is the human body that is involved in socialization. In its simplest form, the philosophical and sociological theory of material culture and sport appears as a simple combination of material culture and sociology of sport with various philosophical disciplines. Everyone working in the field of physical education and sports needs to know not only the methods of sports training and other characteristics of professional activity but also the important interests and social relations of people based on groups, communities, and world community. Have to understand.

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Research Article

Effect of beetroot and green vegetable supplementation on 5 km time trial performance

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ABSTRACT

The objective of the study was to examine the affect of 15 days of beetroot supplementation on 5 km time trial performance in trained distance runners of university level. Thirty trained distance runners (30 male) were selected for the present study. Fifteen subjects were randomly assigned to one of two groups. The first group (experimental group) consumed the beetroot and green vegetable juice daily (250 ml/day) and the second group (control group) did not consume beetroot juice. Both groups underwent a regular athletics training program. All subjects were tested over a 5 km performance trial before the addition of beetroot and green vegetable juice and after 15 days of beetroot and green vegetable juice supplementation. To find out the effects of beetroot and vegetable supplementation on the experimental performance for 5 km, descriptive statistics and analysis of covariance were used. The significance level was set at the 0.05 level. Fifteen days of beetroot and green vegetable supplementation have been shown to be effective' (f value 13.777 and $P < 0.05$) in improving performance in a 5 km time trial of the experimental group compared to the control group.

Keywords: Boost, Runner, Juice and diet

INTRODUCTION

Nutritional supplements are used for many purposes. They can be added to the diet to boost overall health and energy; to provide support for the immune system and reduce the risk of disease and conditions associated with aging; to improve performance in athletic and mental activities and to support the healing process during illness and disease. However, most of these products are treated as food and are not regulated as medicines are nutritional supplements that include vitamins, minerals, herbs, meal supplements, sports nutrition products, and natural foods supplements, and other related products used to boost the nutritional content of the diet. The beetroot and green vegetable, The usually deep red roots of beetroot and green vegetable are eaten either boiled or roasted as a cooked vegetable, or cold as a salad after cooking and adding oil and vinegar, or raw and shredded, either alone or combined with any salad. A large proportion of the commercial production is processed into boiled and sterilized beets or into pickles. In Eastern Europe, beetroot soup, such as borscht, is a poisonous food. In Indian cuisine, chopped, cooked, spiced beet, and green vegetable are a common side dish. The main objective of this study was to assess the effect of 15 days of beetroot and the addition of green vegetables to the 5 km trial period for trained distance runners of university level players.

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METHODOLOGY SUBJECT

Thirty trained athletes (30 male) of 18–28 years of age were selected for the present study. One experimental and one control groups were made consisting of males.

Variables in this study, beetroot and green vegetable supplementation were considered as independent variables and 5 km time trial performance was considered as dependent variable.

Treatment in this study, 250 ml of beetroot and green vegetable juice was given to each subject in afternoon after lunch at

Table 1: Discriptive statistics of 5 km time trial performance of experimental group and control group in pre-test and post-test

Test	Group			SS	DF	MSS	F
	Group-A Experimental	Group -B Control					
Pre-test mean	32.822	32.379	B	0.024	1	0.024	0.008
			W	39.451	14	2.817	
Pro-test mean	31.532	32.493	B	9.564	1	9.564	2.294
			W	58.378	14	4.169	
Adjustable mean	30.432	31.592	B	8.753	1	8.753	2.045
			W	55.651	13	4.280	

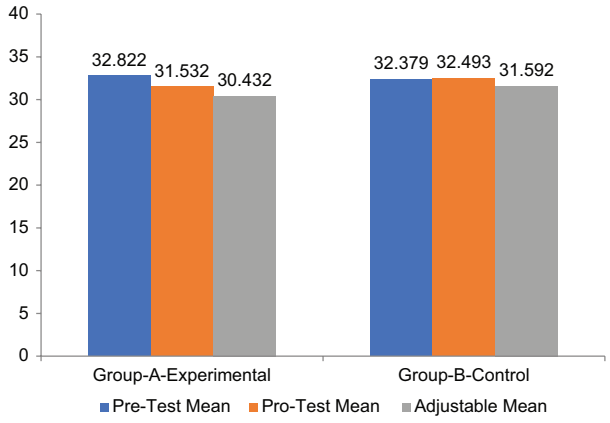
*Significant at 0.05 levels of significant (Df value 1.14=3.102 and 1.13=3.136)

2.00 p.m. to the subjects of experimental group for 15 days without any gap in between.

Statistical Analysis

To find out the affect of beetroot and green vegetable supplementation on a 5 km time trial performance, descriptive statistics and analysis of covariance were used. The level of significance was set at 0.05 level [Table 1].

In relation to pre-test, Table 2 revealed that the obtained "f" value of 0.008 was to be insignificant at 0.05 level, since that value was found lower than the tabulated value 2.045 in relation to post-test, insignificant difference was found among experimental and control group pretraining to 5 km time trial performance since f value 2.294 was found insignificant at 0.05 level.



DISCUSSION AND CONCLUSION

Various studies have been conducted to see the effect of beetroot and green vegetable supplementation on endurance related activities. In the present study, significant improvement was found in 5 km time trial performance after 15 days of beetroot and green vegetable supplementation. Nutritional supplements are typically used for their actual or anecdotal physiological effects in increasing performance and endurance, health maintenance or preventing injuries as revealed by three studies conducted by Armsey and Green (1997), Lawrence *et al*., (2002) and Kreider *et al*., (2004). The above-mentioned studies revealed the effect of supplementation, but studies do not clarify the type of nutritional supplements. Specific studies also been conducted to see the effect of beetroot and green vegetable supplementation on endurance related activities. It has recently been shown that dietary nitrate supplementation with beetroot and green vegetable juice reduced V02 during submaximal exercise as revealed by Lansey *et al*., (2011) and improved 10 km time trial performance in trained cyclists as revealed by Cermark *et al*., (2012).

The present study supports the above mentioned studies since time trial performance in trained cyclists and 5 km time trail performance is of similar nature of activities. Study conducted by Bailey *et al*., (2009), Larsen *et al*., (2010), Bescos *et al*., (2011), and Lansey *et al*., (2011) clearly revealed the cause of improvement in endurance exercise performance. Beetroot and green vegetable contain high nitrate and nitrate intake has been linked with beneficial effects, including enhanced endurance exercise performance.

In the present study, improvement in 5 km time trial performance after beetroot and green vegetable supplementation might be due to presence of nitrate and nitrate has been linked with endurance related activities.

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Research Article

Inter-village football in Goa – roles and perspectives of the organizing clubs

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ABSTRACT

The purpose of the study was to find out the roles and perspectives of the inter-village football tournament organizers in the state of Goa. For this purpose, data were collected by a semi-structured face to face interview with the officials of organizing clubs. The interview was based on the process of organizing the inter-village football tournament, objective of organizing, difficulties faced by the organizers and the role of inter-village football tournaments in enhancement of the game in the state further the data were analyzed and interpreted.

Keywords: Inter-village football, Organizing clubs

INTRODUCTION

Background of the Study

Football, formally known as Association Football, having begun in England in 1848, it is now being played in many countries throughout the world with 211 countries being registered with FIFA (FIFA, 2021) the international governing body, which was itself established in 1904. It also organizes many of the sport's international tournaments. The association was created to provide a single body to oversee football. It is considered to be the most popular sport in the world, both in terms of participation, and as a spectator sport. The FIFA World cup being the most prestigious tournament in the game besides the world cup, there are age group championships and domestic leagues as so on.

Football in Goa

The game of football is said to be first exposed to the people of the state by the Portuguese in the 1800s. The game gained quick popularity in the state due it been easy to learn and the impact of the Portuguese who ruled the. The Goa Football Association (GFA) the governing body of the game in the state was set up as the governing body for football on December 22, 1959 (Asssociation, 2000). In the year 2012, the government of Goa led by Mr. Manohar Parrikar declared football as the state game.

Inter-village football

Inter-village football games are the backbone of Goan Football, and take place throughout the year. It is format of the tournament wherein teams from different village clubs from across the state registered with GFA take part in a 16 team knockout tournament organized by different village clubs registered with the GFA. The matches are mostly played in the evenings. In the year 2019-20, 53 inter-village football tournaments were organized across the state. It is much organized form of tournament for the village club and the player's needs to be registered with the GFA the governing body of football in the state of Goa a total number of 2506 (approx.) players are registered with the association to take part in the tournament. The tournament consists of 16 selected teams randomly selected by the organizers depending on the convenience of both the organizers and the participating teams, for example, location. The tournament is played on knock-out format with matches taking place every evening with finals mostly played on Sundays or on special occasions such as village feast, festivals etc. The participating teams consist of mix blend of players from all age group from 15 to 50; the tournaments provided a huge platform to youngsters from showcasing their abilities to learning from the more experienced. Many players who have gone onto represent the state and the country has been playing in these tournaments in their younger days. The prize money for the tournaments

starts from 20,000/- for winner and goes up-to lakhs of rupees which itself is baffling considering the number of tournaments and the size of the state. Even though there are huge numbers of tournaments happening during the year, each and every tournament attracts the large number of spectators.

Objectives of the Study

To understand the role of the organizing clubs in organizing inter-village football tournament.

To find out the perspectives of organizing clubs toward inter-village football tournaments.

METHODS

The study was exploratory in nature researcher followed a qualitative methodology. The researcher used mixed method approach (Creswell, 2009) based on in-depth interviews of organizers of inter-village football tournaments. The data will be further supplemented with secondary data gathered from news articles, documents with GFA. The insights will be gathered through in-depth interviews with inter-village football organizers with experience of organizing more than five tournaments.

Population and Sampling

All the clubs organizing inter-village football tournaments were the population of the study the researchers selected seven clubs randomly for the present study. The selected clubs had organized average of 18 inter-village tournaments each.

Tools of Data Collection

Face-to-face semi-structured interviews were conducted of the officials of the organizing clubs.

Data Analysis and Interpretation

Data collected from interviews were analyzed through General Inductive Analysis Technique. Thematic approach was considered for further analysis. Once the data were collected and organized, it was being divided into different segments and then it was coded. Initially around 20–25 codes will be used which will be reduced to 10–15 codes. The codes will be further reduced to categories and same will be converted to themes. These themes will be interpreted based on the researcher's experiences. (Jones *et al*., 2013)

The Process of Organization

The first step in the organization of inter-village tournament is to take approval of the club committee. Once it is approved, the club has to seek the permission of the GFA. Basically, the approval is granted within days. Next the club arranges for the sponsors to meet the expenditure of the tournament. Then, invites are sent to various clubs for participation. After confirmations of entries, the draw for the tournament is held and matches are conducted. To be able to take part in the tournament, the clubs and the players need to be registered with GFA as inter-village clubs and players. Once the everything finalized, the pre-tournament planning is done in the form of getting ground and equipment ready, appointment of officials, seating arraignment etc. The matches take place evening. The final of the tournament is mostly held on Sunday to attract huge village crowd.

Objectives of Organizing

Inter-village football tournament gives lot scope for youngsters to play competitive football throughout the year. The clubs interviewed stated that providing platform as one of their chief objectives for organizing tournament. Furthermore, the clubs have beings organizing this tournament for years as a tradition 50% of the clubs interviewed stated that the tournament organization is done as a tradition which they carry forward.

Part 4 "see we organize the tournaments to give players chance improve and show what they are capable of."

Part 6 "our club has been organizing the inter-village tournaments for almost 25 years so it's a tradition for us which we carry forward."

Part 1 "one of the objectives of organizing the tournaments are to give people opportunity to perform and play"

A majority of the clubs interviewed stated that one if the objective of organizing the tournament because of it being a social gathering. The tournament not only gathered people from the village but also the neighboring villages. They were of the opinion that it brought the community together, builds relationships and peace, and promoted values such as peace, joy, and caring mostly the tournaments coincide with village festivals feast etc.

Part 1 "we see inter-village tournaments as means to bring people together. Evening you will see hundreds of people gathered together to watch match. Our ground does not have proper sitting even then people stand and watch the match."

Part 2 "the tournament is mostly kept preceding any village festival, feast etc. The finals are on the day of feast where you will huge village crowd gathered to witness the final. You will be amazed to see the crowd playing musical instruments dancing."

Sponsorships

The GFA only gives approval to conduct the tournament and frames rules regarding the same. All of expenditure toward the tournaments is raised by the organizing clubs. The sponsorships are required to meet expenditure of the tournaments such as prize money, official remuneration, and ground maintenance.

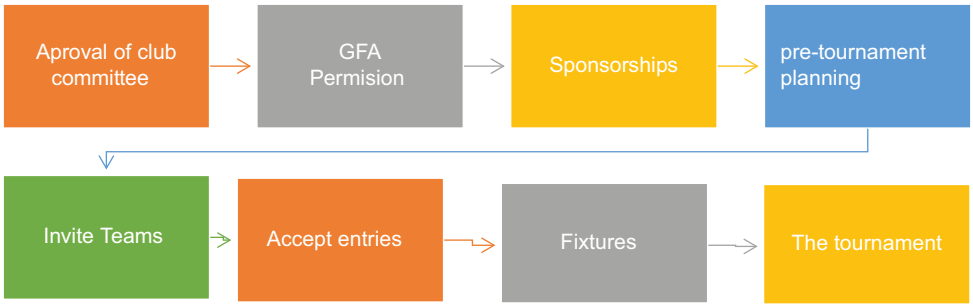


Figure 1: Process of organization of inter-village tournament

From most of the interviews, it was observed that the majority of the tournaments raised sponsorships mostly from village people and business houses within the village. The organizing clubs were of the opinion that the villager's felt pride in sponsoring as it was organized by their village.

Part 4 "we get most of the sponsorships from our village people once the tournaments is announced many people readily come forward to sponsor."

Part 3 "the club officials go around the village asking for sponsorships for the tournament's most of the villagers sponsor from 100 to thousands of rupees."

Some of the clubs organized the tournaments in memory of a person and also as panchayat cups. Here, most of the tournament expenditure is borne by the next kin in whose memory the tournament is organized or the village panchayats besides raising some amount from villagers

Difficulties and Issued Faced

Since there are a lot of tournaments taking place during the year, most of the organizer find it difficult to schedule matches as there are chances of teams playing in two or more tournaments there might be clash of match date. The organizer feels there is a need for a mechanism in place to counter this issue by GFA. Sometimes the organizers are burdened with requests from the participating teams for adjustment in the matches.

Part 3 "we face a lot of difficulties in planning the matches because the number of tournaments is huge and lots of tournament happening simultaneously. I feel all organizers should have a meeting beginning of the season to sort this issue."

Part 1 "we sometimes have to change a lot match dates we continuously get calls from participating teams saying to adjust this sometimes delays the tournaments."

The state is blessed with ample of infrastructure for the game of football with good quality playfields and facilities, even then after interviewing the clubs some of them were not happy with the facilities available with them for the disposal some felt their playfield needs upgradation while others felt need for proper stands for smooth viewing experience for spectators. All of them felt need for upgradation and were looking for sponsorships or grants to do the same.

Role in Development of the Game

There are more than 50 inter-village tournaments happening in the state throughout a given season. The organizer believes that the tournaments give a platform to players to showcase their game. Most of the games are used as scouting grounds for talent by scouts and the clubs for their clubs in respective state and national leagues. Most of the organizer are of the belief that since the inter-village teams are of mixture of youth and experienced it helps in sharing of knowledge, skills, and experience from one generation to another.

Part 6 "I think inter-village tournaments give a huge scope for payers to show their game, many players use this as the space to get selected to first division teams."

Part 1 "I feel the tournament plays an important role in developing the football, we see experienced players guiding their young teammates also lot of experience sharing takes place. I myself a former player I used guide younger players on how to keep temperament during the match and all."

The interviewed personnel also felts that the tournaments give lot competitive game exposure to young players. The games help the players in keeping their match fitness as the GFA leagues beside the professional league runs only for a few months.

CONCLUSION

The objective of the study was to find the roles of the organizing clubs and their perspectives toward organizing inter-village football tournaments.

The organizing clubs play a pivotal role in organizing the inter-village football tournaments in the state. The mechanism they

have developed for the organization right from planning to raising sponsorships in noteworthy and should be replicated in other sports. The unique feature of it being that both the clubs and the players have to be registered with the association brings in more standardization and accountability. The clubs, the state association, and the public bodies should come together find solution for the issues faced. The role played by the inter-village football tournaments in developing the game in Goa from the point of view of organizing clubs looks immense and noteworthy.

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Research Article

Importance of Yoga in physical education

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ABSTRACT

Yoga exercises are recognized as a way of life. These exercises are hand in gloves for improving the performance in physical activities and sport. They help to develop the steadiness and mind through self-action, achieves better emotional stability, coordinated action of body and mind, develop concentration. Yoga is the process of reuniting finite microcosmic individual self with the infinite, absolute, pure, macrocosmic consciousness, upgrading man into man, superman, godman and ultimately to godhood, physical education includes the acquisition and refinement of motor skills, the development and maintenance of fitness for optional health and well-being, the attainment of knowledge and the growth of positive attitude towards physical activity.

IMPORTANCE OF YOGA IN PHYSICAL EDUCATION

Yoga is classified into various systems namely Karma yoga, Bhakti yoga, Jnana yoga, Heatha yoga, Yantra yoga, Laya and Kundalini yoga, Tantra yoga, and Raja yoga. All the systems of yoga are important for physical educations and player. However, the degree of importance many very depending on the nature of yoga Karma yoga is useful for players to develop the steadiness of mind though selfless action. The application of bhakthi yoga principles helps the physical educationists and players to achieve better emotional stability. Jnana yoga provides knowledge, insight, and wisdom, which are essential to lead successful life. Hatha yoga helps physical educationists and players to have better control over the body. Regular practice of mantra yoga develops the coordinated action of the body and mind of players. Yantra yoga develops concentration. Players can practice laya and kundalini yoga later ago to lead peaceful life. Tantra yoga is a general form for the physiological discipline and union by harnessing sexual energy. The practitioner of raja yoga becomes the rule of mind. It is the yoga of will. The yoga of mind culture or psychic control (raja yoga) gives a practical and easy approach to reach higher state of consciousness.

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ASTANAGA YOGA AND ITS IMPORTANCE

Raja yoga is based on Patanjali'sastanga yoga system. Patanjali gives stages of yoga and they are yama, niyama, asana, pranayama, pratyahra, dharana, dhyana, and Samadhi. The unity of each stage differs for physical educationists and players.

IMPORTANCE OF YAMA

Yama is the universal moral commandments. It is the genal discipline and it is the control of the boyd. Mind speech. There are five yamas. Players. Should follow yama to have best sportsmanship qualities.

IMPORTANCE OF NIYAMA

Niyama is self purifications by discipline or obedience or propel conduct. Niyamas are rules for living, also five in number. It is devotion and surrender to a higher infinite power. It emphasizes that remember God and surrender discipline with

opponents, teammates, physical education teacher, coaches, officials, family members, and society members.

IMPORTANCE OF ASANA

Among the eight limbs of yoga, the third limb is asana. It is closely associated with physical education and sports. It is the oldest science of self-development for physical, mental, and spiritual control. People of both sex and all age groups, irrespective of profession, can practice asana. Asana can applied in physical education and sports for enormous purpose depend upon the creativity of physical education experts, coaches, and players.

The primary purpose of applying asana in the field of physical education and sports are two folding namely; a) to develop a healthy body and b) to gain self control and better psychological organism. A sound body with sound mind is essential for players to achieve to goal. Asana coordinates the actions of the body and mind of players.

IMPORTANCE OF PRANAYAMA

Pranayama means control of breach and it involves three main phases. It is much more important to keep sound health. According to hatha yoga pradipika pranayama should be practiced four times a day with 80 cycles in one session. These are best practiced in the early hours of the morning or after sunset. During pranayama practice. Make use of the diaphragm fully by drawing the air in the lowest and largest post of the lungs. Due to regular practice of pranayama a)the respiratory efficiency is improved, b) vital capacity of the lungs is increased, c) during kumbhaka, there is a slowing down of heart rate, d) the training to tolerate mild hypoxa, for example., during kumbhaka can stimulate the myocardium to increase its vasculation as recoded at higher altitudes and e) synchronization of different activities of the organism with respiration is increasing. Hence systematic practice or pranayama is useful of all players. It is more useful for players who complete in aerobic activities.

IMPORTANCE OF PRATYAHARA

The introversion of various sense organs by restraining them from the worldly objects is pratyahara. It requires very strong determination and repression of the sense. This phenomenon helps the players to control their senses and thereby improve fitness and health it is useful for players to enhance their performance.

IMPORTANCE OF DHARANA

Dharana is the concentration on an abject. It is the beginning stage of the meditation of Samadhi. Diversion of attention during training and especially in competition leads to failure in sports. Events such as archery, shooting, and chess. require more concentration. Further, goalkeepers of football, hockey handball, etc. require maximum concentration than field players.

IMPORTANCE OF DHYANA

It is the stage of meditation Dhyana requires comptete meditation on the object concentration. It is best to have a proper environment and attitude Regularity of time, place and practice are most important. The most referred time is brahmamuhurta, the hours between 4 and 6 am. Sit in a comfortable cross-legged position, with spine and neck erect but not tense, Mediate by facing north or east to gain advantage of favorable magnetic vibration. Begin the practice of meditation with twenty minutes and increase to an hour. If you meditate for half an hour daily. You will be able to face life with peace and spiritual strength. Meditation is the most powerful mental and nerve tonic. It opens the door to intuitive knowledge and realms of external bliss. The mind becomes calm and steady. Regular practice of meditation helps the players to relax the mind and body. It is helpful to develop better psychological stability.

IMPORTANCE OF SAMADHI

Samadhi is the peak of yogic achievement. It is a true sense have been transcended by complete refinement of the body and mind. This is the last and most important stage yoga. It is not widely applicable for players.

CONCLUSION

There are various systems and stages of yoga. The primary purpose of using yoga. The primary purpose of using yoga differs from one another. Each player need not practice all the yoga. The specific requirement of the players differs based on the nature of game and their playing position. Depends on the requirement, players to practice the most suitable yoga to derive maximum benefit. Physical educators and coaches should motivate the players to practice selected suitable yogic practices depends upon requirements, in addition to regular training to coordinate the actions of body and mind. Regular and system practice of yoga leads to improve and performance of players without demand the body and mind.

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Research Article

Effect of yogic practices and physical exercise on selected health related fitness components among college women

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ABSTRACT

The present study was to determine the effect of yogic practices and physical exercise on selected health related fitness components among college women. For this purpose, 60 (n = 60) women college students studying in Dr. Umayal Ramanathan College for Women, Karaikudi, Tamil Nadu, India were selected randomly as subjects. Their age were ranged from 18 to 21 year. The subjects were divided at random into four groups of 15 each (n = 15). Group-I underwent yogic practices, Group-II underwent physical exercise, Group-III underwent combined yogic practices and physical exercise, and Group-IV acted as control. The duration of the training period for all the three experimental groups was restricted to 12 weeks and the number of sessions per week was confined to three in a week. Among various health related physical fitness components, cardio respiratory endurance only selected as dependent variable and it was assessed through coppers 12 min run/walk test. All the subjects were tested before and immediately after the training for all the selected variables. Data were collected and statistically analyzed using analysis of covariance. Scheffe's *post hoc* test was applied to determine the significant difference between the paired means. In all the cases, 0.05 level of significance was fixed. The results of the study showed that there was a significant difference was found among all the experimental groups namely yogic practices, physical exercise, combined yogic practices, and physical exercise groups had significantly increase in the cardio respiratory endurance performance. Further the results of the study showed that combined yogic practices and physical exercise group were found to be better than the yogic practices and physical exercise group in cardio respiratory endurance.

Keywords: Cardio respiratory endurance, Combined yogic practices and physical exercise, Physical exercise, Yogic practices

INTRODUCTION

Life is made up of physical movements. The advent of industrialization has changed the social economic and cultural dimensions of the society. The modern age has forced man to lead a hectic life. Today's life mostly depends on the invention of science and technology. In such situations, people need more exercise to keep the body and mind fit. Modern science provides us leisure comforts and easier material existence, but it does not give us peace of mind. Scientific advancement is eliminating physical exercise from our day-to-day life. The automotive and the television are the two key contributors to our sedentary life style.

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The sedentary way of life has a negative effect on human body and it has been associated with many serious health problems. Yoga has been practiced in India for over two millennia. Stories and legends from ancient times testify to the existence of yoga, and to the practitioners and divinities associated with it. Indian literature is a storehouse of knowledge about yoga covering every conceivable level. Roughly, in chronological order is the vocals (books of scriptural knowledge), the Upanishada (philosophical cosmologies), and their commentaries; then the Puranas (ancient cosmologies) and the two epics, the Ramayana and the Mahabharatha. The Mahabharatha contains within itself that masterpiece of Indian scripture the Bhagavad Gita. Toward the end of Vedic period comes the aphoristic literature, with the "Yoga Aphorisms" of Patanjali of special interest to yoga students. These are, besides, whole bodies of works both ancient (Pre-Christian) and more modern dealing with various

aspects of yoga and yoga philosophy, testifying to the continued relevance of yoga as a discipline (Mira-Mehta, 1994). Yoga is one of the India's wonderful gifts to mankind. One of its valuable qualities is that it builds up a store of physical health through the practice of a system of exercises called asana which keeps the body cleaned and fit. Yoga believes that exercise is essential for speedy removal of toxins and for keeping blood circulation and all internal processes functioning smoothly. Yoga has a complete message for humanity. It is a message for the human body, human mind, and human soul (Kuvalayananda, 1977).

According to Robert (1989), "lack of activity destroys the good condition of every human being while movement and methodical physical exercise save it and preserve it." Moreover, he states that exercise means using and toning the body. Exercise builds and maintains physical fitness. Physical exercise is referred to as physical activity ranging from light to fairly vigorous and regular exercise, which produces increased strength and endurance, and reduced cholesterol and such other characteristics associated with good health.

All exercises are to be considered specific. It is highly necessary that exercise be used to develop not only the part of the body but also the quality of the body. Therefore, it is highly important to use specific exercises for specific purposes (Eark, 1982). Health and physical fitness can be maintained only by carefully selected physical activities which are called "exercise." The utility of a particular exercise can be evaluated only in terms of the effects obtained in promoting a particular factor or factors of physical fitness. Exercise occupies a lead role in keeping a person fit. It will be quite difficult to adjust one's life in terms of stress, diet, sleep, and so on without proper exercise. Lack of activity destroys the good condition of every human being while movement and methodical physical exercise save it and preserve it. Exercise means using and toning the body. Exercise builds and maintains physical fitness (Barry, 1987).

METHODOLOGY

The study was conducted 60 ($n = 60$) women college students studying in Dr. Umayal Ramanathan College for Women, Karaikudi, Tamil Nadu, India were selected randomly as subjects. Their age were ranged from 18 to 21 year. The subjects were divided at random into four groups of 15 each ($n = 15$). Group-I underwent yogic practices, Group-II underwent physical exercise, Group-III underwent combined yogic practices and physical exercise, and Group-IV acted as control. The duration of the training period for all the three experimental groups was restricted to 12 weeks and the number of sessions per week was confined to three in a week. Among various health related physical fitness components cardio respiratory endurance only selected as dependent variable and it was assessed through coppers 12 min run/walk test. All the four groups were tested on selected cardio respiratory endurance was analyzed before and after the training period.

Analysis of the Data

The data collected from the experimental groups and control group on before and after experimentation on selected variables were statistically examined by analysis of covariance (ANCOVA) was used to determine differences, if any among the adjusted post-test means on selected criterion variables separately. Whenever they obtained f-ratio value in the simple effect was significant, the Scheffe's test was applied as *post hoc* test to determine the paired mean differences, if any. In all the cases, 0.05 level of significance was fixed. The ANCOVA on cardio respiratory endurance of experimental groups and control group has been analyzed and presented in Table 1.

Table 1 shows that the adjusted post-test mean value of cardio respiratory endurance for yogic practices group, physical exercise group, combined yogic practices and physical exercise group, and control group is 2371.03, 2371.25, 2509.42, and 2171.64, respectively. The obtained f-ratio of 28.30 for the adjusted post-test mean is more than the table value of 2.77 for df 3 and 55 required for significance at 0.05 level of confidence.

The results of the study indicate that there are significant differences among the adjusted post-test means of experimental groups on the increase of anaerobic power.

To determine which of the paired means had a significant difference, Scheffe's test was applied as *post hoc* test and the results are presented in Table 2.

Table 2 shows that the adjusted post-test mean differences on cardio respiratory endurance between yogic practices group and combined yogic practices and physical exercise group,

Table 1: Values of analysis of covariance for experimental groups and control group on cardio respiratory endurance

Certain Variables	Adjusted Post-test Means				Source of Variance	Sum of Squares	df	Mean Squares	"F" Ratio
	Yogic Practices Group	Physical Exercise Group	Combined Yogic Practices and Physical Exercise Group	Control Group					
Cardio respiratory endurance	2371.03	2371.25	2509.42	2171.64	Between with in	866706.54 561376.36	3 55	288902.20 10206.84	28.30*

*Significant at 0.05 level of confidence. (The table value required for significance at 0.05 level with df 3 and 55 is 2.77)

Table 2: The Scheffe's test for the differences between the adjusted post-tests paired means on cardio respiratory endurance

Certain variables	Adjusted Post-test Means				Mean difference	Confidence interval
	Yogic practices group	Physical exercise group	Combined yogic practices and physical exercise group	Control group		
Cardio respiratory endurance	2371.03	2371.25			0.22	106.34
	2371.03		2509.42		138.39*	106.34
	2371.03			2171.64	199.39*	106.34
		2371.25	2509.42		138.16*	106.34
		2371.25		2171.64	199.62*	106.34
			2509.42	2171.64	337.78*	106.34

*Significant at 0.05 level of confidence

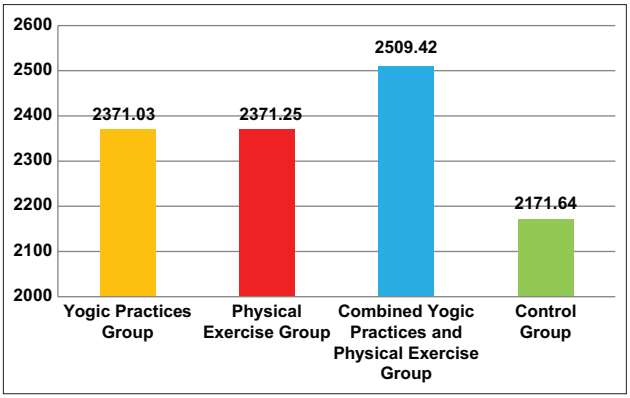


Figure 1: Bar diagram on ordered adjusted means of cardio respiratory endurance (in meters)

yogic practices group and control group, physical exercise group and combined yogic practices and physical exercise group, physical exercise and control group, and combined yogic practices and physical exercise group and control group are 138.39, 199.39, 138.16, 199.62, and 337.78, respectively, and they are greater than the confidence interval value 106.34 which shows significant differences at 0.05 level of confidence.

The adjusted post-test means differences on cardio respiratory endurance between yogic practices group and physical exercise group are 0.22, which is lesser than the confidence interval value 106.34, which shows there is no significant difference at 0.05 level of confidence.

The results of the study further have revealed that there is a significant difference in cardio respiratory endurance between the adjusted post-test means of yogic practices group and combined yogic practices and physical exercise group, yogic practices group and control group, physical exercise group and combined yogic practices and physical exercise group, physical exercise and control group, and combined yogic practices and physical exercise group and control group.

The results of the study further have revealed that there is no significant difference in cardio respiratory endurance between yogic practices group and physical exercise group.

It may be concluded that the combined yogic practices and physical exercise group has exhibited better than the other experimental groups in increasing anaerobic power.

The adjusted post-test mean value of experimental groups on cardio respiratory endurance is graphically represented in the Figure 1.

CONCLUSION

From the analysis of the data, the following conclusions were drawn.

1. Significant differences in achievement were found between yogic practices group, physical exercise group, combined yogic practices and physical exercise group, and control group in cardio respiratory endurance
2. The experimental groups namely, yogic practices group, physical exercise group, and combined yogic practices and physical exercise group had significantly improved in cardio respiratory endurance
3. The combined yogic practices and physical exercise group was found to be better than the yogic practices group, physical exercise group, and control group in increasing cardio respiratory endurance.

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Research Article

Effect of weight training with stretching exercises on stride frequency, stride length, and explosive leg strength of short distance

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ABSTRACT

Training improves performance. Selecting the appropriate training methods according to the nature of the main course of activity is important for a number of reasons. Weight training is a common type of strength training for developing the strength and size of skeletal muscles. It uses the weight and force of gravity to oppose the force generated by muscle through concentric or eccentric contraction. Stretching is a type of physical exercise in which a particular muscle or tendon (or muscle group) is flexed or stretched intentionally to increase the muscle's perceived flexibility and attain comfortable muscular tone. The result is a feeling of increased muscle control, flexibility, and range of motion and also helps in injury prevention. For the present study, the sources of data were inter-collegiate level short distance runners (n = 30) from Amravati University. Purposive random sampling method was adopted for the selection of the subjects. The age of the subjects ranged between 18 and 25 years. It was hypothesized that weight training with stretching exercises will have a significant effect on stride frequency, stride length, and explosive leg strength of short distance runners. The data were collected before and after the treatment on the subjects by employing 100 m dash test to measure the stride length, stride frequency, and standing broad jump test was administered to analyze the explosive power of legs. t-test was employed to analyze the effect of weight training with stretching exercises on stride frequency, stride length, and explosive leg strength of short distance runners. To test the hypothesis, the level of significance was set at 0.05. Significance difference was observed in the stride frequency (t = 3.049), stride length (t = 2.857), and explosive leg strength (t = 2.927) of short distance runners of experimental group after 6 weeks weight training with stretching exercises training.

Keywords: Explosive leg strength, Short distance runners, Stride frequency, Stride length, Weight training

INTRODUCTION

Training improves performance. Selecting the appropriate training methods to incorporate in our training program is important for a number of reasons. It helps our body work at a higher level of exercise for a longer time because it helps in getting rid of lactic acid. It also helps our body convert more fat to energy (that is lipid metabolism). It also leads to physical changes in the muscles, helping them to be more tolerant to the stresses caused by prolonged exertion, particularly by strengthening the connective tissue between muscle fibers so that they experience fewer micro traumas. Different training methods are available that can be used to improve the required motor qualities according different sports.

The various types of training exercises that past for varying amounts of time. Anaerobic activity is short-lived, but aerobic exercise is much longer.

Resistance exercises, also known as weight training exercises, are a sort of strength training exercise in which you utilize gravity to improve muscle strength, usually with the help of fitness equipment such as dumbbells, barbell bars, or gym equipment. Weight training is a prominent method of strength training for increasing skeletal muscle strength and growth.

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It counteracts the force generated by concentric or eccentric muscular contractions using gravity's weight force (in the form of weighted bars, dumbbells, or weight stacks). Weight training is a type of exercise that uses specialized equipment to target certain muscle groups and movements. Sports where strength training is central are bodybuilding, weightlifting, power lifting and strongman, highland games, shot put, discus throw, and javelin throw. Many other sports also use strength training as part of their training regimen, notably football, wrestling, rugby, track and field, rowing, lacrosse, basketball, and hockey. Strength training is becoming increasingly popular in different sports and physical pursuits. Stretching is a type of physical exercise in which a specific muscle or tendon (or muscle group) is flexed or stretched intentionally to increase the muscle's perceived flexibility and attain comfortable muscular tone.

Muscle control, flexibility, and range of motion are all improved as a result. Stretching can also be used as a treatment for cramps. Stretching is a natural and instinctive activity undertaken by humans and many other creatures in its most basic form. It can be accompanied by yawning. Stretching often occurs instinctively after waking from sleep, after long periods of inactivity, or after exiting confined spaces and areas. One of the basic tenets of physical fitness is to increase flexibility through stretching. Stretching before (warming up) and after exercise is frequent among athletes in an attempt to reduce injury risk and improve performance. When stretching is done poorly, it might be harmful. There are numerous stretching techniques available; however, some may be inefficient or harmful depending on which muscle area is being stretched, even to the point of causing hyper-mobility, instability or permanent damage to the tendons, ligaments, and muscle fiber. The physiological nature of stretching and theories about the effect of various techniques is therefore subject to heavy inquiry.

While genetics play a significant part in one's ability to sprint, athletes must be committed to their training to achieve their best results. Sprint training is a set of running drills designed to improve acceleration, speed, speed endurance, special endurance, and tempo endurance. Athletes also engage in severe weight training as well as plyometric or jumping exercises. These training approaches, taken together, provide traits that allow athletes to get stronger and more powerful with the hopes of 1 day excelling in sprint events. Sprinting is the act of covering a short distance in minimum amount of time. It is employed in a variety of sports that involve running, usually to get to a target or goal fast, or to evade or catch an opponent. A runner's near-top speed cannot be sustained for more than 30–35 s due to the depletion of phosphocreatine reserves in muscles, and possibly secondarily, severe metabolic acidosis as a result of anaerobic glycolysis.

Sprints (or dashes) are short-distance contests in athletics or in other terms track and field. They date back to the Ancient Olympic Games and are among the earliest running competitions. Three sprints are currently held at the modern Summer Olympics and outdoor World Championships: The 100 m, 200 m, and 400 m. At the professional level, sprinters begin the race by assuming a crouching position in the starting blocks before driving forward and gradually moving into an upright position as the race progresses and momentum is gained. The set position differs depending on the start. The sprinter can perform into the ensuing forward drive with the usage of starting blocks, and thereby generating for power for the start. Body alignment is of key importance in producing the optimal amount of force. For maximal force production, the athlete should start in a 4-point stance and drive forward, pushing off with both legs. With the exception of the 400 m indoors, athletes stay in the same lane on the running track throughout all sprinting events. Acceleration to an athlete's maximum speed is emphasized in races up to 100 m. All sprints are increasingly including an element of endurance beyond this distance.

Purpose of the study

The purpose of the present study was be to find out the effect of weight training with stretching exercises on stride frequency, stride length, and explosive leg strength of short distance runners.

Hypothesis

H_1: There will be significant effect of weight training with stretching exercises on stride frequency of short distance runners.

H_2: There will be significant effect of weight training with stretching exercises on stride length of short distance runners.

H_3: There will be significant effect of weight training with stretching exercises on explosive leg strength of short distance runners.

METHODOLOGY

For the present study, the sources of data were 30 inter-collegiate level short distance runners from Amravati University. Purposive random sampling method was adopted for the selection of the subjects. The age of the subjects ranged between 18 and 25 years. Pre-test data were collected by dividing the total subjects unbiased to two equal groups namely experimental and control group and treatment was given to experimental group and no treatment was received by control group from the research scholar. After the given time period of treatment which was 6 weeks, post-test data were collected. The tools used to collect the data were 100 m dash test to measure the stride length, stride frequency, and standing broad jump test to measure the explosive power of legs. *t*-test

was employed to analyze the effect of weight training with stretching exercises on stride frequency, stride length, and explosive leg strength of short distance runners. To test the hypothesis the level of significance was set at 0.05 which was considered to be opted for the study.

RESULTS AND DISCUSSION

The finding of below Table 1 reveals that, the calculated t-value of 0.454, 0.476, and 0.181 is less than the tabulated t-value of 2.145 at 0.05 level of confidence for the 14 degrees of freedom. Hence, there is no significant difference in stride frequency, stride length, and explosive leg strength of pre-test and post-test data of control group. Comparison of pre-test and post-test means of control group on the data of stride frequency, stride length, and explosive leg strength has been graphically shown below in Figure 1. The finding of below Table 2 reveals that, the calculated t-values of 3.05, 2.853, and 2.927 is greater than the tabulated t-value of 2.145 at 0.05 level of confidence for the 14 degrees of freedom. Hence, there is significant difference in stride frequency, stride length, and explosive leg strength between pre-test and post-test of experimental group. Comparison of means of pre-test and post-test data on stride frequency, stride length, and explosive leg strength of experimental group has been graphically shown below in Figure 2. The finding of below Table 3 reveals that, the calculated t-values of 2.799, 3.609, and 2.804 are found to be greater than the tabulated t-value of 2.048 at 0.05 level of confidence for the 28 degrees of freedom. Hence, there is significant difference in stride frequency, stride length, and explosive leg strength between post-tests of control and experimental groups. Post-test means of control and experimental groups on the data of stride frequency, stride length, and explosive leg strength have been graphically shown below in Figure 3.

DISCUSSION ON FINDINGS

The findings of statistical analysis revealed that no significant difference was found in the pre-test and post-test of control group in stride frequency ($t = 0.454 <$ Tab t0.05 (14) = 2.145), stride length ($t = 0.476 <$ Tab t0.05 (14) = 2.145), and standing broad jump ($t = 0.181 <$ Tab t0.05 (14) = 2.145) of short distance runners. The reason behind this is there is no specific training was given to the control group. After 6 weeks, their performance did not significantly improve as the control group was exempted from having special treatment such as what the experimental group used to receive. Therefore, such results might have occurred in this study.

The findings of statistical analysis revealed that significant difference was found in the pre-test and post-test of experimental group in stride frequency ($t = 3.049 >$ Tab t0.05 (14)=2.145), stride length ($t = 2.857 >$ Tab t0.05 (14) = 2.145), and standing broad jump ($t = 2.927 >$ Tab t0.05 (14) = 2.145) of short distance runners. It may be attributed to the fact that experimental group received special treatment for 6 weeks which lead to their improvement in the associated qualities. Weight training plan accompanied by stretching sessions aided in giving much better results for short distance runners. As the subjects went through weight training sessions, their muscles got equipped with better efficiency of movements for a limited period of time thereby improving the stride frequency for a short distance. The mechanical wear and tear caused by lifting weights caused better size and number of myofibril components in the muscle which assured better supply of oxygen and nutrients on demand. Muscular hypertrophy took place along with weight training and flexibility sessions ensured the quality of motion was unaffected by the strength gain. Weight training exercises were adopted in such a way that it ensured strengthening of leg flexors and extensors which lead to better stride frequency movements. Effective flexibility exercises guaranteed optimum range of motion of the lower limbs thereby assuring improved stride length of the subjects. Stretching exercises helped in avoiding injury, muscle relaxation, and ensuring better mobility of joints. Explosive leg strength, one of the vital ingredients of short distance running was improved with systematically chalked out weight training sessions. High intensity low volume workouts mainly 1RMs were included in the treatment plan. By working against the resistance caused by the equipment such as dumbbells, weight plates, bars, and gravitational force, the target muscle group accomplished hypertrophy and their capacity was developed significantly making the subjects excelling in generating explosive strength. Thus, such results might have occurred in this study.

The findings of statistical analysis revealed that significant difference was found in the post-test of control and experimental groups in stride frequency ($t = 2.799 >$ Tab t0.05 (28) = 2.048), stride length ($t = 3.609 >$ Tab t0.05 (28) = 2.048), and standing broad jump ($t = 2.804 >$ Tab t0.05 (28) = 2.048) of short distance runners. As the experimental group received systematic and scientific treatment for 6 weeks, the control group was exempted from the special treatment. This explains the lack of improvement of control group in the measured qualities. The general routine they followed did not consist of such special training unlike the treatment received by experimental group. Hence, such results might have occurred in this study.

CONCLUSION

1. Non-significant difference was found in stride frequency, stride length, and explosive leg strength of short distance runners of the control group

2. Significance difference was observed in stride frequency, stride length, and explosive leg strength of short distance runners of experimental group.

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Research Article

Parental involvement in physical education for students with developmental disability: Exploring the meaning

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INTRODUCTION

The purpose of this phenomenological inquiry was to explore the experiences and meaning of parental involvement in physical education (PE) from the perspectives of the parents of students with developmental disabilities. The stories of four mothers of elementary aged children (3 boys and 1 girl), two mothers and one couple (mother and father) of secondary-aged youth (1 girl and 2 boys) with developmental disabilities, were gathered using interviews, photographs, school documents, and the researcher's journal. Bronfenbrenner's (2005) ecological system theory provided a conceptual framework to interpret the findings of this inquiry. Three themes emerged from thematic analysis: Being an advocate for my child, understanding the big picture, and collaborative partnerships undeveloped in GPE. The findings lend additional support to the need for establishing collaborative partnerships in PE between home and school environments (An and Goodwin, 2007; and Tekin, 2011).

Parental involvement in children's education and school has always been a significant interest in the United States since the beginning of the 20th century (Tekin, 2011). Numerous studies have reported that parental involvement influence children's achievement and performance in school (Dimmock and O'Donoghue, 1996; Epstein, 2010; and van Voorhis, 2003). Research indicates that parental involvement affects student academic achievement (e.g., increased grade point average), student behavior in schools (e.g., improved self-concept, classroom behavior, attendance, motivation, and retention), and school improvement (Fan and Chen, 2001; Gettinger and Guetschow, 1998). Pate and Andrews (2006) define parental involvement as "having an awareness of and involvement in schoolwork, understanding of the interaction between parenting skills and student success in schooling, and a commitment to consistent communication with educators about student progress" (p. 1). In a broader sense, it implies the beliefs, attitudes, and activities of parents to support their children's learning; that is, it includes parent values and expectations, parent behaviors (e.g., reading, tutoring, and conversations about school-related matters), parent participation in school functions (e.g., parent-teacher conferences and volunteering), and parent leadership in decision making through involvement in the community (Epstein, 2010; and Weiss *et al*., 2005). Since the 1980s, the importance of parental involvement has been highlighted with the rapid growth of evidence supporting the positive impact on students' performances in the United States (Barge and Loges, 2003). Parent participation and roles have been addressed and implemented through multiple policies, such as *Goals 2000: Educate America Act (1994), Improving America's School Act (1994), No Child Left Behind (NCLB, 2001), and Individuals with Disabilities Education Act (IDEA, 2004)*, to improve public education (Congress of the United States, 1994; Public Education Network, 2004; Tekin, 2011; and Turnbull *et al*., 2006). In particular, parental participation was established as one of the national education goals in *Goals 2000*: "By the year 2000, every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children" (PL103–227, Title I, Section 102, 8A).

In special education, parental involvement is also regarded as an essential part to be implemented in educational programs

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and services (Spann *et al*., 2003). Parents are required to be involved in planning and decision-making processes for their children's education through Individualized Education Program (IEP) meetings under IDEA (Turnbull *et al*., 2006). Parent participation in the IEP meeting is regarded as an important task in that it serves as a means of communication among teachers, parents, and other educationally focused professionals as well as a place to establish a child's educational program (Garriot *et al*., 2000; and Spann *et al*., 2003).

More so now than ever, many students with disabilities attend inclusive general PE (GPE) classes in the United States (Block and Obrusnikova, 2007) and yet, PE is rarely discussed in the IEP meeting although the educational goals, supports, and services are determined through the meeting (Turnbull *et al*., 2006). Parents' input to the IEP process is as critical arguably as much as that of the educational professionals. Parents can share vital information, for example, their child's strengths and weaknesses, behavioral attributes and tendencies, learning styles, and they can provide educational support in and outside of school (An and Goodwin, 2007). Further, with the support of parents, the GPE teacher is better able to meet the needs of each individual student in an inclusive setting. In short, parental involvement is important because students with parental support perform better in school (Turnbull *et al*., 2006).

Ecological System Theory

Children develop in distinct contexts that are "unique combinations of personal and environmental circumstances that can result in different paths of changes" (Berk, 2009, p. 8). Bronfenbrenner's ecological systems theory or EST (1992 and 2005) is a sociocultural view of human development focusing on the mechanism of person and environment interactions (Adamsons *et al*., 2007). In EST, development implies "the set of processes through which properties of the person and the environment interacts to produce constancy and change in the characteristics of the person over the life course" (Bronfenbrenner, 1992, p. 191). Environment is referred to as any event or condition outside the person that either influences or is influenced by the developing person (Bronfenbrenner and Crouter, 1983). EST posits that child development does not appear in isolation but is shaped in relation to each child's home, school, community, and society, meaning that multiple environments can make an enormous difference in the developmental outcome of children with disabilities (Bengoechea and Johnson, 2001).

EST "focuses on the importance of interactions within and between life contexts (e.g., work, school, family, etc)" (Duerden and Witt, 2010, p. 108). Four systems comprise the theory: (a) Micro-, (b) meso-, (c) exo-, and (d) macrosystem. These environmental systems represent different spaces whereby interaction occurs (Bronfenbrenner, 1992). Further, the nature of the interaction at one level is influenced by events at other levels (Sontag, 1996). The *microsystem* "represents an individual's immediate context including associated roles, actors, and environmental characteristics" (Duerden and Witt, 2010, p. 110). At this level, the child has a reciprocal relationship with the environment. Child's biological and social behaviors (e.g., disability) influence the parent's behavior (e.g., involvement in school) as well as the parent as a primary caregiver in the family influences the child's behavior (Berk, 2009). The *mesosystem* refers to the connection between the child's microsystems (e.g., parents and teachers). A child's learning progress is influenced not only by activities taken place in classes but also supported by his/her parent participation in school. If there is a link between home (parent) and school (teacher), the child's development is likely influenced by their relationships (Berk, 2009). Bronfenbrenner (1992) further classified the interconnections between home and school settings as (a) *multi-setting participation* where the child is engaging in (home and school); (b) *indirect relation* established by the connection between home and school (parents and teachers interactions), (c) *inter-setting communications* where messages are transmitted from one setting to the other (school newsletter and progress report), and (d) *inter-setting knowledge* where information or experiences are obtained from others (Sontag, 1996). The *ecosystem* represents social settings where a child's development is influenced by the environment that he or she is not a part of (Bronfenbrenner, 1986). It represents the social networks of the parents such as workplaces, friends, extended-family members health and welfare services, and their religious institutions (Berk, 2009). Parents' social networks can support child caring and enhance children's development. Particularly in those cases, for example, where the parents' workplace provides good medical benefits, paid leave, and flexible working schedule, if friends and extended-family members give advice, companionship, and assistance, and if health and welfare services afford financial assistance (Berk, 2009).

The *macrosystem* is the outermost layer of environmental context in EST, representing the broader social influences such as laws, economic circumstances, and cultural and societal expectations (Berk, 2009). Educational laws—NCLB and IDEA—require parent participation in school to support students' learning. The IDEA specifically requires the parents to engage in the IEP process for their children to determine educational programs and services. Parental involvement in PE can also be influenced by the belief system of the parents (Sontag, 1996). EST suggests that a child's development is affected by the roles parents play in their educational experiences across environmental contexts (e.g., communication with teachers, giving assistance, and affording physical activity participation). Therefore, this study explored the meaning

of parental involvement from the perspectives of parents of children with developmental disabilities. We specifically sought to understand their experiences of involvement in PE, parents' roles, and partnerships between parents and GPE teachers.

METHODS

A hermeneutic phenomenology was used because we sought to describe phenomena as interpreted by the parents (e.g., communicating, assisting, and interacting with teachers) and to understand the meaning of the written word (i.e., the language of the parents; Allen, 1995; and van Manen, 1997). The phenomenological inquiry focuses on describing and interpreting ". the meaning for several individuals of their lived experiences of a concept or a phenomenon" (Creswell, 2007, p. 57) As such, it helps us deepen our understanding of the essence or meaning of everyday experiences that are sought. With the approval from the Institutional Review Board at a supporting institution, informed consent was obtained from all parents. Pseudonyms were used for all parents and their children to protect their identity and confidentiality

CONCLUSION

Three themes emerged that represent the meaning parents of children with developmental disabilities ascribe to their involvement in PE: (a) Being an advocate for my child, (b) understanding the big picture, and (c) collaborative partnerships undeveloped in GPE. In narrative, we present these recurrent themes and their accompanying subthemes [Table 2].

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Research Article

Role of yoga in physical fitness

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INTRODUCTION

What is Yoga?

"Yoga" is the science of life and art of living. It is answer to overall physical and mental fitness. Basically, yoga is a system of physical and mental self-improvement and final liberation the people have been using for thousands of year.

Yoga is a method of training the mind and developing its power of subtle perceptions so that man may discover for himself the spiritual truths on which religion. Swami Shivananda said, "He who radiates good, divine thoughts does immense good unto himself and to the world also." Yoga is science of life; it offers us simple, easy remedies, and techniques and methods of health and hygiene to assure physical and mental fitness with a minimum of time effort and expense.

MEANING

Yoga is a philosophy and practice that connects the body breath and mind to energize and balance the whole person. This mind body therapy involves physical postures, breathing exercises, and meditation to improve overall well-being.

DEFINATION OF PHYSICAL FITNESS

John F. Kennedy: "Physical fitness is not only one of the most important keys to a healthy body it is the basic of dynamic and creative intellectual activity."

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DEFINATION OF YOGA

B. K. Iyengar: "Yoga teaches us to care what need not be endured and endured what cannot be cured."

YOGA AND HEALTH

- Yoga views the human body as a composite of mind, body, and spirit.
- "Health is the state of complete physical, mental, psychological, spiritual, and social well-being and not merely the absence of disease or infirmity."

YOGA IN HEALTH AND FITNESS

- Yoga views the human body as a composite of mind, body, and spirit
- "Health is the state of complete physical, mental, psychological, spiritual, and social well-being and not merely the absence of disease or infirmity" (WHO).

HOW YOGA RELATES TO HEALTH

- Physical: Yoga improves blood circulation and over all organ functioning.
- Mental: Bring down stress, enhances greater power of relaxation and stamina and bestows greater power of concentration and self-control.
- Psychological: Yoga asana practice is intensely physical; concentration so intently on what body is doing has the effect of bringing calmness to the mind. Physical activity is good for relieving stress and this is particularly true of yoga. Yoga increases concentration and motivation in quick time. Doing yoga will give an increased awareness

of own body this cannot lead to improved posture and greater self-confidence.

- Spiritual: Regulation and transformation of blood chemistry through proper synthesization of neuroendocrinal secretions, dispassionate internal vibrations lead one to attain the power to control the mind and to become free from the effect of external force compelling one to lose to equanimity.
- Social: Yoga practitioner becomes cheerful, enjoys talking to people shares problems with friends, and can realize that there is other also who are sailing in same boat, so that one can easily mix-up in group by happier nature.

BENEFITS OF YOGA FOR PHYSICAL FITNESS

1. To keep our mind calm and peaceful sleeps.
2. Controls high and low blood pressure.
3. To keep our lungs activated and energetic.
4. To keep our heart energetic and free from the blockages/ cardiac arrest.
5. It also increases our muscular strength and endurance.
6. Use to keep body fit and energetic.
7. Creates harmony of mind and body.
8. To make our body flexible.
9. Sound mind in a sound body.
10. To reduce fats from our body.
11. To keep maintain the flexibility with improved range of motion.
12. Natural weight loss.

CONCLUSION

Yoga holds many benefits just stress release. You should take regular classes at least twice a week. For classes that include a balance of poses along with breath work and meditation for maximum benefits particularly prefer yoga as it's a nice mixed balance for yoga poses breath work and meditation.

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Research Article

Maturity level among the inter college level high and low performing Kabaddi players

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ABSTRACT

The purpose of the present study was to find out the maturity level among the inter college level high and low performing Kabaddi players. The researcher hypothesized that there may not be significant difference with regard to maturity level among the inter college level high and low performing Kabaddi Players. For this study Two Hundred *n* = 200) male inter college level Kabaddi players aged between 18 and 25 years were selected. Differences between the groups were assessed using the Student's *t*-test for dependent data. After data collection, the data were statistically analyzed. In order to test the hypothesis, the level of significance was set at 0.5 level of confidence which was considered adequate and reliable for the purpose of the study.

Keywords: Maturity level, High and low performing

INTRODUCTION

Maturity is simply the process of children growing and obtaining adult stature. All humans experience maturation differently, but we notice the greatest change after puberty. Females tend to mature sooner than boys, but post-pubertal boys will experience greater increases in strength and power due to testosterone and other androgen hormones. An appropriate strength and conditioning programmer will increase the motor skills, coordination, strength, and power in children and adolescents. Adolescents may be prone to overuse injuries during periods of rapid growth in height and mass. Maturation should be measured in youth athletes to properly monitor their growth and well-being as athletes. Maturation is quite simply the process of becoming mature. To understand maturation properly, we must realize that each child differs at the timing and tempo of this process. Timing refers to when‟ maturation begins, while tempo refers to the "Rate" at which it progresses. We typically discuss maturation as the process from early childhood to adolescence and then to full adult stature. Childhood is generally regarded as the time until which one reaches adolescence. The start of adolescence begins with the onset of puberty where hormonal and physical changes begin to occur. Initially, rapid changes begin to occur with increases in height, weight, stature, and the development of secondary sex characteristics. Up until puberty, there are few performance differences between genders. The adolescent stage usually begins sooner in girls (8–19 years) than in boys (10–22 years), but up until puberty, there are few performance differences between genders. However, significant changes begin to emerge between genders after puberty due to circulating androgens (testosterone). Testosterone causes boys to develop larger arm girth and larger shoulder breadth in comparison to girls, while increases in hip breadth are alike. Similarly, during this rapid growth spurt boys will have greater fat-free mass than girls and a smaller increase of body fat.

MATURITY AFFECT PERFORMANCE

Maturation plays a significant role in motor skill development, strength, power, and even has implications on injury risk in young athletes. Understanding maturation and how it impacts youth performance is of great benefit to coaches and parents. Research indicates that childhood is an ideal and opportunistic time in which to maximize motor skill proficiency. This is due to the natural and accelerative rate at which the brain and

central nervous system mature in the child. Therefore, this vital time frame should be utilized by introducing children to a broad array of foundational movements, as well as exposing them to a variety of stimuli. If such foundational movements are developed before adolescence, it is believed that the athlete will be better- equipped when faced with more complex motor skills during a later developmental stage. As athletes reach adolescence and adulthood, they are less sensitive to developing new motor pathways, which therefore makes it more difficult to teach certain movement skills. As a result, youth athletic development programmers should be thoughtfully designed and carefully delivered in order to ensure the programer has maximal effect. Moreover, young athletes should be exposed to range different stimuli; however, this must not be delivered in a random or poorly thought-out format. Instead, the goal and focus of training sessions should be to develop gross athletic motor skill competencies through a challenging and playful environment.

STATEMENT OF THE PROBLEM

The purpose of the study was to compare Maturity level among the Inter College Level high and low performing Kabaddi players

SELECTION OF SUBJECTS

Two hundred (n = 200) male Inter College Level Kabaddi players aged between 18 and 25 years were selected for this study. The purposive sampling technique was used to attain the objectives of the study. All the subjects, after having been informed about the objective and protocol of the study, gave their consent and volunteered to participate in this study. They were further divided into two groups N = 200 each (i.e. N1 = 100; High Performance and N2 = 100; Low Performance). A-High performance B-Low performance

SELECTION OF VARIABLES

A feasibility analysis as to which of the variables could be taken up for the investigation, keeping in view the availability of tools, adequacy to the subjects, and the legitimate time that could be devoted for tests and to keep the entire study unitary and integrated was made in consultation with experts. With the above criteria's in mind, the psychological variable, namely, "Maturity level " was taken up for the present study: Semantic Differential Maturity Instrument (Carothers *et al*., 2000): Semantic Differential Maturity level Instrument developed by (Carothers *et al*., 2000) was used to assess the differences among Inter College Level high and low performing Kabaddi players. In total there are 34 items in semantic differential Maturity instrument. Before administering all the items were arranged in random order. It was rated on 7 point scale. The subject has to place a tick mark in one of the seven alternatives to his best of honesty and sincerity. Eighteen out of thirty-four items which are marked must be reversed coded before analyzing the data. After administration, submission of scores was done for each of five dimensions of the instrument and also a single score of the overall instrument was calculated by summing each score indicating subject's maturity. The instrument identifies those individuals who were high on five non-cognitive traits of personality which indicates competence in personal and interpersonal skills.

COLLECTION OF DATA

The survey method through the technique of questionnaire had been adopted to collect the relevant data for this study. A group of two hundred (n = 200) male Inter College Level Kabaddi players aged 18–25 years, who participated in Kabaddi Inter College Level tournament for the session 2018–2019 volunteered to participate in this study. The purposive sampling technique was used to attain the objectives of the study

ADMINISTRATION OF QUESTIONNAIRE

The questionnaire is an information form that attempts to elicit data from the selected respondents. The final draft of questionnaire was administered to all the respondents.

STATISTICAL PROCEDURE USED

The between-group differences were assessed using the Student's t-test for dependent data. The level of significance was set at 0.0.5

ANALYSIS OF DATA

The statistical analysis of the data was collected on two hundred subjects (n = 200). The subjects were further divided into two groups n = 100 each (i.e. N1 = 100; high performance and N2 = 100; low performance). To find out the between-group differences and the difference of Maturity Level between the Inter College level high and low performing Kabaddi players the following statistical techniques were employed. The level of $P \leq 0.05$ was considered statistically significant. Student's t-test for independent data

FINDINGS

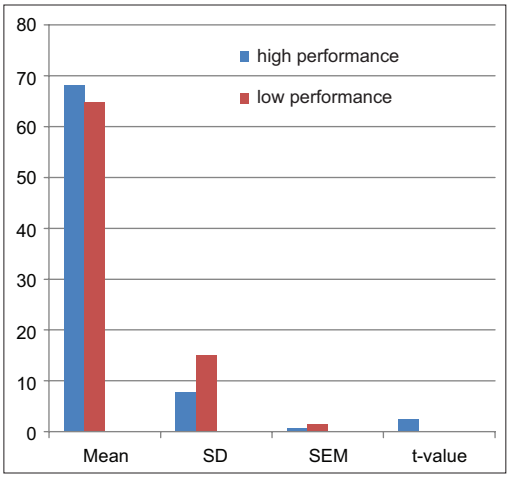
Findings of this study were made in sequence of all the variables namely Maturity, For each of the chosen variable, the results pertaining to significant difference, if any, between the Inter College Level high and low performing Kabaddi players are presented in following.

Table 1: Mean values (±SD), standard error of the mean and test statistict of maturity in high-performance group (*n*=100) and low-performance group (*n*=100)

	High performance	Low performance
Sample size	100	100
Arithmetic mean	68200	64.7250
95% CI for the mean	66.8153to 695847	62.0001–674499
Variance	58.6824	227.2599
Standard deviation	76604	150751
Standard error of the mean	0.6993	1.3762
Mean difference		16.2754
Standard deviation		3.4750
95% CI		6.4169 to 0.5331
Test statistic t		2.339
Degrees of Freedom (DF)		119
Two-tailed probability		P-0.210

Significant at 0.05 level of significance. Tab *t* (.o5) (119)=1.645

Table 1 indicates that the mean of high performance and low performance group was 68.20 and 64.72, respectively, whereas the standard deviation (SD) of high performance and low-performance group was 7.66 and 15.07, respectively. The computed value of t (=2.339) between high performance and low performance group in maturity was greater than the tabulated *t* (0.o5) (119) (=1.645). Thus it may be concluded that the Maturity found to be statistically significant. As per the study the above remark can be given at 95% probability level. The graphical representation of responses has been exhibited in



Hypotheses

It was hypothesized that there may not be significant difference with regard to Maturity Level among the Inter College level high and low performing Kabaddi. The subject has to place a tick mark in one of the seven alternatives to his best of honesty and sincerity. Eighteen out of thirty-four items that are marked must be reversed coded before analyzing the data. After administration, submission of scores were done for the instrument and also a single score of the overall instrument was calculated by Summing each score indicating subject's maturity level players.

CONCLUSIONS

The mean of high performance and low-performance group was 68.20 and 64.72, respectively, whereas the standard deviation (SD) of high performance and low-performance group was 7.66 and 15.07, respectively. The computed value of t (=2.339) between high performance and low-performance group in maturity was greater than the tabulated t (.o5) (119) (=1.645). This means that the null hypothesis is rejected. Thus, it may be concluded that the maturity found to be statistically significant. As per the study the above remark can be given at 95% probability level.

RECOMMENDATIONS

In the light of the findings of the present study the following recommendations can be made for further studies:

1. Physical education teachers and coaches can use the result of this study as an aid in screening, identification, and selection of players in team games.
2. In the training program for individual and team games, emphasis must be laid on the improvement of those psychological dimensions, which have been found to be significantly related to performance.

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Research Article

Impact of physical education and sports promoting social values among youth

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ABSTRACT

The reason for this examination is to explore the effect of actual training and sports in advancing social qualities among youth. Actual training and sports assume an indispensable part in teaching the young with respect to the significance of social qualities in their day-to-day existence. Checked on writing researched that the significance of relationship in teaching the two personalities and body. Further, it likewise energizes the social qualities among youth that permit them to foster social relations with their local area. Furthermore, the advantages of actual schooling and sports can impact both scholastic learning and active work of the adolescent. Humanism of game, on the other hand, alluded to as sports social science is a sub-discipline of social science which centers around sports as friendly wonders. It is a space of study worried about the connection among social science and sports, and furthermore different socio-social designs, examples, and associations or gatherings engaged with sport. This space of study talks about the positive effect sports have on unique individuals and society in general monetarily, monetarily, and socially. Humanism of game endeavors to see the activities and conduct of sports groups and their players through the eyes of a social scientist.

INTRODUCTION

Game is managed by guidelines and rules of conduct, spatial and time requirements, and has administering bodies. It is arranged toward an objective, which spreads the word about both the champ and the failure. It is cutthroat and ludic. All games are socially arranged, entwined with the worth frameworks, and force relations inside the host society. The rise of the social science of game (however not simply the name) dates from the finish of the nineteenth century when first friendly mental trials managing bunch impacts of contest and speed making occurred. Other than social human studies and its advantage in games in the human culture, one of the main endeavors to contemplate sports in a more broad manner was Johan Huizinga's Homo Ludens or Thorstein Veblen's Theory of the Leisure Class. Homo Ludens examines the significance of the component of play in culture and society. Huizinga proposes that play, explicitly sport, is essential to and a vital state of the age of culture. These composed works added to the ascent of the investigation of social science of game. In 1970, sports social science acquired huge consideration as a coordinated, real field of study. The North American Society for the Sociology of Sport was shaped in 1978 with the goal of considering the field. Its exploration outlet, the Sociology of Sport Journal, was framed in 1984.

In the present period, actual instruction and sports is a fundamental piece of training. It contributes straightforwardly to the improvement of actual ability and wellness. It likewise assists the adolescent with monitoring the value of driving an actually dynamic way of life. The solid and actually dynamic youth is bound to be scholastically propelled, mindful, and promising. As such, we can say that actual training and sports are select to the school main subjects. It is the solitary program that gives the chances to youth to acquire engine abilities, progress mental and actual wellness. The advantages of physical acquired from active work such as illness anticipation, security and injury aversion, diminished horribleness and untimely mortality, and expanded emotional well-being. The actual instruction is just the course where youth find out pretty

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much the entirety of the advantages acquired from being truly dynamic just as the abilities and information to join protected, fulfilling active work into their lives, furthermore, how to interface with others (National Association for Sport and Physical Education, 2001). Besides, it is seen that actual training meetings ought to be not difficult to get from preschool until optional. It focus to manage an assortment of proactive tasks and energize the individuals who are the absence of inclining to take up arranged serious games. This includes dispose of ordinary techniques for actual schooling educating and zeroing in additional on the people's necessities and capacities, as an option of the happiness regarding active work. As an ideal opportunity for actual training is for the most part restricted inside the educational time timetable and educational plan, its substance should be important and creative (Fox and Harris, 2003). Further, Gonzalez *et al*. (2010) accepted that curricular actual schooling inside any game, ability improvement plot as well as a high advancement in friendly qualities among youth. Thusly, the motivation behind this examination is to research the job of actual schooling in advancing social qualities among youth.

PHYSICAL EDUCATION PROGRAM

Physical training educational programs can offer youth with the suitable information, abilities, practices, and certainty to be genuinely dynamic forever. In addition, actual instruction is the premise of a school's active work program. Along these lines, investment in physical movement is corresponded with scholastic benefits such as further developed focus, memory, and homeroom conduct. As indicated by the World Health Organization (2001), it incorporates the improvement of actual capacities and practical preparation; propelling the understudies to proceed with sports and active work, and giving diversion exercises.

Improvement of Physical Abilities and Physical Conditioning

Actual schooling works with to develop and rehearse actual wellness involves fundamental engine abilities (Barton *et al*., 1999) and gets hold of the skill to perform different proactive tasks and activities. Actual wellness constructs intellectually more honed, truly agreeable, and furthermore ready to manage the everyday requests (Jackson, 1985). Further, perseverance, adaptability, strength, and coordination are the vital parts of actual wellness. Furthermore, to execute the actual activities and game, youth should be created fundamental engine abilities.

ROUSING THE STUDENTS TO CONTINUE SPORTS AND PHYSICAL ACTIVITY

Educators consistently persuade the young to contribute in sports and proactive tasks just as scholarly instruction programs. Further, they in every case coordinate and educate them, sports and active work are crucial piece of scholastic schooling. They have additionally directed the adolescent; we cannot think healthy advancement of human character without sports and physical training. In addition, they have additionally to deal with a gathering in which examines their folks about the significance of sports and active work just as scholarly instruction. Further, educators should draw in parent or relatives in actual work, for instance, by giving youth actual work 'schoolwork' which could be performed along with the parent's viz., family strolls after dinner or playing in the recreation center (WHO, 2001).

GIVING DIVERSION EXERCISES

Organizations must spotlight on the execution of actual work course which works with to make pleasant interest to all adolescent in active work program which gives the young an assortment of thoughts for dynamic games and exercises and the abilities and wellness to play them (Fox and Harris, 2003) to lessen the pressure, uneasiness, substance addictions, and corpulence.

ADVANCING THE SOCIAL VALUES AMONG YOUTH

Actual training and sports assume an indispensable part in advancing the social qualities among the young. Furthermore, actual training is considered as a school subject, which works with to set up the adolescent for a sound way of life and spotlights on their, generally speaking, physical and mental turn of events, just as bestowing significant social qualities among the young like reasonableness, self-restraint, fortitude, solidarity, resistance and reasonable play (Bailey, 2005). Social science of game, also called sports social science, is a discipline of humanism that reviews sports as a social wonder. Sports sociologists basically inspect the capacities, effects, and jobs that sports have on various social orders. The humanism of game incorporates research in different fields such as political theory, history, and human studies (Maguire 2013). This article depicts the beginning of the social science of sports as a sub-field of social science. It then, at that point pushes forward to detail the four significant sociological hypotheses that are utilized in the investigation of sports. These are the functionalist hypothesis, struggle hypothesis, interactionist hypothesis and women's activist hypothesis. Subsequently, the subjects of sexual orientation and race and identity are addressed. The article closes with a depiction of what's in store for the space of sports human science.

ORIGIN OF SOCIOLOGY OF SPORT

Sports social science started to arise as a conventional discipline in the second 50% of the twentieth century. By the

1960s, TV had begun to devote abundant measures of time to sports. Proficient associations for different games, for example, baseball and football started to arise in the United States. This was joined by the Olympics being a jungle gym for the Cold War. During this period, numerous social researchers such as David Reisman, Charles Page, and Erving Goffman distributed works identified with sports. In 1978, the North American Society for the Sociology of Sport was established with the goal of investigating this field.

CONCLUSION

Sports and globalization have acquired ubiquity among sociologists and new spaces of examination are managing the connection between friendly turn of events and sports inside creating nations. A few sociologists have additionally utilized subjective and quantitative information to reveal insight into the connection among sports and social class. Finally, democratization contemplates has acquired huge prominence inside the most recent couple of years inside the field of sports. Later on, issues of cooperation in sports will likewise be concentrated through the focal points of social rejection and incorporation ("Sociology of Sport" 2018).

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Research Article

Survey of the socio-economic status of urban and rural swimming players of Sangli District, M.S. (India)

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ABSTRACT

The study was conducted to investigate the socio-economic status difference between of rural and urban swimming players of Sangli district. For the present study, 50 rural and 50 urban swimming players were selected who participate at least state level tournament. The sample of this study was selected through random sampling technique. A structured interviewer administered questionnaire (Aggarwal, 2005) was used to collect the relevant information. This study reveals that there is no significance difference between rural and urban swimming players at 0.05 level of significance.

Keywords: Socio-economic status, Urban and rural swimming players

INTRODUCTION

In selection of sports, socio-economic status (SES) plays an important role. An individual's SES may affects on his opportunity, his choice of activity, his desire to excel, and his success. The home environment often impacts on his motivation to succeed in sports and the degree to which success in this attempt leads to mental satisfaction. Few young people growing up with lower SES will have observed in tennis courts, backyard, swimming pools, and golf courses. They will have more difficulty finding means of travel to beaches, ski areas, and lake regions. They will usually be able to afford fewer fishing trips, mountain vacations and bowling nights and horseback riding, and water-skiing and golf will be too expensive in both time and money for most of them. On the other hand, many of the greatest softball, football and basketball players, boxers, volleyball players, and track and field athletes have come from the government colonies, where large numbers of children of all ages live in crowded quarters and they face out of doors to play with each other. They compete and interact in both organized and unorganized play. They wrestle and fight, and romp and chase (Mane, 2016). They learn to stand up for their rights and to accept hurts without whimpering. They often find in sports both an outlet for aggression and a way of satisfying their desire to achieve. Children who grow up in middle class are usually fortunate enough to have good facilities for physical education, an adequate number of qualified coaches, and considerable assistance and encouragement from their parents. Opportunities development of sports skills is normally present and motivation is reasonably high. SES of an individual is a sort of rank or position as determined by the joint influence of his society and economic ranking in the society to which he belongs. More precisely, it is one's place on the socio-economic scale. Such status slabs of income he happens to earn. SES would therefore be a ranking of an individual by the society he lives in, in term of his material belonging and cultural possession along with the degree of respect, power, and influences he wields. Family's SES is based on family income, parental education level, parental occupation, and social status in the community. Families with high SES often have information regarding their children's health (Saxena, 1984).The position of an individual on a socio-economic scale that measures such factors as education income, type of occupation, place of residence, and some population ethnicity

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and religion. When analyzing a family's SES, the mother and father's education and occupation are examined, as well as combined income versus with an individual when their own attribute are assessed. Throughout the world, people are facing a lot of problems created by conflict and frustrations which are political, social, or economical. History tells us that all social and cultural phases of human evolution are ultimately determined by economic causes. Improvement and well-being of a society or country depend largely on economically dependability, and socially well-adjusted citizens. India's backwardness and unconcern toward sports and physical education are mainly due to her economic poverty. Children from wealthy homes and urban area often play cricket, have tennis courts and swimming pools in their backyard and travel to ocean, beaches, or island retreats for vacations (Hoffmann Robert 2012). While as children from lower socio-economic classes and rural areas have difficult in achieving such facilities, the research reveals that "The participation games directly related to the per capita income of the family or Nation (Khan 2009) as well as native place that is rural or urban area of that player. Mental health also plays important role in sport achievements (Mane, 2014).

It has been recognized that socio-economic factors play a vital role in an individual's performance in sports. The SES make-up of an individual plays an important role in their achievements in every field of life. SES also influences on habitual physical activity (Drenowatz *et al*., 2010). Considerable research has been conducted on the SES of sports persons, team sport versus individual sport (Srikant 2012, Deshmukh 2013, Khan 2009, and Kumar (2013), and men players versus women players. However, very few research studies are conducted on SES of rural and urban swimming players.

Table 1: Raw score value of SES scale with interpretation of rural and urban swimming players

Sr. No.	Raw score	Stanine	Interpretation
1	Above 76	9	Upper high Socio-economic status
2	61–75	7-8	High Socio-economic status
3	60–46	4-6	Average Socio-economic status
4	45–31	2-3	Low Socio-economic status

Table 2: Distribution of population according to, their socio economic status of rural and urban swimming players

Group	Low SES	Average SES	High SES	Total
Urban	24%	57%	23%	100
Rural	24%	65%	11%	100
Total	48 (24%)	122 (61%)	34 (17%)	100

Table 3: Mean difference of socio-economic status between rural and urban swimming players

Sr. No.	*N*	Mean	S.D	Df	*t*-test
Urban	50	61.5	3.00	198	0.002
Rural	50	67	4.07		

Significant difference at 0.05 level. Tabulated value=1.98

Objectives

The aim of the study was to find out the SES difference in urban and rural swimming players of Sangli district.

Hypothesis

There would be no significance difference in the SES between urban and rural swimming players of Sangli district.

METHODLOGY

Sampling

The sample of this study was selected through random sampling technique. The data were collected from 50 rural and 50 urban swimming players of Sangli district. The age group of 19–23 years and only those players were selected who did not earn money from any business/job or depends on parents and participated in district, state, or in national level tournament.

Tools

A structured interviewer administered questionnaire (Aggarwal**,** 2005) was used to collect the relevant information, this scale measures the following information: Family demographic and size, family occupation, family income, family e,ducation and family social status in society: Political relationship, life style, and living standard.

Norms of the test: To facilitate the interpretation of raw scores, norms of test were prepared. T-score, Z-score, and Stanine score equivalent of the raw score were prepared. The data collect from the questionnaire were used to score the points. With this scale five strata were formed, those were very high SES, high SES, average SES, Low SES, and very low SES. In this study, only three strata were taken; very low was merged into low and very high was merged into high. Tables were prepared to find out the socio-economic strata of the subjects. The subjects were assigned to various SES groups according to their scores and numbers. They were compared by calculating the percentage and then the attempt was presented in Table and Graphical form. The groups were divided into five categories with mark as.

Reliability

The reliability of this SES index was 0.74.

Statistical Procedure

The test of significance or hypothesis testing always calls for some kind of statistical technique to be used. There are

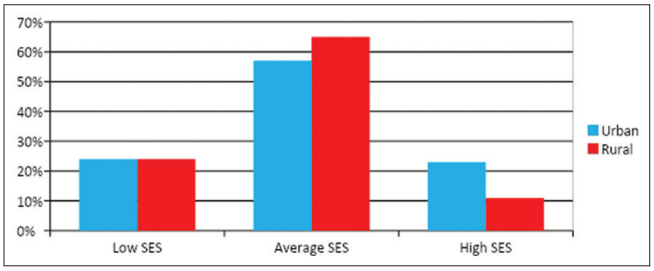


Figure 1: Socio-economic status of rural and urban swimming players

different ways and techniques in which data can be treated and analyzed statistically. In present study, arithmetic mean, standard deviation, and t-test were used to compare the data.

Structured questionnaire (Verma, 2005) was used to know the SES of subjects. On the basic of this scale, 21% of subjects were from low SES, 65% of subjects were from average SES, and 12% were from high economic status. It shows most of students were from average SES. According to the data presented in the above table, the highest percentage was 65% falling in the average strata; this is graphically represented in Figure 1.

RESULTS

The table shows that SES, the mean and standard deviation of urban players have been found to be 57 and 3.00 and rural players have been found to be 65 and 4.07, respectively. To find out SES difference between two groups, *t*-test was applied. The t-test has been found to be 0.002 being insignificant at 0.05 level of confidence. It indicates that there is no significant difference in the SES between urban and rural players. The hypotheses of the study stated that there is no significant difference in SES between rural and urban swimming players of Sangli district. The result of the present study is in favor of the hypothesis hence the hypothesis is accepted.

CONCLUSION

Form the above statistical analysis, it is quite clear that rural and urban swimming players of Sangli district does not difference significantly, so there is no significant difference in the SES between that rural and urban swimming players of Sangli district (Deshmukh 2013).

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Research Article

Comparison of agility and strengths of basketball and volleyball players

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ABSTRACT

The purpose of the study is to compare the leg and shoulder strength, and agility of basketball and volleyball players. Researcher hypothesized that there might be significant differences in agility and strengths of basketball and volleyball players. The study was delimited to 15 basketball and 15 volleyball players. The study was also delimited to male inter-collegiate level players S.G.B.A.U., Amravati. The age of the subjects ranged between 18 and 25 years. The present study was delimited to agility, explosive leg strength, and shoulder strength only. Players were selected using simple random sampling method. For collecting data, the researcher administrated semo agility test was used for agility was recorded in seconds, standing broad jump for leg strength (cm), sitting medicine ball throw test for shoulder strength is recorded in foots. To find out the significant difference, *t*-test was employed on each variable independently and level of significance was set at 0.05 level of confidence. There was no significant difference found on flexibility and leg strength between basketball and volleyball players. Volleyball players showed good shoulder strength than the basketball players.

Keywords: Agility, Strength, Basketball, Volleyball

INTRODUCTION

Agility is the ability to perform a series of explosive power movements in rapid succession in opposing direction. As present, many researcher have directed their attention toward the study of agility and its role on the performance level of the player in various games. Because among the truth of physical ability and performance of athlete and trainers, agile movement and flexibility are most important traits. These traits are measured and considered by the coaches and the experts with keen interest. Agility is the ability to integrate muscles for quick movements into an efficient pattern of movement. Agility makes the difference between good performance and poor performance. The efficiency of skill patterns depends on the interrelation of speed, agility, and shoulder strength in these ball games. The child must understand the movement to be performed and see the relationship of each movement to be performed and see the relationship of each movement to the total pattern. Development of perception usually allows movement to become rhythmical and efficient. Muscular strength is the maximal one-effort force that can be exerted against a resistance, the maximum amount of force that one can generate in an isolated movement of a single muscle group. The stronger, the individual, and the greater the amount of force that can be generated. Lifting heavy weights maximally once or twice or exerting maximal force when gripping a hand dynamometer provides measurements of muscular strength.

Statement of the Problem

The problem is stated as, "Comparative Study of Agility and Strengths of Basketball and Volleyball Players."

Purpose of the Study

The purpose of the study is to find out the agility and strengths and comparison between basketball and volleyball players.

Hypothesis

Researcher hypothesized that there might be significant differences in agility and strengths of basketball and volleyball players.

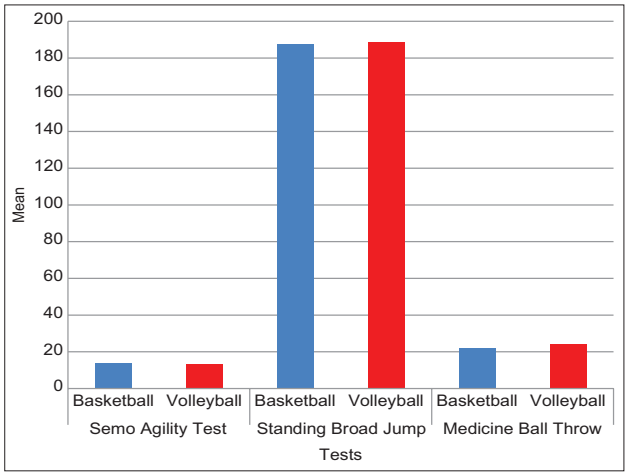
Delimitations

1) The study was delimited to 15 basketball and 15 volleyball players.

Table 1: Summary of mean, standard deviation, and t-ratio for the data on flexibility, agility, explosive strength, and BMI between the basketball and handball players

	Players	Mean	SD	Mean difference	SE	"t"-ratio
Semo agility test	Basketball	13.688	0.428	0.106	0.191	0.554@
	Volleyball	13.582	0.602			
Standing broad jump	Basketball	187.733	3.173	0.933	0.741	0.697@
	Volleyball	188.667	4.100			
Medicine ball throw	Basketball	22.267	2.404	1.933	1.339	2.609*
	Volleyball	24.200	1.568			

*Significant at 0.05 level, Tabulated $t_{0.05\,(18)}$=2.100, @Not significant at 0.05 level



Graph 1: Means of agility, explosive leg strength, and shoulder strength between basketball and volleyball players

2) The study was also delimited to inter-collegiate level players S.G.B.A.U., Amravati.
3) The study was delimited to the male students only.
4) The age of the subjects ranged between 18 and 25 years.
5) The present study was delimited to agility and explosive leg strength and shoulder strength variables only.

METHODOLOGY

Fifteen basketball and 15 volleyball male players were selected as subjects. The subjects selected for the study were from those who represented inter-collegiate tournaments and inter-university trials of S.G.B.A.U., Amravati, using simple random sampling method. For collecting data, the researcher administrated semo agility test was used for agility was recorded in seconds, standing broad jump for leg strength (cm), and sitting medicine ball throw test for shoulder strength is recorded in foots.

Statistical Analysis

To find out, the significant difference *t*-test was employed on each variable independently. To test the hypothesis, the level of significance was set at 0.05 level of confidence [Table 1].

CONCLUSIONS

- There was no significant difference in flexibility and leg strength between basketball and volleyball players.
- Volleyball players showed good shoulder strength than the basketball players.

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Research Article

Importance of the Yoga in sports

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ABSTRACT

Yoga is philosophy and our traditional culture. Its main purpose is salvation (mukti) and the second purpose is to treat and cure the physical and mental diseases. In sports, Yoga plays a key role to enhance the performance of the sportspersons. It also helps to maintain the healthy environment and sportsman spirit. It helps to grow the culture among the sportsperson to take the right decisions on time in need and respect the decisions and the rules of the game. It also helps to maintain the rhythm and creates harmony of mind, body, and stance. It not only helps to increase the flexibility but also the fitness of the sportsperson.

INTRODUCTION

Yoga is the Indian theist philosophy; out of six theist Indian philosophy, Yoga is one of them. To study any philosophy means the ultimate reality, underlying the phenomenal World. Philosophy broadens the perspectives of every person who shows its interest in it. Yoga is the theoretical and applied Indian philosophy.

"Yoga's citta-vruttinirodhah" 1.02 Samadhi Pada.

Yoga means the inhibition of the modifications of mind.

Patanjali Yog Sutra's are propounded by the Hrushi Patanjali. What is the effect and benefit of inhibition of the modification of mind in sport can be analyzed in this essay.

Explanation: Sports are skillful intellectual and physical activity. Sports help to increase the physical fitness and sound mind in a sound body. It also entertains the sports person and the society. Through sports, one can lead the nation on the international level such as Olympic, Asian, and European games.

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Yoga is helpful in sports. Yoga has eight limbs and each part of the Yoga philosophy is helpful in sports.

BENEFITS OF THE YOGA TO THE SPORTS PERSON

1. Yamas - There are five types of Yamas which emphasize the responsibilities. It also reflects the ethical base in our personality and overall process as a human being.
2. Niyamas - There are five types of Niyamas. It helps to enhance the self-discipline, loyalty, respect for all, cleanliness, and hard work. In sports, the sports person must have to follow the ethical values and moralities.
3. Asanas - Asanas helps to release the mental stress, it also relax the mind and body. Hrushi Patanjali explained and informed in Sadhan Pada's sutras 2.46 to 2.48 about Asanas. Hath Yoga has introduced 84 Asanas and in Gherand samhita which has also informationed about 30 Asanas. The real purpose of the Hath Yoga is to purify our body and the purpose of the Raj Yoga is to purify our mind. Yoga helps to execute the exercise to our whole body. However, all types of sports do not because if a football player is playing football, it means that his exercise of running and the rhythmic movements of his feet could be done. However, the same player is executing Yogas, it means that Yoga can help him to exercise his entire body and relax his mind. The same case we can study by giving

the example of chess, carom, table tennis, badminton, kho-kho, kabbadi, and cricket.

However, the very exercise of the Yogas may help to make our body flexible and sound too. The real benefit of yoga is it helps to fill the tearing of our body.

4. Pranayamas – Hrushi Patanjali introduced Bahya-Kumbhak, Anter-Kumbhak, Tatkal-Kumbhak, and Kewal-Kumbhak. Hathyogapradapika explains Suryabhedan, Ujjayee, Sitkari, Shitali, Bhastrika, Bhamri, Plawinee, and Murchha. Benefits of the Prananyamas for the sportspersons are as given below-

i) It reduces the stress.
ii) It helps to enhance respiratory system.
iii) It helps to keep away negative thoughts.
iv) To balance mind and body
v) It helps to increase the decision making ability.

5. Pratyaharaha - It helps sportspersons to take balanced diet and sound sleep. It also helps to keep their senses in control.
6. Dharna, Dhyan, and Samadhi- These are the intimacy of Yoga.

Dhan Sadhana (meditation) is essential for each and every sportspersons. Because of the meditation, Mudha, Shipta, and Vikshipta these are the three Chitta bhoomis that transferred in Ekagra and Nirudha. The sportsperson who used to execute meditation his performance in sports can help to achieve success and his devotion toward the sports. It helps him to increase the level of his confidence and positive attitude. It used to manage and sustain the stress at the time of his game.

It also helps to balance mind and body and keeps away agitation. The performance of the sportspersons could be enhanced and reached up to the mark.

CONCLUSIONS

The practical execution of the Yoga makes positive effect on the overall performance of the sportspersons. It also helps to increase the sportsman spirit and morality.

1. The daily exercise of the Yoga makes our body flexible and healthy.
2. It helps to carry out the responsibilities properly.
3. It also helps to maintain self-discipline and dignity of the game.
4. It helps to give respect to the competitor and the result of the game.
5. It helps the sportsperson to maintain the balance of their mind, body, and the positivity.
6. It also helps to reform our respiratory system.
7. It reduces the stress level and effect the performance.
8. It also maintains the food and diet of the sportspersons.
9. It improves the ability to take the right decision.
10. It also helps to control the overwhelming thoughts and keeps the mind body balanced, cheerful, and energetic.

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Research Article

Attitude of the female kabaddi and kho-kho players toward rehabilitation of injuries

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Received: XXX **Acceptance:** XXX

ABSTRACT

The purpose of the study was to find out the attitude toward rehabilitation of injuries of the female kabaddi and kho-kho players. The study was delimited to the 60 female subjects. The age group of the subjects is ranged between 18 and 28 years. Thirty each subjects were selected for this research between kabaddi and kho-kho players. In this present study, the data were taken through questionnaire was measured. On the basis of obtained, data percentage were find out and it was found that the rehabilitation of injuries of female kabaddi and kho-kho players.

INTRODUCTION

Every day, numbers of people in the world participation in game and sport activities from soccer fields to softball fields to cricket grounds and kabaddi courts. It is called playing but sport activities are more than play. Participation in sports improves physical fitness, coordination and self-discipline, and gives children individuals valuable opportunities to learn teamwork. Game and sports can also result in injuries some minor, some serious, and still others resulting in lifelong medical problems. Some sports are such as kabaddi and kho-kho these games are more dangerous than other games. In this game, the players direct contact with the opponent players and they become injured so they have time to rehabilitee their injury. For rehabilitation, the kabaddi and kho-kho players what they do at that time to rehabilitee the injury such as bone injuries, superficial injury, muscular injury, tendon injury etc.

METHODOLOGY

The information regarding the sources of data, method of collecting data and tabulation of data. It was conducted as per the procedure given below:-

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Pradeep Khedkar,

Sources of Data

For the present study, the data were collected from the Sant Gadhge Baba Amravati University those are participate in inter-collegiate kabaddi and kho-kho players.

Selection of the Subject

Sixty female players are from kabaddi and kho-kho players 30 each form kabaddi and kho-kho. The players selected for this study are participating in inter-collegiate tournament.

Method of Sampling

Simple random sampling was applied for the present study. Thirty subjects each form kabaddi and kho-kho players.

Administration of Questionnaire

The questionnaire was administrated on 60 female players those are who have participated in inter-collegiate tournament. Required information will be given to the subjects before the administration of the test, the overall purpose the study will be explained to each and each subjects. Fill the required information in the space available before starting the questionnaire. An appropriate environment was provided to the subject to allow them to concentrate over the questionnaire.

Statistics and Analysis

For this study, percentile method used for analysis the data.

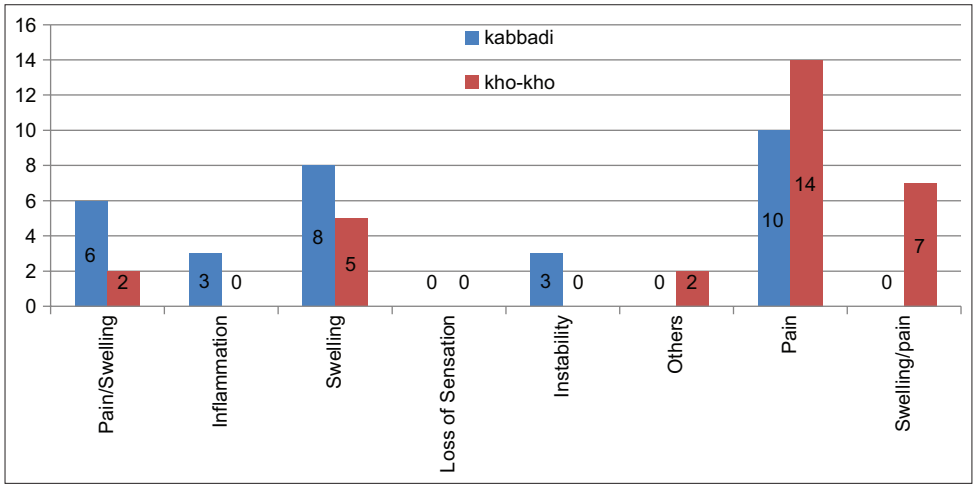


Figure 1: Sing and symptoms of injury

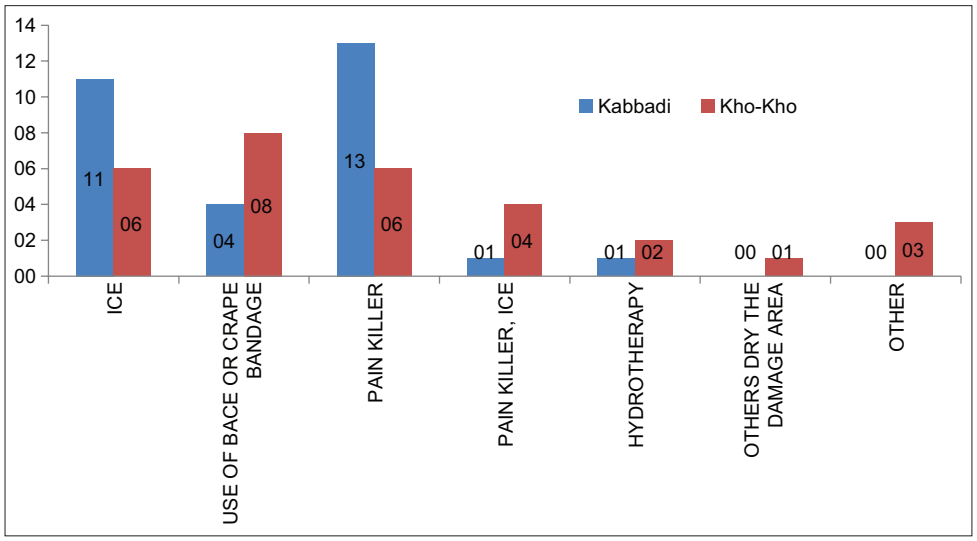


Figure 2: First-aid given within first 72 h post injury

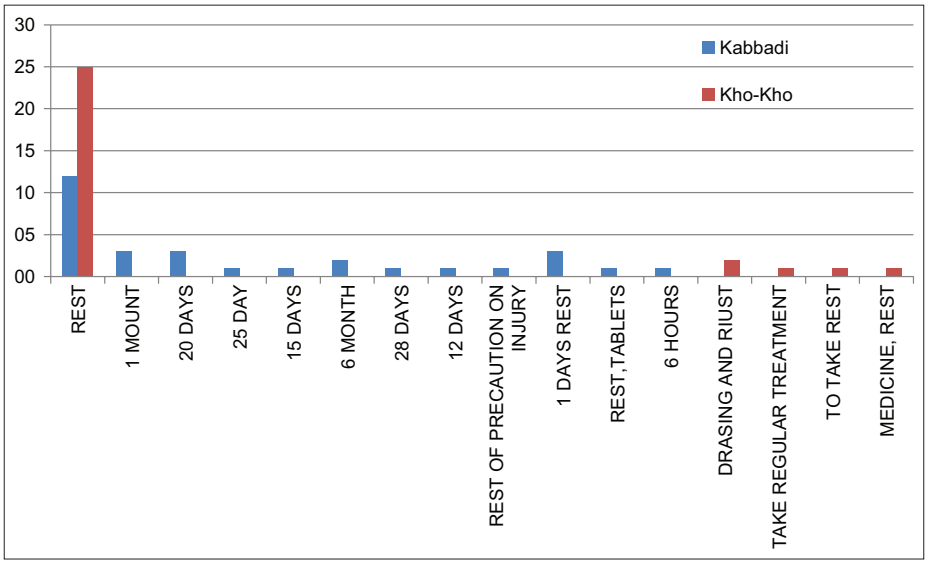


Figure 3: Precautions and advices given by doctors

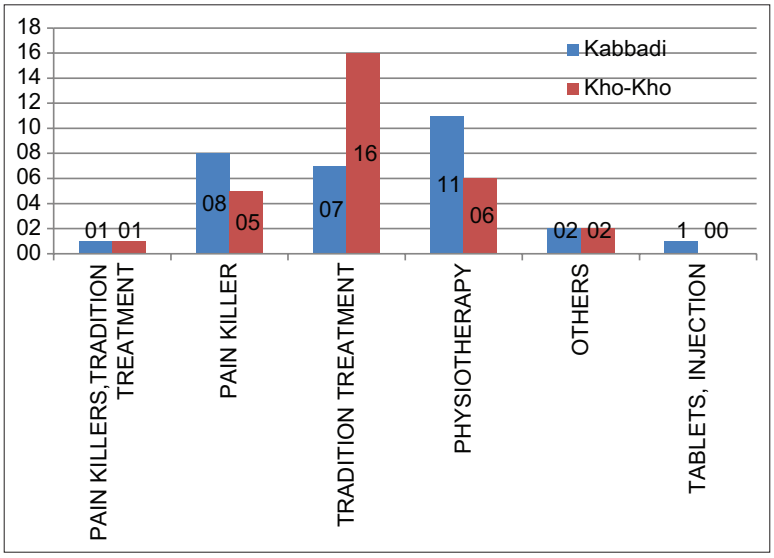


Figure 4: What treatment was given after injury?

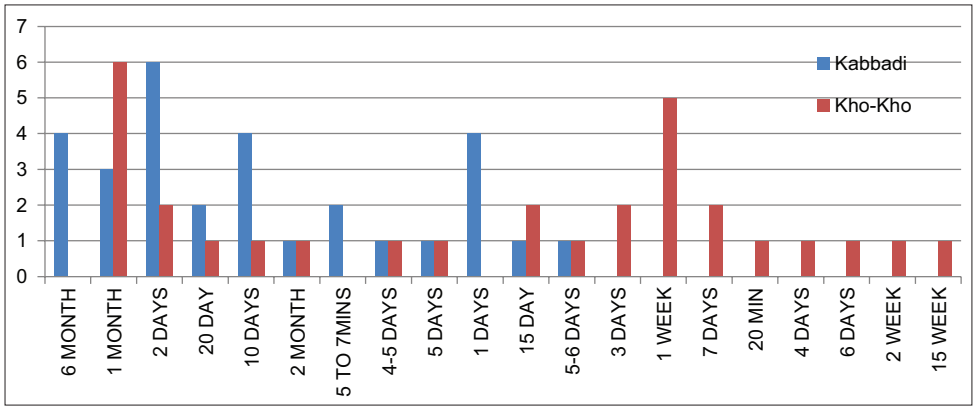


Figure 5: Duration of treatment

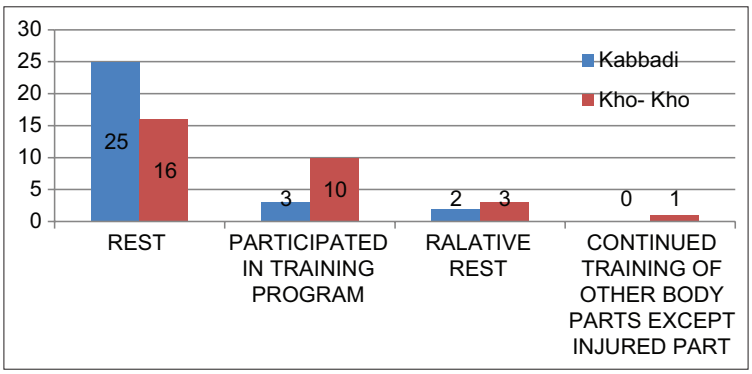


Figure 6: During the course of treatment

RESULTS AND FINDING

The findings of the study were shown in following tables.

CONCLUSION

the following conclusions drawn from the study are as under.

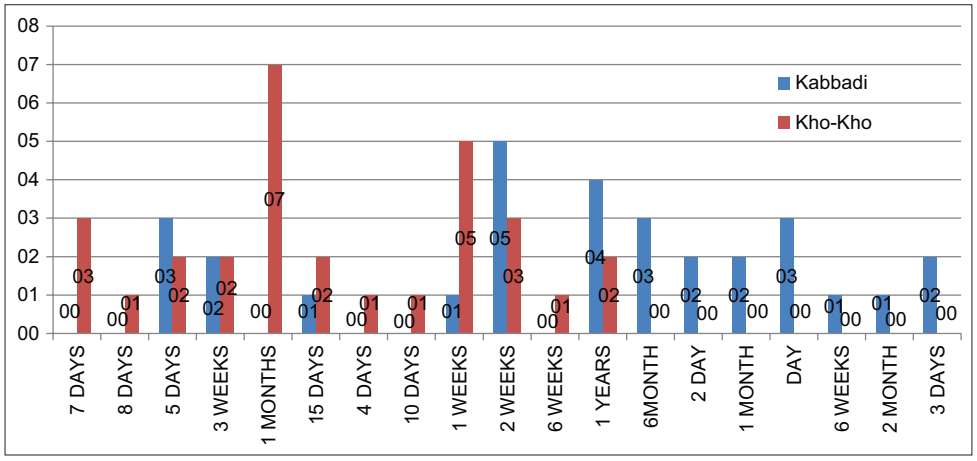


Figure 7: Duration of training interrupted due to injury

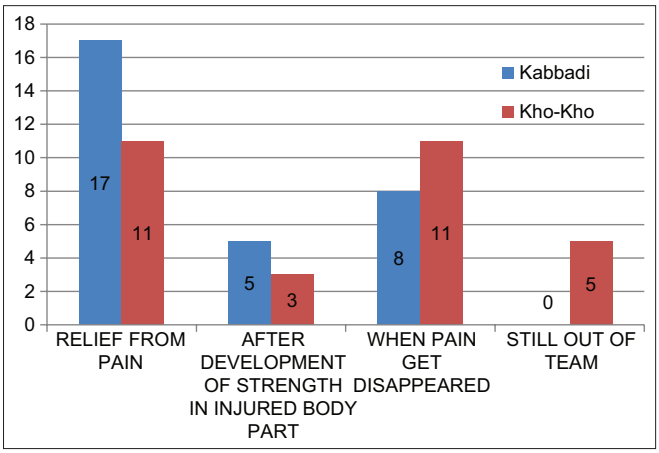


Figure 8: Stage of injury at the time of return to sports

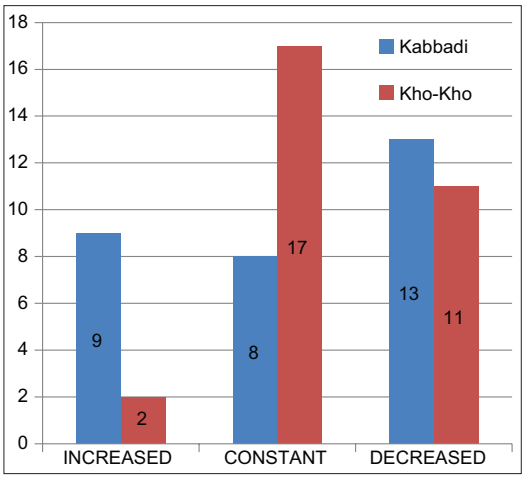


Figure 9: Effect and changes in sports performance post injury

Pain is the of injury in both kabaddi (10%) and kho-kho (14%). Kabaddi players given first aid within first 72 h through pain killer and kho-kho players used crape bandage. both kabaddi (12%) and kho-kho (25%) players take rest advices by doctors.

kabaddi players take physiotherapy (11%) and kho-kho players take traditional treatment (16%) after injury. About 25% kabaddi players and 16% kho-kho players not participated in physical activities and competitions. When the pain is relief, after kabaddi and kho-kho players come to take part in physical activities. After injury, the performance of the kabaddi players is increased (9%), constant (8%), and decreased (13%) and the performance of the kho-kho players is increased (2%), constant (17%), and decreased (11%).

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Research Article

A comparison of physical fitness profile of male national level junior wushu players

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Received: XXX **Acceptance:** XXX

ABSTRACT

Background: This study aimed to examine the physical fitness profile of male junior national wushu players to compare the physical fitness variables among different weight categories. **Materials and Methods:** The sample was composed by 153 junior males national wushu players represent to the state of Maharashtra, Gujarat, Goa, Rajasthan, Madhya Pradesh, Chhattisgarh, Delhi, Punjab, Jammu and Kashmir, Assam, Manipur, Uttar Pradesh, Bihar, and Jharkhand. from happiness to ten different weight categories: (below 45 kg, 48 kg, 52 kg, 56 kg, 60 kg, 65 kg, 70 kg, 75 kg, 80 kg, and 85 kg). The study discovered that the chosen physical fitness variables that are muscular strength, leg strength, back Strength, muscular endurance, and flexibility were assessed and compared among different weight categories. **Results:** Whereas examination the selected components of physical fitness variables between different weight categories of male national junior wushu players, it was observed that the male national junior wushu players were founded significant difference in physical fitness variables, that is, muscular strength, leg strength, back strength, muscular endurance, and flexibility among different weight categories.

Keywords: Junior, National level, Physical fitness, Profile, Wushu

INTRODUCTION

Wushu could be a collective name of all Chinese martial arts that area unit nowadays practiced as a sports event. The art wushu is additional ordinarily called Kung-fu in foreign countries. The origin of wushu could also be derived back to pre-historic times. Wushu is the united term for the martial art practices that invented and developed in China, and wushu is that well-spring of all Asian martial practices.

Thus, this specific fitness is incredibly a lot of vital in each event or movement of wushu whereas doing this exercise each contestant should watch out of the self to prevent from injury. Wushu has explosive movement, with their required jumps, hand, and leg movements, technique. While we are studying the basics of wushu athletes, we need to highlight the scientific background so that we clarify every point which is required in one game.

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The majority of the previous study has explored the results, effects of wushu training on physical fitness in over-all people. Whereas a variety of studies have according to fitness profiles of a range of martial arts athletes (e.g., judo, karate, and taekwondo), an analysis that examines the fitness characteristics of wushu athletes is scarce. Artioli *et al*., (2009) One should identify the foremost important fitness components for success in the chosen sport or event and then design sports/ event specific conditioning and training programs which will enhance these fitness components and energy system. Hoffman (2011) states that development of an evidence-based training program is connected to the need's analysis of a sport and, to understand the basic physical requirements of a sport, an athletic profile must be developed. Uriah J.(2016)

Aim

The study aims to assess the physical fitness variables of male national level junior wushu players.

Objectives

To conduct the physical fitness test and collect the physical fitness measurements of male national junior wushu players.

To compare among the different weight categories of male national junior wushu players regard to their physical fitness variables measurements.

Hypotheses of the Study

Ho_1 There may be no significant difference among the different weight categories of male national junior wushu players in their physical fitness variables.

MATERIALS AND METHODS

Participants

The sample was composed by 153 junior males' national level wushu players represent to the state of Maharashtra, Gujarat, Goa, Rajasthan, Madhya Pradesh, Chhattisgarh, Delhi, Punjab, Jammu and Kashmir, Assam, and Manipur from happiness to ten different weight categories: (Under 45 kg, 48 kg, 52 kg, 56 kg, 60 kg, 65 kg, 70 kg, 75 kg, 80 kg, and 85 kg). Data were collected throughout competition 63rd Junior National School Game 2016–2017 at M.A stadium Jammu dates December19 to 23, 2017.

Measures

Following physical fitness variables measurements and tests were conducted for muscular strength (standardized electronic Grip Dynamometer Test), leg strength (electronic Leg Dynamometer Test), back strength (electronic Back Dynamometer Test), muscular endurance (Bent Knee Sit UpsTest), and flexibility (Sit and Reach Test) were assessed and compared among different weight categories.

Statistical Analysis

Descriptive statistics were performed for all measures of the participants. The mean, standard deviation, and *t*-test were calculated as descriptive statistics. The technique of one-way analysis of variance (ANOVA) was also used to study the significance of the difference in selected physical fitness variables between different weight categories. Scheffe's *post hoc* test was applied to find out mean differences among different weight categories. To visualize the significance, level of significance was set at $P < 0.05$.

Analysis of Data

The descriptive analysis of different weight categories of male national junior wushu players with regard to physical fitness variables as presented in Table 1.

The ANOVA was used among different weight categories of male national junior wushu players with regard to physical fitness variables are presented in Table 2.

The major findings of the study were as followings the draw hypothesis related different weight categories of national level junior wushu players regard to physical fitness variables.

In regard to muscular strength right hand grip (F = 4.81), muscular strength left hand grip (F = 5.65), leg strength (F = 4.49), back strength (F = 8.32), muscular endurance (F = 3.00), and flexibility (F = 0.60) found to be statistically different at 0.05 level of significance.

RESULTS

The hypothesis: "There may be no significant difference among the different weight categories of national level junior wushu players in their physical fitness variables."

Table 1: Mean, SD, and SEM of physical fitness variables of different weight categories of male national junior wushu players

W.C	Muscular Strength Right Hand Grip		Muscular Strength Left Hand Grip		Leg Strength		Back Strength		Muscular Endurance		Flexibility	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
U 45 kg	32.67	3.23	31.53	5.04	101.37	14.00	84.61	12.36	41.96	8.62	35.00	6.14
48 kg	33.81	3.77	32.37	4.82	106.29	17.95	93.77	10.15	41.19	9.05	35.44	7.42
52 kg	36.45	6.39	36.25	5.21	121.94	19.29	103.90	11.66	46.10	9.75	37.20	6.41
56 kg	38.85	5.68	36.30	4.27	126.15	24.44	108.01	13.53	45.15	7.20	37.92	4.64
60 kg	38.36	6.29	37.95	6.55	132.22	18.22	116.36	19.77	41.65	9.00	36.73	5.66
65 kg	41.18	5.65	40.41	7.11	129.74	27.24	122.38	18.96	43.23	8.59	35.00	3.34
70 kg	40.59	6.19	40.74	5.92	122.23	24.96	112.31	19.32	44.46	7.99	34.85	7.48
75 kg	42.37	8.06	39.94	7.26	131.84	31.22	116.23	18.49	33.55	5.89	34.23	6.11
80 kg	41.45	10.23	42.45	9.44	134.70	35.62	112.85	34.17	39.64	7.27	35.41	4.37
85 kg	37.37	7.36	37.44	7.03	124.52	22.48	110.16	15.35	35.58	7.68	34.92	4.42

Table 2: Analysis of variance of different weight categories of male national junior wushu players regard to physical fitness variables

Variables	Groups	Sum of squares	Df	Mean square	F	Sig.
Muscular Strength Right Hand Grip	Between Groups	1640.873	9	182.319	4.812	0.000
	Within Groups	5417.547	143	37.885		
	Total	7058.420	152			
Muscular Strength Left Hand Grip	Between Groups	1930.963	9	214.551	5.658	0.000
	Within Groups	5422.396	143	37.919		
	Total	7353.359	152			
Leg Strength	Between Groups	20877.295	9	2319.699	4.491	0.000
	Within Groups	73865.532	143	516.542		
	Total	94742.827	152			
Back Strength	Between Groups	22548.874	9	2505.430	8.324	0.000
	Within Groups	43041.831	143	300.992		
	Total	65590.704	152			
Muscular Endurance	Between Groups	1905.262	9	211.696	3.008	0.003
	Within Groups	10062.503	143	70.367		
	Total	11967.765	152			
Flexibility	Between Groups	189.529	9	21.059	0.609	0.788
	Within Groups	4942.929	143	34.566		
	Total	5132.458	152			

F.0.05 (9,143)=1.93

This hypothesis is rejected because significant differences were reported among the different weight categories of national level senior wushu players in their anthropometric measurement variables.

CONCLUSION

While comparing the selected components of physical fitness variables between different weight categories of male national junior wushu players, it had been determined that the national wushu players were found a significant difference in muscular strength, leg strength, back strength, muscular endurance, and flexibility among different weight categories.

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Research Article

Defenders entry through free zone in kho-kho: A practical approach

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ABSTRACT

The origin of kho-kho is very difficult to trace, but many historians believe that it is a modified form of "Tag"/"Catch," which in its simplest form involves chasing and touching a person originating in Maharashtra. The kho-kho is the most popular and most attended spectacular game in India. It is not merely a game; it is part of one's life. The game of kho-kho is a very vigorous and strenuous one; this needs physical fitness of all the players. Coordination makes the difference between good performance and poor performance. The efficiency of skill patterns depends on the inter relation of speed, balance, and muscle movements into as well coordinated pattern. Kho-kho game still required lots of efforts to make it more spectacular and attractive. It is even though has hundred years of history, required more improvement in regard with rules, regulations of the game. Hence the researcher is intended to undertake this study, so the topic is under taken scientifically to see the outcome of the study. Study was delimited to only 36 kho-kho players of inter-collegiate, inter-university, and national level were selected. The age was considered 18–25 years. The study was delimited to the male students only. Limitations of experience and training background were not considered, no specific motivational devices were adopted to motivate or discourage the subjects during the experimentation, environmental factors and diet of the subjects were not under control of researcher. All the players used for the purpose of practice matches. Playing court was used at Tuljai Bhawani Krida Mandal, and Paratwada. Clay court is used for the study. Study was based on scorer score and their observation to see difference in performance in the practice matches. The study has practical approach.

Keyword: Clay court, Entry zone, Kho-Kho matches

INTRODUCTION

The origin of kho-kho is very difficult to trace, but many historians believe that it is a modified form of "Tag"/"Catch," which in its simplest form involves chasing and touching a person, originating in Maharashtra. India is famously known for its rich culture, heritage, and forms of art. Yet, there are a few notable sports and games which are believed to have originated from the state of India. Kho-kho being one of those has always been at the heart of rural India. People from all walks of life; love to play this game though it is nothing but a highly modified version of "Run Chase."

Sports have now becomes an integral part of education process and social activities, millions of sports fans participate in sports for the fun adventure, health, physical fitness, and financial benefits linked with a high degree of popularity. Sports are as old as human society and it has achieved a universal following in the modern times. Kho-kho is contact sports in which there have been a greatly increased interest and enthusiasm in recent years. A kho-kho player should have good physique and explosive strength in body segment is a requirement for kho-kho player. Physical and motor traits play a key role in contributing to hoping ability of the player. The game of kho-kho is a very vigorous and strenuous one; this needs physical fitness of all the players. It is a team game and required a good deal of understanding among all the players in the team. It is the most popular and most attended spectacular game in India. It is part of one's life; it is not merely a game. If the individual will be good in skills and tactics of the game, naturally the team will be put-up the good show of a total performance. Game needs little more developments to make it more spectacular. Hence, the researcher is intended to.

Under take this study. Study was delimited to only 36 kho-kho players of inter-collegiate, inter-university, and national level were selected. The age was considered 18–25 years. The study was delimited to the male students only. Limitations of experience and training background were not considered, no specific motivational devices were adopted to motivate or discourage the subjects during the experimentation, environmental factors and diet of the subjects were not under control of researcher. All the players used for the purpose of practice matches. Playing court was used at Tuljai Bhawani Krida Mandal, and Paratwada. Clay court is used for the study. Study was based on score made by attackers and scorer observation to see difference in performance in the practice matches. The study has practical approach.

PURPOSE OF THE STUDY

The main purpose of the study was to find out the difference in between old pattern and research topic of shifting defenders entry zone of kho-kho players.

Significance of the Study

1. This study would help the players in achieving their high performance at the time of competition
2. The result of this study would provide a guideline to the authority to see the changes and take positives
3. Officials can perform their duties freely without the trouble of runners batches.

Hypothesis

Researcher hypothesized that there would be significant difference in between old pattern and research topic of shifting defenders entry zone in kho-kho game.

METHODOLOGY

For the study, the sources of data were from the 36 kho-kho players of inter-collegiate, inter-university, and national level were selected and kho-kho court was used of Tuljai Bhawani Krida Mandal, and Paratwada. Clay court is used for the study. The age was considered 18–25 years. Study was delimited to only 36 kho-kho players of inter-collegiate, inter-university, and national level were selected. The study was delimited to the male students only. Limitations of experience and training background were not considered, no specific motivational devices were adopted to motivate or discourage the subjects during the experimentation, environmental factors and diet of the subjects were not under control of researcher. All the players used for the purpose of practice matches. Study was based on observation to see difference in performance in the practice matches. The study has practical approach. Place of "Entry zone" changed to see the advantages of it. Entry zone was changed from old place to new place which is in the free zone. At one corner runners sitting positions, already made and at other corner new entry zone was tried. Every Sunday, four matches conducted for 1 month. Total 16 practice matches organized. The data were collected by conducting the aforesaid practice matches. Score was recorded. Before collection of data, the research scholar explained the purpose of the study to the subjects so that they could put their best efforts. All the collected data were arranged systematically in the table for further statistical calculations. Three kho-kho expert judges were kept to observe the changes made but not utilized for analysis. Scorers recorded the score of matches played with old rules and matches played with changed rules, were considered as data.

Analysis of Data

To find out the mean difference between the old rules of entry zone in kho-kho and changes made, score was considered and calculated accordingly.

Table 1: Score of chasing side of two matches every Sunday of old entry zone

Old Entry zone	SUN-1	SUN-2	SUN-3	SUN-04
A-team	35	32	28	25
B-team	29	30	31	27

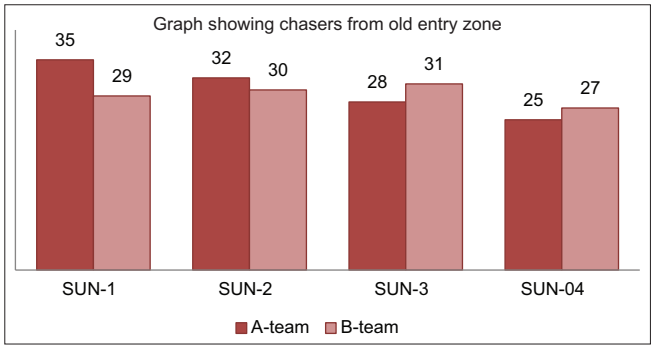
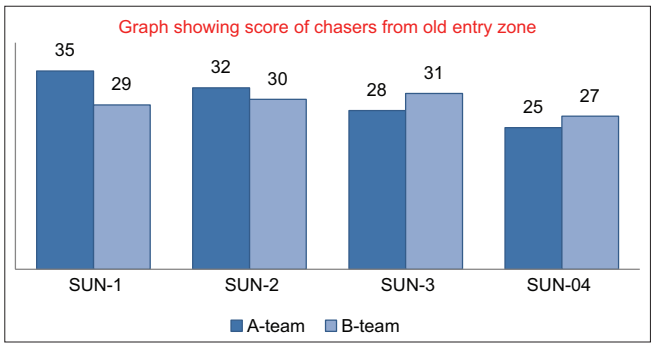


Table 2: Score of chasing side of two matches every Sunday of new entry zone

New entry zone	SUN-1	SUN-2	SUN-3	SUN-04
A-team	36	33	24	27
B-team	29	32	30	26



DISCUSSION OF HYPOTHESIS

Hypothesis made in the beginning of the study, it was, there might not be significant difference in performance of players from old entry zone and new entry zone, so the hypothesis stated earlier is partially accepted.

CONCLUSION

After statistical analysis, there is no much more difference in the score of old and new defender entry zone. In the beginning defenders should have to understand the changes, so at the beginning in the few matches they were panic among defenders. The change researcher has tried is good to consider for the development of kho-kho game. Before, there was a difficulty to officials to perform their duties in the lobby where defender entry zone is given. Here in the changes given, there might be little bit trouble to sitting runners to observe the match. However, it will give complete relief to officials working in lobbies. Furthermore, specters can watch the match without any obstruction.

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Research Article

Sports nutrition

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NUTRITION IS IMPORTANT IN ALL SPORTS

Sports nutrition is the study and practice of nutrition and diet with regards to improving anyone's athletic performance. Nutrition is an important part of many sports training regimens, being popular in strength sports (such as weightlifting and bodybuilding) and endurance sports (e.g. cycling, running, swimming, and rowing). Sports nutrition focuses its studies on the type, as well as the quantity of fluids and food taken by an athlete. In addition, it deals with the consumption of nutrients such as vitamins, minerals, supplements, and organic substances that include carbohydrates, proteins, and fats.

FACTORS INFLUENCING NUTRITIONAL REQUIREMENTS

Differing conditions and objectives suggest the need for athletes to ensure that their sports nutritional approach is appropriate for their situation. Factors that may affect an athlete's nutritional needs include type of activity (aerobic vs. anaerobic), gender, weight, height, body mass index, workout or activity stage (pre-workout, intro-workout, and recovery), and time of day (e.g. some nutrients are utilized by the body more effectively during sleep than while awake). Most culprits that get in the way of performance are fatigue, injury, and soreness. A proper diet will reduce these disturbances in performance. The key to a proper diet is to get a variety of food, and to consume all the macro-nutrients, vitamins, and minerals needed. According to Eblere's article (2008), it is ideal to choose raw foods, for example, unprocessed foods such as oranges instead of orange juice. Eating foods that are natural means the athlete is getting the most nutritional value out of the food. When foods are processed, the nutritional value is normally reduced.

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GENDER

There are obvious physical differences between male and female anatomy, while physiology is the same for the most part, how they metabolize nutrients will vary. Men have less total body fat but tend to carry most of their fat in the adipose tissue of their abdominal region. Adipose tissue is indirectly mediated by androgen receptors in muscle. On the other hand, women have more total body fat that is carried in the subcutaneous layer of their hip region. Women metabolize glucose by direct and indirect control of expression of enzymes.

ANAEROBIC EXERCISE

Weightlifting is an Anaerobic Exercise

During anaerobic exercise, the process of glycolysis breaks down the sugars from carbohydrates for energy without the use of oxygen. This type of exercise occurs in physical activity such as power sprints, strength resistances, and quick explosive movement where the muscles are being used for power and speed, with short-time energy use. After this type of exercise, there is a need to refill glycogen storage sites in the body (the long simple sugar chains in the body that store energy), although they are not likely fully depleted.

To compensate for this glycogen reduction, athletes will often take in large amounts of carbohydrates, immediately following their exercise. Typically, high-glycemic-index carbohydrates are preferred for their ability to rapidly raise blood glucose levels. For the purpose of protein synthesis, protein or

individual amino acids are ingested as well. Branched-chain amino acids are important since they are most responsible for the synthesis of protein. According to Lemon *et al*., (1995), female endurance runners have the hardest time getting enough protein in their diet. Endurance athletes in general need more protein in their diet than the sedentary person. Research has shown that endurance athletes are recommended to have 1.2–1.4 g of protein per kg of body weight to repair damaged tissue. If the athlete consumes too few calories for the body's needs, lean tissue will be broken down for energy and repair. Protein deficiency can cause many problems such as early and extreme fatigue, particularly long recovery, and poor wound healing. Complete proteins such as meat, eggs, and soy provide the athlete with all essential amino acids for synthesizing new tissues. However, vegetarian and vegan athletes frequently combine legumes with a whole grain to provide the body with a complete protein across the day's food intake. A popular combination being rice and beans.

Spada's research on endurance sports nutrition (2000) and where the types of carbohydrates come from will be explained. He advises for carbohydrates to be unprocessed and/or whole grains for optimal performance while training. These carbohydrates offer the most fuel, nutritional value, and satiety. Fruits and vegetables contribute important carbohydrate foundation for an athlete's diet. They provide vitamins and minerals that are lost through exercise and later needed to be replenished. Both fruits and vegetables improve healing, aid in recovery, and reduce risks of cancer, high blood pressure, and constipation. Vegetables offer a little more nutritional value than fruits for the amount of calories; therefore an athlete should strive to eat more vegetables than fruits. Dark-colored vegetables usually have more nutritional value than pale colored ones. A general rule is the darker the color the more nutrient dense it is. Like all foods, it is very important to have a variety. To get the most nutritional value out of fruits and vegetables, it is important to eat them in their natural, unprocessed form without added nutrients or sugar.

Often in the continuation of this anaerobic exercise, the product from this metabolic mechanism builds up in what is called lactic acid fermentation. Lactate is produced more quickly than it is being removed and it serves to regenerate NAD^+ cells on where it is needed. During intense exercise when oxygen is not being used, a high amount of ATP is produced and pH levels fall causing acidosis or more specifically lactic acidosis. Lactic acid build up can be treated by staying well-hydrated throughout and especially after the workout, having an efficient cool down routine and good post-workout stretching.

Intense activity can cause significant and permanent damage to bodily tissues. To repair, Vitamin E and other antioxidants are needed to protect muscle damage. Oxidation damage and muscle tissue breakdown happen during endurance running so athletes need to eat foods high in protein to repair these muscle tissues. It is important for female endurance runners to consume proper nutrients in their diet that will repair, fuel, and minimize fatigue and injury. To keep a female runner's body performing at its best, the ten nutrients need to be included in their diets.

AEROBIC EXERCISE

Aerobic exercise is also known as cardio because it is a form of cardiovascular conditioning. This includes exercises such as running, cycling, swimming, and rowing. Athletes involved in aerobic exercise are typically looking to increase their endurance. These athletes are training their slow twitch muscle fibers to be better at taking in oxygen and getting it to their muscles. This is done by two mechanisms, glycolysis and aerobic respiration. Anaerobic glycolysis is also referred to as the "short term energy system," and is mostly used for high-intensity training, such as sprinting, and any sports which require quick bursts of speed. Slow twitch muscles are smaller in diameter and are slow to contract. These fibers do not store much glycogen; instead they use lipids and amino acids to generate energy. With a high concentration of myoglobin that stores oxygen, the slow twitch muscle fibers have plenty of oxygen to function properly. These factors help make slow twitch muscle fibers fatigue resistant so athletes can have endurance in their sport. There are many options for supplements that athletes can take to assist with endurance such as glycerol and guarana.

SUPPLEMENTS

Dietary supplements contain one or more dietary ingredients (including vitamins; minerals; amino acids; herbs or other botanicals; and other substances) or their constituents is intended to be taken by mouth as a pill, capsule, tablet, or liquid. Athletes may choose to consider taking dietary supplements to assist in improving their athletic performance. There are many other supplements out there that include performance enhancing supplements (steroids, blood doping, creative, and human growth hormone), energy supplements (caffeine), and supplements that aid in recovery (protein and BCAAs).

ENERGY SUPPLEMENTS

Athletes sometimes turn to energy supplements to increase their ability to exercise more often. Common supplements to increase an athlete's energy include: Caffeine, Guarana, Vitamin B12, and Asian ginseng. Guarana is another supplement that athletes take to enhance their athletic ability; it is frequently used for weight loss and as an energy supplement.

Caffeine, a common energy supplement, can be found in many different forms such as pills, tablets or capsules, and can also be

found in common foods, such as coffee and tea. A 2009 study from the University of Texas reports that caffeinated energy drinks decrease sporting performance. They found that after drinking an energy drink, 83% of participants improved their physical activity parameters by an average of 4.7%. This was attributed to the effects of caffeine, sucrose, and Vitamin B in the drink - however scientific consensus does not support the efficacy of using Vitamin B as a performance enhancer. To explain the performance improvement, the writers report an increase in blood levels of epinephrine, norepinephrine, and beta-Endorphin. The adenosine receptor antagonism of caffeine accounts for the first two, while the latter is accounted for by the Neurobiological effects of physical exercise.

Caffeine has been around since the 1900s and became popularly used in the 1970s when its power of masking fatigue became highly recognized. Similarly, the caffeine found in energy drinks and coffee shows an increased reaction performance and feelings of energy, focus and alertness in quickness and reaction anaerobic power tests. In other words, consuming an energy drink or any drink with caffeine increases short time/rapid exercise performance (like short full-speed sprints and heavy power weight lifting). Caffeine is chemically similar to adenosine, a type of sugar that helps in the regulation of important body processes, including the firing of neurotransmitters. Caffeine takes the place of adenosine in your brain, attaching itself to the same neural receptors affected by adenosine, and causing your neurons to fire more rapidly, hence caffeine's stimulating effects.

Carbohydrates are also a very common form of energy supplements, as all sugars are carbohydrates. Products such as Gatorade and PowerAde are formulated with simple sugars such as sucrose and dextrose. Carbohydrates are necessary as they maintain blood glucose levels and restore muscle glycogen levels.

RECOVERY SUPPLEMENTS

Common supplements to help athletes recover from exercising include protein and amino acid supplements. The main use for athletes to take dietary proteins is for hormones, oxygen transport, cellular repair, enzymes, and conversion to fuel. The intake of protein is a part of the nutrient requirements for the normal athlete and is an important component of exercise training. In addition, it aids in performance and recovery. Dietary protein intake for well-trained athletes should occur before, during and after physical activity as it is advantageous in gaining muscle mass and strength. However, if too much protein and amino acid supplements are consumed, it can be more harmful to the body than it is beneficial; health risks include: Dehydration, gout, calcium loss, liver, renal damage, diarrhea, bloating, and water loss. A bountiful protein diet must be paired with a healthy, well-rounded meal plan, and regular resistance exercise. Characteristics of this particular diet include the type of exercise, intensity, duration, and carbohydrate values of diet. The most effective way to secure the natural nutrients required by the body for optimum health and physiological performance is by consuming vitamins, minerals, proteins, fats, sugars, and carbohydrates, which can be procured from fresh fruits and vegetables.

Post-exercise nutrition is an important factor in a nutrition plan for athletes as it pertains to the recovery of the body. Conventionally, sports drinks such as Gatorade and PowerAde are consumed during and after exercise because they effectively rehydrate the body by refueling the body with minerals and electrolytes. Electrolytes regulate the body's nerve and muscle function, blood pH, blood pressure, and the rebuilding of damaged tissue. These types of drink are commonly made of glucose and sucrose in water and have been seen to improve the football players' performance.

A substitute for sports drinks is milk, which contains many electrolytes, nutrients, and other elements that help to make it an effective post-exercise beverage. It is true that milk helps replace fluids and electrolytes lost after the athlete has worked out. A recovery drink is supposed to replenish the sugar lost, and helps recover the muscles to be able to workout at full intensity by the next time they workout. When compared to plain water or sports drinks, research supported by the Dairy and Nutrition Council suggests that chocolate milk is more effective at replacing fluids lost through sweat and maintaining normal body fluid levels. Athletes drinking chocolate milk following exercise-induced dehydration had fluid levels about 2% higher (on initial body mass) than those using other post-exercise recovery beverages. These results allowed for prolonged performance, especially in repeated bouts of exercise or training.

PERFORMANCE-ENHANCING SUPPLEMENTS

In the extreme case of performance-enhancing supplements, athletes, particularly bodybuilders may choose to use illegal substances such as anabolic steroids. These compounds which are related to the hormone testosterone, can quickly build mass and strength, but have many adverse effects such as high blood pressure and negative gender specific effects. Blood doping, another illegal ergogenic, was discovered in the 1940s when it was used by World War II pilots. Blood doping also known as blood transfusions, increases oxygen delivery to exercising tissues and has been demonstrated to improve performance in endurance sports, such as long-distance cycling.

AN ASSORTMENT OF SUPPLEMENTS

The supplement, Creative, may be helpful for well-trained athletes to increase exercise performance and strength in

relation with their dietary regimen. The substance glutamine, found in whey fiber supplements, is the most abundant free amino acid found in the human body. It is considered that glutamine may have a possible role in stimulated anabolic processes such as muscle glycogen and protein synthesis, for well-trained and well-nourished athletes. Other popular studies done on supplements include and rostenedione, chromium, and ephedra. The findings show that there are no substantial benefits from the extra intake of these supplements, yet higher health risks and costs.

- Category: Dietary supplements
- Energy bar
- Protein
- Sports drink
- Multivitamin
- Bodybuilding
- Bodybuilding supplements
- High-protein diet
- Sports nutritionist.

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Research Article

Comparative study of biorhythm of kabaddi players in reference to agility

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Received: XXX **Acceptance:** XXX

ABSTRACT

The purpose of the study was to compare the biorhythm of kabaddi players in reference to agility. For this purposes, researcher has selected 15 male kabaddi players from Navdurga Krida Mandal, Bodkha, and Patur who have participated in inter-collegiate tournaments of Sant Gadge Baba Amravati University, Amravati, Maharashtra. Kabaddi players were selected with the help of purposive sampling method. The age of the kabaddi players was ranged between 18 and 25 years. The necessary data were collected at different time of a day the following timing is as follows: 6:00 AM–7:00 AM, 12:00 PM–01:00 PM, and 6:00 PM–7:00 PM. The performance of agility was measured with the help of shuttle run. Statistical analysis was done on the basis of one-way analysis of variance (ANOVA) shows that there is significant difference between shuttle run at different time of a day because calculated value "f" is 15.21 which is greater than tab "f" 0.05 (2, 42) = 3.219. Since the f-ratio is found to be significant; the least significant difference (LSD) *post hoc* test is applied. The mean difference of morning and afternoon as well as afternoon and evening was found to be significant, whereas the mean difference values 0.85 is lesser than the critical difference value 0.929. Hence, the mean difference of morning and evening is found to be insignificant. It is concluded that the biorhythm of kho-kho players in reference to agility was found to be significant. The mean performance of agility of kabaddi players at evening time is better than morning time followed by afternoon time. The reason for this difference may be attributed to the nature of the kabaddi players. As the kabaddi players were chosen for the Amravati University were most probably practice at various clubs and mandals. The practice time of various clubs and mandals is seen at morning and evening. Hence, the performance during the evening time better as compared to morning and afternoon time.

Keywords: Biorhythm, Agility, Kabaddi players

INTRODUCTION

Biorhythm is biological functions are known to occur in almost all living beings, they are controlled by what is called the limbic system, one of the oldest brain sections in phylogenic history. The duration of such diurnal variation cycles ranges from a few hours to much longer periods. Body temperature is usually at its lowest (about 36°C) in the early morning hours and at its highest (about 37.4°C) in the late afternoon or in the early evening. These variations can be reversed by merely changing one's daily living habits such as eating and sleeping. According to experts, this variation is credited to the circadian rhythm seen in other areas of physiology and is affects by daily routines such as sleeping, eating, light, and time; it also appears that long periods of travel will cause cycle changes. For instance, evidence is available to indicate that when a person travel in an aero plane for 8–10 h it may take the cycle 3 or 4 days to actually read just workers to reduce the amount of these variations.

Biorhythms in kabaddi performance have been reported in numerous studies. Most of studies showed that peak athletic performance has been found to occur in the early evening and this time is contemporaneous with peak of the body temperature rhythm, while worst performance has been found in the morning.

Now-a-days the biological adaptation has become a regular topic of discussion in the international arena of competitions. This is mainly due to the vast difference in timing, climate,

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and food in different part of earth. The environment temperature is usually more favorable in the evening.

Agility is the capacity to change trajectory, controlling the direction and position of your body while one's body is in momentum. Changing the direction of kabaddi players while raiding and catching is an example of agility. Agility is the capability of an individual to change the direction rapidly with control. Some viewed that, agility is dependent on strength, reaction time, speed of movement, and muscular coordination. Agility is the ability of an individual to change the body position quickly with speed and consistency. It can give the outburst ability to a performer which will help to gain an advantage over his/her opponent.

MATERIALS AND METHODS

The purpose of the study was to compare the biorhythm of kabaddi players in reference to agility. For this purposes, researcher has selected 15 male kabaddi players from Navdurga Krida Mandal, Bodkha, and Patur who have participated in inter-collegiate tournaments of Sant Gadge Baba Amravati University, Amravati, Maharashtra. Kabaddi players were selected with the help of purposive sampling method. The age of the kabaddi players was ranged between 18 and 25 years.

Timing of the Day

The necessary data were collected at different time of a day the following timing is as follows: 6:00 AM–7:00 AM,12:00 PM– 01:00 PM, and 6:00 PM– 7:00 PM

- The performance of agility was measured with the help of shuttle run.

Statistical Analysis

Statistical analysis was done on the basis of one-way analysis of variance (ANOVA) to determine the difference if any in biorhythm of kabaddi players in reference to agility. When the difference was found to be significant the LSD *post hoc* test was applied to assess the paired mean difference among the group.

Mean of shuttle run (agility) at 6:00 am–7:00 am is 11.43, mean at 12:00 pm–01:00 pm is 12.53, and mean at 6:00 pm–7:00 pm is 10.58 on the basis of mean there is a difference between their agility, to see these difference is significant or not researcher has calculated ANOVA.

Above Table 1 shows that there is significant difference between shuttle run at different time of a day because calculated value "f" is 15.21 which is greater than tab "f"$_{0.05(2,42)}$ = 3.219. Since the f-ratio is found to be significant; the least significant difference (LSD) *post hoc* test is applied to assess the paired mean difference among the group means which is shown in Table 2.

[Graph 1] It is learnt from Table 2 that the mean difference of 06:00– 07:00 AM and 12:00–01:00 PM is 1.1 as well as

Table 1: Comparison of biorhythm of kabaddi players in reference to agility

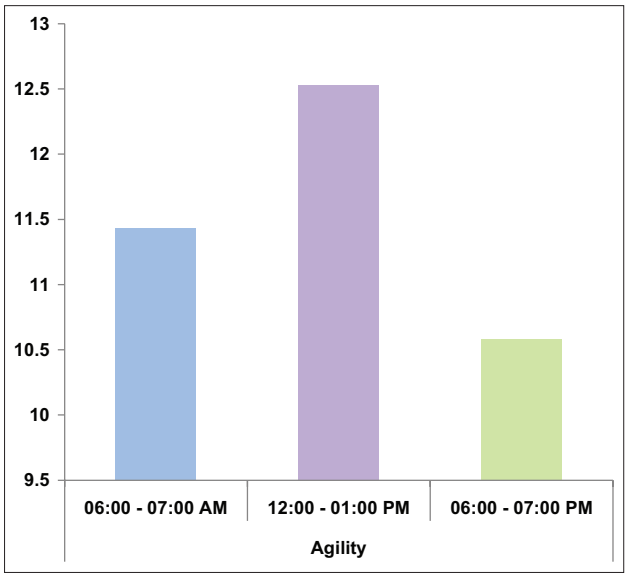
SV	SS	df	MS	"f"
Between	22.57	2	11.285	15.21*
Error	31.164	42	0.742	

*Significance at 0.05 level. Tab "f"$_{0.05(2,42)}$ = 3.219

Table 2: Paired mean difference of biorhythm of Kabaddi players in reference to agility

06:00–07:00 AM	12:00–01:00 PM	06:00–07:00 PM	MD	CD
11.43	12.53		1.1@	0.929
11.43		10.58	0.85	
	12.53	10.58	1.659@	

@Significant at 0.05 level



Graph 1: Mean comparison of biorhythm of kabaddi players in reference to agility

12:00– 01:00 PM and 06:00–07:00 PM is 1.659 were greater than the critical difference value 0.929. Hence, the mean difference of morning and afternoon as well as afternoon and evening was found to be significant, whereas the mean difference values 0.85 are lesser than the critical difference value 0.929. Hence, the mean difference of morning and evening is found to be insignificant.

CONCLUSION

The biorhythm of kho-kho players in reference to agility was found to be significant. The mean performance of agility of kabaddi players at evening time is better than morning time followed by afternoon time. The reason for this difference may be attributed to the nature of the kabaddi players. As

the kabaddi players were chosen for the Amravati University were most probably practice at various clubs and mandals. The practice time of various clubs and mandals is seen at morning and evening. Hence, the performance during the evening time better as compared to morning and afternoon time.

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Research Article

Physical, mental, and emotional fitness among middle school children

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ABSTRACT

Physical education is a key in human life development. Physical fitness and nutritious diet help in mental fitness. Mental ability can well control emotional behavior. Mentally and physically fit person can overcome stress. Study is based on sampled middle school children in Amravati city. The study concludes that regular exercises are essential along with nutritious diet. Mental fitness varies widely. Emotional fitness was medium to high. Variables under study are significantly positively related. Boys mental fitness is higher over girls.

INTRODUCTION

Physical education carries special significance in life building hidden characteristics of human life. As such physical education plays significant role in developing physical as well as mental ability. Physical fitness and nutritious diet help in mental fitness. Human mentality is extra power to every individual. It helps in thinking and emotional development. Human mentality has significant positive effect of education, experience, and family culture. Human mentality can control external mind. As such it helps in decision making to inner mind. Mental ability creates positivity, will power, consistency in efforts and hope.

Mental ability can well control the emotional behavior which makes decision making easy. Psychiatrics are of the opinion that mentally and physically fit person can overcome in stress and emotionality.

The present study is an attempt to study relationship between physical fitness, mental fitness, and emotional fitness among teenagers.

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REVIEW OF LITERATURE

Mittal (2005), home environment is the place where personality development begins. It is said that home environment is the key in personality development, wherein ethics and moral are taught. Child develops himself/herself under the guidance of elders. Culture, non- selfish, and sacrifice. Cohesiveness is the lessons taught. As a result of it child is shaped.

Geeta *et al*., (2005) studied the aspects of emotional maturity and stress among junior college students in Dharwad city. Children emotionally matured are under stress. However, these students are more confident about success as compared to the students who are not emotionally matured.

Rathod (2006) studied the mental stress among middle school students due to study. The study revealed that 70% students stress was under normal stress. About 15% students stress was below the normal. Female students were under relatedly higher stress than male. Stress level among the students in arts, commerce, and science faculty was more or less identical.

Objective

1. To study the level of physical, mental, and emotional fitness among teenagers.
2. To study the relation between physical, mental, and emotional fitness.

Hypothesis

1. Mental fitness is associated with physical fitness.
2. Emotional and physical fitness and associated.

METHODOLOGY

The present study was conducted on teenagers in Amravati City. A sample of 80 teenagers 40 boys and 40 girls was selected for the study. Teenagers in the age group of 10–14 years were included in the study. Teenagers regularly playing at city sports club were included in the study. Physical fitness was measured on the basis of time required for 100 m run and BMI mental and emotional fitness measured with the help of ten questions each scored in three point scale with minimum score 1 and maximum score 3 for each question. The total score obtained by students was classified as low, medium, and high using mean ± SD.

Students were classified as normal, overweight, and obesity grade I as per their BMI Karl Pearson's correlation coefficient was worked out between physical mental and emotional values.

Table 1: Time required for 100 m run

S. No.	Time (Second)	Frequency	Percent
1	14	9	11.25
2	15	12	15
3	16	27	33.75
4	17	27	33.75
5	18	3	3.75
6	19	2	2.5
		80	100

Table 2: Classification of respondent children according to BMI

S. No.	BMI	Frequency	Percent
1	18–24 (Normal)	66	82.5
2	25–29.5 (Over weight)	11	13.75
3	29.5–34.5 (Grade I obesity)	3	3.75
		80	100

Table 3: Distribution according to the level of mental fitness

S. No.	Mental ability level	Frequency	Percent
1	High	42	52.5
2	Medium	12	15
3	Low	26	32.5

Difference between mental fitness between sexes was tested with the help of "z" test.

One of the units of measurement on physical was time required for 100 m run within 16 s. The data presented indicate that 60% children completed run within desired time, whereas time taken on higher side by 40% children. These children need regular exercises including running.

An important measure of physical fitness is BMI which focuses on every individuals health. It is observed that 82.50% children age under normal weight category; 13.75% are overweight, while 3.75% are under Grade I obesity, all 17.50% children need to care about their dietary habits and physical exercise time.

One of the aspects of present study was to focus on mental ability or mental fitness. Physical and mentally fit child can achieve the goal in his/her IFE. The frequency distribution presented indicates that, out of the 80 children understudy only 32.50% children, their parents and teachers need to care for their mental fitness. It can be achieved by regular exercise and sharing problems in day-to-day life with parent and educational problems with friends and teachers.

Emotional fitness is measure of sensitivity among the children emotionally fit child can think about his/her surrounding more than 96% children's emotional fitness was medium to high. Only 3.75% children need care from their parent. Parents and senior family members should speak to the child on the

Table 4: Distribution according to the level of emotional fitness

S. No.	Emotional ability level	Frequency	Percent
1	High	35	43.75
2	Medium	42	52.5
3	Low	3	3.75

Table 5: Relation between Physical, mental, and emotional fitness

Sr.No.	Variables	Variables		
		1	2	3
1	Physical	1		
2	Mental	0.4042**	1	
3	Emotional	0.1279	0.4191**	1

**Significant at 1% level of significance

Table 6: Effects of sex on mental fitness of respondent children

Sex	Mean	S.D.	Z' value
Boys	28.97	2.45	2.04*
Girls	23.47	3.68	

emotional issues to resolve it. As emotional fitness carries special significance in life.

The correlation analysis concludes that physical fitness and mental fitness are significantly positively associated. Mental fitness and emotional fitness are positively associated. Higher the mental fitness higher the emotional level.

Significant at 5% level of significance. Boys mental fitness is significantly higher than girls. Two hypothesis stated in the study are accepted.

CONCLUSIONS

Children need regular exercises. About 18% children need to care about diet and exercise overcome obesity. Wider variability observed in mental fitness. Emotional fitness is medium to high. Physical and mental fitness, mental and emotional fitness are positively correlated. Boys mental fitness is higher over girls.

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Research Article

Effects of plyometric program on selected physical fitness variables of inter-collegiate male volleyball players of Betul district

Radha Ashish Pandey

Received: XXX **Acceptance:** XXX

ABSTRACT

Background: The purpose of the study was to examine the effect of plyometric training on physical variables among kabaddi players. **Methods:** For the present study, 60 male inter-collegiate level volleyball players were selected at random and their age ranged from 18 to 25 years. For the present study, pre-test – post-test randomized group design which consists of control group and experimental group was used. The subjects were randomly assigned to two equal groups of 15 each and named as Group "A" and Group "B". Group "A" underwent plyometric training and Group "B" played their regular game and did not receive any specific training or treatment. The data were collected before the treatment and thereafter 6 weeks of training. The obtained data compared using paired "t" test to find out the significance of effect of training program. **Results:** The findings of the present study strongly indicate that plyometric training of 6 weeks has significant effect on selected physical variables, that is, speed, agility, and explosive power of volleyball players. **Conclusion:** Significant effect of plyometric training was found on speed, agility, and explosive power.

Keywords: Volleyball, Physical variables, Plyometric training

INTRODUCTION

Sports are now as competitive as any other field on the world. Our ancestors have exceptional athletic capabilities in ancient times. However, it is now entirely professional. Regardless of age, the human race participates in a variety of sports, either for enjoyment or for competition. Sports have become increasingly competitive in today's age. Individuals are not victorious simply because they participate or practice. Physiology, biomechanics, sports training, sports medicine, sociology, coaching, computer application, psychology, and other aspects all have an impact on sports life.

A plan and rigorous execution are required to attain top-level performance in the international arena. To win competitive sports, there must be talent identification, a systematic and scientific training approach, competitive exposure, and so on. Goals are attained not just as a result of training, but also as a result of psychological and physiological factors. Experts in the sports industry have invested a lot of time and effort into figuring out how to attain professional goals.

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METHODOLOGY

To achieve the purpose of the study, 60 players were selected as samples from the inter-collegiate level volley ball players of Betul district were selected. Age of subjects ranged from 18 to 25. After the systematic review of present literature in the field of physical education and sports training, physical fitness was chosen.

Design

The study was formulated as a pre-test and post-test random group design. The selected 60 subjects (N-60) were divided into two equal groups. Each group consists of 30 subjects. Group-A underwent plyometric training and Group-BI was playing their regular game.

Training Program

Training schedule for the treatment group included 15 min for stretching and warming up, 15 min for instruction and cool down, and 60 min for polymetric training. Experimental group

Table 1: Comparative analysis on pre- and post-test scores on selected physical variables of experimental group

S. No	Variables	Pre-test mean	Post-test mean	Mean difference	SD (±)	"t" ratio
1	Speed	9.37	8.49	0.88	0.81	1.71
2	Agility	11.29	10.33	0.96	0.93	1.83
3	Explosive Power	33.6	37.25	3.65	2.37	2.01

Level of significance (df=29,1.69), 0.05

Table 2: Comparative analysis on pre- and post-test scores on selected physical variables of control group

S. No	Variables	Pre-test mean	Post-test mean	Mean difference	SD (±)	"t" ratio
1	Speed	9.26	9.13	0.13	0.45	1.19
2	Agility	11.81	11.49	0.25	1.03	1.31
3	Explosive power	32.82	34.43	2.13	2.98	1.73*

Level of significance (df=29,1.69),0.05

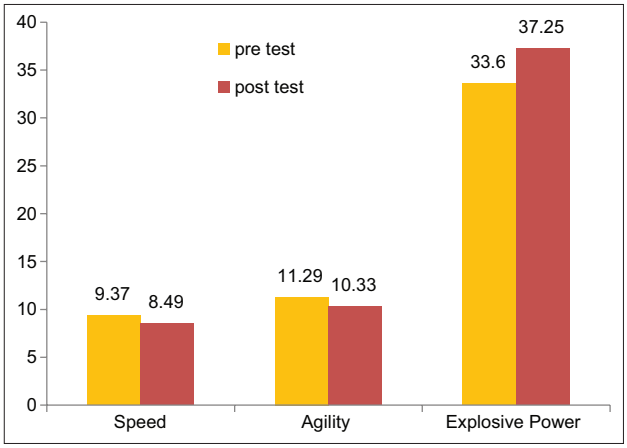


Figure 1: Comparative analysis on pre and post test scores on selected physical variables of experimental group



Figure 2: Comparative analysis on pre and post test scores on selected physical variables of control group

was treated with their respective treatment for weekly 3 days with duration of 90 min for a period of 6 weeks.

Administration of Tests

The speed was assessed through 50 m dash, agility was assessed through 4x10 m shuttle run, and explosive power was assessed through vertical jump.

Statistical Analysis

The collected data were statistically analyzed with paired "t" test to find out the significance of improvement between pre- and post-test means scores of both the groups.

RESULTS

Comparative analysis of physical fitness variables indicated significant differences among the groups in physical fitness variables. Data revealed that the obtained "t" ratios were 1.71, 1.83, and 2.01 for speed, agility, and explosive power, respectively. The obtained "t" ratios on the selected variables were found to be greater than the required table value of 1.69 at 0.05 level of significance for 39° of freedom. Hence, it was found to be significant.

Data on comparative analysis in Table 2 indicate that the obtained "t" ratios were 1.19 for speed, 1.31 for agility explosive strength, and 1.73 for explosive power. Results of "t" test showed that the obtained "t" ratios on speed and agility 1.25 and 1.31 were found to be lesser than the required table value of 1.69 at 0.05 level of significance for 58° of freedom. Hence, it was found to be insignificant. Whereas explosive power "t" ratio was found to be statistically significant as the obtained "t"' value (1.73) was higher than the required table value to be significant at 0.05 level.

DISCUSION

In case of physical variables, that is, speed, agility, and explosive power, the results between pre- and post-test have been found significantly higher in experimental group in comparison to control group. This is possible because plyometric training is currently one of the most commonly practiced adult fitness activities which directly contribute to performance enhancement of kabaddi players. Hence, the hypothesis earlier set that plyometric training program would

have been significant effect on selected physical variables in light of the same the hypothesis was accepted. However, explosive power also increased in control groups as the result of their regular game because it consists of explosive exercises, speed, quickness, and power including "jumping," in which the muscles exert maximal effort and force in short bouts or intervals of time.

CONCLUSIONS

Within the limitation of the study, findings of the study concludes that plyometric training has a significant effect on physical variables, that is, speed, agility, and explosive power of volleyball players.

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Research Article

Cardiovascular endurance of national volleyball players

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INTRODUCTION

Volleyball is a complex game of simple skills. The volleyball court is a rectangular field with the size of 9 × 9 m on each half separated by a net of 2.43 m in height in the middle. Two teams in the match, as opponents, will exercise various skills and tactics to attack and to defend. The ball is served into play. To attack, the players try to make the ball fall down onto the ground of the opposite side. To defend, they try to prevent the ball from falling down onto the ground of their own side. A team can touch the ball 3 times on its own side. As a purely rebound ball game (you cannot hold the ball), volleyball is a sport of constant motion. The basic pattern of movement in making an attack includes a dig (an underarm pass made with the forearms), a set (an overhead pass made with the hands), and a spike (the overhead attacking shot). Teams can also try to block the opponent's spike as the ball crosses the net (International Volleyball Federation, 2008).

CARDIOVASCULAR ENDURANCE

Cardiovascular endurance (is the heart's/cardiac ability to deliver blood to working muscles and their ability to use it (e.g. running long distances).

Ortega *et al*., (2008), physical fitness in childhood and adolescence: A powerful marker of health. This review aims to summarize the latest developments with regard to physical fitness and several health outcomes in young people. The literature reviewed suggests that (i) cardio-respiratory fitness levels are associated with total and abdominal adiposity; (ii) both cardio-respiratory and muscular fitness are shown to be associated with established and emerging cardiovascular disease risk factors, (iii) improvements in muscular fitness and speed/agility, rather than cardio respiratory fitness, seem to have a positive effect on skeletal health; (iv) both cardio respiratory and muscular fitness enhancements are recommended in pediatric cancer patients/survivors to attenuate fatigue and improve their quality of life; and (v) improvements in cardio-respiratory fitness have positive effects on depression, anxiety, mood status, and self-esteem and seem also to be associated with a higher academic performance. In conclusion, health promotion policies and physical activity programs should be designed to improve cardio respiratory fitness, but also two other physical fitness components such us muscular fitness and speed/agility. Schools may play an important role by identifying children with low physical fitness and by promoting positive health behaviors such as encouraging children to be active, with special emphasis on the intensity of the activity. Keywords: fitness, health, adiposity, cardiovascular disease risk factors, bone, children.

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METHODOLOGY

The 12 min run fitness test was developed by Dr. Ken Cooper in 1968 as an easy way to measure aerobic fitness and provides an estimation of VO2 max for military personnel. This simple test is still used today as a field test for determining aerobic fitness. To running speed, turning technique and coordination are also significant factors in this test in sports; cardiovascular endurance refers to an athlete's ability to sustain prolonged exercise for minutes, hours, or even days. Endurance testing is a way to measure the efficiency of an athlete's circulatory system and respiratory system in supplying oxygen to the working muscles and support sustained physical activity.

Mean Endurance 12 Min. Run and Walk of Junior National Volleyball Players

$t_{tab} = 1.645$ for ∞ d. f. at 5% level of significance and $t_{tab} = 1.960$ for ∞ d. f at 1% level of significance.

CONCLUSION

Values of t-calculated further compared with the t-tabulated values and at 1% and 5% the level of significance, from the above statistical inferences, all the state teams of Junior National Players had certain best ever performance in respect to Endurance 12 Min Run and Walk.

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Research Article

A comparative study of male and female player and non-player students in relation to their psychological well-being

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ABSTRACT

A near investigation of player and non-player understudies according to their psychological well-being analyzed in this examination. The current examination was led on player and non-player from different universities of existing understudies. The example size involved 120 understudies. In that, there were 60 male (30 players and 30 non-players) understudies and 60 female (30 players and 30 non-player) understudies from different schools of Kolhapur city. Purposive examining strategy was applied for this investigation. The information was gathered by the utilizing a normalized device of Mithila Mental Health Inventory (MMHSI) ready by Anand Kumar and Giridhar Thakur. A factual devices of mean, SD and t esteem were embraced for dissect the got information. The outcome uncovers that there is critical distinction found in the emotional well-being of male player and male non-player understudies. Be that as it may, there is no importance distinction found in the psychological wellness of female player and female non-player understudies, male player, and female player understudies and male non-player and female non-player understudies separately. It expresses that sports can upgrades our psychological wellness.

Keywords: Mental health, Male player and non-player students, Female player and non-player students

INTRODUCTION

We generally utilize great idea "A sound brain in strong body." Health is a significant factor for the improvement of an individual just as country. Particularly emotional well-being is an indivisible piece of well-being. Ongoing exploration presumed that over 450 million individuals experiencing psychological sickness. Player and non-player students in Relation to their mental health according to the WHO, gloom will the second biggest infection in 2020. Each individual offers significance to actual well-being. Yet, psychological wellness is additionally significant together to actual well-being. The two of them relate and affected every other. Dr. Brock Chisholm expressed that "There is no actual well-being without emotional well-being" Mental well-being likewise worries with social issues such as joblessness, neediness, fixation, expansion in wrongdoing, and family aggravation. Ongoing investigations showed that psychological sickness for the most part liable for actual ailments such as diabetes, malignancy, and expansion in heart illnesses. Actual wellness helps stay solid body to us; mental wellness assists with accomplishing and support a decent emotional well-being to us. Intellectually fit individual can appreciate life and climate. It can likewise help become to imaginative, attempt to creative things, ready to adapt to troubles in close to home life. It is compelling instrument for incredible misfortune in relationship and occupations. Another examination directed by the Mental Health Foundation of the United Kingdom and recommended that terrible eating routine diminishing emotional wellness and makes an assortment of mental issues. Emotional wellness decides by different organic, financial, and natural components. The WHO consistently is backing to the government for advancing psychological wellness? WHO (2013) endorsed "A Comprehensive Mental Health Action Plan" for 2013–2020.

The fundamental point of that arrangement was to advance mental prosperity, forestall mental problems, produce a ton

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of care, and improve standard of recuperation. Emotional wellness is a condition of prosperity where an individual clears their own capacities. He makes ready to adapt to pressure, construct relationships, battle to difficulties, work viably and uniform with local area. Our emotional well-being impacts on nature of thought, sentiments, and conduct in everyday life. Sincerely and intellectually develop individual liberated from melancholy, uneasiness, or some other mental issues. On the off chance that we experiencing migraine, stomach torment, chest torment, and so forth actual issues, then, at that point, we are rapidly visits to medical clinic. Once in a while we are prepared on one leg to check BP, elevated cholesterol, and diabetes. Yet, we are not excited to get appropriate treatment for mental issues. There is an absence of mindfulness about emotional well-being in India. Individuals are not intrigued to tell mental issues and take help from aptitude therapist or advisor. They think it is exceptionally risky and they hesitant to tell others. Along these lines, they shroud their issues. Yet, they don't have the foggiest idea about the results in future. Psychological wellness is perhaps the most dismissed region in India in correlation of Southern country. As indicated by later "Public Mental Health Survey," roughly 150 million individuals should require care for emotional wellness in India. The WHO presented that India has most elevated number of self destruction in phase of player and non-player students in relation to their Mental Health youth in India. It likewise noticed that 33% of populace of India lives underneath the neediness line and the excellent reason for these issues are decline in metal well-being.

Attributes of intellectually solid individual:
1. A feeling of happiness, 2. Continuously glad and happy, 3. Capacity to chuckle and fun, 4. Capacity to manage pressure, 5. Adaptability and versatility, 6. Capacity to fabricate and keep up with relationship, 7. A ton of self-assurance and confidence.

Gahlawat and Gahlawat (2012) directed a near investigation of player and non-player understudies comparable to psychological well-being. An all out example comprised of 100 subjects (50 kid and 50 young lady understudies) from various schools of Chandigarh, India. The age range was 17–21 years. The analystsadiminstered the psychological well-being stock created by Jagdish and Srivastava (1983) for the assortment of information. A normalized factual apparatus of mean, SD, "t" test were utilized for examining information. The outcome demonstrates that male player understudies discovered great psychological wellness than male non-player understudies. The outcome likewise shows that female player understudies discovered great emotional wellness than female non-player understudies. Is appears to be that there is huge contrast between male player and male non-player understudies and female player and female non-player understudies as well. Rawte (2016) investigated an investigation of positive psychological wellness among female competitors and non-competitors optional understudies. The example size involved 40 female optional competitors understudies and 40 female auxiliary non-competitors understudies from different auxiliary schools of Bislapur. The information was gathered by the utilizing of junior positive psychological wellness stock created by Agashe and Helode (2013) in this investigation. The specialists found that there is huge distinction between female competitors and non-competitors auxiliary understudies. It expressed that sports should upgrade positive psychological well-being. Player and Non-Player Students in Relation to their Mental Health Dr. Pramod Kumar Tiwari and Agashe (2015) directed a relative investigation of positive emotional wellness among Kho-Kho players with changing degree of sports accomplishment. The examination directed in three degrees of sports. There were 40 public, 40 state and 40 locale level of male Kho-Kho players were chosen as an example. A comfort inspecting strategy was applied for this investigation. Three dimensional positive emotional wellness stock created by Agashe and Helode (2007) regulated on chosen test. The outcome uncovers that public male Kho-Khoplayers shows significant degree of positive emotional wellness than state male Kho-Kho and locale male kho-Kho players. It appears to be that serious level of positive psychological well-being upgrade by Kho-Kho game.

Every day Loksatta, dated fifteenth November (2019), Mental Health Organization presented that the antagonistic effect of a dangerous atmospheric devation occurring on emotional wellness in America and they likewise educated that roughly 47173 individuals applied self destruction by weaken in America in 2017. The San Leis Obispo expressed that there is positive connection among Climate and psychological wellness. Another examination recommended that there is critical connection between nature of rest and psychological wellness.

NEED AND IMPORTANCE OF THE STUDY

Today, well-being is significant issue for individual in world level. Wellbeing is worried about physical, mental, enthusiastic just as friendly well-being. Particularly emotional well-being is generally significant in human existence. Emotional well-being is a difficult issue in world level. The majority of scientists led their significant explores on emotional well-being. WHO (2017) demonstrated that in excess of 300 million individuals of the world experiencing sadness, 60 million individuals of the world battling to bipolar turmoil and 21 million individuals have Schizophrenia. These psychological instabilities are brought about by decline in degree of emotional well-being. The negative psychological well-being affected on scholastic execution, decline in usefulness, self-assurance, social relationship, expansion in wrongdoing and enslavement.

Present juvenile understudies taking part in the enormous sum in different kinds of sports. Remotely, they are fit actually yet inside they find intellectually undesirable. They looking intellectually upset and it's superb reason on decrease in execution. Along these lines, it is an endeavor to comprehend and work on the emotional well-being of male and female player understudies just as non-player understudies.

PLAYER AND NON-PLAYER STUDENTS IN RELATION TO THEIR MENTAL HEALTH

Explanation of the Problem

A near investigation of player and non-player understudies comparable to their psychological wellness

Targets of the Study

The accompanying targets were presents research study.

1. To Study the psychological wellness of male player understudies.
2. To examine the psychological wellness of male non-player understudies.
3. To contemplate the emotional well-being of female player understudies.
4. To contemplate the emotional well-being of female non-player understudies.

Theories

The accompanying theories were presents research study.

1. There is critical distinction between male player understudies and male non-player understudies according to their emotional wellness.
2. There is huge contrast between female player understudies and female non-player understudies comparable to their emotional well-being.
3. There is huge contrast between male player understudies and female player understudies comparable to their emotional well-being.
4. There is huge contrast between male non-player understudies and female non-player understudies comparable to their emotional well-being.

System - Test

The example of the investigation was gathered from different universities of Kolhapur city. A complete 120 members (players and non-players existing understudies) were chosen for the current investigation. There were 60 male (30 players and 30 non-player) understudies and 60 female (30 players and 30 non-player) understudies from different universities of Kolhapur city. Purposive testing strategy was applied for this investigation. The choice of test has given in subtleties as underneath.

The accompanying normalized mental test used to gather the information.

I) Mithila mental health inventory (MMHSI)

This stock is created by Anand Kumar and Giridhar Thakur. It has five subscales like egocentrism, distance, articulation, passionate unstability and social non-congruity. MMHSI comprises of 50 things. Everything has five other options dependability co-effective of the MMHSI scale found from.74 to.88 and test-retest unwavering quality found from.73 to.89.

CONCLUSION

(1) Reference to Table 1 there is critical distinction between male player understudies and non-player understudies according to their emotional well-being. **(**2) Reference to Table 2 there is no critical distinction between female player understudies and non-player understudies according to their emotional well-being. **(**3) Reference to Table 3 there is no critical contrast between male player understudies and female player understudies corresponding to their emotional wellness. **(**4) Reference to Table 4 that there is no distinction male non-player and female non-player understudies comparable to their psychological well-being.

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Research Article

A comparative study of the mallakhamb exercises and traditional exercises on performance of 12–14 years wrestlers

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Received: XXX **Acceptance:** XXX

ABSTRACT

The research was conducted for "A comparative study of the mallakhamb exercise and traditional exercise on performance of 12–14 years wrestlers" from Maharashtriya Mandal, Pune. The population of the study was 55 wrestlers from Maharashtriya Mandal, Pune and 20 wrestlers were selected. They were randomly divided into two groups. Mallakhamb exercise program was used for one group and traditional exercise program for the other group. For data collection, the researcher had designed a technical rating scale for wrestling. Descriptive statistics were used to find out the mean, median, and standard deviation with the help of SPSS. The paired samples test was used to find out comparison between group one and two. The mean of the mallakhamb exercise group was 5.900 and traditional exercise group was 3.400. The results showed that mallakhamb exercise group performed better than the traditional exercise group.

Keywords: Mallakhamb exercises, Traditional exercise

INTRODUCTION

Wrestling has emerged in the Ramayana from a long time ago. Similarly, in the Mahabharata, Bhimamallavidya and Jarasandhamallavidya are mentioned in ancient history. Then, various skills were created to master this wrestling and with this skill many types of exercises were created to strengthen the body of the wrestlers. In addition to the traditional exercises in this type of exercise, the wrestlers started using those types of exercises to make their body tight, toned, and attractive. The wrestlers also started using these exercises to increase their performance.

This was followed by the development of various traditional forms of exercise and the spread of wrestling during the Peshwa period. During this time, many different types of traditional exercises were created for the wrestlers to achieve success in wrestling. During the Peshwa period, mallakhamba was emerged and used to develop wrestling. When the wrestler does not have a partner to practice with, the wrestler exercises himself by doing various exercises on the wrestler's pole. Hence, this pillar is called mallakhamba which requires a good health for any sport and in the same way traditional exercises were created for wrestling to acquire a better body and increase performance. For example, wrestlers gain their physical strength through these exercises. Mallakhamba is a type of exercise that would break into the Indian type of exercise.

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Purpose

The researcher had a purpose of "A comparative study of the mallakhamb exercise and traditional exercise on performance of 12–14 years wrestlers from Maharashtriya Mandal, Pune."

METHODOLOGY

The study was conducted by experimental research method. In the present research, the researcher had chosen the answer test single group design. The sample of 20 subject was selected purposeful from Maharashtriya Mandal, Pune. All the subjects were wrestlers, data collection tools used for the study were a technical scoring method to check the performance of wrestlers. Descriptive statistics were used to find the mean,

median, and standard deviation. The paired sample *t*-test was used to verify the answer test of mallakhamba and traditional exercise experimental group.

RESULTS

The Table 1 shows statistical analysis of mallakhamba and traditional group wrestling performance test answer test results shows that mallakhamba experimental group's working test answer test average is 5.9 while answer test deviation is 2.282 and average error is 721 as well as traditional. The mean of the test of the working group is 3.4, the answer test has a deviation of 2.913, and the ratio of error is 921. This shows that the average of the mallakhamba group is higher than that of the traditional group. Moderate errors have been found to be high.

The Table 2 shows their analysis of the test answer score of the test given, shows the correlation of the glass obtained from the test group's answer test. 883 and also the significance of this test is 0.01 which shows that the relation of mallakhamba and traditional group is very high.

The Table 3 shows an analysis of the wrestlers' performance test results obtained in shows that there is a difference of 2.5 in mind between the mallakhamba and the traditional exercise experimental group's answer test. The value obtained by the group's answer test is 2.136 and this value is significant at level 0.5, which shows that there is a significant difference in the performance of the wrestlers in the mallakhamba and traditional group.

The Table 4 shows a statistical analysis of the working answer test scores, shows that the answer test of the mallakhamba experimental group has a median of 36.200 the answer test deviation is 6.663 and the median error is 2.107. Furthermore, the answer test average of the functional test of the traditional experimental group is 24,500. The answer test deviation is 13,209 and the mean error is 4.177.

The Table 5 shows analysis of the answer test scores of mallakhambas and the functional group of the traditional group given, shows that the correlation between the answer test scores of the experimental group is 883 and the significance level of this test is 0.01 which shows that the relation of mallakhamba traditional group is very high.

The Table 6 shows analysis of the wrestlers' performance test results given, shows that there is a difference of 11.70 between the answer test median of the mallakhamba and the traditional exercise experimental group. 2.501 and this value t are meaningful at the level of 0.22. This shows that there is a significant difference in the performance of the wrestlers in the mallakhamba and traditional group.

Table 1: The following is a descriptive statistical analysis of the overall winning performance test scores of mallakhamba and traditional group wrestling

Performance test	Mean	SD	SEM
Post-test mallakhamba group	5.900	2.282	0.721
Post-test traditional group	3.400	2.913	0.921

Table 2: Correlation of mallakhamba and traditional group wrestling functional answer test producers

Test name	Correlation	Sig.
Performance test mallakhamba group and traditional group	0.883	0.01

Table 3: Mallakhamba and traditional group wrestling standard deviation of test answer score and t value

Mean	SD	DM	T	DF	Sig. level	Sig.
5.900	2.282	2.500	2.136	18	0.047	YES

Table 4: Descriptive statistical analysis of mallakhamba and traditional group wrestling performance test scores

Performance test	Mean	SD	SEM
Mallakhamba Group	36.200	6.663	2.107
Traditional Group	24.500	13.209	4.177

Table 5: Correlation of mallakhamba and traditional group wrestling functional answer test scores

Test name	Correlation	Sig.
Total point scoring	0.883	0.01

Table 6: Average, ratio deviation, and t value of answer test scores of mallakhamba and traditional group

Mean	SD	Medium difference	"t"	DF	Sig. level	Sig.
36.20	6.66	11.70	2.501	18	0.022	Yes

CONCLUSION

A comparison of the effect of mallakhamba and traditional gymnasts on the work mind of a 12–14-year-old wrestler found that the mallakhamba exercise type had a greater effect than the traditional type of exercise.

DISCUSSION

The present study shows that when comparing the overall performance of mallakhamba and traditional exercises on the performance of wrestlers in the age group of 12–14 years,

the effect of mallakhamba exercises on the performance of wrestlers in the age group of 12–14 years is more than the traditional exercise.

RECOMMENDATION

- The researcher compared the above effect of mallakhamba and traditional exercises on the performance of wrestlers in the age group of 12–14 years.
- The research presented by the researcher looked at the effects of mallakhamba and traditional exercises on the work mind of wrestlers between the ages of 12 and 14.

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Research Article

Sports mental toughness and grit of sports players performing different additional fitness activities

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ABSTRACT

The study was conducted to examine and compare the sports mental toughness and grit among sports players who include weight training for fitness, only doing own body weight activities and those who don't do any additional fitness activity for fitness. The data were collected from the population of Goa which consisted of all the sports players from Goa playing at different levels. Sports mental toughness and grit were identified using comparative study method. The sports mental toughness was measured using sports mental toughness questionnaire (Sheared *et al*., 2009) and grit was studied using short grit scale by Duckworth *et al*., 2007. Using convenient sampling technique, the sample of 115 sports players was selected, which consisted of 52 players who include weight training activity for fitness, 37 players doing only own body weight activities, and 26 players who don't do any extra fitness activity for fitness. Using descriptive statistics, it was found that there is a significant difference in level of sports mental toughness and grit of sports players who include weigh training, players doing only own body weight, and those who don't do any additional fitness activity. The level of sports mental toughness and grit of sports players who include weight training are highest with a mean score of 41.50 and 29.57, respectively, whereas the sports mental toughness and grit score of players doing only own body weight activities are 35.35 and 23.43, respectively. Finally, the sports mental toughness and grit level of sports players not doing any additional fitness activity of fitness are lowest with a mean score of 33.76 and 21.57, respectively. Hence, it is prominent to add fitness sessions in the routine of sports players apart from skill practice sessions and the fitness activities with weight training sessions also prove to be dominant in psychological development of players.

Keywords: Sports mental toughness, Grit, Weight training, Own body weight training

INTRODUCTION

Sport is a competitive physical activity in which people participate either casually or in an organized manner which aims at using, maintaining, and improving one's physical abilities and skills where it also provides entertainment to participants and other spectators. Sport has become very important and vital part in everyone's life as it mostly leads to overall development of an individual. Apart from physical health, sports help in the development of mental health (Ghildiyal, 2015). Sports are poured into life at a very young age. Children at a very young age of 10 years start participating in sport competitions in which they also get to participate at national level (Butler, 2011 and Keown, 2011). Many factors play a crucial role for the success in the sports and to become outstanding sports players. Many children are born with talent to play specific sport and they tend to choose sports based on the interest. Once the talent is identified, the development takes place with the right kind of training and coaching along with appropriate guidance. With the help of skill training, the skills of the player to play sports are polished and they become expert in skill execution.

Along with skills proficiency, physical and mental fitness equally influences the success in sports at highest level (Neill *et al*., 2014). With the help of different fitness training sessions, the physical fitness of the sports players is improved. Fitness training goes hand in hand along with skills training to become a champion athlete. Along with physical fitness, mental fitness is also of prime importance for the overall development of the athlete. Sports psychology helps in improving mental

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components to perform better in sports at different levels (Cohn, 2016). To be successful in sports, both skills practice and fitness training sessions are of utmost importance. Sometimes, athletes do not prefer to do additional fitness sessions which might not help them for overall development to play sports at higher levels. Thus, along with skills practice sessions, different types of fitness training sessions are employed for the athletes to get better every day. Along with physical fitness development, the type and amount of fitness training athletes do also influence the mental fitness which leads to the development of psychological attributes (Daniels, 2021). In psychological development, sports mental toughness and grit are two important attributes for the success in training as well as to perform better in sports. Sports mental toughness is generally defined as a natural or developed psychological factor that allows athletes to cope up with their rivals in situations such as training and competition, in the light of their mental competences (Jones *et al*., 2007). Grit is said to be a perseverance and passion to achieve the long-term goals without ever giving up in life due to various difficulties. Grit: Perseverance and passion for long-term goals (Duckworth *et al*., 2007). According to Angela Duckworth, researcher at University of Pennsylvania grit is strong predictor of success and the ability to reach ones goals.

When an athlete does fitness training, there are high chances of development of mental toughness in which athlete can become mentally tough and have a strong level of grit. More strenuous exercises can lead to better mental toughness and grit. As mental toughness and strong grit are required to do the strenuous activities, its development is also the result of more and severe training sessions. Weight training session for strength as well overall fitness leads to mental toughness development (Crock, 2016). Thus, we can say as it requires lot of toughness to overcome the progressions of resistance load, athletes mind is also getting tougher day by day. Hence, including weight training in fitness sessions for different sports is helpful to develop the mental fitness of the athletes.

As the different types of fitness training sessions help in physical and mental development of the sports players, weight training is one of the toughest training sessions which can help in much more physical and mental development of the sports players at different levels (Guerra, 2019). As the weight training helps in developments of mental fitness, researcher aims to assess the sports mental toughness and level of grit of players from Goa and to compare the sports mental toughness and grit among sports players who are not doing any additional fitness training sessions, those who are doing only own body weight fitness trainings, and those who include weight training in the fitness activity sessions.

METHODOLOGY

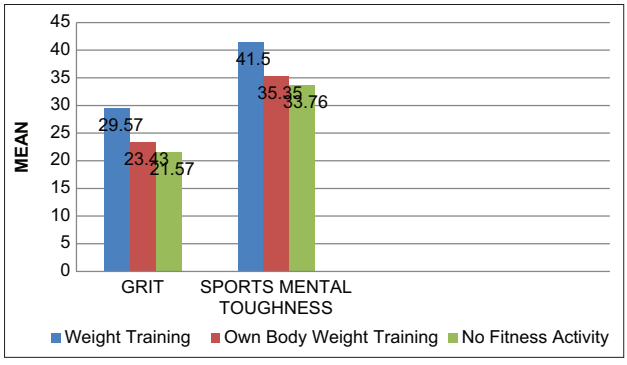
Participants and procedure: In this study, 115 sports players were selected as sample using convenient sampling technique in which 52 were players including weight training for fitness, 37 players were doing only own body weight activities for fitness, and 26 players were not doing any additional fitness activity. The data were collected through online mode with the help of Google Forms questionnaire. They were explained about the research study and consent was taken. The forms also asked for demographic information such as gender and age. Tools: The level of sports mental toughness was studied using sports mental toughness questionnaire (Sheared *et al*., 2009). The SMTQ is a 14-item instrument which was established to ascertain athletes mental toughness levels. The participants had to respond to items on a 4-point Likert-type scale ranging from "Not at all true" to "Very True." The grit level was studied using short grit scale by Duckworth *et al*., 2007. Grit scale is 8-item instrument used to measure the extent to which individuals are able to maintain focus and interest, and persevere in obtaining long-term goals. Responses are rated on 5-point Likert-type scale ranging from "Very much like me" to "Not like me at all."

Research Design and Statistical Analysis

A comparison of the level of sports mental toughness and the level of grit among sports players who include weight training for fitness, doing only own body weight training, and not doing any additional fitness activity was done by employing descriptive statistics using SPSS Version 20 to compute

Table 1: Descriptive statistics of sports mental toughness and grit among sports players

GRIT	*N*	Mean	SD
Including weight training	52	29.57	4.55
Own body weight fitness	37	23.43	4.77
No fitness activity	26	21.57	9.85
Sports mental toughness			
	N	**Mean**	**SD**
Including weight training	52	41.50	6.01
Own body weight fitness	37	35.35	6.36
No fitness activity	26	33.76	12.16



Graph 1: Mean scores of grit and sports mental toughness for different fitness activity

Table 2: Multiple comparisons

(I) Type of fitness activity	(J) Type of fitness activity	Mean difference (I-J)	Std. error	Sig.
GRIT				
No	Own body weight	−1.85551	1.58604	0.245
	Weight training	−8.00000*	1.48865	0.000
Own body weight	No	1.85551	1.58604	0.245
	Weight training	−6.14449*	1.33298	0.000
With weight training	No	8.00000*	1.48865	0.000
	Own body weight	6.14449*	1.33298	0.000
(I) Type of fitness activity	(J) Type of fitness activity	Mean difference (I-J)	Std. error	Sig.
Sports mental toughness				
No	Own body weight	−1.58212	2.02371	0.436
	Weight training	−7.73077*	1.89944	0.000
Own body weight	No	1.58212	2.02371	0.436
	Weight training	−6.14865*	1.70082	0.000
With weight training	No	7.73077*	1.89944	0.000
	Own body weight	6.14865*	1.70082	0.000

*P<0.05 level of significance

Table 3: One-way ANOVA for grit and sports mental toughness

GRIT	Sum of squares	df	Mean square	F	Sig
Between groups	1412.872	2	706.436	18.391*	0.000
Within groups	4302.120	112	38.412		
Sports mental toughness	Sum of squares	df	Mean square	F	Sig
Between groups	1356.074	2	678.037	10.842*	0.000
Within groups	7004.048	112	62.536		

*p<0.05 level of significance

mean and standard deviation. Further, one-way ANOVA was employed to compare the differences in the level of sports mental toughness and level of grit between three groups.

RESULTS

The scores of sports mental toughness and grit of sports players were calculated and analyzed using SPSS version 20. One-way ANOVA was employed to identify the differences in the level sports mental toughness and level of grit of sports players based on type of fitness activity. The sample size was 115 sports players, in which 52 were including weight training in fitness, 37 doing only own body weight activities, and 26 not doing fitness activity. The mean square on grit for between groups and within groups was 706.436 and 38.412, respectively, with F value as 18.39 which was significant at.000 level indicating differences in the groups. The mean square on sports mental toughness for between groups and within groups was 678.037 and 62.536, respectively, with F value as 10.842 which was significant at 0.000 level indicating differences in the groups. There was a significant difference seen in the level of sports mental toughness between players including weight training for fitness with highest scores (M = 41.50, SD = 6.01) and players doing only own body weight training for fitness with a score (M = 35.35, SD = 6.36). The significant difference in the level of sports mental toughness was also seen between players not doing any additional fitness activity with a scores (M = 33.76, SD = 12.16) and players doing weight training whereas there was no significant difference in the level of sports mental toughness between players not doing additional fitness activity and players doing own body weight training for fitness. There was a significant difference seen in the level of grit between players who include weight training for fitness with highest scores (M = 29.57, SD = 4.55) and players doing only own body weight training for fitness with a score (M = 23.43, SD = 4.77). The significant difference in the level of grit was also seen between players not doing any additional fitness activity with a scores (M = 21.57, SD = 9.85)

and players doing weight training whereas there was no significant difference in the level grit between players not doing additional fitness activity and players doing own body weight training for fitness.

DISCUSSION

As the sports psychology plays a crucial role in the development of any sports players which ultimately helps him to achieve success at highest competition levels. The psychological attributes are mostly trained with the help of psychological training at the highest levels of competitions. Athletes in the beginning and at lowest level of competitions sometimes fail to get proper psychological training which hinders the optimum development. As many studies have already proved the doing regular fitness activities helps in physical as well as mental fitness development, this study was carried out to study the sports mental toughness and grit of sports players from Goa who include weight training for fitness, players only doing own body weight activities and those who don't do any additional fitness activity for fitness, which are the dominant psychological attributes present in the athletes to stay mentally tough and overcome number of obstacles in the journey of success. In one of the study by Marshall *et al*., 2017, it was proved that long-term physical training culminating with competitive experience favorably impacts mental toughness. The mean square on grit for between groups and within groups was 706.436 and 38.412, respectively, with F value as 18.39 which was significant at 0.000 level indicating differences in the groups. The mean square on sports mental toughness for between groups and within groups was 678.037 and 62.536, respectively, with F value as 10.842 which was significant at 0.000 level indicating differences in the groups. Sports mental toughness and grit were found to be higher in players who include weight training for fitness than those doing only own body weight activities and not doing any additional fitness activity for fitness. This study can be further supported with the study conducted by Gerber *et al*., 2012, in which participants with higher exercise and physical activity levels scored higher in most mental toughness subscales. Individuals who fulfilled physical activity recommendations also reported elevated mental toughness scores compared to those who did not. Acquiring a mindset of mental toughness might be one way that physical activity and exercise can impact an individual mental health. This can also be supported with help of study done by Cazayoux and Debeliso, 2019, where they found grit levels to be greater among advanced cross-fit athletes, suggesting that grit may play a role in successful participation in the sport of fitness known as cross-fit. Athletes and coaches could use this information in the training environment in a way that maximizes an athlete's level of grit to get a competitive edge. Hein *et al*. (2019) found in a study that the consistency of the interest dimension of grit in the high moderate-to-vigorous physical activity group was significantly higher than in low group only at $P < 0.1$ level.

CONCLUSION

There was a significant difference seen in the level of sports mental toughness and grit between players who include weight training for fitness and players doing only own body weight training for fitness. The significant difference in the level of sports mental toughness and grit was also seen between players not doing any additional fitness activity and players doing weight training whereas there was no significant difference in the level of sports mental toughness and grit was seen between players not doing additional fitness activity and players doing own body weight training for fitness.

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Research Article

Effect of strength training on physical variable of collegiate male Kho-Kho Players

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ABSTRACT

The present investigation deals with study the effect of strength training program on physical variable of collegiate male Kho-Kho players. To achieve the purpose, thirty male Kho-Kho players with age group between 16 and 22 years were randomly selected as subjects. The selected subjects were randomly assigned into two equal groups such as training group (TG) and control group (CG) for the strengths of fifteen (n = 15) each. Experimental training group underwent respective strength training program for three months for five days per week and a session on each day. The control group did not involve in any special training apart from their regular activities. The criterion variable arm strength was measured by pull-ups. Analysis of covariance was used to analyze the collected data. The results revealed that the strength training was made significant improvement ($P \leq 0.07$) in arm strength of the selected subjects. The level of confidence was fixed at 0.05 in all cases.

Keywords: Strength training, Arm strength, Collegiate male Kho-Kho players

INTRODUCTION

Strength training is the ability of the muscles to repeat identical movement or pressures as to maintain a certain degree of tension over a period of time (Johnson and Nelson, 1982). According to Marget (1988), Strength training as the capacity of the whole organism is to withstand fatigue under the long-lasting exhaustion of strength. Consequently, it is characterized by a relatively high ability to express strength together with a faculty of preserve.

Strength training exercises is not usually thought as on end in itself, but as means to an end. Strength training may be isometric, iso-kinetic contraction. Strength training is the ability of the muscle to produce a maximum amount of force. It is measured by the ability to perform one repetition of an exercise at maximum resistance. An example of maximum strength would be greatest amount of weight one can lift in the bench press exercise. Strength training has major significance in many sports and sport skills. It is a significant factor in one's ability to put the shot, throw the javelin, create a high velocity tennis serve, throw a fast ball, and many other sport skills.

Arm strength is defined as the maximum velocity of any throw made by a fielder. Everyone knows that the triceps are the largest of the arm muscles. The triceps make up around 50-55% of the total size of the three upper arm muscles, with the reminder dividing up across the biceps and the bronchioles (Mc.Call *et.al.*, 1996). Arm strength can increase by continuously doing push-ups and pull-ups. Weight training is doing exercise, using resistance (normally weights) to build muscle strength and endurance. In weight training, one can make use of weights such as dumbbells, Bar Bells, Pulley Machines, or simply one's own body weight as resistance.

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Table 1: Analysis of covariance on arm strength between the training group and the control group

Test	Training group		Control group	SOV	Sum of square	df	Mean square	F ratio
Pre strength training	Mean	4.9	5.3	B	0.8	1	0.8	1.1
	SD	0.73	0.94	W	13	18	0.72	
Post strength training	Mean	8.3	6	B	26.45	1	26.45	47.13*
	SD	0.67	0.81	W	10.1	18	0.56	
Adjusted Post strength training	Mean	4.29	5.96	B	3.5	1	3.5	5.93*
				W	10.2	17	0.6	

*Significant at 0.05 level of confidence

MATERIALS AND METHODS

The intention of the present study was to find out the effect of strength training on physical variable of college men cricket players. To achieve the purpose thirty male students ($n = 30$) were randomly selected as subjects from the Department of Physical Education and Sport at Deshbhakt Anandrao Balwantrao Naik, College Chikhali, Tal. Shirala, Dist Sangli. The age was ranged between 18 and 24 years. The selected subjects were randomly assigned into two equal groups such as training group (TG) and control group (CG) for the strengths of fifteen ($n = 15$) each. Experimental training group underwent respective strength training program for three months for five days per week and a session on each day. The control group did not involve in any special training apart from their usual activities. The criterion variable arm strength was measured by pull-ups. All the subjects were present for more than 90% of the total training session. The strength training is increased by doing chest, shoulders, triceps, biceps, and abs. The collected data were statistically examined by analysis of covariance (ANCOVA). The confidence level was fixed at 0.05 levels, which is appropriate to the present study.

Data Analysis

Mean and standard deviation were intended for arm strength of each training group. And the data were analyzed using ANCOVA. Statistical significance was fixed at 0.05 levels.

RESULTS AND DISCUSSION

Analysis of covariance on arm strength between the training group and the control group (Table 1).

Table 1 describes, analysis of covariance on arm strength among experimental and control group. The mean value of arm strength of training and control groups were 4.90 and 5.30. The obtained "F" value of 1.10 was lesser than the table value of 4.41, there was insignificant among the groups in pre-strength training result of arm strength. The post strength training means of the groups were 8.30 and 6.0 respectively, and the obtained "F" value of 47.13 was greater than the table value, and there was a significant difference in arm strength between the training and control groups in arm strength among the male collegiate Kho-Kho players. The obtained adjusted post strength training F value also greater the table value of 4.45 for df 1 and 17 required for significant at 0.05 level. The pre, post and the adjusted post strength training mean values of the experimental and control groups on arm strength were graphically represented in Figure 1.

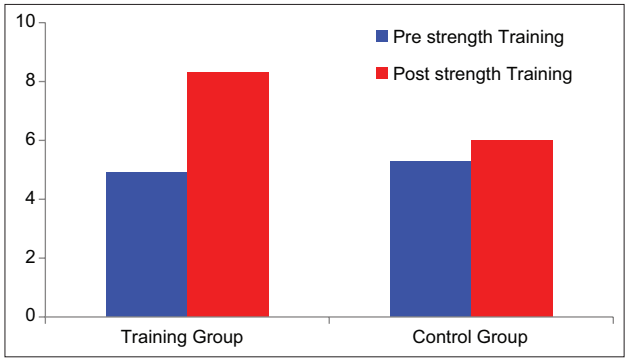


Figure 1: Analysis of covariance on arm strength between the training group and the control group

DISCUSSION

The result of the present study pointed out that there was a noteworthy variation in arm strength due to strength training. The current study also utilized three months program duration with three sessions and found that arm strength increases due to strength training. Jensen and Fisher, (1979) pointed out that that the strength training improves arm strength of the cricket players. Young, (1991) concluded that strength training program increases the muscle power of the athletes. From the results of the present study and literature, it is fulfilled that criterion variable arm strength was drastically improved due to strength training.

CONCLUSION

The result of the study revealed that the training group has significant improvement in arm strength among collegiate

male Kho - Kho players after the strength training protocol. It was also concluded that the strength training is one of the best practice for improving the arm strength as well as the physical fitness of players as well as young generation.

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Research Article

Effect of nutrition on sports performance

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ABSTRACT

Nutrition can help enhance athletic performance. An active lifestyle and exercise routine, along with eating well, is the best way to stay healthy. Eating a good diet can help provide the energy sports person need to finish a race, or just enjoy a casual sport or activity. At the most basic level, nutrition is important for sports performance because it provides a source of energy required to perform the activity. The food athlete eats impacts on strength, training, performance, and recovery. Not only is the type of food important for sports nutrition but the times athlete eat throughout the day also has an impact on Athletes performance levels and athletes body's ability to recover after exercising. Good nutrition can enhance sporting performance.

Keywords: Nutrition, Sports, Performance, Athlete

INTRODUCTION

Nutrition is increasingly recognized as a key component of optimal sporting performance, with both the science and practice of sports nutrition developing rapidly. Nutrition has become a vital variable that can influence the performance of an athlete. It is not by chance that we often read about athletes' strict eating regimen. Whether it is the intensive keto diet LeBron James used to lose weight, or Michael Phelps' infamous 10,000 daily calories to fuel his 2008 Olympics efforts, the ideal diet plan will vary depending on the sport, desired goals, and specific personal preferences of the athlete. Sport performance is the manner in which sport participation is measured. Sport performance is a complex mixture of biomechanical function, emotional factors, and training techniques. A well-planned, nutritious diet should meet most of an athlete's vitamin and mineral needs, and provide enough protein to promote muscle growth and repair. Foods rich in unrefined carbohydrates, like wholegrain breads and cereals, should form the basis of the diet. Water is a great choice of fluid for athletes to help performance and prevent dehydration.

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WHAT IS NUTRITION?

Nutrition is the biochemical and physiological process by which an organism uses food to support its life. There are six essential nutrients that the body needs to function properly. Nutrients are compounds in foods essential to life and health, providing us with energy, the building blocks for repair and growth, and substances necessary to regulate chemical processes.

THERE ARE SIX MAJOR NUTRIENTS

Carbohydrates (CHO)

Carbohydrates are one of the most important nutrients needed in an athlete's diet. Carbohydrates are vital to help reach peak performance during physical activity because they provide; Carbohydrates are the main source of energy for our brains and bodies to function properly. Carbohydrates improve athletic performance by delaying fatigue and allowing an athlete to compete at higher levels for longer. With the correct amount of carbohydrates available to muscles, protein can be free to do its main job of repairing and rebuilding muscle tissue, which maximizes muscle gain.

Lipids (fats)

As already stated fat provides the highest amount of energy out of all the nutrients – 1 g of fat equals nine calories. However, as

soon as lactic acidosis begins to occur our ability to utilize fat as energy substrate diminishes significantly. Building oxidative capacity is, therefore, essential for endurance athletes or where competition lasts more than 40 min. They simply need to be good fat burners in order to maintain work output for longer durations. Glycogen stores making it essential for performance in certain endurance sports.

Proteins

Protein is important in sports performance as it can boost glycogen storage, reduce muscle soreness and promote muscle repair. For those who are active regularly, there may be benefits from consuming a portion of protein at each mealtime and spreading protein intake out throughout the day. For strength and endurance athletes, protein requirements are increased to around 1.2–2.0 g of protein per kilogram of bodyweight per day.

Vitamins and minerals

Vitamins and minerals play an important role in sport performance. All components of vitamins and minerals how important for sports performance.

Iron

Iron is a mineral that athletes need to carry oxygen throughout in body and to athletes' muscles when he/she plays sports. Without enough iron, Athletes can become tired and muscles may not work at their full potential.

B vitamins

Include Vitamin B1, Vitamin B2, Vitamin B3, Vitamin B6, foliate and Vitamin B12. B Vitamins help to convert food into energy that athletes need to play sports, make proteins to build and repair muscles and make red blood cells which give oxygen to sports person's muscles.

Calcium

Calcium is a nutrient that helps sports person's build and maintain strong bones. When sports person don't get enough calcium, their bones have a higher risk of becoming weak and are more likely to break. Vitamin D is a nutrient that helps body absorb calcium. Calcium and vitamin D work together to help maintain healthy bones and Vitamin D also helps muscles work properly.

Vitamins A, C, and E

Vitamins A, C, and E are antioxidant vitamins. Antioxidant help reduce muscle damage and speed up recovery after players play sports.

WATER

Water is essential for life and hydration is important for health, especially in athletes and those who are physically active, who will likely have higher requirements. Drinking enough fluid is essential for maximizing exercise performance and ensuring optimum recovery. Exercising raises body temperature and so the body tries to cool down by sweating. This causes the loss of water and salts through the skin. In general, the more a person sweats, the more they will need to drink. Average sweat rates are estimated to be between 0.5–2.0 L/h during exercise.

Dehydration can cause tiredness and affect performance by reducing strength and aerobic capacity (especially when exercising for longer periods).

WHY IS NUTRITION SO IMPORTANCE FOR SPORTS PERFORMANCE

Nutrition is essential for growth and development, health, and well-being. Eating a healthy diet contributes to preventing future illness and improving quality and length of life.

Nutrition is important for athletes because it provides a source of energy required to perform the activity. The food we eat impacts on our strength, training, performance, and recovery. Not only is the type of food important for sports nutrition but the times we eat throughout the day also has an impact on our performance levels and our bodies ability to recover after exercising. Nutrition is essential for supporting an athlete's general health and their training needs. Having a suitable diet provides a person with enough energy and nutrients to meet the demands of training and exercise. In addition to helping a person perform optimally, it facilitates recovery.

Athletes may need to consider: their caloric needs, macronutrient amounts and ratios, meal and snack timings, Vitamins and minerals for recovery and performance.

CONCLUSION

Overall conclusions is this articling all components of nutrition to gain sports performance? This article showed that the sports performance defends on nutrition who affect on performance. Nutrition is beneficial for in the impacts on athlete's strength, training, performance, and recovery. Nutrition helps in keeping sports person mental and physical health intact.

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Research Article

Overview of the related areas between sport and health

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ABSTRACT

This section provides an overview of the related areas between sport and health. An introduction to the role of sport in enhancing physical and mental well-being is provided. During recent decades, there has been a progressive decline in the level of physical activity in people's daily lives in developed countries. For a majority of people, little physical effort is involved any more in their work, domestic chores, transportation and leisure. While specific health risks differ between countries and regions, the fact remains that physical inactivity is a major risk factor for most common non-communicable diseases and physical activity can counteract many of the ill effects of inactivity.

Keywords: Sports, Health, Well-being, Physical activity, Health benefit, Psychosocial health healthy lifestyle, Health campaigns

INTRODUCTION

The World Health Organization (WHO) estimates that, with the exception of sub-Saharan Africa, chronic diseases are now the leading causes of death in the world. The WHO cites four non-communicable diseases that make the largest contribution to mortality in low- and middle-income countries, namely: cardiovascular disease, cancer, chronic respiratory disease, and diabetes.

A number of key themes related to sport and health are then explored in more detail:

- The health benefits of sport and physical activity
- The health benefits of sport and physical activity
- Physical activity and health
- Physical activity and psychosocial health
- Sport and physical activity as part of a healthy lifestyle
- Sport and public health campaigns.

DEFINITIONS OF HEALTH

One of the most widely-used definitions of health is that of the WHO, which defines health as: "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This definition goes well beyond a condition of physical health but includes mental health and general well-being.

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PHYSICAL ACTIVITY AND HEALTH

Sport and physical activity has long been used as a tool to improve mental, physical and social well-being. Physical inactivity is a major risk factor associated with a large number of lifestyle diseases such as cardiovascular disease, cancer, diabetes and obesity. Sport projects that specifically focus on health outcomes generally emphasize.

- The promotion of healthy lifestyle choices among children and young people as well as adults to combat inactivity;
- The use of sport as a tool to raise awareness on communicable diseases in developing countries, for example, through district or national health campaigns supported by athletes and sports competitions;
- The use of sport as a didactical tool to communicate vital health-related information to 'at risk' groups;
- The use of sport to mobilize hard-to-reach groups as part of large-scale health campaigns, including for example, communities with low population density;
- Sport is considered to contribute to achieving mental health objectives, including addressing depression and stress-related disorders.

THE HEALTH BENEFITS OF SPORT AND PHYSICAL ACTIVITY

Although research interest on physical activity and health dates back to the 1950s, the breakthrough in the scientific evidence on health benefits of physical activity largely took place during the 1980s and 1990s. There is an overwhelming amount of scientific evidence on the positive effects of sport and physical activity as part of a healthy lifestyle. The positive, direct effects of engaging in regular physical activity are particularly apparent in the prevention of several chronic diseases, including: cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis.

The report from the United Nations inter-agency task force on sport for development and Peace states that young people can benefit from physical activity as it contributes to developing healthy bones, efficient heart and lung function as well as improved motor skills and cognitive function. Physical activity can help to prevent hip fractures among women and reduce the effects of osteoporosis. Remaining physically active can enhance functional capacity among older people, and can help to maintain quality of life and independence.

PHYSICAL ACTIVITY AND PSYCHOSOCIAL HEALTH

The WHO has estimated that "one in four patients visiting a health service has at least one mental, neurological or behavioural disorder, but most of these disorders are neither diagnosed nor treated". A number of studies have shown that exercise may play a therapeutic role in addressing a number of psychological disorders. Studies also show that exercise has a positive influence on depression. Physical self-worth and physical self-perception, including body image, has been linked to improved self-esteem. The evidence relating to health benefits of physical activity predominantly focuses on intra-personal factors such as physiological, cognitive and affective benefits, however, that does not exclude the social and inter-personal benefits of sport and physical activity which can also produce positive health effects in individuals and communities.

SPORT AND PHYSICAL ACTIVITY AS PART OF A HEALTHY LIFESTYLE

A number of factors influence the way in which sport and physical activity impacts on health in different populations. Sport and physical activity in itself may not directly lead to benefits but, in combination with other factors, can promote healthy lifestyles. There is evidence to suggest that changes in the environment can have a significant impact on opportunities for participation and in addition, the conditions under which the activity is taking place can heavily impact on health outcomes. Elements that may be determinants on health include nutrition, intensity, and type of physical activity, appropriate footwear and clothing, climate, injury, and stress. Sport and physical activity can make a substantial contribution to the well-being of people in developing countries. Exercise, physical activity, and sport have long been used in the treatment and rehabilitation of communicable and non-communicable diseases. Physical activity for individuals is a strong means for the prevention of diseases and for nations is a cost-effective method to improve public health across populations.

SPORT AND PUBLIC HEALTH CAMPAIGNS

In 2002, the World Health Organisation deemed 'Physical Activity' the theme of World Health Day. Since that time, April 6th is celebrated as the World Day for Physical Activity. This is an excellent example of a global initiative aimed at promoting health through physical activity across populations.

To reduce the burden of disease worldwide, the World Health Organisation introduced a global strategy in 2004. The Global Strategy on Diet, Physical Activity and Health is a large-scale initiative aimed at promoting health-enhancing physical activity and supporting policy development and research. Collaborative efforts between organizations focusing on sport or health are necessary in ensuring that sport-for-health initiatives are more likely to achieve success. For example, UNICEF has used sport to raise awareness on immunization and organized sports events for vaccination campaigns in Zambia against measles. Renowned sports stars in various sports promoted the health campaign through which approximately 5 million children were vaccinated in 2003. Similarly, during the 2003 Cricket World Cup, the cricket teams from India and Pakistan together promoted the national polio eradication campaign in television commercials, competitions, and events in the weeks leading up to the tournament.

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Research Article

The role sports psychology in sports performance enhancement

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ABSTRACT

The sport psychology play important role in the sports performance enhancement, which subsequently could lead to sports development. Some of the roles include resolution of the Athlete's emotional conflict, mental preparation, team building discipline etc. Problems encountered by the sports psychologists mentioned such as; non-utilization of the sports psychologists by sport organizations, low budget for sports, and lack of awareness of the roles of the sports psychologist. Some recommendations are also made such as organization of workshops, conference and employment of sport psychologists by various sports ministries and councils. The paper concluded by saying sport psychology should be employed as a scientific training means for athletes in order to enhance sports performance.

Keywords: Psychology, Sports, Enhancement, Performance

INTRODUCTION

It is also seen that sports are one of the most effective weapons of exhibiting political might the world over. It is used to show a state ornation's supremacy over other nations and foster national and international friendship. A country or nation does not just ascertain her supremacy over others by sitting and professing it there is a lot involved in it. There must be adequate preparation towards achieving any form of success in sports. The preparation takes several forms; there is usually a planning stage. This may take the form of budgetary allocation to sports; there is the physical training session for the acquisition of skills and techniques, which of course is one of the most important preparations. There are some invaluable services that sports have come to stay with, and if overlooked may lead to poor outings and that is; medical and psychological services. This article, therefore, intends to concentrate on psychological services and the relevance of such services to sports development.

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What s Sports Psychology?

The mind is sports science last frontier; all other systems have been used extensively to improve the athletics' performances. Kinesiology's the science of human movement, have been used extensively to improve the players' movements. Even the athlete's blood has been sampled and his/her biorhythms chartered (Straub, 1980). He further explained that only the mind seems to have been neglected when considering the general input of an athlete. However, he defined sports psychology as the science of psychology applied to athletes and the athletic situation. It is the science that explains why we do what we do in the sports area. Singer (1980) asserted that psychology is, and always has been an integral part of sports. In this part of the world, this realization is very recent and not even involved in the training of the athletes most times. According to Ikulayo (1990) sports psychology is said to be a branch of sports science involving the science of psychology applied to sportsmen/women in athletic situations. She further said it can also be defined as an attempt to study individuals in sports situations in order to analyse, explain, describe, modify, alter or predict behaviour through various psychological means. Similarly, Vipene (2005) defined sport psychology as a science that deals with the emotional aspects

of physical performance. In the context of competitive sports, it is an attempt to explain and predict the behavior of an athlete in the environment of competitive sports. The science of sports psychology does end with the athlete on the field of play only. It spills to other aspects of the competitor ranging from the field of play to his/her domestic activities which in tum will affect sports performance. Hence, it becomes necessary to apply this science of sports to competitors. However, there has been a case where psychologists and Psychiatrists work with athletes. The concern has been to make the athlete better.

The Role of Sport Psychology in Sports Performance Enhancement

Sports Psychology has a lot of roles to play in the realization of the nation's sporting objectives, the following are therefore some of the roles which Sports Psychology can play in enhancing performance.

1. Since the totality of the athlete's personality is involved on the playing field, one of the major roles of the sports psychologist is in the area of behavioural control of the athlete. This could be used for performance enhancement through the modification of undesirable attitudes.
2. The sports psychologist work on the emotional conflict of each individual and needs of the individual athlete, which makes him take decisions that are crucial to success or failure during play. They must be treated as individual realizing their differences; hence the need of one person must be separated from those of another person who comes from a different background.
3. Ikulayo (1990 and 2003) says the Sports Psychologist is also involved in crisis intervention. Crisis is viewed as an acute situation with emotional responses that interfere with or mar an athlete's ability to perform excellently. Ensuring high class performance of athletes under pressure of competition by the application of various psychological principles before, during, and after competitions. The sports psychologist assists the athlete to block out stress provokingly. Thoughts discouraging self-doubts, avoidance of negative imagery and inhibitory self-statements which may impair sports performance.
4. Mental preparation is also taken up by the psychologist; this involves according to Adedeji (1987) our understanding of those factors that yield a lot of influence on the athlete. These are social status, the home, the economic background, their religious setting, physical tolerance, the moral background, social status, and value system in the society.
5. The sports psychologist is also involved in performance enhancement OT the athlete, to facilitate the learning process, errors - hat athletes make may be corrected during skill acquisition.
6. This can be done by team building through testing and observation of behaviour. Sports psychology also enhances communication.amongst the athletes and officials. This may also involve interpersonal communication among athletes. This is a very important role. It should be noted that communication is very important, even in our various families, in our places of work, etc. It should not be assumed that the person knows or that he is supposed to know. The person should be told what is to be done, in order to maintain cordial relationship. As soon as communication is established, a relationship has been established and treatment plan' can be made which varies from individual to individual. Treatment may involve simply talking with the individual which may help to restore the athlete's confidence, ifhe is not confident in himself or herself.
7. Teaching the athlete how to cope with pain. According to Adedeji (1987) an athlete needs to understand what pain is and how pain relate to improvement in sports, so be should develop a positive mental attitude towards pain.
8. The sports psychologist will use his/her knowledge of human behaviour in motivating athletes. Motivation does not mean material rewards like money, house, car etc. this time motivating the athlete in training by varying training methods, makes them have feedback of progress in training, and also makes them to have a say in the training plan.
9. Stress management is another important area where the sport psychologist helps in enhancing sports performance. Coping with stress is developed in the athletes. There are various techniques that can be adopted in dealing with stress.
10. Discipline is deliberately taught among the athletes. The discipline of sports man/woman affords the individual to develop very high self-esteem which is said to enhance performance, create confidence, making the athlete satisfied to feel involved in sports (Weinbeing and Gould 1995). Athletes who develop self-esteem can get more motivated and become more productive (Core 1990). Sports Psychology is said to teach the individual to be positive, supportive and sensitive. These skills are described by Lyons (2004) as self-worth building skills. These and many more are relevant areas the sports psychologist assists in the development of sports. thus enhancing peak performance.

PROBLEMS COUNTERED BY THE SPORT PSYCHOLOGISTS

One major problem confronted by the sport psychologists today is lack of awareness of the immerse benefit derivable from the services provided by the sport psychologists by the average athlete/player. They are aware of coach, team manager and also Doctors because of the physical injuries they may have to course of playing. Those in sports management and administration position in sports either refuse to use the

psychologists or fill such spaces with untrained persons for lack of interest in sports development.

The public still record the athletes as mediocre that not really require what it takes to be taken care of. Non-licensing of professional sports psychologists, which gives room to everybody including these who have not undergone any training in the field encroach into the area at will, hence no positive results are attained. Carefree attitude of the professional sports psychologists what is referred as "give away" attitude makes it difficult for the profession to grow.

RECOMMENDATIONS

There should be sensitization workshop and conferences all in the early days of sports psychology association. This will enable the public to be aware once again that the body has something to offer our athletes. In the profession, individuals should be voted into our various positions on the basis of merit. The affairs of the Association should be handled by committed professionals who will handle the Association as their own property.

CONCLUSION

Due to the immeasurable contributions of psychology to, sports, this article, therefore, concludes that sports psychology is necessary and should be employed in the scientific training of athletes for performance enhancement. It is.therefore relevant for the development of sports in the country.

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Research Article

Sport management: An overview

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ABSTRACT

The paper gives an overview of the sport management definition, which can contribute to a more transparent understanding of the importance of management as a key factor of success of sport.

Keywords: Management, Sport

INTRODUCTION

The performance of sports organizations is based on the highly motivated, high-quality professional work of the staff and/or volunteers who work in sport. Their work is planned, organized, led, and controlled by experts in professional sports management, i.e., sports managers who have, in addition to their capabilities, skills, knowledge, and motivation, a number of other competencies ranging from managerial and technical to social. Especially in times of crisis, it is important that competent sports managers, who are very familiar with sports management, establish themselves in the turbulent Slovenian sports market. Jurak *et al*. in their survey[1] note that especially elite sports organizations engaged in top-level sport are expected to be in serious financial problems due to the global economic crisis in the next few years. Therefore, the purpose of this article is to encourage a debate, which will contribute to a more encouraging labor and business environment in sport through the implementation of modern management.

MANAGEMENT IN SPORT

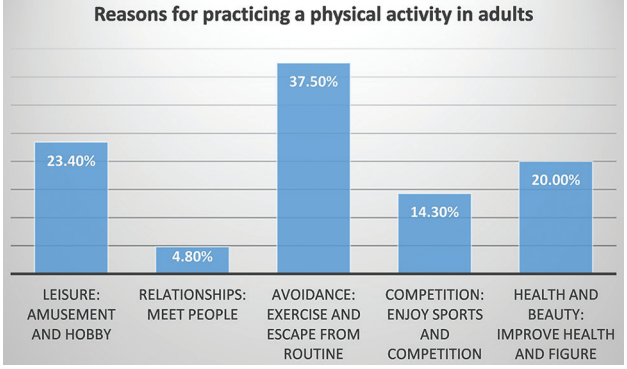
Management, as a concept, has multiple meanings. The word comes from the English verb "to manage," which means to master, to control, to lead. It is used both to denote all types of management as well as the science that studies management. In theory, there are several definitions of management; however, what is universally understood is that it is a question of managing the various resources that are vital to the achievement of the objectives in all the basic functions of management: planning, organizing, implementing and supervision[2] states that the core activities of business management are the planning and designing objectives, as well as conceiving strategies for their realization. Among the core activities, he also classifies editing work in the organization and the integration of the organization both internally and externally, the management of the organization and managing people in order to achieve the desired outcome, measuring the outcomes of the organization, and assessing the results of people's activities. He believes that "management means controlling of the organization, its components and the factors of its functioning, and managers are experts for mastering organizations." This definition is important for studying sports management for two reasons: transferring influence on the organizations - sports clubs and associations - and in reference to sports managers who know how to influence them.

In the literature, there are various definitions of sports management, but most of them are based on the management of key resources that are important for the realization of the missions and goals of sports organizations or athletes. Hence, Tavčar,[3] considers sports management to be a process which is characterized by the "coordination of all the factors that affect the achievement of the set goals." Bartoluci[4] justifies the definition of sport management based on "the coordination of different sources, technologies, processes and ad-hoc

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situations in order to achieve efficient production and sharing of sports services." The *ad-hoc* situations mentioned in the definition are very common in sport (e.g., a severe injury of an athlete, extremely poor weather conditions, a biased judge, match fixing, fans riots, doping, etc.), and difficult to predict, which sets management in sport apart just because of those coincidence from management in general. Retar,[5] upgrades the definition of Bednarik[6] with new elements such as dynamics and not only coordination, but also the acquisition of resources, following the organization's mission, and making decisions. He states: "Management in sport may be recognized as dynamic acquisition and coordination of resources that are necessary to implement the mission of sport organizations, whereby managers take decisions and responsibility for them."

According to study, adult persons practice sports for various reasons: 37.5% as a daily escape; 23.4% for enjoyment; and 14.3% for competition. About 24.8% practice a physical activity to improve their health and their social relations, shown below-



According to Smith[7] the work of sports managers is also characterized by an extremely rigid supply of sports services for customers. Thus, for example, the summer and winter Olympic Games take place every four years, the finals of the Champions League in football once a year, and so on. These differences require specific adaptations in sports management and require a number of specific competencies, which sports manager must have in order to act in sport. Beech and Chadwick[7] noted that sports management differs from other forms of management, especially in dealing with sporting events and events that are a key service of numerous sports organizations. They are determined by the time (a game of football takes place each Sunday), by the place (at a prescribed football stadium) and by the envisaged duration (2 and ½ times, 45 min long each). The same goes for human resource management since there are no sports services without sports participants; thus, the specificity of sport management is the work done with athletes, coaches, spectators and fans. The two authors, like other researchers, note that sports management has its own limitations imposed by the umbrella international, national and local sports organizations within a single sport discipline. They also noted another difference, i.e., the large dependence of the level of revenues from sports performance regardless of costs. Only by a better classification in the competition rank can one note the increased revenues of an organization (higher compensation for television rights, more spectators, more sponsors, etc.), without incurring significantly higher costs. Sports management is particularly characterized by seasonal revenues and the unpredictability of results.

CONCLUSION

Based on the abovementioned considerations, it can be concluded that the general definition that would uniquely identify the concept of management in sport does not yet exist. Hence, we propose that within the Slovenian sports area, we could use the definition of sport management, given by the authors Retar[8] as follows: "Management in sport is a process of coordination with key resources and successful cooperation with key stakeholders to facilitate the effective realization of business and sporting goals of the organization and/or the athlete in all the processes of management."

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Research Article

Exercise physiology

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INTRODUCTION

In exercise, the liver generates extra glucose, while increased cardiovascular activity by the heart, and respiration by the lungs, provide an increased supply of oxygen. When exercise is very prolonged and strenuous, a decline, however, can occur in blood levels of glucose. In some individuals, there can also be cognitive and physical impairments due to dehydration. The COVID- 19 Pandemic means that many of us are staying at home and sitting down more than we usually do. It's hard for a lot of us do the sort of exercise we normally do. It's even harder for people who don't usually do a lot of physical exercise.

But at a time like this, it's very important for people of all ages and abilities to be as active as possible. WHO's Be Active campaign aims to help you do just that- and to have some fun at the same time.

Remember – Just taking a short break from sitting, by doing 3-4 minutes of light intensity physical movement, such as working or stretching, will help ease your and improve blood circulation and activity.

Regular physical activity benefits both the body and mind. It can reduce high blood pressure, help manage weight and reduce the risk of heart disease, stroke, type 2 diabetes, and various cancers- all conditions that can increase susceptibility to COVID-19.

There are many benefits of regular exercise and maintaining fitness and these include:

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Exercise Increases Energy Levels

Exercise improves both the strength and the efficiency of your cardiovascular system to get the oxygen and nutrients to your muscles. When your cardiovascular system works better every hygiene seems easier and you have more energy for the fun stuff in life.

Exercise Can Help You to Maintain a Healthy Weight

The more you exercise the more calories you burn. In addition, the more muscle you develop, the higher your metabolic rate becomes, so you burn more calories even when you're not exercising.

Exercise Improves Brain Function

Exercises increases blood flow and oxygen levels in the brain. It also encourages the release of the brain chemicals. The part of the brain that controls memory and learning. This in turn, boosts concentration degenerative diseases such as Alzheimer's.

Regular Exercise Lowers Your Risk of Developing Type 2 Diabetes

Regular exercise helps to control blood glucose levels, which helps to prevent or delay the onset of type 2 diabetes. Additionally exercise helps to prevent obesity, which is a primary factor in the development of type 2 diabetes.

Staying Active Reduces the Likelihood of Developing Some Degenerative Bone Diseases

Weight bearing exercise such as running, Walking or weight training lowers your risk of both osteoarthritis and osteoporosis.

Exercise May Help to Reduce the Risk of Certain Cancers

Being fit may mean that the risks of colon cancer, breast cancer and possibly also lung and endometrial cancers are reduced.

Active People Tend to Sleep Better

The Importance of sleep for more information.

Exercise improves your mood and gives you an improved sense of well- being- Physical activity simulates the release of endorphins which make you feel better and more relaxed.

Exercises can help prevent and treat mental illnesses like depression -Physical activity can help you meet people reduce stress levels, cope with frustration, give you a sense of achievement and provide some important me time; all of which help with depression. Keeping fit can reduce some of the effects of ageing.

The Physical Activity Guidelines for Americans suggests that moderate-intensity activity allows you to talk but not to sing whereas more vigorous activity results in an inability to say more than a few words without pausing for a breath.

EXAMPLES OF MODERATE INTENSITY EXERCISE INCLUDE

- Brisk walking (100 steps/min)
- Dancing
- Swimming or aqua aerobics
- Gentle cycling (5–9 mph)
- Badminton or doubles tennis
- Volleyball.

EXAMPLES OF VIGOROUS INTENSITY EXERCISE INCLUDE

- Running
- Power walking
- Cycling faster than 10mph
- Aerobics
- Martial arts
- Competitive sports (football, rugby etc)
- Skipping/Jump rope
- Rowing.

CONCLUSION

The extensive Knowledge of exercise Physiology builds a strong foundation for professional groups like physical education teachers, coaches, fitness experts etc.,

Overall though, any activity that gets you moving, gets your heart rate up and gives you enough pleasure to do it regularly and often is good for you in almost every way.

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Research Article

Study value of kinesiology and biomechanics in sporting fields

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ABSTRACT

Each and every work have a proper way and directions otherwise we get failure and troubles for the success and it is a fact we experience it frequently in our daily routine work also so the proper planning and management are very important for every kind of work. Today's field of sport is also cannot away from this formula. Sport and games are based on human bodies' fundamental movements and this movements abilities are essentials for the performing successive skilling motor ability those are important for the win or lose the competitions. 21th centuries sport is the new world of sport and this is became a professional and very competitive. Hence, it has a fundamental need of systematic study and scientific knowledge resources. This requirement is fulfilled by the science and it is called a sport science. Basic science is the big and factual source of scientific knowledge he has a so many specializations branches but each and every specialization are based on the fundamental science subjects such as biology, chemistry, and physics. Human anatomy physiology, sport medicine, kinesiology, and biomechanics are the fundamental subject of sport science.

Keywords: Biomechanics, Kinesiology, Study value

INTRODUCTION

Physical education (PE) is the basic platform to teach and learn the fundamental sport science. We want learns anything new it happens only because of teaching and learning process this provided by the various schooling platforms.

In Indian, the Mr. Harry Crowe Buck was the American college sports coach and PE instructor. He was founded the YMCA College of PE at Madras, in 1920, in India, firstly in this process, he played a key role in promoting sports and PE and establishing the Olympic movement in India.

As per the India's prospective, most of the schools in India have failed to integrate structured PE into the school's curriculum. The focus is on mainstream subjects, as schools fail to see how a structured PE curriculum can add to the development of young children, by aiding in their physical, mental, emotional, and social growth. With 29.5% of India's population under 14 years old (Indian Census, 2011), PE must be utilized as an effective tool for the holistic development of India's children, from diverse socio-economic backgrounds.

The obvious benefit of PE, of keeping children fit, active, and healthy, is particularly important for children living in urban India, from stronger economic backgrounds, where obesity has become a major issue. A study by Mishra *et al*., in 2011 concluded that "*15 million children (8–18 year) residing in Indian cities are overweight*." Moreover, regular PE promotes a culture of lifelong physical activity, important in ensuring that future generations stay fit and healthy.

Hence, the sport and field have a more responsibility to fit the nation's generation we say the health is the real wealth because the **"sound mind is in sound body"** means the healthy population have a more ability to develop her nations GDP. Nations all round development is depending on his population's creativity and work ability, all these things are related to the human health and the best health provider is the regular exercise and physical movements.

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NEED OF STUDY AND GOOD BOOKS FOR READING

Importance of study is very essential for the each and every kind of knowledge. Good study skills can increase your confidence, competence, and self-esteem. They can also reduce anxiety about tests and deadlines. By developing effective study skills, you may be able to cut down on the numbers of hours spend studying, leaving more time for other things in your life.

For good study and getting updated knowledge, we want good books for reading. Books have very important role in our knowledge ability so the importance of books is "Books give plenty of joy to students, and they learn a lot of things from books. They take them into a unique world of imagination and improve their standard of living. Books help to inspire students to do hard work with courage and hope. They enrich the experience of students and sharpen their intellect."

The same thing is applying in the sport and field also because the scientific based best professional practices is beneficial for the athletes growing performance. Without proper training and guidance, we cannot gain the scientific and systematic performance buildup in our selected game performance.

IMPORTANT SUBJECTS FOR THE PE AND SPORT AND FIELD

Anatomy

A field in the biological sciences concerned with the identification and description of the body structures of living things. Gross anatomy involves the study of major body structures by dissection and observation and in its narrowest sense is concerned only with the human body.

Definition

Anatomy refers to the internal and external structures of the body and their physical relationships, whereas physiology refers to the study of the functions of those structures. This chapter defines anatomy and physiology and explains why they are important to biomedical engineering. Anatomy refers to the internal and external structures of the body and their physical relationships, whereas physiology refers to the study of the functions of those structures. This chapter defines anatomy and physiology and explains why they are important to biomedical engineering.

Physiology

Physiology is the scientific study of functions and mechanisms in a living system. As a sub-discipline of biology, physiology focuses on how organisms, organ systems, individual organs, cells, and biomolecules carry out the chemical and physical functions in a living system.

Kinesiology

Definition

Kinesiology in sports - To the study of the principles of mechanics and anatomy in relation to human movement. Kinesiology is the study of the mechanics of body movements to provide information about the state of health of all body organs and systems. It also employs many other healing therapies to achieve recovery.

Kinesiology helps the sports coach to get better results from their athletes and is usually helpful in the right performance of the sports skill and technique. It enables the coach to provide effective scientific training of players. Kinesiology plays an important role in the personality development of a sports person.

Sports Biomechanics

Definition

Sports biomechanics is a quantitative based study and analysis of professional athletes and sports activities in general. It can simply be described as the physics of sports.

Biomechanics use techniques including mathematical modeling, computer simulations, and measurements to enhance sport performance and reduce injury. It can be applied to a wide variety of sport and exercise activities to: Identify optimal movement patterns to improve sport-specific techniques.

NEED AND IMPORTANCE OF KINESIOLOGY AND BIOMECHANICS IN THE SPORTS

For the scientific knowledge of PE and sport is very essential and it provides by different subjects, those are basically related to the fundamental science and its different braches those are directly based on the sporting actions and motions. For systematic study of sporting movement analysis, some important subjects are there and without him we cannot get the proper systematic knowledge of the specific skilling movements. Hence, we have more need to acknowledge this subject properly then only we think scientifically in the PE and sport and field as per this statements we need to know the basic human anatomy and physiology and subsequently the more important to studied the sport medicine and its sub branches such as "Kinesiology and Biomechanics."

Kinesiology is the knowledge of the basic human body fundamental movements and the biomechanics is the study of the knowledge of the human bodies' movements' functional analysis with the scientific based observations.

DISCUSSION

The goal of aim of sports medicine is to maintain, sustain, and at times to regain peak physical fitness, that is. adaptability to stress-physical and mental. Main functions of sports medicine are promotive, educative, formative, procreative, competitive, therapeutic, and rehabilitative in nature.

Sport medicine is the fundamental scientific subject of sport and field and for the PE. Basically, the Sports medicine is an area of medical practice concerned with the treatment of injuries resulting from athletic activities. A physician practicing sports medicine focuses on sports-related medical services and its basic knowledge is beneficial for the sport and field related all people such as the coaches, physio, trainers, sport teachers, PE lecturers, and athletes they all have a basic knowledge of sport medicine it provide him the comfort zone to avoided the injuries becoming by the physical activities basic knowledgeable sport persons get the basic precautions to protecting by the general injuries as per the skilling activity.

The knowledge of sports medicine overall is used to improve health and maintain good health as well as fitness. It can also help strengthen sports performance. Sports medicine also includes a great deal of exercise because physical workouts can help prevent disease and slow down the aging process.[2]

Hence, the sport medicine is protecting us from the injuries and also from the disease also.

The basic knowledge of sport biomechanics is also beneficial for sport persons. Using the biomechanics of sport and exercise, athletes can learn about their own movements and make the changes they need to improve performance and lower their risk of injury because this subject is based on the physics and he guided us with the basic mechanical principals how they applied in our sporting skilling movements and how we acknowledge and analyzing our skill movement for the betterments.

This subject supports us in our daily life routine activity also it used especially in sport and exercises, with two main purposes: To improve physical performance and to prevent injuries. Besides human movements in sports and exercises, biomechanics can also be used to study daily activities such as walking, sitting, and lifting so we protected by the curtain kind of general injuries those are have a probabilities are our daily routine works.

The biomechanics is depending on this type principle and that is important in this objective such as the Force-Motion, Range of Motion, Inertia, and Force.

Biomechanics studies not only for the human body but also animals and even extends to plants and the mechanical workings of cells. For example, the biomechanics of the squat include consideration of the position or movement of the feet, hips, knees, back, and shoulders, and arms. Hence, this is subject is the heart of any kind of motions and the movements means it is very important in the field of sport and PE studies.

CONCLUSION

1. Basic knowledge of human body is important for all
2. Knowledge of anatomy and physiology is foundation of sport medicine
3. Sport medicine is master subject for other related sport and field subjects
4. Kinesiology is the important subject for the sport science
5. Basic knowledge of biomechanics is useful for all.

RECOMMENDATIONS

1. Need to introduce the basic knowledge subjects in general education systems SLL
2. Acknowledge the all students about human body and its capabilities of the actions.

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Research Article

Significant role of media in world of sports

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ABSTRACT

Game advancement is a stage toward public turn of events. Because of influencing individual and social life, sport has drawn in the consideration of individuals and government. Broad communications are a significant means of sport improvement, which impacts acknowledging the greater part of game advancement goals. One of the mass media with a developing crowd is online news offices. Broad communications play a pivotal and undeniable part in addressing the requirement for advancement mindfulness through moving information to the crowd and trading musings. Media exercises in sport are directed all together to communicate and send messages from sport association or the actual media to the audience. Therefore, this paper talking about the turn of events and significance of the media in sports.

INTRODUCTION

"Sports and the broad communications partake in an exceptionally harmonious relationship in American culture" (McChesney, 1989, p. 49). This assertion remains constant for the United States as well as for most contemporary industrialized social orders. The "extremely advantageous relationship" between the media and sports has significantly influenced the two members. What is more, the promoting business shapes a significant piece of the relationship. The two games and broad communications continue to attempt to contact individuals as observers, fans, and buyers; both effectively influence the crowd just as the publicizing market (counting the supporters). Game alludes to an energetic self-advancement, self-actualization, and cutthroat utilization of physical and mental abilities. The historical backdrop of game exercises is the length of the historical backdrop of people. Wellness assumed a significant part in human advancement. For instance, chasing, one of the primary versatile issues in developmental history, requires actual wellness and great collaboration. For trackers, these characteristics implied more or potentially better food; better as well as more food implied better possibilities in the fight for endurance. Great physical, mental, and social shape worked on the odds to effectively shield gatherings and clans from different gatherings of forceful gatecrashers. On account of this association, we can say that the main athletes were trackers and officers. In fact, there are solid hypotheses of sports being emblematic chases, either for different people or for creatures. Most civic establishments know sport exercises of a rudimentary nature: Running; boxing; wrestling; creature battles; horse races; tossing the spear, the disk, or stones; arrow based weaponry; swimming; moving; and so on. No big surprise contemporary players fans actually discover sports extremely alluring. The improvement of sports from pre-noteworthy occasions up to this point is an element of industrialization, modernization, and media transmission.

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MEDIA AND SPORTS

Game (or sports) in all types of generally serious actual work which, through easygoing or coordinated support, mean to utilize, keep up with, or work on actual capacity and abilities while giving diversion to members and now and again, onlookers either in groups or contending as people. Anybody can partake in sports. Game is for the most part perceived as exercises which are situated in actual physicality or actual finesse. Various cutthroat, however non-physical, exercises guarantee acknowledgment as psyche sports. The

International Olympic Committee (through ARISF) perceives both chess and extension as bonafide sports and sport accord, the worldwide games alliance affiliation, perceives five non-actual games despite the fact that restricts the measure of psyche games which can be conceded as sports. Sports are normally represented by a bunch of rules or customs, which serve to guarantee reasonable contest. In coordinated game, records of execution are frequently kept and for mainstream sports, this data might be generally declared or announced in sport news. Furthermore, sport is a significant wellspring of diversion for non-members. As per A.T. Kearney, a consultancy, the worldwide donning industry is worth upto $ 620 billion starting at 2013. Broadcasting is the circulation of sound as well as video content to a scattered crowd through any electronic mass interchanges medium. The term "broadcasting" got from the strategy for planting seeds in a field by projecting them comprehensively about, was begun in the beginning of radio to recognize radio telecom from techniques utilizing wired transmission (as in transmit and phone) or that was expected as individual-to-individual correspondence. The getting gatherings might incorporate the overall population or a somewhat little subset; the fact of the matter is that anybody with the proper getting innovation can get the sign. The field of broadcasting incorporates a wide scope of practices such as public radio, local area radio, business radio, public TV, and business TV. Transmission of radio and TV programs from a radio or TV channel to home collectors is communicated utilizing a mix of satellite and wired transmission such as digital TV is additionally viewed as broadcasts and do not need a permit. Transmissions of TV and radio through computerized innovation have progressively been alluded to as communicating also, however stringently talking this is mistaken. During the previous years, we have seen as expanding association of web-based media in sports.

The Sport-Media Partnership

Sports have become large business. It is presently a grounded worldwide industry with International Olympic Committee. Game, however not in the entirety of its structures, has something to sell. It has its occasions alliances, clubs, and tip top entertainers. Sports can bring in cash yet athletes get almost no piece of the brought in cash by various associations. The relationship with media is fundamental to the political economy of game. Through media, we can get all kind of information about sports.

Who are the Victors and Failures?

The entrance of the media into the universe of game an affects the family members' status of specific games and furthermore on the connections inside sports. Sports that are particularly alluring to the media have acquired for more prominent status, openness and financial abundance contrasted, and different games. The presentation of media cash and impact has likewise had an effect in pulling world class sport away from its underlying foundations. The tip top entertainers additionally become the piece of showcasing with media and furthermore the piece of the huge measures of media cash that has streamed into sport. The tip top players get exceptionally significant compensations helped by specialists of any games organizations. Their level of power over their own lives is brought into question. The media makes brandishing characters to assist with selling their projects and papers.

The Media Professionals

The media experts (e.g., makers, chiefs, pundits, reports and cameramen) exist to create a media sports bundle that means to draw in intrigue and energize their crowd. Their accentuation is in making the item appealing and to this end it is in some cases hard to build up where the game beginnings and the media occasion closes. Selling a TV sports program is the foremost concern. Choices are taken for the crowd, you are guided what to see and peruse and how to sort out it. The media experts develop and outline the game experience their crowd.

Performance

An incredible quality of media sport creation is that of performance. The media sets up story lines around the game and the people in question. They work to pre-arrange the occasion to invigorate. They give pre-occasion conversation and examination. The watcher's hunger is increased. Anticipation, struggle, and conflict are accentuated to the sensational impact. The media guarantees to get their crowd as close as conceivable to the activity. You can see every one of the activities of the players. Cameras are presently in any event, going into the evolving rooms. This media makes saints and scalawags in the games.

The Media Sport Audience

A significant inquiry encompassing media sport is the pretended by crowd. Is it accurate to say that they are learned about the media sport item to which they uncovered? It is safe to say that they are ready to settle on educated decisions about what they see, hear, and read? However, one perspective keeps up with that the crowd does not practice free decision. Their desires are reflected in the yield from the media organizations and the experts who work for them. The decision and information about sports frequently crowds rely on what the media presents before them. In this way, we see that media has caught the games and decisions, information, and any remaining information about players. On one hand, we feel impeded about sports without media.

CONCLUSION

Game and the media have both a worldwide and a neighborhood extent of activity and are bound together in a perplexing organization of connections. Since the 1980s, the worth of

game to media organizations and their interest in sport have developed significantly. The force of the modest number of significant media organizations raises significant issues of access and value, particularly with the development of pay-to-see games. While the media has exhibited an impressive ability to impact the person and advancement of game, it ought to be noticed that there is little proof of protection from commodification from sports bodies or competitors. Sports media by and large advance and support an unmistakable arrangement of qualities related with free enterprise, patriotism man controlled society and prejudice. The media creation measure accentuates exhibition, dramatization, and personalization.

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Research Article

Physical education, sports sciences, health, fitness, physical activity, and sports competitions

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ABSTRACT

Schools play a crucial role in providing increased physical activity (PA) opportunities for children. School-based physical education (PE) has been an important contributor to daily PA. To study whether students in primary and secondary schools are getting enough PA in their PE class, to study age differences and gender differences in PA of students during PE class are the objectives of the present study. To achieve these objectives researcher measured PA of students in terms of their number of step counts and time spent on moderate to vigorous PA (MVPA) with New lifestyle's NL 1000 pedometer. 193 students (105 boys and 88 girls; mean age 10.94 years) and 185 students (92 boys and 93 girls; mean age 14.06 years) were participated in the study. It was concluded that, in the small and underdeveloped city in Maharashtra State (India), students are not getting enough PA during PE class. PE class and PE teachers are unable to engage all the students in MVPA. It was also concluded that, children are more active and spend more time on MVPA than adolescents. Boys are more physically active than girls in both children and adolescents group. Boys spend more time on MVPA in childhood but in adolescence there is no difference between their times spent on MVPA. It is suggested that, by implementing quality PE program and providing qualified staff specialized in PE to primary as well as secondary schools, this can be changed.

Keywords: Physical activity, Physical education class, Moderate to vigorous physical activity, Step counts

INTRODUCTION

School is a setting that reaches a large number of children (Lounsbery *et al*., 2013). The review of literature focuses that for the tracking of physical activity (PA) throughout the life, a child should acquire necessary skills and knowledge of PA in his school years. It is because, schools provide a significant portion of student's daily PA which could be done during leisure time on the playground such as during recess and before or after school (USDHHS, 2010). School is a significant environment for providing moderate to vigorous PA (MVPA) for children through physical education (PE), sports and recess because; children spend most of their waking hours at school. According to the Ecological Model (Sallis *et al*., 2006), schools can provide an environment that is convenient for promoting or hindering PA level for children.

PE is a structured and specialist-supervised instructional environment period hence; it is only time and place for all children to engage in vigorous- or moderate-intensity PA safely. PE and longer recess contributes more step counts and step counts at PE class were greater than all other period. In addition, schools play a crucial role in not only establishing a safe and supportive environment but also providing increased PA opportunities for children while at school. School-based PE has been an important contributor to daily PA (Lorenz, 2014), because PE requires students to be physically active during the lesson (Baghurst, 2014). Research conducted by Morgan, Beigble, and Pangrazi (2007) is evident that students are more physically active on days when they participate in PE classes.

According to recommendations given by the WHO (2016), children and youth of 5–17 years should accumulate at least 60 min of moderate- to vigorous-intensity PA daily. The National Association for Sport and PE (NASPE, 2010) recommends that students receive at least 60 min and up to several hours PA per day. In addition, NASPE recommends that elementary students participate in 150 min of PA per

week and middle high school students should participate in PA for 225 min a week (Brubaker, 2011). NASPE (2009) also suggested that school children should be moderately or vigorously physically active for at least 50% of the class period. Researchers suggested that the children should spend 20–30 min on MVPA during school day (Ruch *et al*., 2012), and it has been proposed that 50% of PE and 40% of recess time should be spent in MVPA, respectively. It is possible for PE to contribute to youth, meeting at least half that is 30 min. of their daily requirement for vigorous to moderate intensity PA (Kohl *et al*., 2013). Hence, to study whether students in primary and secondary schools are getting enough PA in their PE class is the main purpose of the present study.

Objectives

1. To study PA and time spent on MVPA of students during PE class
2. To study age differences in PA of students during PE class
3. To study gender differences in PA of students during PE class.

METHODOLOGY

Method of the Study

Descriptive survey method is used to achieve the determined set of objectives.

Participants

From Satara city, 378 primary and secondary school students were participated in the study. Of them, 193 primary school students (105 boys and 88 girls) had mean age 10.94 years and 185 secondary school students (92 boys and 93 girls) had mean age 14.06 years. Multi-stage/cluster random sampling and proportionate sampling techniques were used for selection of participants.

Tool for Data Collection

Students' PA were measured by New lifestyles' NL-1000 pedometers. The New-Lifestyles NL 1000 is an innovative and affordable motion sensor based on piezoelectric accelerometer mechanism. In addition to standard function of recording steps, the NL 1000 has a function which records the accumulated time spent in PA of at least MVPA. Another advantage of using New Lifestyle's pedometers is that models are safe display; children cannot be manipulated the device as display and setting buttons are enclosed.

NL 1000 pedometers have been successfully validated for measuring children's PA (Eston *et al*., 1998; Kilanowski *et al*., 1999) and correlated well with accelerometry in both laboratory and field conditions (Kilanowski *et al*., 1999; Leenders *et al*., 2000; Rowlands *et al*., 1999). It has high degree of reliability.

Procedure of the Study

Stride length of all the participants were measured. Time and stride length of respective participant were set into respective pedometers. NL activity intensity range (MVPA) was set at level 4–9. Researcher set the pedometers to zero and then enclosed in specially prepared pockets and attached to the waist belt. Pockets were numbered from 1 to 50. Each participant worn the waist belt in the manner that pedometer pocket will be placed at participant's right or left side of anterior hip bone in line with patella. PA of each student was measured trice in a week during three different PE classes. The data obtained through NL-1000 pedometers were in terms of number of step counts, distance traveled in km and time spent (in minutes) on moderate to vigorous PA (MVPA) during PE class. The average of number of step counts and time spent (in minutes) on MVPA during three PE lessons of each student is averaged for further analysis.

RESULTS

The data collected was analyzed using SPSS Software (Version 17.0). The outliers of extreme scores were excluded and the analysis was done.

In primary schools, average duration of PE class is recorded as 29.32 min with std. deviation 5.03 while in secondary schools PE class's average duration is found 27.97 min with std. deviation 6.38.

In above table, age- and gender-wise description of average number of steps walked by students during their three PE classes is represented. The mean step counts of children and adolescents are found 1068.29 (± 422.18) and 811.08 (± 367.91), respectively.

Table 1: Duration of PE class

School	No. of PE classes	M (in min.)	SD
Primary	30	29.32	5.03
Secondary	23	27.97	6.38
Total	53	28.74	5.64

Table 2: Description of average step counts of students during PE class

Age category	Gender	*n*	M	S.D.	Std. error
Children	Boys	105	1172.30	422.18	41.201
	Girls	84	957.93	334.01	36.442
	Total	188	1068.29	384.99	28.079
Adolescents	Boys	92	907.75	417.06	43.481
	Girls	92	728.59	314.87	32.827
	Total	183	811.08	367.91	27.197

Outlier scores were excluded

Table 3 shows age- and gender-wise description of average time spent on MVPA by students during their 3 PE classes. From the above table, it can be seen that the mean of average time spent on MVPA by children is 3.86 (± 1.82) min. and mean of average time spent on MVPA by adolescents 2.48 (± 1.65) min.

Table also shows that in both the age categories, average time spent on MVPA by boys is more than that of girls.

Age-wise comparisons of mean values of average step count and time spent on MVPA of students is as per the above Table 4. It indicates that step count of students were significantly different in both the age categories ($P = 0.001$). Similarly, there is significant difference in time spent on MVPA in children and adolescents.

Gender-wise differences in mean value of average step count and time spent on MVPA of students are indicated by the above Table 5. It shows that average step counts of boys and girls were significantly different in children and adolescents ($P = 0.001$ and 0.024, respectively). Similarly, there is significant difference observed in time spent on MVPA of boys and girls in children but in adolescents, no significant difference found in time spent on MVPA of boys and girls ($P = 0.302$).

Table 3: Description of average time spent (in minutes) on PA during PE class

Age category	Gender	*n*	M	SD	Std. error
Children	Boys	99	4.109	1.790	0.180
	Girls	85	3.511	1.762	0.191
	Total	185	3.86	1.82	0.134
Adolescents	Boys	91	2.61	1.740	0.182
	Girls	93	2.36	1.551	0.161
	Total	184	2.48	1.65	0.121

Outlier scores were excluded

DISCUSSION

Findings of the present study shows average step counts of 188 children are 1068.29 steps, of which 1172.30 steps counted for boys and 957.93 for girls during average 29 min PE class. Tully (2007) found 1843 average steps 2078 for boys and 1725 for girls during PE class. While Tudor-Lock (2006) found 1417 for average steps, 1429 for boys and 1419 for girls in average 30 minutes of PE period. It can be clearly seen that as compared to these two studies, average step counts of boys and girls found in the present study were very less.

Bassett *et al*. (2013) found that PE contributes to children in achieving an average of 23 minutes of MVPA daily. According to Tully (2007), children of grades 1st, 3rd and 5th spend a mean of 42.6% that is 17 min of PE class in MVPA. It is suggested that the children should spend daily 20–30 min on MVPA during school day (Ruch *et al*., 2012), and it has been proposed that 50% of PE should be spent in MVPA, respectively. It means that of 30 minutes of PE class time, at least 15 min, children should spend on MVPA. School PE class or PE program is unable to maintaining children in MVPA for 15 minutes. The result of the study shows that children spent average 3.86 (1.82) min. and adolescents spent average 2.48 (1.65) min. on MVPA in their PE class. This reflects a very serious condition about school PE in a small city such as Satara.

The decline in PA with increase in age is associated with biological maturity process (Sherar *et al*., 2007; Hurlock, 1981).

Table 4: Independent sample *t*-test for age-wise comparison of step counts and time Spent on MVPA

	Levene's test for equality of variances		*t*-test for equality of means				
	F	Sig.	*t*	df	Sig. (2-tailed)	Mean diff.	Std. error diff.
Step counts	0.001	0.970	6.576	369	0.001*	257.21	39.115
Time spent on MVPA	0.590	0.443	7.604	367	0.001*	1.37	0.181

"*" significant at 0.05 level

Table 5: Independent sample *t*-test for gender-wise comparison of step counts and time Spent on MVPA in children and adolescents

	Levene's test for equality of variances		*t*-test for equality of means				
	F	Sig.	*t*	df	Sig. (2-tailed)	Mean diff.	Std. error diff.
Children							
Step counts	4.257	0.040	3.897	186.98	0.001*	214.37	55.005
Time Spent on MVPA	0.001	0.995	2.277	182	0.024*	0.598	0.263
Adolescents							
Step counts	6.677	0.011	3.289	169.300	0.001*	179.163	54.482
Time Spent on MVPA	0.566	0.453	1.036	182	0.302	0.252	0.243

"*" – significant at 0.05 level

The results of the present study are similar to previous studies which concluded that age is inversely proportional to total of daily PA (Riddoch *et al*., 2004; Ruch *et al*., 2012). The results of the study revealed the same fact; children are more active than adolescents during PE class. Time spent on PA is also found less in adolescent students which is also supported by Hurlock (1981) who explained, during early adolescence, individual's interests shift from the strenuous play activities to less strenuous activities. One of the reasons for observing this trend may be variety of lessons conducted by the PE teachers. In secondary school which have been observed, PE classes included variety of lessons; in 26% lessons students were less active, since the lessons included assessment, yoga and teaching skills of games; while in primary schools, PE lessons included assessment and teaching skills of games; This may be one of the reason for recording less number of step counts in adolescents category than in children age category.

Significant difference is seen in step count of boys and girls of both the age categories. Mckenzie *et al*., 2004; Nadar, 2003 and Riddoch *et al*., 2004 also have similar findings. One of the reasons for observing these results may be the biological age of both the gender that is maturity status of the child. According to Hurlock (1981), in girls, pubertal signs begin at the age of 9 and maturity of girls attains earlier than boys. Though this is true, researcher observed 53 PE lessons of primary and secondary schools and recorded the PA of students, the type and content of lesson may have influence the level of PA of girls. Another reason of the lower PA of girls may be gender stereotyping by teacher. Because, in most of the PE classes due to more number of boys present in class, and having large class size, teachers gave much attention towards boys. Though girls were willing to participate in PA, they had to remain sedentary.

A high-quality PE program can help youth meet the guideline of at least 60 min of vigorous- or moderate-intensity PA per day. However, here activities and content of PE classes of primary and secondary schools in Satara city is unable to make children physically active and spend enough time on MVPA. Teachers failed to engage all the students (including both the gender) in moderate to vigorous PA.

CONCLUSION

The study concluded that PA of students and time spent on MVPA is not sufficient to meet their daily recommendation of PA. It is also concluded that children are more physically active and spend more time on MVPA than adolescents. Boys are more physically active than girls in both children and adolescents group. Boys spend more time on MVPA in childhood but in adolescence; there is no difference between their times spent on MVPA. The study also concluded that, in the small and underdeveloped city in Maharashtra State (India), students are not getting enough PA during PE class. PE class and PE teachers are unable to engage all the students in MVPA. This needs to be changed by implementing quality PE program and providing qualified staff specialized in PE to primary as well as secondary schools.

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Research Article

Health benefits of Yoga

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ABSTRACT

Yoga: Sanskrit for "yoke" or "union" of Mind; Body; Spirit. Elements of Yoga: Asanas–poses; Pranayama–breathing; Meditation; Kriyas–cleansing processes. Stone seals excavated from Indus Valley carbon date to 3000 BC. Vedas, ancient texts record Yogic teachings, 1800–300 BC. Pre-classical yoga: Buddhist–meditation and ethical thought Jainism–"liberation of the spirit". Hinduism: –"physical purification process" Classical yoga: –2nd century AD; 8 paths to be memorized; Wisdom would be internalized. Post-classical yoga: –1800; the body should be treated as a temple; Physical fitness; Mental health. Clinical Relevance: Complementary and Alternative Medicine, Mind/body, Prevention, General health, Rehabilitation. Health Benefits Musculoskeletal System, Nervous System, Cardiovascular System. Musculoskeletal System: Exercise, Increased muscle strength, Flexibility, Stable joints, Osteoarthritis, Osteoporosis, Therapeutic intervention of cervical spondylosis, Degenerative disorder of cervical intervertebral discs, Nerve root irritation, Neck pain, Brachial neuralgia, Vertebrobasilar insufficiency. Performed specific asanas twice daily regularly then NO pain observed. Yoga therapy may improve the grip strength, pain intensity, sleep disturbance, Phalen sign, Tinel sign, and median nerve motor and sensory conduction time may reduce in pain. Similarity might be observed the other groups of health influences.

Keywords: Mind, System, Yoga

INTRODUCTION

Yoga offers new learning possibilities to a wider group of students than traditional sports or fitness curriculum, making it a valuable addition to any educational program. Adding yoga to a school's classroom will help provide a quality physical education program as a modification of traditional physical education. It can be taught as either a warm-up, or as the entire class. However, curriculum specialists, teachers, trainers, and students should know and analyze seriously the real challenges of yoga education in classroom settings and real-life as well.

MANTRA

The thought manifests as the word; the word manifests as the deed; the deed develops into habit; and habit hardens into character. So watch the thought and its ways with care and let it spring from love Born out of concern for all beings.

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The Buddha: (Eds. Amidon and Roberts, 1996, p. 13).

HEALTH BENEFITS OF YOGA

A set of physical and mental exercises, which is intended to give control over the body and mind (CALD, 2002) "yoga" a relationship of Body, Mind, and Spirit Upanishads, great Hindu literature, "There is the path of joy, and there is the path of pleasure, i.e. Yoga Karma" "Yoga is a sophisticated system for achieving gradient physical health, superb mental clarity and therefore peace of mind". (Schiffmann, 1996). It is regarded as a physical discipline, one that teaches strength, flexibility, and balance of the body.

YOGA PRACTICE

Yoga practice consists of postures or asanas that strengthen, stretch and align the body. Each posture requires combining the mind, body, and breathing practices. Bersma and Visscher (2003), children are natural yogis. Taking a moment to breathe, relax, or stretch that will leave students calm, alert, and ready

to learn. Yoga class could be as a warm-up or motivational one short yoga exercises as welcome break or pick-me-up in a classroom setting, a gift even in military classes. Many soldiers are provided regular yoga classes in their military camps (Nelson, 2006).

(National Standards for Physical Education 2004), Yoga creates opportunities for children to explore movement with a variety of postures that can be fun and challenging. Yoga is responsible to enhance the physical and psychological health of the body.

Benefits of Yoga Education

Physical Benefits a discipline, strengthen, stretch, and align the body in asanas. After practicing the asanas with care and awareness, one can tone and condition the body (Toscano, 2008). development of long lean muscles, better posture improves breathing, enhances digestion, better blood circulation, relaxes the nervous system, and a fortifies immune system (Finger, 2000). Shows children how to emphasize proper body alignment, which increases their ability to use their muscles and joints more efficiently. Children love to role play. Moving from poses with music in some game activity is a fun for young children.

Challenges in Yoga Education

According to Dolan (2007), it has several challenges in its curriculum development, teaching methods, and student-teacher relationship. Sequencing a class (teacher and materials) mood, postures, music as the need of class.

Students and Teacher relationship; therapist and patient: Teachers need to be sensitive and respectful of their student's emotional vulnerabilities. Class Conflicts, hard to predict the mishap that the teachers and students face in a classroom. It was observed that Student's complaint about the heat and unwillingness to use a proper social cultural norm in dogmatic societies. e. g. Arabian schools do not have yoga education as it's against the tradition.

Social Beliefs as Drawbacks

Yoga is not considered as a basic part of social life. As unnecessary things as oriental stuff. Raphael Gunner (2005) yoga asana as stages of fear and danger in practicing phases. Nerves get struck, and the teachers need to explore the underlying feelings.

Emotional and Mental Benefits Reduce stress and pressure for children and adults. Help them learn to relax, teach self control, and instill a sense of peace in their daily lives. Marsha Wenig (2003) Teach children and adults calmness and inward focus, which is a valuable skill in entire life. A great mental discipline for concentration, and observation skills (Finger, 2000). Self-discipline and develops inner strength, which improves an individual's mental outlook. Encourage children's creative imagination and self expression.

CONCLUSION

Yoga therapy may improve the grip strength, pain intensity, sleep disturbance, Phalen sign, Tinel sign, and median nerve motor and sensory conduction time may reduce in pain. Similarity might be observed the other groups of health influences.

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Research Article

Injury prevention for sports people

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INTRODUCTION

Athletes want to spend their time training and competing and not stuck on the side lines or in a treatment room. Being injured can decrease the amount of time an athlete is able to train and compete effectively and injury rates could be cut by up to 25% if athletes took the proper preventative steps. Should an injury occur, it is recommended that medical advice is sought as soon as possible from a suitably qualified practitioner. The quicker an injury is diagnosed and treatment is started the less likely the injury will become chronic and persistent in nature.

The popular quote "no pain no gain" holds no credibility within the sports world. Pain indicates that something is wrong and training should stop immediately to determine the source of the pain. It is important to understand the difference between discomfort felt when training hard, and exercising when injured. When injured, common sense is of prime importance. Injuries are to a large extent preventable and while some are due to accidents, others are due to poor training, insufficient warm-up, improper equipment, and an athlete being in poor physical condition. By following some simple guidelines, training can be made safer and more effective.

WARM-UP/COOL DOWN

A warm-up should take place before any training session. This will prepare the body for exercise by increasing body temperature and heart rate, as well as blood flow to the muscles. This allows muscles and tendons to become more elastic, which enables muscles to be stretched further without the fear of injury. A warm-up should last around 10–15 min and training or activity should start immediately following the warm-up routine. A good warm-up routine will usually start with light exercise to raise the heart rate and warm-up the muscles and light sweating is a good indication that the muscle temperature has increased. At this point, gentle stretching is usually recommended, concentrating on the muscles to be used during the activity.

Immediately after training has finished, a cool down period is essential and should consist of a period of gentle exercise. This helps to stabilize blood pressure and lower the heart rate, allowing the body to gradually return to its resting state. The period of gentle exercise should be followed by a routine of static stretches for the muscles that have been used during training. These stretches should be held for longer than in the warm-up, to help reduce the feeling of muscle soreness or "heavy legs."

TECHNIQUE

In sport, a series of techniques is often combined to create a more complex movement pattern and good technique often involves well timed and coordinated muscle movements. Using the correct techniques in any sport will optimize high level performance and can also reduce the risk of injury. An athlete with poor technique may at first perform well, but they ultimately place themselves at risk of injury. Sports performance usually involves a high level of coordination, so some form of coordination work should be built into an athlete's training.

Posture and flexibility should also be considered when looking at technique, as incorrect posture during activity can place excess strain on certain areas of the body. A training program for the trunk and limbs may aid posture and technique, thus improving performance and decreasing the risk of injury.

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FLEXIBILITY

Maintaining a good level of flexibility is essential, is important for successful performance, and can also help to prevent injuries. A lack of flexibility is likely to result in uncoordinated or awkward movements that may ultimately lead to injury. A flexibility program can assist in increasing the range of motion around various joints and stretching the muscles and tendons around joints will in time, increase the range of motion possible. Improving flexibility will also increase performance due to a variety of factors, including improved balance and reaction time. Stretching exercises for all areas of the body used in training should be included in the warm-up and cool down sessions. The safest way to stretch is with static stretches and it is recommended that each stretch is held for 30 s and repeated 3 times.

TRAINING ERRORS/OVER-TRAINING

Training errors are among the most common factors in causing sports injuries and therefore a basic understanding of different training elements is important.

There are a number of general training principles that apply to all sport including overload, specificity, recovery, reversibility, and individuality.

Overload involves a stress being applied to the body over and above that which is normally encountered in performance and usually relates to the intensity and duration of training. Provided that the stress is not excessive and adequate time for the body to rest and adapt is allowed, the capacity of the athlete to work harder in future will be increased. However, over-training can lead to injury; hence, any new increases in training should be followed by adequate recovery time.

If the training exercise does not stress the body sufficiently, it will not adapt accordingly. In general terms, the amount, or volume, of training should be increased gradually before the intensity of training. Determining the amount of overload that will benefit performance without incurring injury is difficult as all athletes are different. Therefore, athletes should be carefully monitored for signs of over-training and unexplained decreases in performance, particularly during periods of high-intensity training. As well as a gradual progression of volume and intensity, care must also be taken that the amount and intensity of new training activities are introduced slowly, as these can stress different muscle groups and joints, especially in children.

A training program that suits one individual may be quite inappropriate for another individual even in the same sport and therefore training must be tailored to the individual's needs. Differences between individuals occur in their ability to deal with training loads, their response to specific training, their speed of recovery, as well as their genetic and psychological make-up, their diet and lifestyle. For these reasons, an individualized approach to training is needed.

Adequate recovery is essential if the full effect of training is to be gained and injuries prevented. Inadequate recovery impairs performance and the athlete can show signs of tiredness and lethargy. In these circumstances, rest is required but it is often the case that athletes respond by increasing training, as they believe they are lacking fitness. This may lead on to the development of "over-training syndrome" and it is important for the athlete and coach to monitor training, including rest days, the amount of sleep, and possibly dietary information within a training diary.

MUSCLE IMBALANCE

Muscle imbalance is when one muscle group becomes stronger or weaker than the other. Muscles can be divided into two types, mobilisers and stabilizers, which have different characteristics. Mobilisers are found close to the body's surface and tend to produce power but lack endurance. With time and use they tend to tighten and shorten. Stabilizers, are found deeper, are for endurance and tend to become weaker and longer with time. Both groups of muscles work alongside each other to move the body, but the mobilisers can stop the stabilizers working, which is when an imbalance occurs.

An example of a common muscle imbalance is in the muscles of the upper leg. Most people work hard to strengthen the front part of their leg (quadriceps) but often do less when it comes to exercising the back of the leg (hamstrings). A muscle imbalance in the upper leg can result in knee injuries, hamstring strains, and back pain. Distinguishing over-training from normal tiredness from training is difficult and can only be recognized once an athlete has failed to recover within a 3-week period of reduced training. If an athlete does not recover once the training load has been reduced, medical advice should be sought.

Distinguishing over-training from normal tiredness from training is difficult and can only be recognized once an athlete has failed to recover within a 3-week period of reduced training. If an athlete does not recover once the training load has been reduced, medical advice should be sought.

IF AN ATHLETE OVER-TRAINS THEY MAY SHOW ONE OR MORE OF THE FOLLOWING SYMPTOMS

1. Underperformance
2. Depression with loss of motivation
3. Increased anxiety and irritability
4. Sleep disturbance

5. Loss of appetite and weight
6. Tiredness, heavy feeling muscles
7. Frequent minor infections, particularly respiratory infections
8. Raised resting pulse rate.

HISTORY OF PREVIOUS INJURY

One of the best predictors of injury is having a prior history of injury to an area, which has not been adequately treated or rehabilitated. The best way to prevent an initial injury reoccurring frequently is to seek advice from a suitably qualified medical practitioner when the initial injury occurs. It is important to follow their advice and the rehabilitation program they set. This will help recovery and a return to performing in the recommended time frame, will help to minimize the chance of the original injury reoccurring in the future.

EQUIPMENT AND CLOTHING

Protective equipment and clothing made specifically methods of upper and lower body lifting or basic sprinting routines, outside of regular practice drills which can leave the hips, stomach, and back without a direct training routine.

KNOW AND ABIDE BY THE RULES OF THE SPORT

Rules are designed to keep things safe during a game. It is extremely important for anyone who participates in a contact sport to stick to the rules – they are there to keep athletes safe.

WHAT SHOULD YOU DO IF YOU'RE INJURED?

A useful acronym that may help when an athlete is initially injured is: "PRICE"

Protection

Support the injured area by taping or strapping it, to help prevent further injury to the area. Withdraw from training and/or competition if injured.

Rest

Continuing to exercise immediately after an injury has occurred can make the injury worse. Resting for 48–72 h is usually a good initial treatment strategy. Avoid applying heat or soaking in a bath at this stage as this may make things worse.

Ice

Apply an ice pack to the injury as soon as possible (frozen vegetables make a good substitute). Protect the skin by wrapping the ice pack in a damp towel and apply the pack for about 10 min and repeat every 2 h.

Compression

Compression is important to help reduce swelling, however, if applying a compression bandage, use a stretchy one and don't apply it too tightly.

Elevation

Try to elevate the injured part whenever possible – ideally elevate it above the level of the heart.

WHEN TO SEEK MEDICAL ADVICE?

In most instances, the severity of an injury is usually indicated by the level of pain; the worse the pain, the more serious the injury is likely to be. If severe pain or immediate swelling is experienced, medical advice should be sought. In other situations, the best policy is to apply the "PRICE" principle straight away, and if the injury does not improve significantly within 48 h, seek advice from a qualified practitioner such as a physiotherapist.

WHAT IS PREHAB/HOW TO PREHAB?

Prehab is an individual exercise program that is usually carried out before an operation to ensure that an injury is treatable. However, for the purposes of this paper, a Prehab program provides sports specific exercises tailored to an athlete's needs and aims to prevent injuries. A Prehab program should address a balance between range of motion, strength, coordination, and stabilization and should compare left to right, front to back, upper to lower body. Exercises and sports specific skills and drills are focused on an athlete's weaknesses, with the majority of the program concentrating on coordination and stabilization of the hips, stomach, and back (sometimes referred to as "core stability"). Core instability is common and is often due to the lack of a proper training program. Many athletes and coaches use traditional methods of upper and lower body lifting or basic sprinting routines, outside of regular practice drills which can leave the hips, stomach, and back without a direct training routine.

NUTRITION

Inadequate nutrition may indirectly lead to injury as it can affect the recovery process. Inadequate glycogen (e.g., carbohydrates such as bread and pasta) repletion following exercise may cause a chronic glycogen depleted state, if this happens recurrently over a period of time. Research shows that in this state, the body relies on fat and protein stores as alternative energy sources which may result in increased protein (muscle) breakdown and possibly lead to soft-tissue

injury. Female athletes who exercise intensively but have low body fat tends to develop menstrual irregularities and it appears that this group of women can be susceptible to stress fractures. Similarly, people suffering from eating disorders such as anorexia nervosa and bulimia, are also likely to have an increased susceptibility to bone injuries.

ANOTHER KEY FACTOR IN PREVENTING INJURIES IS TO STAY WELL HYDRATED

A dehydrated body does not absorb the stresses of exercise so well and by exercising when dehydrated, the likelihood of developing an overuse injury may be increased. However, water for some can lack taste and can "turn off your thirst" before rehydration. Water also lacks the electrolytes and energy needed for optimal performance and therefore some athletes choose other drinks which provide these. Tea, coffee, and alcohol intake should be minimized as these are diuretics that lead to dehydration. An athlete should try to drink regularly (every 10–15 min during workouts) rather than wait to feel thirsty as, by then, dehydration has already occurred.

HOW DO YOU KNOW WHEN YOU ARE READY TO RETURN?

If you are undergoing treatment by a qualified practitioner, they will advise on which activities and at what stage in the rehabilitation program they can be undertaken. In general, the criteria for returning to sport will be that the athlete has: (1) No pain, (2) full range of motion at the injured area, (3) maximum strength, (4) taken part in several training sessions without any recurrence of the injury, and (5) will feel ready within themselves to return to full competitive.

CONCLUSION

A useful acronym that may help when an athlete is initially injured is: "PRICE." To avoid injury; an athlete should try to drink regularly (every 10–15 min during workouts) rather than wait to feel thirsty as, by then, dehydration has already occurred. As well, warm-up and cool down is so important in preventing injuries.

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Research Article

Various kinds of sports injuries faced by players while performance

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ABSTRACT

Consistently, a many individuals all around the world partake in games and sports exercises or contests. Investment in sports works on actual wellness and by and large well-being and health. Games and sports can likewise bring about wounds, some minor, some genuine and then again other in long-lasting clinical issue. Sports wounds result from intense injury or tedious pressure related with athletic exercises. Sports wounds can influence bones or delicate tissue (tendons, muscles, ligaments). There are various games wounds occurred in the field of sports. It is vital as far as mentors, coaches, and players to know the causes side effects, anticipation, and treatment for this load of normal wounds to keep away from a large portion of these sorts of wounds, likewise to refresh the helpless preparing strategies. This article will survey the overall normal games wounds.

INTRODUCTION

Neglecting to heat up builds the danger of sports wounds. Wounds, strains, injuries, tears, and broken bones can result from sports wounds. Delicate tissues such as muscles, tendons, ligaments, sash, and bursae might be influenced. Horrible mind injury (TBI) is another possible kind of sports injury. Wounds might go from gentle to serious Sports wounds are wounds that happen in athletic exercises or working out. They can result from mishaps, helpless preparing procedure practically speaking, insufficient hardware, and abuse of a specific body part. In the United States, there are around 30 million teens and youngsters alone that take an interest in some type of coordinated game. Around 3 million devoted games contenders 14 years old and under experience sports wounds every year, which causes some deficiency of season of investment in the game. Counteraction diminishes potential game wounds. Set up support in warm-ups, extending, and practices that attention on principle muscle bunches normally utilized in the game of interest. Likewise, making an injury counteraction program collectively, which remembers schooling for rehydration, sustenance, observing colleagues "in danger", checking conduct, abilities, and procedures. Season investigation audits and preseason screenings are likewise helpful surveys for forestalling player sport wounds. Grown-ups are more averse to endure sports wounds than youngsters, whose weakness is uplifted by youthful reflexes, a failure to perceive and assess chances, and immature coordination. Injury rates are most noteworthy for competitors who take part in physical games, however, the most genuine wounds are related with singular exercises. Between half and 66% of youth sports wounds happen during training, or over the span of sloppy athletic action. Baseball and softball are the main sources of sports-related facial injury in the United States, with 68% of these wounds brought about by contact with the ball as opposed to player-player crash or being hit by a swung bat.

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NORMAL SPORTS INJURIES

Injuries

An injury is a place where at least one of your tendons is extended, curved, or torn. Tendons are solid groups of tissue around joints. They associate one unresolved issue and assist with keeping your bones together and stable. Injuries frequently

happen in tendons around joints in the lower leg or knee. The joint is n't separated or broken. The indications of an injury include:

- Torment
- Aggravation (growing)
- Bruising, and Restricted development in the influenced region.

Injuries are normal wounds in many games and, if essential, can be treated with rest and mitigating drug.

Strains

A muscle strain is a place where muscle tissues or strands are extended or torn. A muscle strain is some of the time alluded to as "pulling a muscle". Ligaments can likewise be stressed. A ligament is the intense, limited tissue toward the finish of a muscle that associates it deep down. Strains are brought about by a muscle that is overstretched or that over-contracts. Manifestations of a strain include:

- Torment
- Muscle fit
- A deficiency of solidarity in the muscle.

Strains are normal to many games, especially those including running, bouncing, or quick course adjustments. To assist with forestalling injuries and strains, you ought to heat up appropriately prior to practicing and wear reasonable footwear. Molding and reinforcing activities can likewise help.

Separation

A separation is a physical issue wherein the closures of your bones are constrained from their ordinary positions. The reason is generally injury coming about because of a fall, a car crash, or an impact during contact or fast games. Disengagement normally includes the body's bigger joints. In grown-ups, the most well-known site of the injury is the shoulder. In youngsters, it's the elbow. Your thumb and fingers likewise are defenseless if coercively bowed the incorrect way. The injury will briefly twist and immobilize your joint and may bring about abrupt and extreme torment and growing. A separation requires brief clinical thoughtfulness regarding return your issues that remain to be worked out appropriate positions.

Cracks

Cracks are a typical physical issue for individuals, everything being equal. Diagnosing a break can in some cases be convoluted as it relies upon area and how the parts are adjusted.

Knockout

Take out is a battle finishing, winning model in a few full-contact battle sports, such as boxing, kickboxing, karate, a few types of taekwondo and different games including striking.

Punch Syndrome

Punch disorder is a condition found in fighters and heavy drinkers, brought about by rehashed cerebral blackouts and portrayed by shortcoming in the lower appendages, precariousness of step, gradualness of solid developments, hand quakes, reluctance of discourse, and mental bluntness. Punch disorder frequently influences contenders of the slugging type, who are typically helpless fighters and who take significant head discipline, looking for just to land a knockout blow. It is additionally normal in below average warriors utilized for preparing purposes, who might be thumped down a few times each day. Every now and again it takes a contender from one to two hours to recuperate from an extreme hit to the head or jaw. At times awareness might be lost for an impressive timeframe.

Low Back Pain

There are many reasons for low back torment. Back agony might be because of abuse, such as playing one an excessive number of rounds of golf or lifting significant burdens. This sort of back strain generally settle all alone without treatment. Rest and mitigating drugs can give alleviation. Utilizing legitimate structure when practicing and expanding the length of exercises gradually can help secure the back. Now and again, it very well might be important to change practice strategy or perform everyday exercises in an alternate manner to diminish the danger of back injury. Different reasons for back torment might be more genuine and require clinical as well as careful intercession.

Hip Bursitis

The hip district contains two significant bursae. The other is known as the ischial bursa which covers the ischial tuberosity, all the more ordinarily known as the sits bones. Irritation of either bursae may prompt firmness and agony around the hip joint not to be mistaken for the genuine joint aggravation of joint inflammation. Abuse from running, cycling, and comparative exercises can prompt hip bursitis. The condition causes hip torment that will in general be more regrettable around evening time. Getting up from a situated position might cause torment. Treatment of hip bursitis comprises of staying away from exercises that produce manifestations and consuming nonsteroidal calming medications to decrease torment and expanding. Exercise-based recuperation and steroid infusions might be justified. Utilizing a stick or other assistive gadget might assist with taking the heap off the kindled joint.

Blackout

A blackout is a TBI that happens when the cerebrum goes through quick speed increase inside the skull. An immediate hit to the head or body might cause a blackout. Individuals who take part in physical games such as football are at expanded danger for blackouts. The indications regularly incorporate migraine, loss of awareness, cognitive decline, drowsiness,

queasiness, heaving, and that's just the beginning. An intensive neurological test is vital get-togethers blackout to decide the degree of the injury. Recuperating from a blackout requires rest, both physical and mental, to permit the mind to recuperate. Individuals who endure blackouts should get a specialist's freedom prior to continuing games, particularly youngsters whose cerebrums are more defenseless.

CONCLUSION

All the above sports wounds happen during any games exercises or working out. They can result from mishaps, helpless preparing or heating up procedure practically speaking, insufficient gear, and abuse of a specific body part. It is vital for any one identified with sports field to know pretty much a wide range of sports wounds; causes manifestations, avoidance, and treatment, to deal with a physical issue counteraction program collectively, which remembers training for rehydration, nourishment, observing colleagues, checking conduct, abilities, and strategies.

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Research Article

How much time is allocated to physical education in primary and secondary schools in Pune city: A survey study

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ABSTRACT

In this study, researcher has emphasized on time allocation in physical education (PE) in the primary and secondary schools from Pune city. In the study, researcher studied the time allocation of primary and secondary schools of CBSE, ICSE, and SSC boards. There were 65 responses chosen using the simple random sampling technique where each individual is entirely chosen by chance. A sample for the study from primary and secondary schools and which will include the Educational Boards CBSE, ICSE, and SSC from Pune city. For the present study PE curriculum, time allocation questionnaire is being prepared with reference to UNESCO International Survey of Situation of PE in Schools. For data collection, Microsoft form was prepared and sent through WhatsApp broadcast to the present school teachers, with the help of the questionnaire the data from primary and secondary school PE teachers were collected. In this study, researcher has used survey method for data collection. Weekly, time allocation in primary and secondary school was analyzed. Further, descriptive statistics was used. Researcher concluded that weekly time allocation of primary and secondary school is approximately 61–66 min.

Keywords: Curriculum, Time allocation

INTRODUCTION

If we look at today's world health scenario, we can see the average life expectancy has reached at what level. There are so many causes of global deaths. There is a rapid increase in the numbers of health-related diseases and nowadays is especially seen in the children's states, the World health reports. This can be cured or improved by doing physical activity. Physical activity refers to the bodily movements of the joints along with the functions of the muscles. The World Health Organization physical activity is important for the better development and the growth of the individual. Regular physical activity from childhood has more benefits. Furthermore, it is necessary to enhance their health benefits. Physical activity plays an important role in development and growth of the individual. Hence, it is more important to implement physical education (PE) from the grass root level in the schools. PE is the course which focuses more on the development of physical fitness. The important role that PE has in promoting health-enhancing physical activity. There are many benefits students receive from school through PE. It focuses on regular fitness activities. Regular fitness improves the abortion of nutrients. PE builds self-confidence, helps to develop motor skills, it teaches the students the importance of health, improves and develops body movements. PE has many benefits so we need to add this subject as a compulsory subject in the curriculum.

Time allocation in PE means the amount of time given for the physical activity concerning curriculum. By allocating the time, one can divide the different types of physical activities and will be able to teach them effectively. Time allocation helps to give the desired amount of time to PE. It will also help in better understanding how much exercise a child should do for the betterment of the individual. PE is frequently viewed as the marginal subject within the curriculum. Many secondary schools have reduced the time allocation of PE to make way for other subjects. Research from youth sports trust shows the cut down of the timetable for PE due to the academics. The worldwide survey of school PE has been conducted to check the overall situation of PE and to find out what are the developments made in PE. This survey was done to generate the data. The issue of time allocation is

generally difficult due to a variety of reasons prescribed for time allocation. During the primary school phase, an average of 103 min weekly and an average of 100 min weekly in secondary school is allocated for PE. UNESCO stated that PE is the most powerful means of providing all the youth attitudes, values, knowledge, and understanding for future participation in health. UNESCO recommended 120 min (weekly) for primary schools and recommended 180 min (weekly) for secondary schools. In the same vein, the research was conducted to find out how much time is given per week for PE in schools in Pune city and whether it is in line with UNESCO guidelines. Purpose of this research paper is to find out time allocated in primary and secondary schools from Pune city. The study is delimited to the primary and secondary schools from Pune city.

PROCEDURE OF RESEARCH

Descriptive survey method is used in the present study. All the primary and secondary school students including different boards therefore CBSE, ICSE, and SSC from Pune city are the population for the present study. In this study, PE Curriculum Time Allocation Questionnaire is prepared with reference to the UNESCO questionnaire. Teacher made questionnaire is being prepared and used for the study of this research. The responses are in the form of open ended and close ended for the collection of the data. The questionnaire includes items related to the time allocation for PE in primary and secondary schools. Content area of the questionnaire is as follows:

- School is under which type of educational board
- Time allocation for the primary and secondary PE in a week
- The duration recommended for primary and secondary students per day
- School is allocating any extra time for PE weekly in primary and secondary schools
- Moreover, how much extra time is allocated for the PE class weekly in primary and secondary schools.

Since PE teachers from various schools are the subject for the study, their contact details were collected from the placement in charge of Chandrashekhar Agashe college of PE Gultekdi Pune. Microsoft form link will be sent on the collected details of various PE teachers. After sending link, data will be collected within 8 days. After 8 days, 65 teachers responded to this questionnaire.

Analysis and Interpretation

The collected data were analyzed with the help of statistical techniques such as descriptive statistics.

Table 1 shows the descriptive data of weekly time allocation in primary and secondary schools. The mean and median of primary schools is 66–60 min, respectively, and in case of secondary schools, it is 61–60 min, respectively. Standard deviation of primary and secondary schools is 30.22 and 26.43. The minimum PE class duration of primary and secondary school is 30 min weekly and maximum is 120 min weekly.

Table 1: Descriptive analysis of weekly time allocation in primary and secondary schools

	Primary time allocation in minutes	Secondary time allocation in minutes
Mean	66	61.45
Median	60	60
S. D	30.22	26.43
Minimum	30	30
Maximum	120	120

Major Findings

- Researcher concluded that the average weekly time allocation of primary school is approximately 66 min
- Average weekly time allocation of primary school is approximately 60 min.

DISCUSSION

Various studies have been done which states that PE is important and makes you fit and healthy. Moreover, in different educational boards, different time is allocated for the PE class. Several researches have done finding on time allocation in school curriculum for different theory subjects as well as for PE. UNESCO has done the world-wide survey globally to check the world-wide situation of PE. The present study emphasized on time allocated in primary and secondary schools from Pune city. Similarly, study is done by UNESCO comparing the globally time allocated for PE in primary and secondary schools. The survey is conducted in Asia, Africa, Europe, Caribbean, Middle East, North America, and Oceania finding the present status of time allocation in PE in primary and secondary schools. As per the global average time allocation for primary school for PE is 97 min weekly (range of 25–270 min) and in secondary school, an average time is 99 min weekly (range of 25–240 min). UNESCO has recommended a 120 min time allocation for PE weekly. If you compare the findings with the UNESCO guidelines, you will find that it is a matter of great concern that only half of the time (50%) is allotted to PE in schools in Pune. On the one hand, it is being said that the government is implementing a movement like "Fit India" and giving more importance to PE and sports in the curriculum, but looking at the grass root level, very little time is given for PE. Therefore, it is important not only to get rid of government orders but also to change the mindset of school principals, other subject teachers, parents, and students.

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Research Article

The relationship between performance and reaction time of volleyball players

Sharan Wangi

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ABSTRACT

Volleyball is a complex game of simple skills. The volleyball court is a rectangular field with the size of 9 × 9 m on each half separated by a net of 2.43 m in height in the middle. Two teams in the match, as opponents, will exercise various skills and tactics to attack and to defend. The ball is served into play. To attack, the players try to make the ball fall down onto the ground of the opposite side. To defend, they try to prevent the ball from falling down onto the ground of their own side. A team can touch the ball 3 times on its own side. As a purely rebound ball game (you cannot hold the ball), volleyball is a sport of constant motion. The basic pattern of movement in making an attack includes a dig (an underarm pass made with the forearms), a set (an overhead pass made with the hands), and a spike (the overhead attacking shot). Teams can also try to block the opponent's spike as the ball crosses the net (International Volleyball Federation, 2008). In each team, there are 6 players standing in two rows with three players in each. In a match, every player should change his position in turn except the libero, which means every player on the court should be able to serve, set, pass, spike, and block. Hence, it is essential for the players to possess physique and physical performance that allow them to play their roles most effectively.

INTRODUCTION

The height over the volleyball net always means the mastery of the game. The height is decided by a combination of the athlete's body height and the jumping height, and usually it is shown in blocking height and spiking height. A team will lose its capacity of winning a score if there is a lack of predominance over the net.

It had also shown in recent years that there is a trend that more women's teams adopt the technique, tactics, and physical performance that were previously seen only in male volleyball players. The skills such as higher attack, powerful jumping-serve, attack from the back row, and aggressive blocking are now widely used by female volleyball players. All these bring forward greater demand for specific physical fitness and physique of female volleyball players. For example, during the period from 1992 to 2002, the number of female volleyball players who were taller than 190 cm increased rapidly (Gao, 2006).

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OBJECTIVE

To compare and find out the relationship between best eight teams Volleyball Performance and Reaction Time of volleyball players.

HYPOTHESIS

It was hypothesized that the relationship between one of the motor ability factors such as Reaction Time of best eight teams of volleyball players expected to be better than all the other state players.

SCOPE OF THE STUDY

Education is the modification of behavior. Physical education is an educational process that is given through physical activities and movements. The present study had the scope to the field of physical education. It might be useful to society about the importance of sports activities for the human being in respect to health status, psychological status, and physical fitness of volleyball players.

LIMITATIONS OF THE STUDY

1. The dietary habits and systematic rhythmic physical activities of the subject were not in controlled
2. Lack of special motivational technique will again be considered another limitation of the study
3. Environmental and economical factors were not under control
4. Sociological and economical factors were not under control
5. Only the survey of the National Level Volleyball players of all India volleyball tournaments will be carried out for the study purpose.

IMPORTANCE OF THE STUDY

The research scholar himself is the National volleyball player and hence possesses a desire to contribute some milestones in the field of physical education and sports. The study might be useful to physical education professionals for the enhancement of the knowledge of various anthropometric measurements, motor ability, and physical fitness components.

The results of this study might be useful to decide the players about the level of fitness of anthropometric measurements, motor ability, and physical fitness components.

SAMPLING

Selecting a proper research sampling and justifying its relevance, the researcher further moved for its implication with a view for solving problem. The sampling procedure for this study was the simple stratified sample method utilize for this study. All the teams were requested to cooperate for the study by the organizing committee. The researcher being a National volleyball player representing Maharashtra state personal relation was use for the data collection as maximum players of that time nowadays were coaches and manager of the teams.

DEFINITION REACTION TIME

Reaction time is the interval time between the presentation of a stimulus and the initiation of the muscular response to that stimulus. A primary factor affecting a

Reaction Time

Reaction time is the interval time between the presentation of a stimulus and the initiation of the muscular response to that stimulus. A primary factor affecting a response is the number of possible stimuli, each requiring their own response, that are presented.

If there is only one possible response (simple reaction time), it will only take a short time to react. If there are several possible responses (choice reaction time), then it will take longer to determine which response to carry out.

Hick (1952) discovered that the reaction time increases proportionally to the number of possible responses until a point at which the response time remains constant despite the increases in possible responses (Hick's Law).

INSTRUCTIONS

This test measures the time taken for the subjects to press the stop button after the background color changes. Tester can select the color of the background if the subject willing to change it. Procedure is very simple, the researcher asks the subject to start the button or click on start. As click the start button and the background will change within 20 s. So far hang around till the background color change as soon as the background color change click the stop button as quickly as possible after the background color changes (release the mouse button quickly, as time stops when subjects release the button, not when subjects press down) The time taken to react will be displayed as reaction time. Try it a few times when subject will be confidant then start the actual reading and then enter the results, and compared the subjects to others who have tried reaction time test with standard norms.

REACTION TIME

Table 1: Mean Reaction Time of Senior National Volleyball Players.

$t_{tab=}$ 1.645 For ∞ d. f. at 5% level of Significance and $t_{tab=}$ 1.960 For ∞ d. f. at 1% level of significance.

Null hypothesis: H_0: $\mu_1 \leq \mu_2$, that is, there is no significant difference of reaction time between the best eight team groups and remaining other teams at 0.01 and 0.05 level of significance.

H_1: $\mu_1 > \mu_2$, that is, there is a significant difference of reaction time between the best eight team groups and remaining other teams at 0.01 and 0.05 level of significance and the best eight team groups might be better in reaction time. $t_{cal} = 0.000006699$ and t_{tab} = 1.645 for ∞ d. f. at 5% level of significance and t_{tab} = 1.960 for d. f. ∞ at 1% level of significance means $t_{cal} < t_{tab.}$ Null hypothesis accepted for reaction time both at 0.01 and 0.05 level of significance for ∞ degrees of freedom.

Thus, it may be concluded by t-test that there is no significant difference between the best eight team groups and remaining other teams for reaction time.

Findings

Values of t-calculated further compared with the t-tabulated values and at 1% and 5% the level of significance, from the above statistical inferences, it could be concluded that all the state teams of Senior National Players had certain best ever performance in respect to reaction time.

Similar observations found with the Junior/Youth National Players of various States. If we go more to find the relationship between the reaction time of two Senior and Youth Nationals. Compare the best eight teams of both Senior and Youth Volleyball Nationals for mean reaction time by Pearson's correlation (modified from). We could easily state that calculated value ranges between + 0.40 and + 0.69 which shows strong positive relationship.

CONCLUSION

From the above all calculations, the best eight teams of both Senior and Youth Volleyball Nationals had better in reaction time and had a strong positive relationship among Senior and Youth Volleyball nationals.

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Research Article

How corona pandemic has affected sports

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INTRODUCTION

All of us are aware that the corona pandemic has affected all aspects of life including sports. Each and every aspect of sports is affected by this pandemic. It has also modified the sporting calendar. Even Olympic games are also affected.

The global sports industry was growing industry before pandemic but it is also severely affected during this period. It has three main aspects: Broadcasting, commercial, and match revenue. The professional sports leagues are as good as entertainment companies. The temporary shutdown due to corona has affected the financial aspect of sports severely.

To overcome this situation, the sports are trying to explore new ways to engross consumers. It is providing several options to the customers for enjoying the sports. It mainly includes online options. They are developing plans for games without live audiences. The absence of "Actual" sport has provided opportunity for virtual technologies to grow.

The sport is a major force for economic and social development of the nation. As per the Political Declaration of the 2030 Agenda, "the contribution sports make to the empowerment of women and of young people, individuals, and communities, as well as to health, education, and social inclusion objectives,"

For the safety and health of athletes and all stakeholders, the major sporting events at international, regional, and national levels are being cancelled or postponed. Even the Olympics and Paralympics are postponed in the history of the modern games for the 1st time.

Due to corona pandemic millions of sports-related jobs are at risk at global level, including sports professionals, sporting industries sports tourism, sports infrastructure, hospitality, and media broadcasting. The athletes are under pressure due to re-schedule of training and tournaments. They also were losing their sponsors.

The cancellation and rescheduling of games have impacted several economic and social gains of local and global sporting events which create social cohesion, thrill, and motivation for participation in physical activities. It helps in developing communication and bonding between communities and generations. It plays a key role in social transformation and progress in divided societies. It uplifts the marginal populations.

The sports organizations committed to reduce the spread of the virus. The educational institutes in the world closed due to corona pandemic. This has impacted the sports in education sector which includes ports ministries and local authorities, public and private education institutions, various sports organizations, and the athletes. It has also affected sports business, teachers, coaches, parents, and the beginners in sports. Entire society is trying to overcome this situation and ensure the safety of sports sector at all levels. The safety of athletes and fans is being taken care of. The physical and mental health of entire population can be restored only through sports.

The sport education can be a powerful tool for fostering the physical fitness, mental health, as well as social relationship. The Indian athletes belonging to different sports are not affected financially as the Sports Ministry has provided those allowances, monthly stipends, and their training-cum-competition expenditure.

To bring sports to normalcy, the first step should to draw the road map jointly by sports organizations and the government. The fans should be allowed in the stadiums keeping social distancing norms. The other step should be the use of technology in broadcasting the sporting events.

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It is pleasing to see that sports sector is recovering from the corona pandemic, still it difficult to predict when it might come to complete normalcy.

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Research Article

A correlational study on resilience and coping strategies in high school female students

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ABSTRACT

The present study examined the relationship between the dimensions of resilience and coping strategies in a sample of 65 high school students aged 17–21 years. For this study, the dispositional resilience scale and COPE inventory were used as the tool. Results demonstration that positive attitude was correlated significantly and positively with social support (r = 0.08), positive reinterpretation (r = 0.51), and problem-solving (r = 0.71) but significantly negative with avoidance (r = −0.42) and poorly positive with humor and turning to religion (r = 0.06). Further, statistically significant but weak correlation found between rigidity and positive attitude (r = 0.26), avoidance (r = 0.11), positive reinterpretation (r = 0.07), and problem-solving (r = 0.04). Moreover, a statistically negative correlation was found between rigidity and humor and turning to religion (r = −0.1). Finally, alienation was statistically significantly and positively correlated with social support (r = 0.13) and avoidance (r = 0.54) but significantly and negatively correlated with positive reinterpretation (r = 0.19), problem-solving (r = 0.24), and poorly negative with humor and turning to religion (r = −0.02). Novelty: Educational training programs, centered on the effects of resilience, and coping strategies on students can be designed with the findings of the study.

Keywords: Coping strategy, High school students, Resilience

INTRODUCTION

Resilience, Personality Trait of Strong People

The literature has identified existing relationships with resilience and coping strategies and both are considered to be some of the most interesting topics in psychology and academic performance (Seligman, 2000). Resilience has been identified as a personal quality or character trait that allows people to overcome adversity and thrive on their face, often present in strong people (Sinclair, 2003). This concept was primarily defined as a personality characteristic that controls the negative effects of anxiety and promotes adaptation, the ability to restore or maintain internal or external balance under the greatest threat to human activities including thinking and doing, and knowing the positive effects in the face of adversity (Rew and Horner, 2003). More recently, resilience has been regarded as the ability to recover or bounce back from stressful situations to achieve a complete environmental remedy (Smith *et al*., 2008). Some researchers have argued that people who are physically able to cope with physical problems are more likely to be better at maintaining their physical and mental health and are more likely to recover quickly from stressful events than those of low (Ryff and Singer, 2003). Some researchers found that high school students who were able to overcome challenges were cunning and optimistic, engaged in good social relationships, and often used positive and active strategies for coping, motivation, and remodeling better than those who could not (Smith *et al*., 2008).

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Among the measures used for resilience, it is possible to mention: The dispositional resilience scale by Bartone *et al*., including the positive aspects of hardiness, called control (a sense of control over life conditions), commitment (a sense of bottomless involvement and a tendency to fully engage in life activities), and challenge (trying to change lives or obstacles as exciting opportunities for self-improvement) (Bartone, 1989).

The current framework for research on resilience was developed by Sinclair and Oliver's model of hardiness (Sinclair, 2003), according to which these three factors, called helplessness, alienation, and rigidity, respectively represent the negative communities of these three positive dynamic factors (control, commitment, and challenge). Specifically, control is defined as

the tendency to think, feel, and act as if one has influence, rather than helpless, when faced with various aspects of life; people in control do not expect to get all the results wisely but instead, find themselves able to make a difference in their choices. Commitment is referred to as the tendency to engage, rather than to feel isolated, whatever one does or encounters in daily life; highly committed people articulate a global purpose that allows them to discover the meaning of their people, events, and natural objects. Finally, the challenge is seen as a process of believing that change, as opposed to stability, is a normal state and that change is an exciting stimulus to growth rather than threats to human security; therefore, high-risk individuals are more open to all new experiences, more flexible in the face of change, and more likely to tolerate misunderstandings in the form of testing (Elisabetta, 2014).

Coping Strategies: Adaptive versus Maladaptive

Since the discovery of Lazarus and Folkman (Lazarus and Folkman, 1984), coping strategies have been identified as positive and/or negative for coping with unexpected difficulties and events. Further, Carver *et al*. defined the following adaptive versus maladaptive strategies, encompassing the marked distinction between problem-focused and emotion-focused coping:

- The active coping was explaining as a task aimed at removing stress
- The planning was considered as the best way to deal with a problem
- The restraint coping is defined in terms of waiting to deal effectively with adversity
- The seeking of instrumental and emotional social support as a function of support required from other sources or individuals
- The positive reinterpretation and growth in terms of direct control of stressful situations, actively changing the meaning of the same situation
- The acceptance is defined as an engagement strategy that works for both parties to identify the problem and try to deal with the problem
- The focus on and venting of emotions is seen as a negative activity that focuses on negative emotions for a long time that increases grief
- Finally, the denial is a rejection of the occurrence of stressful events or the avoidance of complications (Carver *et al*., 1987).

These strategies are collected in primary and secondary examinations and are considered to be varied in everyday life and as a tendency to deal with a particular situation.

Numerous studies have found that people with high levels of resilience tend to adopt positive and practical coping strategies such as job, performance, and order, while those with high levels of despair may use maladaptive strategies such as abstinence, denial, and emotional release (Hatchett and Park, 2004).

The framework of the present study on problem-solving strategies was conveyed to the discourse provided by Sica *et al*. in the Italian context (Sica, 2008), meaning that advanced coping strategies in everyday life were linked to positive reinterpretation of event objectives and active research of solutions (problem-focused coping), turning to religion, the seeking of social support, and the use of humor coping (in terms of coping with emotions), and lastly the avoidance coping.

Purpose of Study

The purpose of the present study was to examine the relationships between resilience and the coping strategies in high school female students of GGSSS JJC No. 1 Bawana, Delhi (India).

Hypotheses

We hypothesized that high levels of resilience will be positively related to problem-focused coping strategies (i.e., problem- solving and positive reinterpretation) (H1a) but negatively to emotion focused (i.e., denial and venting of emotions) and avoidance (H1b).

METHODOLOGY

Participants

The sample consisted of 65 high school (11th and 12th standard) students mean age of 17.23 recruited from GGSSS NO 1 JJC Bawana, Delhi, India. Samples were nominated with a random sampling method.

Too used

Tool 1 DRS: The dispositional resilience scale-II was an 18-item scale, defined by Sinclair and Oliver. This scale was useful for examining six common factors involved in building resilience to the stressors of stressful situations in daily life: (1) Commitment, (2) control, (3) challenge, (4) powerlessness, (5) alienation, and (6) rigidity. Each item is rated according to a Likert type rating of 5 points, from 1 "strongly disagree" to 5 "strongly agree." We used a 17-item version with a three-pronged solution: A positive attitude (eight items), rigidity (three items), and alienation (six items). The internal consistency of DRS, using Cronbach's alpha coefficient, was acceptable and ranged from 0.61 to 0.65.

Tool II COPE

The COPE inventory is made up of 60 items, each valued at a 4-point rating scale from 1 "I usually never do this at all" to 4 with "I usually do this a lot." This inventory was used to analyze the following five coping strategies: (1) Social support, (2) positive reinterpretation, (3) avoidance, (4)

problem- solving, and (5) humor and turning to religion. The internal consistency of COPE was satisfactory on a full scale ($\alpha = 0.81$) and the Cronbach's alpha coefficient of each subscale ranged from 0.68 to 0.88.

Statistical analysis

Data analysis was performed with the SPSS 23 using Pearson's linear correlation. $P = 0.05$ was used to determine statistical significance in all analyzes.

RESULTS

Pearson's linear correlations were applied between the factors of dispositional resilience and coping strategies (DRS-COPE).

As evident in Table 1, statistical analysis demonstrates the correlation between the participants' scores of resilience and coping strategies which represents the statistically significant relationship between all the sub-dimensions of the dispositional resilience scale and sub-dimensions of COPE inventory. Correlation shows that positive attitude was correlated significantly and positively with social support (r = 0.08), positive reinterpretation (r = 0.51), and problem solving (r = 0.71) but significantly negative with avoidance (r = −0.42) and poorly positive with humor and turning to religion (r = 0.06).

Moreover, statistically significant but weak correlation found between rigidity and positive attitude (r = 0.26), avoidance (r = 0.11), positive reinterpretation (r = 0.07), and problem-solving (r = 0.04) also statistically negative correlation found between rigidity and humor and turning to religion (r = −0.1). Finally, alienation was statistically significantly and positively correlate with social support (r = 0.13) and avoidance (r = 0.54) but significantly and negatively correlate with positive reinterpretation (r = −0.19), problem-solving (r = −0.24), and poorly negative with humor and turning to religion (r = −0.02).

Table 1: Correlation between the resilience and coping strategies scores obtained by female high school students

DRS	COPE				
	I	II	III	IV	V
I	0.08	−0.42	0.51	0.71	0.06
II	0.26	0.11	0.07	0.04	−0.01
III	0.13	0.54	−0.19	−0.24	−0.02

Correlation is significant at 0.05 level (P<0.05) *n=65.
Dispositional resilience scale I: Positive attitude; dispositional resilience scale II: Rigidity; dispositional resilience scale III: Alienation. COPE I: Social support; COPE II: Avoidance; COPE III: Positive reinterpretation; COPE IV: Problem-solving; COPE V: Humor and turning to religion

DISCUSSION OF FINDINGS

The findings of the current study highlighted the correlation between the dispositional resilience scale and coping strategies in high school female students at the GGSSS No. 1 JJC Bawana School, Delhi (India). In terms of H1a, we hypothesized that high levels of resilience will be positively correlated with problem-focused coping strategies but negatively with emotional focus and avoidance (H1b). Results of the study established that high school female students with a positive attitude and high resilience are more likely to adopt problem-solving strategies which are associated with the challenge, commitment, and control and prevent escalation from stressful events. These data were reliable with the findings of Li and Yang, 2009, who found that resilience could affect students' problem-solving skills; safe attachment, stress, and may affect their escaping. Moreover, Beasley *et al*. (Beasley, 2003) identified direct effects on the relationship between psychological health and life stress. Cognitive hardiness, part of coping style, and adverse life occasions have a direct impact on resilience and psychological stress.

These findings meant that high school female students with high levels of dispositional resilience, specifically with the ability to deal with challenges and manage their environment, were probable to solve stressful circumstances by transforming their meaning in affirmative terms and to search for new and multiple problem solutions. In addition, high school students with high levels of alienation were likely to minimize stressful events by refusing the existence of the same stressors.

CONCLUSION

It can be said that the results of current research suggest that high levels of resilience are positively correlated with problem-focused coping strategies and negatively with emotion-focused coping strategies. Further, resilience skills including classroom arrangements, group assignments, and personal support services can be adopted by students to cope with academic adversity, difficulties, and learn adjustment. In addition, the existing curriculum should include stress management, coping skills, and a variety of other life skills to deal with health challenges and to prepare students for the various challenges of life.

Finally, it is to be noted that there are some limitations of this study. First, that the sample of this study is not representative of all people. For this reason, caution should be exercised in maximizing any form. Second, currently, the data for this study are largely based on the individual statements made by them; one should not lose sight of the fact that there can always be some degree of error in them.

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Research Article

Sport and economic development

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Sport began as a leisure time activity reserved only for a few declared amateurs. In the 20th century, however, it has become a social phenomenon for the masses. In industrial countries, sport has developed into its own economic branch contributing about two percent to gross domestic product. Today's challenge is to make sport an economic factor also in less developed countries.

The whole world is waiting expectantly for this event-the commonwealth tournament which is set to kick off at the beginning of June 2010 at "Various" stadium in Delhi, India. For the first time in its history, the world's biggest sporting event, besides the Asian Olympic Games, will take place in India. The Games are scheduled to be held in New Delhi, India between 3rd October and October 14, 2010. The games will be the largest multi-sport event conducted to date in New Delhi and India generally, which has previously hosted the Asian Games in 1951 and 1982. The opening ceremony is scheduled to take place at the Jawaharlal Nehru Stadium in New Delhi. It will also be the first time the Commonwealth Games will be held in India, and the second time the event has been held in Asia.

Hundreds of millions of dollars will be spent to organize this event and many people may well be asking if this money could not have been better spent on something else. However, the organisers have already announced high economic returns as well as many job opportunities during the years of preparation alone. Moreover, media attention is expected to be huge. During the months of 3 October and October 14, 2010, the attention of all the media will be concentrating on India. Thousands of journalists will be covering the matches, as well as visiting the eleven cities in charge of the games and reporting on the country and its people. This coverage will entice tourists to visit the region long after the World Cup; and if everything goes well, the world will see the capacities that India has to offer, which in the end will have positive, long-term economic effects for this country.

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Obviously, this example can be disputed when looking at its significance compared to that of the development of any particular country. Aren't there any other needs that are more important to the country's people? We just have to think back to the graffiti sprayed on a stadium wall at the 1986. World Cup in Mexico: "No queremos goals, queremos frijoles." ("We don't want goals, we want beans"). Nevertheless, we can see the potential economic boost that hosting sporting events can give to less developed nations in an era of globalisation. India, for example, recently adopted a public policy to systematically organize international sporting events, such as the Olympic Games. In the past, rising economic powers such as Japan (who hosted the games in Tokyo in 1964), Korea (Seoul, 1988), and China (Beijing, 2008) have already taken the same path.

All young people in India and on other continents will be riveted by the World Cup broadcasts (if they have access to a television) and will undoubtedly be able to identify with its stars. Once the games are over, they will probably find themselves kicking a ball around with their friends on an improvised pitch. Some of them will even begin practicing football more seriously at local sporting centers and clubs in hopes that 1 day they will be able to play at the highest levels of competition in their nation or even score the winning goal for their country at the World Cup.

PUTTING THE WHEELS IN MOTION: "EVENTS, PRACTICE, EQUIPMENT"

Major sports events are of limited and brief interest, if they do not succeed in motivating the masses to play sport, which in turn stimulates the market for sports articles and equipments, from shoes for the individual athlete to community facilities for a broad range of disciplines. "In order for ten people to

have an amazing prowess, you have to have one hundred practicing intensely and one thousand just participating in the sport culture," said Pierre de Coubertin, the founder of the modern Olympic Games. "To sell millions of T-shirts and basketball shoes, you have to have tens of millions of people playing sports and attributing to it a positive image," could be added by today's sporting goods industry.

This economically virtuous dynamic functions in developed countries. Playing sports has become its own market because of non-profit associations or private enterprises that offer all sorts of services from simple personal instruction to a subscription in a fitness centre. There is also a significant market for sports events through broadcasting and sponsorship rights to ticket sales.

These three markets - sports activities, sports equipment, and sports events - interact to set the wheels in motion for an economic development which cannot be ignored and which creates a growing economic sector. Sport has become not only a consumer good, but also consumes goods itself. It generates economic wealth and jobs, and at the same time brings health and educational benefits to those who practice it.

How can this dynamic be brought to less developed nations? In 1995, UNESCO did a study about sport in less developed countries in India (one of the very rare studies on the topic). It showed clearly that the level of sporting activity was very low. This was due in particular to a lack of sports instruction at schools, a lack of sports teachers and coaches, and also an incredible absence of sporting equipment, notably for those sports calling for demanding installations. This situation results from insufficient government funding coupled with an explosive increase in population that lowers the availability of human and material resources per person even more.

Projects financed by development agencies, which are intended to make up for the lack of state funds in the area of education and sports installations, can contribute to the promotion of mass sports and to economic development of the regions and countries in which they take place. There are more and more examples which support this thesis. It is in the Asian countries, especially in the India. Which had been financed by the International Olympic Committee and has built simple sporting facilities and installed basic equipment to promote sports activities particularly in track and field? Each of these facilities creates jobs which in turn promote local economic activity.

In the Caribbean, notably on the island of St. Kitts, the successful STRONG project has been supported for 6 years by the association called Commonwealth Games Canada. It motivates adolescents to stay in school through classes in gym, language, and computers to help them develop their resumes and obtain internships at local businesses. Provisions have been made to realize this project on other islands in the area.

In Afghanistan, South Asia, Bolivia, and other countries, the French non-governmental organization "Sport sans Frontiers" (Sport without borders) is carrying out projects which aim to give everyone access to sporting activities and to promote local economic development.

For about 20 years now, international sporting federations such as FIBA (basketball), FIFA (soccer), and FIVB (volleyball) have financed the construction of playing fields and have donated equipment to practice their particular sport. While their number one goal is to promote their own sport, these international federation projects have had significant economic returns in the cities where they have been installed. In developed European countries, farming and mountainous regions have found a new lease on life by responding to a new demand for outdoor sport and recreation often linked with cultural and social events, in particular those sought out specifically by tourists. These activities along with the required equipment of open spaces have created added value economically for these regions.

In addition to the creation of new sources of income at different levels, sport can also have indirect economic consequences. For example, it can improve the efficiency of a national economy by contributing to maintaining and improving the health of the people. This means that fewer workers have to take sick leave which in turn means less production days lost and lower costs for health services. Through sport, children and teenagers can acquire basic social and organisational skills which are also important in economic life. Different examples also show that sport is a good way to motivate young people to participate in training programmes and to stick to them.

SUCCESS FACTORS

Only a few studies have been made about the economic impacts that sport projects have on less developed countries. In the countries of the North macroeconomic analyses into the size of the sport sector in the economy have been done, notably under the sponsorship of the European Union. Many studies have also been conducted on the impacts of sporting events, usually before they occur, either by the supporters or the opponents of such projects, so that the results tend to be rather subjective. Independent economic studies were performed in North America to determine if professional sports teams and their arenas had any economic impact on the region in which they were located. Nearly all the studies showed that there was no real impact on the economy.

Taking this into account we must be cautious in analyzing the direct economic effects of sport projects. To obtain a real

evaluation, we must remember the value of their economic benefits as well as their environmental and social benefits. In most cases, there is a lack of ex-post studies and cost-benefit analysis in developed countries too. Such analysis would inform the public authorities and potential donors of the usefulness and durability of subsidies as well as donations to sports.

Today's sport is moreover faced with problems such as drugs, violence, and corruption which had in connection with the use of sport as a driving force for economic development in less developed countries; there are still several unanswered questions that we cannot ignore.

Numerous countries in Africa, Latin America, the Caribbean, and Asia are threatened by a "muscle drain," analogous to the "brain drain." These countries are not in a position to guarantee their best athletes economic benefits commensurate with their talent. These athletes often develop their careers in Europe, North America, and the Gulf states. This phenomenon is not only seen in Common wealth and track and field, but also is making its way throughout other sports. Moreover, this phenomenon favors ambiguous and even illegal dealings. It undermines the development of sport in the countries concerned. Wladimir Andreff has proposed to introduce a "Coubertobin tax" for the led to doubt the socioeconomic benefits of sport in countries of the North. These problems do not of course need to be exported to the countries of the South. It must be ensured that the sport development projects launched in these countries rest on the principle of "S.A.F.E." sports, an acronym standing for the following qualities of sport activities:

Sustainable

Projects avoid setting up structures which do not respect the local culture or do not take local conditions sufficiently into account. Instead, projects insure sustainable regional development.

Addiction-free

Projects discourage use of dangerous substances whose sole purpose is to enhance individual performance but in the long run damage the health of the athlete. Instead, projects promote a healthy lifestyle without addiction.

Fair

Projects condemn discrimination of any kind, racial, sexual, or other, and reject all violence whether be it physical or mental. Instead, projects ensure that sport and fair play is used for the complete upbringing of young people.

Ethical

Projects reject all forms of corruption and criminal activity. Instead, projects contribute to a clean economy that respects universal ethical conduct.

UNANSWERED QUESTIONS

Transfer of such athletes and players. It is however only in developing a local market for sporting events with sponsors and media in the countries of the South that this phenomenon could end. What measures can the sport and development conference propose to limit this "muscle drain"? Today the majority of athletic materials are made in less developed countries where the labour is cheap and the working conditions are sometimes unacceptable. Popular brands have been subject to suspicion of having used children to make athletic balls, shoes, and clothes. The World Federation of the sporting goods industry started surveillance and labeling programs to prevent further abuse. Consumers' vigilance in developed nations and the growth of local markets should help in controlling this problem. What measures can the sport and development conference propose to avoid the fabrication of sporting goods in sweat shops?

Scientific research has long ago shown a strong correlation between international athletic performance and national economic development. Researchers have also been able to predict with certitude the exact number of medals each country would win at the Olympic Games. It is also known that around three-quarters of the countries that partake in the Olympic Games and other major competitions do not receive a single medal. This reality discourages athletes, their fans and their sponsors in the South and could in the long-term endanger these sports encounters which are important for international relations. Only through the growth of practicing sports of all kinds in less developed countries can we reverse this trend and forge a new common identity; an identity that also has economic as well as social value. What measures can the Sport and Development conference propose to eliminate the monopolization of medals by the more developed countries that participate in the major competitions?

The under-development of sports in countries of the South is simultaneously an attribute and a consequence of their economic under-development. If sport can be successfully promoted in these countries in S.A.F.E. way, we can hope to break the downward spiral and begin to release forces which will lead to positive economic and social growth without harming the environment.

With the organisation of the 2010 Commonwealth Games and other major sports events, India has accepted the challenge to use sport for economic development. How it will deal with it will emerge in the next few years. India may very well inspire other developing countries to launch their own sport projects that will in turn give them relevant economic rewards.

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Research Article

The comparative study of study habits and attitude of inter-university players of Maharashtra

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ABSTRACT

The main purpose of present study was to determine "the comparative study of study habits and attitude of inter-university players." For the present study, the source of data was 1485 inter-university players of Maharashtra from 11 different games - Basket-Ball, Handball, Football, Volleyball, Cricket, Softball, Hockey, Kho-Kho, Kabaddi, Badminton, and Athletics, all these selected subjects are the source of data. The age of the subjects was ranging between 18 and 28 years. The researchers use the survey method for fulfilling his research purpose. The questioner got filled in the subject by the researcher from the players. The data were tabulated and analysis required the percentage, "*t*"-value, mean and standard deviation, correlation method for the purpose of interpretation, to determine the significant difference in the mean. About the study attitude of Maharashtra, 67.21% players mean value is more than 5.93 and only 32.79% mean value players are below. From this, it is cleared that, maximum Maharashtra players study attitude shows positive result and hence the hypothesis is not accepted.

Keywords: Comparative, Games, Inter university player, Study attitude, Study habits

INTRODUCTION

In India, various educational institutions run their curriculum but the way of looking toward the curriculum of the students is changing. In the age information and technology, science provides every information easily to anyone. However, on the other hand, due to this, there is a change in the study habits of students also there is a change in attitude due to this it is the responsibility of educational sector to observe all these changes in the study habits and attitude of the student so that they occupy progress in their education. Because of the changing situation in the educational sector in India. It is must to bring a change in the study habits of students. To develop good study habits in students. The teacher should have a good planning and skills, should pay attention toward their health, increase their writing skills, develop them against the right knowledge and to develop good study habits. According to the various educationists, whoever understand the study habits of student's attitude easily, students get attracted toward the method of the teacher. For this, the teacher should teach with positive attitude so that the attitude of student regarding study should be changed. It can be called as positive attitude. However, if lot of time is required for teaching or for learning, if it is hard for the student to understand and if lot of time is required, if they cannot memorize it, then for this method students have no in trust. The students remain away from this method and hence this is called as negative attitude. Student's attitude can be changed using effective method of teaching. Because researcher takes the present study to his research purpose "the comparative study of study habits and attitude of inter-university players".

RESEARCH METHODOLOGY

In this chapter, the objective of study, purpose of the Study, hypothesis, source of data, selection of test, selection of subject, and collection of data are described.

Objective of Study

The objective of the present study was:

1. Study Attitude of Maharashtra players
2. Correlation between Study Habits and Study Attitude of Maharastrain Players

3. Study Habits of Maharashtra Men and Women
4. Study Habits of Maharashtra Urban and Ruler
5. Study Habits of Maharashtra Team Game and Individual Players
6. Study Habits of Maharashtra Men and Women Players
7. Study Habits Attitude of Maharashtra Men and Women Players
8. Study Habits Attitude of Maharashtra Team Game and Individual Players.

Purpose of the Study

The purpose of the present study was to determine "the comparative study of study habits and attitude of inter-university players of Maharashtra".

Hypothesis

It is hypothesized that, study attitude of Maharashtra players will be negative. The Correlation between study habits and study attitude of the players of Maharashtra is not significant.

Source of Data

For the present study, the source of data was 1485 inter-university players of Maharashtra from 11 different games - Basket-Ball, Handball, Football, Volleyball, Cricket, Softball, Hockey, Kho-Kho, Kabaddi, Badminton, and Athletics, all these selected subjects are the source of data

Selection of Test

For the purpose of this study, 1485 inter-university players of Maharashtra from 11 different games were selected with the help of simple random sampling method. The age of the subjects was ranging between 18 and 28 years. The researchers use the "study habits and attitude status" questioner for research purpose. The researchers use the survey method for fulfilling his research purpose. The questioner got filled in the subject by the researcher from the players.

Selection of the Subject

For the purpose of this study, the data were collected on the basis of 1485 inter-university players from different university players of Maharashtra and were selected with the help of simple random sampling method. The questioner got filled in the subject by the researcher in the presence of the players.

Collection of Data

The data were collected with the help of questioner. The data were collected on the basis of 1485 inter-university players of Maharashtra from different university and were selected with the help of simple random sampling method. The questioner got filled in the subject by the researcher in the presence of the players.

Analysis and Interpretation of Data

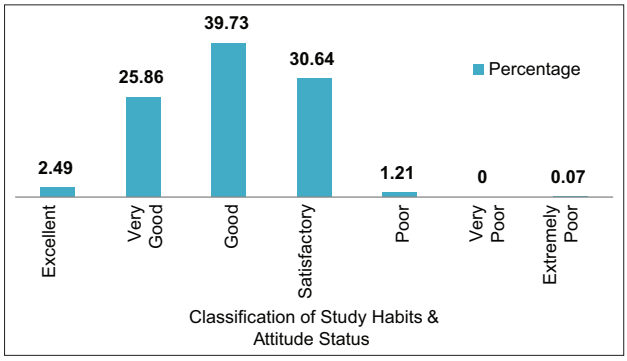
For the purpose of this study, the researcher collected data on the basis of 1485 inter-university players from different university of Maharashtra. The researcher conducted a study to determine the study habits and attitude status of the players of Maharashtra. The data were tabulated and analysis required the percentage, "*t*"-value, mean and standard deviation, and correlation method for the purpose of interpretation.

The above table shows classification of study habits and attitude status of the players. In this study, as per direction and points acquired by the players the status is divided in seven classification which is - Excellent, Very Good, Good, Satisfactory, Poor, Very Poor, and Extremely Poor players.

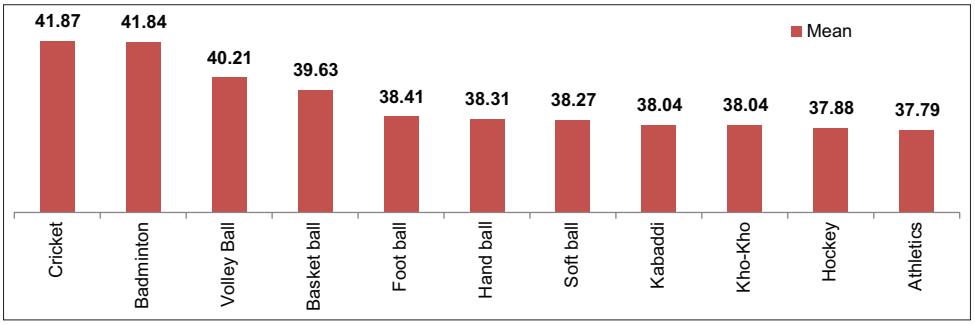
The researcher observed that, from the total players 39.73% players study habits and attitude status is good, 30.64% and 25.86% players are found in very good and satisfactory status, 2.49% players are found in excellent status, 1.21% players are found in poor status, and 0.007% players are found in extremely poor status. From the above study, the researcher found that from the total players the status of study habits and study attitude of the players was very good, good, and satisfactory. The researcher also found that the percentage of players is low in excellent status and very low in very poor and extremely poor status [Graph 1].

The above table shows the study habits of the total players of Maharashtra. The researcher observed from the above table that the mean of the study habits is in decreasing order. The order of the mean is decreasing from 41.87% to 37.79%. Whereas the order of mean is maximum, that is, 41.87% and 41.84% in cricket and badminton players and minimum, that is, 37.88% and 37.79% in hockey and athletics players. However, there is not more difference in the mean in the middle as shown in table.

It is clear from the above discussion that there is not much difference in the study habits but the study habits of cricket and badminton players are comparatively better than hockey and athletics players [Graph 2].



Graph 1: Classification of study habits and attitude status of the players of Maharashtra



Graph 2: Mean of study habits of the players of Maharashtra

Table 1: Classification of study habits and attitude status of the players

S. no.	Study Habits and Attitude Status	Range	Total Players	Percentage
1.	Excellent	55 and Above	37	2.49
2.	Very Good	49–54	384	25.86
3.	Good	43–48	590	39.73
4.	Satisfactory	34–42	455	30.64
5.	Poor	28–33	18	1.21
6.	Very Poor	22–27	0	0.00
7.	Extremely Poor	0–21	1	0.07
	Total		1485	100.00

Table 2: Mean and standard deviation of study habits of different game players of Maharashtra

Sr. no.	Games	Mean	Standard Deviation
1.	Cricket	41.87	4.7038
2.	Badminton	41.84	4.6966
3.	Volley Ball	40.21	5.1476
4.	Basketball	39.63	6.1883
5.	Foot ball	38.41	4.1471
6.	Handball	38.31	5.6204
7.	Softball	38.27	5.4655
8.	Kabaddi	38.04	5.3096
9.	Kho-Kho	38.04	5.6256
10.	Hockey	37.88	4.0502
11.	Athletics	37.79	6.2610

DISCUSSION OF HYPOTHESIS

Study attitude of Maharashtra players will be negative. About the study attitude of Maharashtra, 67.21% players mean value is more than 5.93 and only 32.79% mean value players are below. From this, it is cleared that, maximum Maharashtra players study attitude shows positive result and hence the hypothesis is not accepted. The correlation between study habits and study attitude of the players of Maharashtra is not significant between study habits and study attitude of the players of Maharashtra, correlation value is 0.020 and is not significant and shows neglected positive correlation and hence the hypothesis is accepted.

Findings

From the total players 39.73% players study habits and study attitude status is good, 30.64 and 25.86% players found their status satisfactory and very goods. The excellent study habits and study attitude status is of 2.49% players and 1.21% players found in very poor status. None of the players are found in very poor status. The extremely poor status is found for 0.07% players in study habits and study attitude status.

The total players study habits mean is between 41.87 and 37.79. There is no significance difference in the mean. Study habits highest mean which is 41.87 and 41.84 is found for cricket and badminton games players and found minimum mean which is 37.88 and 37.79 for hockey and athletics players.

CONCLUSIONS

In this present study, from the total players, maximum players study habits and study attitude status is found very good, good, and satisfactory. Excellent status player's percentage is very low and very poor status player's percentage is extremely low. There will be no difference in study habits of total players but comparing with hockey and athletics players, cricket, and badminton players study habits found very good.

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Research Article

Psychological skill and sports performance

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ABSTRACT

In sports today, everybody knows the best preparing strategies approaches the best offices and most healthful food. Regularly, the distinction between the great and the first class is the psychological characteristics of the competitors. How might our actual capacities such as strength, speed, and endurance stay reliable, and the appropriate response lies in working at the brain – which we need to core interest on. Our brains accomplish something beyond advising how to complete donning exercises; they likewise direct us to quick reach at movements, perspectives, and vibe that effect significantly on our wearing presentation. The core interest of the examination is to help the competitor's degree of mental abilities and a portion of the ways mentors and psychologists can impact in competitors mind to augment brandishing execution. Mental abilities incorporate controlling excitement, creating mental imagery, focus, self-assurance, inspiration, and objective setting. Distinctive competitor has various methods of acquiring mental abilities. Competitor should be cheerful as a main priority and body to prepare and contend well to be a superior competitor. To forestall the vacillation in mental guideline, the competitors need to create mental abilities – procedures to oversee uneasiness, stress, negative considerations, and feelings. The competitor should figure out how to assume liability and core interest on perceiving their excitement component and to perform with it leveled out.

Keywords: Psychological skill, Core interest, Performance

INTRODUCTION

"What" here is alluded to the mental abilities. The investigation is tied in with zeroing in on the advancement of the mental abilities to dominate the mind and improve sports execution. A tip top competitor is an uncommon mix of ability, difficult work, and right mental profile. For a mentor to assist their competitor with building up the "What" factor, for example, the mental ability its fundamental they comprehend their competitor overall individual instead of a game's individual alone.

The principal stage in creating mental ability is the instructive stage. In this stage, the mentor converses with the competitor and evaluates the wellspring of mental abilities they right now utilizing.

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In the second stage, the obtaining stage, the mentor core interest on the particular abilities that are to be gained by the competitor. Abilities to be procured may incorporate controlling excitement levels to deliver top execution, if a competitor is over stirred, they may lose core revenue and perform seriously, if under stimulated their energy level and focus will be low and they might be not able to perform well. Another ability is utilizing mental non-existent to make positive wearing experience. Competitors can create abilities in picturing their occasion to intellectually set themselves up for the difficulties that lie ahead.

During the obtaining stage – mentor should consider that each competitor has various methods of acquiring new abilities, some learn by listening some by watching and some by doing. The third stage is the training stage, here, the mental expertise to be acquired turns into a fundamental piece of preparing. With the assistance of mentors and sports therapist, competitors can prepare their body and their brain to make improved donning progress. Anyway, recall that like everybody competitors need total and satisfying life. On the off chance that they are troubled

on close to home level their brandishing execution may endure incredibly. Diminished focus, diminished inspiration, gloom, and tension are generally mental side effects of over preparing. A circumstance where competitors can't stay aware of the requests of sports. Mental reasons for this might be helpless living courses of action, work issues, family issues, or relationship issues, in these occurrences, athletic preparing should be gotten control over and individual issue tended to.

METHOD

Motivation

In genuine universe of game, a contender cannot win without motivation put forward doubtlessly motivation is an individual's own personal drive to succeed. Motivation is known to have two sorts of drivers specifically: Intrinsic and extrinsic extraneous drivers are those external that may lead a contender to need achievement for example an honor, money, reputation, or sponsorship. Challenges are in any case fundamental in wielding world. Achievement designs and money can save long exertion to achieve yet these clarification outward drivers can be relied on to keep up inspiration. Inherent drivers are significantly nearer to home and have most conspicuous spine most contenders are energized by a mix of incidental and inalienable drivers.

Coaches may choose to develop a contender's enticing level by moving or persuasive discourses in which the value of win is highlighted. At any rate, care ought to be taken while using that sort of talks. Sparks for incredible execution and order for horrible execution can similarly be used to overhaul the contender's motivation. These methodologies should be used with alert. Target setting and contribution from coaches are both convincing ways to deal with keep up contender's motivation.

Target setting is convincing as it gives clear objective to be reached, giving the contender solid objective to pursue. Contribution from coaches is convincing that gives the contender a sensation of valiant development in their readiness. So being advised how to improve their show incredible results come quicker provoking good sentiments and an elevating viewpoint.

ACHIEVEMENT

Accomplishment is a significant piece of a competitor's document, giving clear marks of accomplishment to be reached by a said time. This assists with cantering and arranges the competitor's consideration, energizes compatibility, adds to a positive mental state, and assists with creating inspiration. Best accomplished when separated into short-, medium-, and long-haul objectives.

This framework gives a reasonable part to the competitor to go down when pursuing their drawn-out accomplishment. Competitors can seek after various types of objectives depending of goals. Cycle objectives center around improving actual developments and game procedures. Execution objectives center around improving individual execution level autonomous of execution of different contenders.

Result objectives center around winning. These are the most troublesome objectives to get as it's impractical to control the contender's presentation.

ENCOURAGEMENT

Competitors should be intellectually and actually prepared when called upon to play sport. This feeling of availability is alluded to as support and has three unique structures. Actual consolation – it is the degree to which the body is physiologically prepared to play sport. Actual consolation akas into thought muscle enactment and adrenal levels. Mental support – it identifies with clearness of brain center and consideration levels.

Enthusiastic consolation – it identifies with competitor passionate preparation to perform. Passionate states can swing from solid cutthroat animosity to quiet eliminated feeling of self-restraint.

Various games require distinctive degree of support; aerobatic is a lower consolation sport as best outcome is accomplished with significant degree of mental levelheadedness and exact scrupulousness and developments. Group activities are of higher consolation sports as they can require outrageous actual exertion in short sharp bust just as solid cutthroat hostility. While diverse game for the most part requires various degrees of support, there is tremendous variety as far as level of consolation that turns out best for various individual inside that game.

A few competitors normally perform better when they are quiet and formed others can divert better execution in exceptionally support state. Over support causes issue because of muscles worrying and the powerlessness to settle on the most split-second choices. Under consolation causes issues as focus drops, the body turns out to be less responsive. Competitors can learn explicit strategies for controlling their support levels – tuning into dynamic music, short-sharp breaths, and quick runs can help lift consolation level. Muscle unwinding, loosened up breathing, and focusing on sports itself instead of your rivals or observers can help diminish support levels.

CONFIDENCE

Certainty is a condition of positive brain wherein a competitor shows their capacity. Certain competitors are bound to remain quiet under tension, work to accomplish their objectives, and

make progress. Achievement in preparing circumstance and then in match or race conditions helps builds up a competitor's certainty. Positive criticism from instructing staff additionally builds up a competitor's certainty. For ideal execution, competitors need to arrive at their ideal certainty level by zeroing in on explicit detail of their race and what they need to do to succeed.

VISUALIZATION

The human psyche can possibly picture to envision and to make mental symbolism. Competitors can utilize this capacity to incredible impact. By utilizing mental non-existent, they can have fanciful practice of the race, match, or rivalry. In doing so, they setting themselves up for challenges ahead. Think about the difficulties of major games, the crowed is immense the degree of rivalry is solid and enthusiastic a lot is on the line. Every one of these things can occupy a competitor from accomplishing best execution.

Mental fanciful anyway permits a competitor to get ready for this encounter; thereby upgrading the opportunity of accomplishment. While mental symbolism and practice can be utilized to conquer the interruption of game day, they can likewise be utilized to get ready for the particular ability-based difficulties of match conditions. Competitors can utilize symbolism to practice the particular new expertise just as practice exactly how stay away from the contender. This type of symbolism can be utilized as unadulterated mental movement or related to actual preparing. Significantly mental symbolism can likewise be utilized to envision precisely the sort of execution the competitor might want to have. By imagining an engaged presentation or a triumph, the competitor can assembled certainty and make it bound to occur.

Kinesthetic imagery is the style of symbolism that permits a competitor to conceptualize the sensation of effective execution. Kinesthetic faculties are those faculties that permit us to feel our body as it does various activities. This tangible discernment is conceivable as the tactile apprehensive in our muscles, joints, and ligaments is continually giving us criticism. Utilizing kinesthetic imagery, the competitor can practice the body vibe of a fruitful presentation making it simpler to reproduce in match conditions. This style of symbolism is especially helpful for sport like gymnastics as it takes into account an exceptionally intensive practice to you of confounded body developments.

Reproduction is like imagery and common practice in that it readies the psyche for rivalry. It is diverse through in that it does not request that the psyche envision match conditions. Recreation makes preparing conditions for instance by utilizing genuine rivalries and preparing before observers in doing so the psyche is prepared for rivalry.

APPLICATION

Application is a vital ability in supporting achievement. Fixation permits a competitor to specifically coordinate their consideration and spotlight on what's generally significant. Keep up concentration for extensive stretch and to settle on great vital choices. Application is an expertise that can be created with training. On the off chance that during their occasion, a competitor concentrates on past disappointment or repercussions of disappointment in future their earnest attempts cannot be coordinated to the undertaking close by.

DISCUSSION

Motivation is an individual competitor drive to succeed inspiration drivers can be extraneous or inborn most competitors are driven by both. Mentors can upgrade a competitor's inspiration with motivational speeches, impetuses, and disciplines objective setting is viable for improving inspiration as it gives objective to work to chances. Criticism is successful for upgrading as it assists the competitor with improving execution in this way improving their disposition.

Encouragement characterizes a competitor's degree of preparation to play sport. Consolation can be physical, mental, and passionate; diverse game requires various degrees of support various competitors work best at their particular consolation levels. Under support and over consolation prompted lackluster showing consolation levels can be made do with explicit activities.

Visualization is representation of donning movement. Mental symbolism helps with rehearsing new abilities; preparing for match day and picturing achievement. Kinesthetic imagery is conceptualization of felling of effective execution. Recreation makes preparing conditions as close as conceivable to coordinate with conditions.

Achievement offers focused on mark of accomplishment and help create inspiration. Accomplishment can be isolated into short-, medium-, and long-haul objectives. Accomplishment can be centered around cycle, execution, or result.

Application is a competitor's capacity to center; loosing application can prompt chocking in developments of pressing factor.

Confidence is a positive state of mind. Over confidence and under confidence both lead to poor performance.

CONCLUSION

Top game execution is absurd without a finely engaged body. However, a finely engaged brain is similarly significant as all that we do in life remembering our exhibition for wearing field is constrained by our psyche. Sports brain research offers competitors the apparatuses they need to control their psyches, capitalize on their actual capacity, and head toward by level of accomplishment.

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Research Article

The three bodies - Tri-sharira concept in yoga

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ABSTRACT

Ayurveda is based on the concept of tri-dosha (faults or humors), namely, Vata, Pitta, and Kapha that can be perceived by ayurvaids through the nadis (nerves or channels) in the pulse. Sthula Sharira – Gross or Physical body; Sukshma Sharira – Subtle or Pranic body; and Karana Sharira – Causal body.

For optimum benefits, yoga therapy should be coupled with a balanced diet, Naturopathy, Ayurveda, and Aromatherapy. Yoga therapy could be called a system of health care that helps treat human indispositions as naturally as possible, to alleviate pain and suffering through set of exercises, both physical and mental. Ideally, yoga therapy is preventive in nature, as is yoga itself, while being curative in many instances, soothing in others, and restorative in most. Yoga lays emphasis on physical, mental, and emotional balance and development of a sense of harmony with all of life. Contrary to modern medical science that tries to identify the pathogenic factor (be it a toxic substance, a micro-organism, or metabolic disorder) then eliminate it, while yoga believes that the root cause lies somewhere else.

1. Right posture – Asanas
2. Right breathing – Pranayama
3. Right cleansing – Kriyas
4. Right diet – Balanced yogic diet
5. Right relaxation – Shavasana
6. Right mindset – Meditation.

The golden rule in achieving optimum results through yoga is regularity and punctuality, for only abhyasa, regular practice can produce desired results. Over a period of time, it helps to reduce illnesses, increase vitality and vigor, restore balance, and enhance attitude to life. This is also why yoga therapists prescribe specific regimens to suit individual needs. Research has conclusively proven the effectiveness of yoga therapy in healing psychosomatic and stress-related conditions. This is done by bridging the gap between body and mind, ranging across the entire spectrum from physical to emotional to mental. For optimum benefits, yoga therapy should be coupled with a balanced diet, Naturopathy, Ayurveda, and Aromatherapy.

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THE THREE BODIES - TRI-SHARIRA CONCEPT IN YOGA

Ayurveda is based on the concept of tri-dosha (faults or humors), namely, Vata, Pitta, and Kapha that can be perceived by ayurvaids through the nadis (nerves or channels) in the pulse. These can roughly be translated into English as wind, bile, and phlegm. The point is not to eradicate them from the system but, rather to see that none over-rides or intermingles with the other. It is only when the tri-doshas are separated from each other and in a state of balance that the human body is in good health. Furthermore, although it may sound idealistic, in reality, it is possible to achieve. Likewise, yoga has identified three bodies. Furthermore, for the maintenance of good "health" at each of the levels, each requires treatment in terms of meeting their needs.

STHULA SHARIRA – GROSS OR PHYSICAL BODY

It is the outer-most or visible material aspect of a thing. Thus, the "coarse body" (Sthula Sharira) is the mortal physical frame.

We may know full well what foods do us good – or bad, for that matter – and yet, ever so often we make choices that adversely affect our health and well-being. Furthermore, when we repeatedly make unhealthy choices, they eventually lead to a weakened body, lowered immunity and, finally, disease. Problem is the consequences of our actions are not manifest immediately. There may well be a time lag, but eventually, we reap the fruits of what we have sown.

SUKSHMA SHARIRA – SUBTLE OR PRANIC BODY

It comprises the individual mind and intuitive level of mind, the entire psychomental complex that can exist independent of the physical or gross body. Even though not seen to the naked eye, yogis, through their higher level of intuition have been able to identify it. It has now, over the centuries been proven to exist as also its direct connection to our Sthula Sharira – Physical body. In matter of fact, it influences it in more ways than one. Furthermore, just as the gross body has nadis (three) this one too has its own nadis (nerves or channels). Roughly, they are estimated to be in the region of 3, 64,000. In routine, we "ingest," or "breathe in" vast quantities of air. Likewise, sights and sound through the various media. Most of what goes on in everyday life feeds this level of our being and, even though tough to quantify the effect such a diet has on the mind and energy, it is, in effect, far greater than we realize. Hence, there is importance of pranayama in cleansing the pranic nadis and channelizing the flow of prana.

KARANA SHARIRA – CAUSAL BODY

Time and again, in the ancient teachings of yoga and Indian philosophy one encounters the concept of the "beyond." Here, the absolute essence of the mystery of the jiva (individual soul) is hidden, known without words. Here, the mystery of the absolute is represented as the infinite potential that permeates time and space. This is the essence of all essentials, the causal essence, that which embodies the seed of all seeds.

HOW DOES THE PHILOSOPHY WORK?

The key feature of this belief is all three bodies either act in harmony, or they are disconnected (in a relative sense). When these connections are blocked or unempowered then stress, conflict, confusion, disease, and other afflictions manifest themselves. Here it that is yoga helps, by opening up the pathways. The point of yoga is to clear up the passages or channels, that have become obstructed, thus reactivate and harmonize this intricate network. Since this is an intertwined system, all bodies connected to each other. The acts of the physical body are influenced by the more subtle functioning of the energy body (Sukshma Sharira) as well as the quality of the passages to the causal body (Karana Sharira) and vice versa. In other words, there exists a two way street between all three bodies. In the beginning, we use hatha yogic practices to tone up the muscles and internal organs. Then, through the practice or pranayama, we become aware of the subtleties of the Pranic body and start to cleanse the nadis (energy channels). In so doing, we reactivate the dormant circuits. Subsequently, they align more harmoniously through breath regulation. Furthermore, as the fruits of yoga fruits start to manifest themselves, it is purified, reactivated, and re-empowered. Likewise, when we meditate, we start from the subtle body. This allows us to clear out the most subtle pathways that lead to and from the causal body (the fundamental formless body). Furthermore, as the connections between the subtle body and the causal body are cleansed, there come about a congenial harmony and attunement between all the bodies which then flow naturally without effort, will, or decision.

For optimum benefits, yoga therapy should be coupled with a balanced diet, Naturopathy, Ayurveda, and Aromatherapy.

WHAT IS YOGA THERAPY?

Yoga-chikitsa (Sanskrit) or yoga therapy has never been very easy to define, largely due to the depth and breadth of the subject. Furthermore, yet, simply stated, yoga therapy could be called a system of health care that helps treat human indispositions as naturally as possible, to alleviate pain and suffering through set of exercises, both physical and mental. Ideally, yoga therapy is preventive in nature, as is yoga itself, while being curative in many instances, soothing in others, and restorative in most. Yoga therapy is of modern denomination and represents man's first attempt to combine age-old concepts and techniques with contemporary medical and psychological know-how. Hence, where traditional yoga was primarily concerned with spiritual transcendence, yoga therapy aims at holistic treatment of a variety of psychological or psychosomatic disorders ranging from sinusitis and asthma to emotional distress.

WHAT IS THE PRINCIPLE OF YOGIC THERAPY?

Yoga holds that a person's health condition depends on himself. It lays emphasis on physical, mental, and emotional balance and development of a sense of harmony with all of life. There is nothing mystical about it. Nor is it external. Rather it is an inner faculty. Yoga endeavors to re-establish inner balance through a variety of ways, ranging from the gross to the subtle. Why it is considered a holistic art. Rather than prescribe

treatments, yoga therapy encourages awareness. Through age-old yogic techniques, we get to know ourselves better. From that knowledge, comes the ability to more easily accept and adapt to change, resulting in enhanced well-being in body, mind, heart, and spirit, hence its applicability to almost all chronic conditions.

WHAT APPROACH DOES YOGA THERAPY TAKE?

Contrary to modern medical science that tries to identify the pathogenic factor (be it a toxic substance, a micro-organism, or metabolic disorder) then eliminate it, yoga takes a totally different point of view. It holds that if a person is sick there must be a deeper reason behind it – which illness does not arise by chance. It is the result of an imbalance, a disruption in the body-mind complex that creates the condition. Here the symptoms, the pathogenic factors, are not the issue. Yoga believes that the root cause lies somewhere else.

HOW IS YOGA THERAPY DONE? THE SIX STEPS OF YOGA FOR OVERALL WELL BEING

1. Right posture – Asanas
2. Right breathing – Pranayama
3. Right cleansing – Kriyas
4. Right diet – Balanced yogic diet
5. Right relaxation – Shavasana
6. Right mindset – Meditation.

Right Posture – Asanas

A set of postures that tone up the muscles and internal organs, revitalize the system, create overall awareness of the body and its function, and help tranquilize the mind. They also energize and stimulate the body's major endocrine glands. Furthermore, by toning up the internal organs, they also prevent and cure many an illness.

Right Breathing – Pranayama

A set of simple breathing techniques that slowdown and normalize breathing while simultaneously exercising subtle influences on the entire system.

Right Cleansing – Kriyas

Cleansing means a set of easy and effortless hygienic procedures that draw the attention of the population. The cleansing washes affected areas of the body parts and buttress the body's own cleansing mechanisms.

Right Diet – Balanced Yogic Diet

Most, if not all, illnesses are in some way linked to wrong food habits. A slight modification in dietary habits can rehabilitate the entire system.

Right Relaxation – Shavasana

A relaxing asana those done several times as part of the yoga program are necessary. A process designed to soothe both mind and body. Yoga holds that tension is disease (i.e. a state if unease) and relaxation is health. To this end, the whole eightfold path of yoga is to purify the body mind complex.

Right Mindset – Meditation

Meditation is a technique used to stabilize the mind. Increase concentration and will power, balance cellular and chakra energy and develop one – pointedness, that is, Meditation.

All these, if performed together and consistently, help rid oneself of a variety of psychosomatic disorders. Which is why, every yoga therapy session should include all these practices. They help eliminate the aggravated toxins from the system, balance the tri-doshas and stimulate the essential biochemical substances in the affected organs.

CONCLUSION

The golden rule in achieving optimum results through yoga is regularity and punctuality, for only abhyasa, regular practice can produce desired results. Over a period of time, it helps reduce illnesses, increase vitality and vigor, restore balance, and enhance attitude to life. That is also why yoga therapists prescribe specific regimens to suit individual needs.

Research has conclusively proven the effectiveness of yoga therapy in healing psychosomatic and stress-related conditions. This is done by bridging the gap between body and mind, ranging across the entire spectrum from physical to emotional to mental. For optimum benefits, yoga therapy should be coupled with a balanced diet, Naturopathy, Ayurveda, and Aromatherapy.

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Research Article

Attack skills used by players during state level junior handball competitions

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ABSTRACT

In Maharashtra, state level junior handball competition, it is important to see what skills are used as well as skills those are constantly, frequently used. Fast break shoot, move and shoot, standing, or playing by the players during the Maharashtra state junior group state level handball tournament. Running shoot, 9 m jump shoot, 6 m shoot, 6 m dive and shoot, bend and shoot, and dodge and shoot are the most used attacking skills.

INTRODUCTION

The game of handball is very popular in the world and although it is played professionally, the game of handball is not widely known in India. The main reason is that handball is played indoors at the International level or in the Olympics. In India, there is no an independent handball stadium or an indoor handball ground. In India, handball is played outdoors. In the present research, the researchers have studied the attacking skills used by the players in the state level competitions of Maharashtra State Junior Group. It is said that any game has an important role to play in the various skills used in matches. The game of handball is no exception. The game of handball is known as the second most popular sport in the world. Therefore, the various skills used in matches in this game are of great importance. There are a lot of skills in the game of handball. In matches during competitions, it is important to see what skills are used as well as skills those are constantly, frequently used. It is important to see what needs to be done in terms of their development and progress. From the researcher's point of view, it is important to find out which attacking skills are used consistently in competitions.

RESEARCH OBJECTIVES

To observe the attacking skills used by the players during the state level competitions of junior groups in handball.

RESEARCH PROCEDURES

To know the present situation of handball in Maharashtra, it has been decided to conduct an analytical study of the attacking skills used in handball matches and to conduct research on what kind of offensive skills are used. For this, mainly systematic teaching method is used. The total number of handball teams and players of various disciplines playing in the state level handball tournament of the Maharashtra State Junior Group for observation in the present research is the sum of the present research.

In Maharashtra State Junior Group, the inclusion of junior group handball players who participated in the state level handball tournament was decided. This tool was used to observe various attacking skills in the matches of Maharashtra State Junior Group. Attack skills used by players.

Fast Break Shoot

The skill of fast break shoot in the game of handball is considered to be the most ideal attack skill. This skill is used when the opposing team's goal attack fails or the goalkeeper saves the goal (save) and the defending players intercept the ball from the attacking team. This skill has been used in the matches of the Maharashtra State Junior Group in the state level competitions.

Move and Shoot

Move and shoot is one of the most important tricks of the trade. While the team's defense against move and shoot skills are strong, this skill was used in the state level competitions of the Maharashtra State Junior Group as a part of the day or in the midst of extremely tough matches.

Standing or Running Shoot

In this skill, they shoot while jumping. If the players on the defending team are tall, the jump shoot can be unsuccessful, so they use standing shoots. This skill can also be used as part of the diaper. These skills have not been widely used in general. However, this skill is used to beat the opposing team or the opposing team's defense.

9 m Jump Shoot

The skill of jumping high and hitting the ball is a 9 m jump shoot. 9 m jump shoot skill to score a goal is used. Safe grip of the ball is essential in the field of bowling. The 9 m jump shoot is completed with running steps, jumping, body positioning, proper shooting, and safe landing. The skill of 9 m jump shoot in handball is used in the matches of Maharashtra State Junior Group to defend the opposing team.

6 m Shoot

A 6 m shoot is a skill that can be shot by taking three steps to shoot with the right foot (left-right-left) or to shoot with the left foot (right-left-right) by taking one step or by jumping on both legs. The 6 m shoot in the game of handball is a basic and easy attacking skill. This skill has been used many times in the state level competitions of Maharashtra State Junior Group.

6 m Dive and Shoot

When the skill of 6 m dive and shoot is done, the body is made to jump with both feet or one foot behind the 6 m d and the body is pushed within 6 m d. Diving gives the goalkeeper and the goalpost as much space as possible, so there is a greater chance of scoring. A 6 m dive and shoot skills have been used in the matches of Maharashtra State Junior Group.

Bend and Shoot

Bend and shoot skills are used in a left out and right out position in a match. Goal scoring in this manner is dependent on the individual ability of the players. The skill of bending and shooting can be done by taking three steps instead of left out and right out, dodging or passing in the wheel. To perform this skill, the player has to hit the ball with the real body of the waist. Bend and shoot skills have been used in the matches of Maharashtra State Junior Group.

Dodge and Shoot

The skill of dodge and shoot is a must have for players in handball. This skill is effective for personal aggression. Defending players on the opposing team are known to use this skill to score most goals. There are some skills in the game of handball that do not come easily with practice. For that, the player needs to have physical ability. The skill of dodge and shoot has been used in the matches of Maharashtra State Junior Group's state level handball tournament.

CONCLUSION

Fast break shoot, move and shoot, standing, or playing by the players during the Maharashtra State Junior Group State Level Handball Tournament. Running shoot, 9 m jump shoot, 6 m shoot, 6 m dive and shoot, bend and shoot, and dodge and shoot are the most used attacking skills.

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Research Article

Comparative study of anxiety level of tribal and non-tribal athletes

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Received: XXX **Acceptance:** XXX

ABSTRACT

The focus of the present study was to compare the anxiety level of tribal and non-tribal athlete and to find difference in their anxiety level. The sample consists of 200 subjects who were selected through the purposive sampling method. Manifest anxiety scale was administrated to the subjects. Statistical techniques such as Mean, S.D, "*t*"-test were applied for the analysis of the data. The result showed that there is a significant difference in anxiety level between tribal and non-tribal athletes.

INTRODUCTION

Anxiety is a psychological and physiological state characterized by cognitive, somatic, emotional, and behavioral components. These components combine to create an unpleasant feeling that is typically associated with uneasiness, fear, or worry.

Anxiety is a generalized mood condition that occurs without an identifiable triggering stimulus. As such, it is distinguished from fear, which occurs in the presence of an observed threat. Additionally, fear is related to the specific behaviors of escape and avoidance, whereas anxiety is the result of threats that are perceived to be uncontrollable or unavoidable. Another view is that anxiety is "a future-oriented mood state in which one is ready or prepared to attempt to cope with upcoming negative events" suggesting that it is a distinction between future versus present dangers that divide anxiety and fear.

Anxiety is considered to be a normal reaction to stress. It may help a person to deal with a difficult situation, for example, at work or at school, by prompting one to cope with it. When anxiety becomes excessive, it may fall under the classification of an anxiety disorder

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Objectives of the Study

- The main objective of the study was to compare the anxiety level of tribal and non-tribal athletes.

Hypothesis

- It was hypothesized that there will be significant difference in the anxiety level of tribal and non-tribal athletes.

METHODOLOGY

Sample

The sample consisted of 200 samples i.e. 100 tribal and 100 non-tribal athletes which were selected from physical education colleges of Amravati (M.S). Purposive sampling method was used to extract the sample.

Tool

Manifest anxiety scale developed by Dr. Srivastava and Dr. Tiwari was used to measure the anxiety level of the athletes. The test contains 100 statements with a set of two alternative response "Yes" and "No" having a weight age of 1 and 0 respectively. The total manifest score of every respondent was a sum of item checked as yes. For getting anxiety score of each individual all the positive score were added.

Analysis of Data

To compare the anxiety score of two groups Mean, S.D., were computed from the anxiety score obtained by the tribal and

non-tribal athletes. "*t*"-test was applied to test the significant difference between tribal and non-tribal athletes.

RESULTS AND DISCUSSION

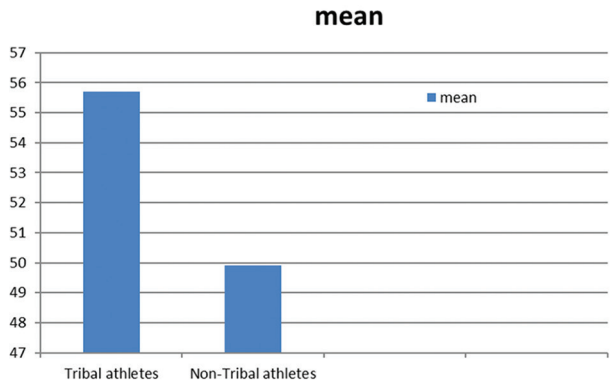


Table 1 shows that the mean anxiety score of 55.7 of tribal athletes is higher than that of the mean anxiety score 49.9 of non-tribal athletes. The difference between the two mean is also statistically significant at both levels. Thus, it confirmed that the tribal athletes are more anxious than the non-tribal athletes. Social isolation is one of the important sources of variance of anxiety. However, gradually abandoning their permittivity and are coming in contact with the people outside their community. No doubt, education, and political awareness are giving them a secure of identity with their fellow countrymen and are helping them in breaking the isolation. They still feel themselves socially isolated which may be consider as one of the casual factor of higher anxiety level in them.

Table 1: Comparison of anxiety score of tribal and non-tribal athletes.

Subjects	*n*	Mean	S.D.	*t*-value
Tribal athletes	100	55.7	11.86	2.04*
Non-Tribal athletes	100	49.9	12.01	

*Significant at 0.05 level of confidence

Findings

1. The study showed that the anxiety score of tribal athletes were greater than non-tribal athletes
2. There was a significant difference in anxiety level of tribal and non-tribal athletes.

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Research Article

Relationship between body types and physical fitness variables among engineering college students in West Telangana

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ABSTRACT

There is an essential view that the training concepts have changed from general to specific and from simple to complex. The earlier methods of training are not result oriented involving lot of time and effort. Therefore, it is essential to take a serious look into various determining factors that are responsible in the training and upcoming of future sports persons against set objectives and targets. These factors shall include physical, physiological, psychological, and morphological variables.

Keywords: Body types, Morphological variables, Physical fitness, Psychological

INTRODUCTION

Modern physical education should contribute much for the welfare of the children, youth and adults. The processes of the physical education should be changed with the environmental changes in the surroundings. There are many factors which influence growth basically; heredity furnishes the frame of reference. Some characteristic combinations of genes from the parents and make-up heredity and place limits on the individual. Environmental factors which can significantly influence growth and development of a student are: Nutrition, climate, out-door living, fresh air, sun shine, exercise, and rest. Both heredity and environment provide for great variations in growth. These variations complicate the job of the education but especially the physical educator. In fact, even within one family we observe many physiques and structural differences.

BODY TYPES

The combination of genes in one family is almost limitless. This great variation in heredity is one of the bases for the principle of individual differences. Thus, variation in heredity is followed by variations in body types and these body types follow a continuous distribution. In general, the youngsters follow a rather definite growth and development. There are several methods of classification for body types. Probably the best known method to the physical educator is the one proposed by Sheldon, patterned somewhat after a method presented by Kretschmer a German psychiatrist, where body builds were classified into three categories: Asthenic, Athletic, and Pyknic.

W.H. Sheldon an American psychologist also divided people into three types depending on the tissue and skin composition namely the ectomorph, mesomorph, and endomorph. Sheldon had proposed a 7 point scale to categorize all individuals under the above three body types. Physical fitness is composed of many complex factors; complex evaluation cannot be done by testing a single factor. Many variables, such as those included in measuring cardio respiratory and cardio vascular endurance, muscular strength, muscular endurance, neuromuscular skills, agility, co-ordination, balance, flexibility, and nutrition reflects each in a special way, some aspect of total physical fitness.

STATEMENT OF THE PROBLEM

The purpose of the study will determine the relationship between body types and physical fitness variables among engineering college students in West Telangana.

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Hypotheses

It was hypothesized that there is significant difference on Pull-ups (Arm and Shoulder strength), Sit-ups (Abdominal Strength and Endurance), Shuttle run (Agility), Standing broad jump (Power and Lower explosive strength), 50 yard Dash (Speed), 600 yard Run (Endurance) on different body types among engineering college students in West Telangana.

Delimitations

The present study is delimited to subjects chosen from engineering college students of different streams. The physical efficiency test is conducted for the age group ranges from 18 to 21 years. Study is delimited to male students only.

Limitations

Environmental conditions among the various students participating in the study: Sociological and economic status of the students, nutritional status (food consumption) among students, family case history of the subjects.

Significance of the Study

Aspiration to excel in higher levels of competitions is a natural urge among sports persons. However, in the present day's competitive world, one has to be more specific and systematic in pursuing ones goal. To analyze the difference in physical fitness parameters of different body types among engineering students of West Telangana.

METHODOLOGY

The subjects were 90 male students of JNTUH College of Sultanpur Engineering. Aged between 18 and 21 years; male students only. A total of 90 students were randomly chosen for the study (n = 30 ectomorph, n = 30 mesomorph and n = 30 endomorph). The subjects had their regular schedule of training in physical education sports and games as per the programers of the college. There was no control on the individual practice of sports and games in specific disciplines during their non-college hours. Classifying the individuals on the basis of physical characteristics associated with the body built prescribed by Sheldon while presenting his 7 point scale for the three principle body types. Once the subjects were assigned to one of the three body type groups by observation method, they were again subjected to final assessment to confirm their suitability in a particular body posture by taking the above listed structural aspects into consideration.

While selecting the subjects for each of the three bodies type groups the following physical characteristics were taken into consideration: Bodily features, structure of the face, structure of the skeletal frame and bone mass, type of the skin, body fat, musculature, and structure of the extremities. AAHPER Youth fitness test is incorporated for assessing the physical fitness components among different body type engineering students of Telangana.

The Test: To relationship of body types and the physical fitness variables among the subjects selected for the purpose of the present study, the AAHPER Youth fitness test has been conducted.

AAHPER YOUTH FITNESS TEST

AAHPER Youth fitness test has been originally developed in the United States of America with a specific purpose of finding an effective means to measure status and achievements in physical fitness objective. The test items were selected by a team of experts committee. Originally, the test was conducted on 90 male students of JNTUH College of Engineering Sultanpur at a certain ranging ages from 18 to 21 years.

The test can be conducted in two following sessions. During the first session, pull-ups, standing broad jump and shuttle run can be conducted. At second session, Sit-ups, 50 yard dash and 600-yard run walk can be preceded. The test if felt to be the most simple and effective means to test the achievements and the physical fitness among the youth. The test is more economical in terms of space and the time aspects. The subjects are divided into six groups or three groups depending on the numbers of subjects available and the time consumption factors. All the subjects must be briefed on the mode of testing and individual events are thoroughly explained and demonstrated before the commencement of the test.

GENERAL PROCEDURE

All the subjects should be given an appropriate amount of warm-up before testing begins. When a student is not medically fit, he shall be exempted from the testing. Uses of the AAHPER Youth fitness test. The test results may be used to indicate present status in fitness. When there is a retest, progress may be noted. From such status and achievement records, many other uses are obvious, such as motivation, grading, and guidance. Comparisons may be made between a student's score and those of others in the group or those of others in the colleges throughout the country. Such

Table 1: Mean scores of endomorph, mesomorph, and ectomorph body types in AAHPER youth fitness test

Body type group	Mean scores
Endomorph	61.3
Mesomorph	154.75
Ectomorph	113.42

**Significant at 0.05 level

Table 2: Analysis of covariance of scores of endomorph, mesomorph, and ectomorph in AAHPER youth fitness test

Test Statistics	Endomorph	Mesomorph	Ectomorph	"F"-value
$\sum x$	3680	9285	6805	73.85**
$\sum x^2$	2,52,875	15,90,475	9,06,125	
$\sum \sum x^2$ (xn–x-2)	2,25,706.6	14,36,853.75	7,71,800.42	
	27,168.3	1,53,621.25	1,34,324.58	

**Significant at 0.05 level of confidence with degrees of freedom between means 2 and degrees of freedom within sample means 177

comparisons may be undertaken using the norms developed using percentiles based on age.

PROCEDURE FOR ADMINISTERING AAHPER YOUTH FITNESS TEST

Once the subjects were selected, they were gathered together on the college grounds to explain the purpose of the study as a means to motivate them to perform their best in the test items. Then, the subjects were introduced to the six test items by the investigator by following the usual means of instruction. The techniques used were the demonstration, explanation and practice by the subjects. The tests were conducted and the scores were recorded by three trained physical education teachers who were well experts were assigned with two helpers to take measurements and record timings wherever necessary.

The tests were conducted on 2 days with a gap of three days between to ensure the reliability of scores. The test scores recorded on the second occasion constituted the data for the present study. The tests were conducted on well-marked grounds using standard measuring devices and as prescribed by the test manual.

The mean scores of three groups were subjected to statistical treatment by calculating the "F" test to find out the significance of their differences basing on body types and the physical fitness status among the subjects. The test retest scores obtained by administering the AAHPER Youth fitness test on two different days with a gap of three days were correlated to assess the reliability of the scores.

ANALYSIS OF DATA

The statistical analysis of the data (number of Pull-ups performed in one continuous effort, number of Sit-ups performed in 60 s, the distance covered in feet and inches in Standing broad jump, the elapsed time during Shuttle run, 50-yard Dash and 600-yards Run-walk in seconds and tenths of seconds) on conducting the AAHPER Youth fitness test collected to 30 endomorph type, 30 mesomorph type and 30 ectomorph type of engineering college students of JNTUH Sultanpur within the age groups of 18–21 years.

Statistical Analysis

In the present study, random group design will be used. The statistical analysis of variance through SPSS. The level of significance is fixed at 0.05 levels to test the hypothesis.

RESULTS AND DISCUSSION

The mean, covariance of scores and "F" values of the investigated endomorph, mesomorph and ectomorph body types in AAHPER Youth fitness test are given in the Tables 1 and 2 and their analysis and interpretation follows them.

The mean score of the mesomorph body type is higher than the other two groups, while the mean score of ectomorph body type is higher than that of endomorph body type.

CONCLUSION

1. Body types referred as somatic types of the adulthood students in the age group of 18–21 years have a strong relationship to the physical fitness
2. 19 years old students are physically less fit compared to the 18 and 21 year old students.

RECOMMENDATIONS

In the light of the conclusions drawn from this investigation, it is recommended that body types shall be given due weight age in the selection of individuals for specific events and also for general training in physical activities and sports, as a strong relation has been found between the body types and physical fitness of the adulthood students in the age group of 18 through 21 years. Further, the following recommendations are also made for further investigations:

1. The investigation may be repeated by taking larger samples
2. The investigation may be repeated by adopting other means of testing
3. Similar studies may be made with the subjects belonging to other ages of adulthood that is older students
4. Similar investigations may be undertaken combining the body types with other physical, physiological, and psychological variables.

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Research Article

Comparative study of selected psychological variables between the defenders and attackers in soccer

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ABSTRACT

The main purpose of the study was to find out the comparative study of selected psychological variables between the defenders and attackers in soccer. Total 20 subjects, out of them 10 from defenders and 10 from attackers. The subjects for the study were chosen only those players who represented inter-collegiate tournaments of S.G.B Amravati University. The age of the subjects was ranging from 18 to 25 years. To analyze and measure competitive anxiety between defenders and attackers of soccer players, competition anxiety test Sinha's Competition Anxiety Test questionnaire of Sinha's (1999) was used. To analyze and measure sports aggression between defenders and attackers of soccer players, Dr.(Mrs.) G.P. Mathur and (Mrs.) R.K. Bhatnagar's aggression test was used and to analyze and measure mental Toughness between defenders and attackers of soccer players, Alan Golberg's questionnaire was used. The collected data from the subject were statistically analyzed using independent *t*-test. The calculated *t* ratio was tested at 0.05 level of confidence.

INTRODUCTION

Psychology is an academic and applied discipline involving the scientific study of mental processes and behavior. Psychology also refers to the application of such knowledge to various spheres of human activity, including relating to individuals' daily lives and the treatment of mental illness. Psychologists study such phenomena as perception, cognition, emotion, personality, behavior, and interpersonal relationships.

Comparative analysis helps to find out the accurate factor required for the development of the games which have been compared in the study. It helps to find the psychological differentiation between defenders and attackers in soccer. It helps the coaches to motivate the players, it useful to develop the psychological factors of the players which in more required for the game. Due to the different nature of players, that is, defenders and attackers certain difference in the psychological variables are observed, the present study was undertaken to identify relevant psychological variables between the defenders and attackers in soccer.

Purpose of Study

The main purpose of the study was to compare the psychological variables between the defenders and attackers in soccer.

Significance of the Study

1. The findings of this study might be helpful to the coaches, players, and physical education teachers to have an idea regarding the role of selected psychological variables on the performance of defenders and attackers in soccer
2. The result of this study also be helpful in understanding the stronger and weak points of psychological variables among the defenders and attackers. Accordingly, psychological training programmer may be designed.

Hypothesis

On the basis of literatures and scholar's own understanding it is hypothesized that there would be significant difference in the psychological variables of mental toughness, aggression, and (competitive) anxiety between the defenders and attackers in soccer.

Delimitations

This study was delimited to the following aspects are given below:

1. Only total 20 male soccer players were selected 10 from defenders and 10 from attackers. The subjects were selected who were represented at inter-collegiate tournaments of S.G.B Amravati University. The age of the subjects ranging from 18 to 25 years.
2. The study was delimited to questionnaire method. The study was delimited to psychological variables, that is., mental toughness, aggression, and competitive Anxiety.

Limitations

As the data are collected through questionnaire, any bias in the response of the response of the subjects may be considered as limitation of the study.

Selection of Subject

Twenty (20) inter-collegiate level soccer players (n = 20) were selected for subjects. The subjects consisted of 10 from defenders and 10 from attackers. The subject for study was chosen only soccer players who represented inter-collegiate tournament of S.G.B Amravati University. The age of the subject was ranging from 18 to 25 years.

Selection of Variable

For the present study, the following psychology variables were chosen:

1. Competitive anxiety
2. Sports aggression
3. Mental toughness.

Selection of Tools and Criterion Measure

1. The data collected through Sinha's Competition Anxiety Test (1999) to measure anxiety
2. Dr. (Mrs.) G.P. Mathur and (Mrs.) R.K. Bhatnagar's aggression test to measure aggression level
3. Alan Golberg's questionnaire to measured mental toughness.

Collection of Data

The data pertaining to the study were collected on the selected subjects by the administering the appropriate fore stated tools. Before the collection of data research scholar explained the purpose of the study as well as the process to fill up the questionnaire to the subjects so as to, they could best.

Statistical Treatment

The data pertaining to this study were obtained from the responses given by the selected subjects in the questionnaires were marked according to the key. By employing descriptive statistics, the characteristics of the collected data were described and then t-test was employed to find out the significant difference among the two selected groups.

Level of Significance

To test the hypothesis level of significance was set at 0.05, which was considered appropriate for the present study. To test the hypothesis level of significance was set at 0.05, which was considered appropriate for the present study.

Finding

The collected data were analyzed by computing independent "t"- test statistical technique to find out the mean difference if any between the two selected groups of defender and attackers in the selected variables, that is, mental toughness, competitive anxiety, and sports aggression level independently and the findings pertaining to the statistical analysis have been given in following tables:

Table 1 reveals that there is no significant mean difference between the means of defenders and attackers in soccer, though the mean of defenders is 17.3 which is greater than the mean of attackers of 15.6, therefore the mean difference is 1.7, standard deviation of defenders and attackers are 3.49 and 4.37, respectively. However, the calculated t-value of 0.562 is less than the tabulated t-value of 2.08 at 0.05 level for the 18° of freedom. Hence, the mean difference value of 1.70 is statistically not significant. The difference of means has been graphically shown in Figure 1.

It is evident from Table 2 that the mean of defenders and attackers in soccer is 20.7 and 12.1, respectively; standard deviations are 2.98 and 3.10, respectively. After the computation of t-test, t-ratio value of 4.5 is quite higher than the tabulated t-value of 2.08 needed to be significant at 0.05 level for the 18° of freedom. Comparison of means between the defenders and attackers in soccer is depicted picturesquely in Figure 2.

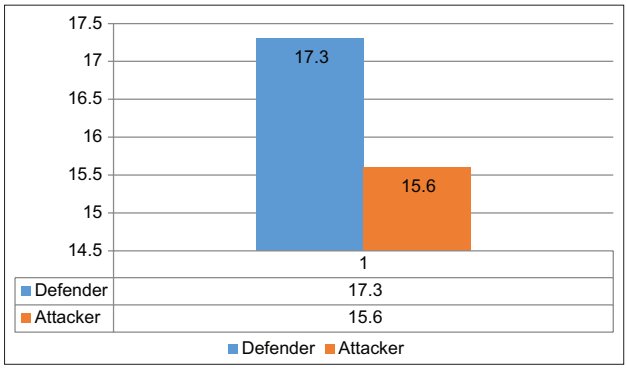


Figure 1: Comparison of means between the defender and attacker in mental toughness

Table 1: Description of Mean, Standard Deviation and *t*-ratio for the Data on Mental Toughness of the Defenders and Attackersin Soccer

Position	Mean	Standard Deviation	Mean Difference	Standard Error	Degree of freedom	*t*-ratio	Tab. *t*-value
Defender	17.3	3.49	1.7	3.021	18	0.562@	2.08
Attacker	15.6	4.37					

@ Not Significant at 0.05 level, Tabulated "*t*"0.05 (18)=2.08

Table 2: Description of Mean, Standard Deviation, and *t*-ratio for the Data on Aggression of the Defenders and Attackers in Soccer

Position	Mean	Standard Deviation	Mean Difference	Standard Error	Degree of freedom	*t*-ratio	Tab. *t*-value
Defender	20.7	2.98	8.6	1.90	18	4.50*	2.08
Attacker	12.1	3.10					

*Significant at 0.05 level, Tabulated "*t*" 0.05 (18)=2.08

Table 3: Description of Mean, Standard Deviation, and *t*-ratio for the Data on Anxiety of the Defender and Attackers in Soccer

Position	Mean	Standard Deviation	Mean Difference	Standard Error	Degree of freedom	*t*-ratio	Tab. *t*-value
Defender	11.1	3.28	9.3	2.46	18	3.77*	2.08
Attacker	20.4	3.77					

*Significant at 0.05 level, Tabulated "*t*" 0.05 (18)=2.08

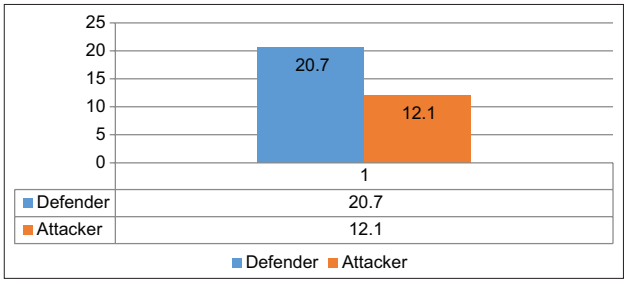


Figure 2: Comparison of means between the defenders and attackers in aggression level

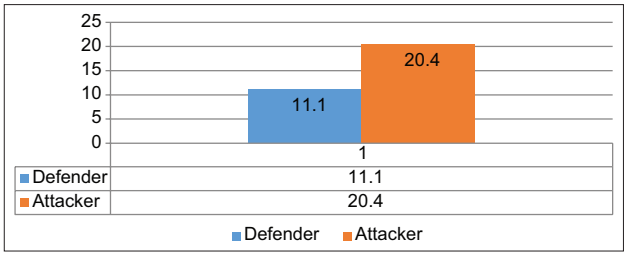


Figure 3: Comparison of means between the defenders and attackers in anxiety level

It is evident from Table 3 that the means of defenders and attackers in soccer are 11.1 and 20.4, respectively; standard deviations are 3.28 and 3.77, respectively. After the computation of *t*-test, *t*-ratio value of 3.77 is quite higher than the tabulated *t*-value of 2.08 needed to be significant at 0.05 level for the 18° of freedom. Comparison of means between the defender and attacker in soccer is depicted picturesquely in Figure 3.

DISCUSSION OF HYPOTHESIS

In the beginning of this study, it was hypothesized that there would be significant difference in the selected variable of mental toughness in between defenders and attackers in soccer, but statistical results showed insignificant difference between the two selected groups in the selected variable of mental toughness, hence hypothesis stated earlier is rejected. It was further hypothesized that there would be significant in aggression difference between the defenders and attackers in soccer. Findings of statistical analysis showed significant mean difference in hence the hypothesis stated earlier is accepted. It was also hypothesized that there would be significant mean difference in the variable of competitive anxiety. Finding of statistical analysis showed significant difference between the defenders and attackers in soccer, therefore hypothesis stated earlier is accepted.

CONCLUSION

Recognizing in the limitations of the present study and on the basis of findings, the following conclusions are drawn:

1. There was no significant mean difference in mental toughness between the defender and attacker in soccer
2. There was significant mean difference in aggression between the defenders and attackers in soccer and the defenders are significantly more aggressive than the attackers
3. There was significant mean difference in competitive anxiety between the defenders and attackers in soccer

and attackers' anxiety level is significantly higher than the defenders.

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Research Article

Importance of sports nutrition for players to develop performance

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ABSTRACT

Nourishment assumes a fundamental part on sports execution. Following a satisfactory sustenance, design decides winning the gold decoration or coming up short in the endeavor. That is the reason it is ordinarily alluded to as "imperceptible preparing." However, in regard to food and execution, it is not just eluded to proficient competitors. These days, an enormous number of novice competitors perform day-by-day active work both casually and semiprofessionally. That populace likewise looks to accomplish an improvement in their own brands, which can be arrived at following legitimate healthful rules. In competitor populace, supplement prerequisites are augmented contrasted and non-competitor populace. Along these lines, it is vital for do a nourishing methodology adjusted to the competitor and instructional courses. Moreover, different benefits of satisfactory food admission in sports are identified with changes in body structure, decrease of wounds, and prolongation of expert vocation length. The goal of this section is to decide the nourishing necessities of competitor populace that permits to accomplish their wearing objectives. Healthful systems will be tended to as far as macronutrients utilization, hydration, and timing relying on type and force of activity.

INTRODUCTION

Nourishment is emphatically connected to well-being, particularly when sports are worried, because of the increment in energy and supplement requests. It is important to know the physiology of the activity to know the distinctive metabolic pathways that exist together during sports practice. Along these lines, you can foresee the progressions that happen in the creature during actual exertion, to accomplish some dietary recommendations. The healthful acts of competitors are multifactorial and rely on the propensities, culture, or nourishing information on the competitor. So crafted by a game nutritionist is to encourage the competitor and his current circumstance to roll out the essential improvements in his admission and in this manner further develops sports execution (SP). Nutrition is determinant in accomplishing a sufficient SP, which is characterized by three factors: Preparing, rest, and taking care of. In any case, the fundamental target of sports sustenance should safeguard the strength of the competitor, which can be accomplished with a satisfactory admission adjusted to the kind of preparing performed. Ideal sustenance gives the energy important to perform actual exercise while diminishing injury rate, a factor that together makes the SP increment without anyone else. Two of the perspectives that can restrict the SP are the condition of hydration and the energy commitment. Hypohydration states produce adjustments in homeostasis, diminished blood volume, expanded pulse, lower pace of perspiring, expanded life form temperature, and more noteworthy impression of exertion which converts into SP crumbling. Similarly, low-energy utilization highlights weariness, immune suppression, and inclination for wounds, which can meddle in the improvement of SP. These days, a remarkable expansion in the populace that performs actual work has been accounted for. In the USA, the all-out number of sprinters supported in long-distance race occasions is 541,000 in 2013, which addresses 27% a larger number of members than saw in 2008 in a similar pattern saw in numerous nations. For instance, in Spain, the quantity of members expanded from

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28,000 (2008) to 57,931 (2013), which addressed an expansion of 101%. These increments a long way from stopping have kept filling in the past 5 years. In particular, long-distance races of Sevilla and Valencia have arrived at 14,500 and 20,000 sprinters in 2018, which diverge from the past cooperation saw in 2013 (5963 and 9653 members, respectively). Unfortunately, sports sustenance is frequently referred to sports supplements or "mystical" bizarre weight control plans. Indeed, 40–70% of competitors use sports supplements without examining if their utilization is truly important.

BODY PIECE

The body structure (BC) of the competitors is identified with the SP, as it very well may be adjusted all through the season. There is no single BC for each gathering of competitors; in any case, it can fill in as an aide for competitors and mentors. The period of the competitor will be partitioned into various stages all through the cutthroat period. Serious season can be separated in preseason, cutthroat period, change period, and in the most pessimistic scenario injury period. Due to various forces, timing, and sorts of preparing, the BC is typically disparate in the serious season. Consequently, know the BC of the competitors to decide the sufficiency of the momentum season stage. Aside from a higher weight file (body mass index), there are a few strategies for the assessment of BC. Double-energy X-beam absorptiometry (DEXA) is viewed as the best quality level for the appraisal of muscle versus fat, principally because of its high reproducibility and exactness. Notwithstanding, DEXA has high monetary expense, is not convenient, and furthermore transmits a little radiation, so its utilization is not extremely normal. Among the most utilized techniques are bioelectrical impedance investigation (BIA) and anthropometry. Impedance is characterized as the resistance displayed by natural materials to the section of an electric stream. Tissues with high impedance offer more noteworthy obstruction (fat tissue, bone, and air in the lungs) and contain less measure of water. The more noteworthy the measure of water, the better this electrical stream, will go through. Along these lines, the hydration satiate of the individual is the determinant for the BC estimation by BIA. In expansion, to normalize past conditions and excuse mistakes, certain conventions should be followed before the estimation of BC by BIA. That reality makes BIA a fairly loose strategy.

METABOLIC PATHWAYS AND EXERCISE

Preceding setting up prerequisites in regards to amount and timing of macronutrients, a concise methodology about various metabolic pathways that give energy during exercise is important. The energy frameworks are coordinated by a bunch of metabolic pathways that come into activity during exercise, contingent on the power and length. In synopsis, they can be isolated into non-oxidative pathways (phosphogenic and glycolytic pathways) and high-impact pathways (supplement oxidation). Both pathways mean to produce ATP that will be devoured during the activity. The non-oxidative pathways happen in the phone cytosol, do not need oxygen, and are initiated during brief time frame periods (seconds). Phosphagen course utilizes ATP and phosphocreatine, enduring somewhere in the range of 1 and 10 s, and is a course that need not bother with oxygen and does not produce lactate. Glycolytic pathways use glucose, muscle, and liver glycogen through glycolysis and happen in focused energy practices up to 3 min. These glycolytic pathways produce lactate and hydrogen bonds, creating corrosiveness in the muscle cell – this acridity being one of its constraints. The vigorous pathway happens inside the mitochondria, so it requires the presence of oxygen to utilize energizes. It is normal of opposition practices with medium-low force and long span. It incorporates the oxidation of CHOs, fats, and less significantly proteins. This course creates substantially more ATP than the anaerobic way however more leisurely, speed being the limit of this way. Energy needs. The way to progress for any competitor will be to adjust energy admission to energy consumption, which permits the right working of the life form while further developing BC. Notwithstanding, it tends to be convoluted because of numerous progressions in periodization of preparing and competitions. The energy requests of competitors vary generally relying on the sort of game, length, force, serious level, and individual inconstancy of every competitor. The really exhausting the cutthroat levels of the competitor are, the best expansion in the force of both preparing and contest happens, which will bring about a critical decrease energy holds that should be supplanted by a satisfactory eating routine.

SUPPLEMENTS

Supplements are fuel for the body. All together for our physical and emotional well-being to stay solid and sound, we need to devour a fair eating routine of supplements that can bring you through regular day-to-day existence. While performing sports action, yet previously and thereafter. Significant supplements include.

CARBS

There are two key types of carbs – dull or complex and basic sugars. Basic sugars are starches found in refined items and give a sweet taste like white bread and sweet cereals. Normally found in milk items, products of the soil, they can likewise be added to food sources such as white sugar, earthy colored sugar, nectar, molasses, and maple syrup and so on. However, the entirety of the sugars which we eat (regardless of whether they happen normally or are added) is utilized by the body similarly, it is smarter to get your straightforward sugars from food varieties which they happen normally in, as these food

varieties additionally contain fiber a significant supplement. Complex sugars, otherwise called starches, incorporate grains such as bread, pasta, and rice. In addition, to basic sugars, there are some perplexing starches that are superior to other people. Prepared refined grains, for example, white rice and white flour are less great as the supplements and fiber are taken out.

All things being equal, nutritionists suggest that where potential, people settle on crude grains, which are as yet stuffed loaded with nutrients, minerals, and fiber.

FATS

Fat is a fundamental part of any eating regimen as it assists the body with engrossing supplements just as being an incredible wellspring of energy. In spite of the fact that fats are significant, we should in any case endeavor to screen the amount we are eating. Enormous sums could prompt overabundance weight acquire and could bring about an expanded danger of genuine well-being concerns. Soaked fats are usually found in creature items and prepared food sources like meat and dairy. This kind of fat is not viewed as sound for the heart and is thought to raise your low-density lipoprotein (LDL) (awful) cholesterol levels.

Unsaturated fats are found in food varieties such as avocados, olives, nuts, and slick fish. They are viewed as heart sound, can attempt to bring down your LDL cholesterol levels, and raise your high-density lipoprotein (great) cholesterol levels.

PROTEIN

Protein is available in each cell of the body and is significant for assisting with building and fix tissues. It's likewise used to make proteins, chemicals, and an assortment of extra body synthetic substances just as shaping the structure squares of bones, muscles, ligament, skin, and blood. Protein-rich food varieties incorporate meat, fish, eggs, beats, nuts, seeds, and soy items.

HYDRATION

It's vital to remain hydrated when partaking in sports: Lacking liquid admission prompts drying out as the body is attempting to chill off through perspiring. This influences your exhibition, yet it can likewise be very hazardous to your well-being and foster further complexities. Despite the fact that parchedness can occur in any action, it's more predominant when practicing in hot and damp conditions. Water is ideally suited for rehydration, yet in case you are occupied with actual work for more than 60 min, sports drinks that incorporate electrolytes or normal coconut water can be useful. Electrolytes, little charged particles, are fundamental for keeping a solid sodium and potassium balance in our bodies. They help to animate thirst and empower drinking, just as improving the body's capacity to hold water.

CONCLUSION

Sports nourishment zeros in its investigations on the sort, just as the amount of liquids and food taken by a competitor. Furthermore, it manages the utilization of supplements such as nutrients, minerals, enhancements, and natural substances that incorporate carbs, proteins, and fats.

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Research Article

An overview of correlates of aggressive behavior in sports

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ABSTRACT

Aggression is a negative personality trait that has been associated with sport participation. It is not an attitude or emotion it is a physical or verbal behavior. Many individuals believe that players need to perform aggressively to get success in sports. Nowadays in competitive sports aggressive behavior of sportspersons is widely seen. The main objective of this article is to throw a light on different correlates/ factors that effect on sportspersons' aggressive behavior in sports which occurs frequently through analytical study of a previous literature. Researcher thoroughly reviewed the previous literature and identified five types of correlates of aggressive behavior of sports person as, personal factors, inter-personal factors, social factors, situational factors, and factors related to sports. It was observed that, frustration, anger, provocation, winning at all attitude, certain psychological characteristics of individual viz., self-esteem, lack of emotional regulation, lack of intrinsic motivation, anxiety, stress, moral development and ethical attitude, coaches and teammates' influence and type of sports are most important and mostly studied correlates of aggressive behavior of sports persons.

Keywords: Aggression, Aggressive Behavior, Sports, Correlates

INTRODUCTION

Aggression and competitions are two non-isolated things. Many times aggression may help performance because it arouses players to put in harder efforts for success but in certain cases aggression may impels performance of the individual skill and leads to failure of team (Kamlesh, 1984). Aggression is a negative personality trait that has been associated with sport participation. It is not an attitude or emotion it is a physical or verbal behavior (Mattesi, 2002). Aggressive act can be defined as those in which the athlete is highly motivated, demonstrate the grate realize of physical energy and/or is not inhibited by fear of potential fracture or injury. Glyn *et al*. (1986) says, participants allows aggression in them to be dissipated in an accepted manner as all competitive sports situations hold some degree of hostility between opponents. Many individuals believe that players need to perform aggressively to get success in sports. Players ought to be aggressive at one point in which the team can formulate a plan to success. Nevertheless, there must be a restraint to avert aggression to be converted into violence. Nowadays in competitive sports, aggressive behavior of sportspersons is widely seen. To plan strategies to reduce the incidence of violence due to aggressive behaviors among sports persons, it is necessary to understand the reasons behind the aggressive behavior of the athlete.

Objective of the Study

The main objective of this article is to throw a light on different correlates/factors that effect on sportspersons' aggressive behavior in sports which occurs frequently through analytical study of previous literature.

CORRELATES OF THE AGGRESSIVE BEHAVIOR OF SPORTS PERSON

There are several factors which arouse sports person and lead to show aggressive behavior during competitions. The several researchers have undergone studies to find out the reasons for aggression and aggressive behavior of the sports person. After thoroughly reviewing literature researcher analyzed the correlates of the aggressive behavior of the sports person in the present study. There are several factors which determine the athlete will show the aggression or not. The factors are classified into five different categories as; personal factors,

inter-personal factors, social factors, situational factors, and factors related to sports.

Personal Factors

Gender

It is proved that men are more violent than women (Archer and Coyne, 2005; Crick and Nelson, 2002). In comparison to women and girls, who use more non-physical aggression such as shouting, insulting, spreading rumors, and excluding others from activities, men and boys prefer more physical and violent aggression—behaviors such as hitting, pushing, tripping, and kicking (Osterman *et al*., 1998). Gender differences in violent aggression are caused in part by hormones. Testosterone, which occurs at higher levels in boys and men, plays a significant role in aggression, and this is in part responsible for these differences.

Instinct of individual

Instinct theory by Freudian suggests that aggressive behavior is an innate characteristic of all individuals (Lorenz, 1996). This theory explains that human beings are born with aggressive instinct which continues to build up until it is released through an aggressive act (Gill, 2000).

Personality Traits

Previous studies have shown that aggression is negatively correlated with conscientiousness and agreeableness and positively correlated with neuroticism, depression, vulnerability, anger hostility, and impulsiveness (Jones *et al*., 2011; Sharpe and Desai, 2001).

Frustration

Most of the time the aggressive behavior results from frustration. It is a general perception that frustration caused due to goals not being achieved is the primary cause of aggression. Berkiowitz (1965) proposed that either frustration or another stimulus (e.g. threat) increases a person's arousal and anger levels, which increases one's readiness to aggress. When athlete's expectancies are high, he/she is failed to fulfill them research indicates that athlete may show aggression.

Anger

The ability of the athlete to regulate the emotions is important factor in sports performance. Anger has been associated with a number of performance outcomes along with possibility of violent behavior (Robazza *et al*., 2006). The fact that uncontrolled anger can lead to aggressive or violent behavior has been known for decades (Berkowitz, 1993; Feindler and Ecton, 1994).

Provocation

Provocation is any behavior (of another person or persons) that is judged by the victim as aversive or unpleasant, normally with intent on the part of perpetrator implicitly assumed and rousing feeling of anger, frustration or fear. Research suggests that provocation is an important factor in determining anger and aggressive behavior (Maxwell and Moores, 2009; Stranger *et al*., 2016).

Winning at Any Cost Attitude

One of the main objectives of every sportsperson is to win and celebrate success. According to Hanson and Savage (2012), some non-productive and ungentleman behaviors before, during and after sports competitions are precedence by over-emphasis on winning at-all-cost attitude of sports athletes. The struggle to win is one of the sources of competitive pressure and anxiety which may lead to burnout and unfair advantages among athletes, coaches, fans, or other sports participants in the contemporary sports society (Uzor *et al*., (n.d.). Fear of losing and fear of failure to Elendu and Mina (2017) are predictors of anxiety in young athletes. The commercialization and professionalism of contemporary sports have made winning the goal of every athlete, coaches, and other stakeholders (Uzor *et al*., (n.d.).

Moral and Ethical Factors

With the conviction that, behavior has a cognitive element, moral reasoning would be a consistent predictor of sport aggressive thoughts and behaviors (Sheriff *et al*., 2017). Theory of Moral reasoning (Bredemier, 1994) postulates that how likely a person is to aggress is based on their level of moral development.

The moral climate can promote pro-social or antisocial behavior, prosocial behavior is behavior intended to help or benefit another, while antisocial behavior is behavior intended to harm or disadvantage another, including aggression (Spruit *et al*., 2019).

According to Hanson and Savage (2012), to understand the role ethics plays in sports and competition, it is important to make a distinction between gamesmanship and sportsmanship. Gamesmanship is built on the principle that winning is nothing but everything. Athletes and coaches are encouraged to bend the rules wherever possible to gain competitive advantages over an opponent, and to pay less attention to the safety and welfare of the competition. Hanson and Savage further explained that a more ethical approach to sports is sportsmanship. The goal in sportsmanship is not simply to win, but to pursue victory with honor by giving one's best effort.

Individual Differences

Legitimacy judgment

When athletes judge aggressive and rule-violating behaviors as legitimate or acceptable, they are more likely to be aggressive.

Moral disengagement

It refers to a set of psychosocial mechanisms that people use to justify aggression. Through these justifications, athletes manage to engage in aggression without experiencing negative feelings lie guilt that normally controls this behavior.

Ego-orientation

Individuals who are high in ego orientation feel successful when they do better than others; they are preoccupied with winning and showing that they are the best. These players are more likely to be aggressive in sport.

Psychological Characteristics

There are some important psychological characteristics that contribute to the level of aggressiveness in sport. Previous research studies reveals that individual differences in emotional regulation, motivation, self-esteem, as well as anxiety can predict the extent of aggressive behavior in sports context. The results of study by Gano-Overway *et al*. (2009) showed that a weaker ability to self-regulate is a strong predictor of aggressive behavior. Similarly, sports youngsters, who did not reach satisfying levels of self-esteem, could behave more aggressively on the field (Gano-Overway *et al*., 2009). Lack of intrinsic motivation, low self-esteem, and poor emotional regulation, and stress may lead to aggressive sport behavior. Chantal *et al*., (2005) found negative correlation between intrinsic motivation and aggressive behavior.

Gumusdag (2013) found an association between somatic anxiety and both passive and hostile aggression among professional football players, while Pacesova and Smela (2020) also showed a significant relationship between athletes' anxiety trait level and physical aggression.

Other personal factors

The previous research has shown that physical aggression can be affected by many factors, such as alcohol use (Giancola *et al*., 2002), exposure to violent media (Bushman, 1995).

Inter-personal factors

Rutten *et al*. (2008) with their research document indicates the various factors that affect the aggression levels of players at adolescent levels such as, the team environment, the team principles and attitudes, the relationship of players with the coach, the fair play attitude of the team and the socio-moral climate associated with the team. In the field of youth studies, the socio-moral environment created by peers, parents, and teachers in which the youth develops, is believed to be of great importance in shaping moral behavior of youth (Kohlberg, 1984). In terms of playing sports, reward of praise and support from coaches, parents and teammates would seem to be invaluable to developing child. If their supports are conditional on aggressive behavior such as, domination opponents, winning at all costs, there is a great potential for an athlete to learn aggressive behavior (Sheriff *et al*., 2017).

Treasure (2002) put forth the point that participating in sports with the negative form of training could have a devastating lifelong impact on a child's socio-moral development. Usually coaches, teammates and fans exert pressure of winning on player without concern of ethics.

Sometimes a wrong decision given by officials of the competition, partiality by referee or unnecessary favor of referee to opponent team may leads to aggressive behavior of one or more athletes.

Social Factors

According to Bandura (1973), aggressive behavior of sportsperson is nothing but his/her learned behavior during sports participation and sports spectatorship. The young children imitate adult's aggressive actions that they witness in contrived social settings (Stephen, 2009). Social Learning theory states that individuals become aggressive by imitating role models. The theory explains that observational learning takes place and that learning is reinforced vicariously. Vicarious reinforcement occurs when a person witnesses a model being rewarded for behaving in an aggressive way. Aggression that is reinforced is likely to reoccur if not penalized.

Social environmental variables are also associated with aggression. One of them is the performance motivational climate, which refers to the criteria of success that are dominant in the athletes' environment. Through the feedback they provide, the rewards they give, and, in general, the way they interact with the players, coaches make clear the criteria of success in that achievement context. Players who perceive a performance climate in their team are more likely to become aggressive.

Situational Factors

It is believed that temperature increases feelings of anger, or there is misattribution of the arousal that occurs with increased temperature. The role of situational factors in creating provocation or unpleasant feelings that in turn influence aggression by impacting an individual's internal state has been shown reliably in research, specifically relating to hot temperatures (Anderson *et al*., 1995), physical pain and competition (Berkowitz, 1993), interpersonal insults (Hasan *et al*., 2019), and social rejection (Leary *et al*., 2006; Twenge and Campbell, 2003).

FACTORS RELATED TO SPORTS

Type of Sports

More recent studies indicated the relationship between contact sport participation and aggressive behavior (Kas *et al*., 2014;

Trivedi and Pinot, 2015; Trulson, 1986; and Anderson, 1999). Research on athlete's aggressiveness has been extended on off-field aggression as well. Endresen and Olweus (2005) showed elevated levels of violent and non-violent antisocial behavior after 2 years of participation in "Power Sports" such as boxing, weight lifting, wrestling and martial arts. It is widely accepted belief that higher aggressiveness characterizes contact sports athletes in comparison to non-contact sports athletes (Cox, 2005; Singer, 1975). Athletes in competitive sports continue to behave aggressively (Mintah, 2017). Gelfand and Hartman (1982) found that participation in competitive games raised boys' and girls' levels of aggression regardless of competition outcome.

Level of Sports

Some studies found that the lower competitive levels tend to use more hostile aggressive (Coulomb-Cabagn and Rascle, 2006) and show higher levels anger, aggressiveness, and provocation (Maxwell *et al*., 2009). However, Visek and Watson (2005) found that perceived legitimacy of aggression and attitudes of professionalization increased with age, as well as with competitive level.

CONCLUSION

The present article systematically reviewed the possible correlates of the aggressive behavior of the sports persons. It is concluded that, frustration, anger, provocation, winning at all attitude, certain psychological characteristics of individual viz., self-esteem, lack of emotional regulation, lack of intrinsic motivation, anxiety, stress, moral development and ethical attitude, coaches and teammates' influence and type of sports are most important and mostly studied correlates of aggressive behavior of sports persons. It is also concluded that, from childhood the aggressive behavior or personality trait has been developed in sports person. The correlate should be identified in early stage of development and efforts should be taken to boost ethical and prosocial behavior, the good character should be built.

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Research Article

Aggression comparative study of competitive sports between football and hockey players

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ABSTRACT

The purpose of the study was to evaluate the sports aggression between football and hockey players during the competition and also to investigate any possible differences between football and hockey men players. Struggle for supremacy, dominance, and excellence in sports obviously involve aggression. The sample of the study consisted of 50 football and 50 hockey players (100 men), who participated in the inter-collegiate and inter-university tournaments. The age range of samples was between 18 and 25 years. Aggression has been assessed using Buss Perry Aggression Questionnaire. The "*t*" test was used to compare the groups and for testing significance of the values ($t = 0.05$), for men football and hockey players. The result of the study shows that there was a significant difference ("*t*" ratio) of aggression between inter-collegiate football and hockey players.

Keywords: Behaviour, Competition, Stimulus, Trait

INTRODUCTION

Aggression among humans is as old as a human race. Beginning with Cain's murder of Abel and extending throughout history, people have fought each other in tribal wars, ethnic and religious wars, and worldwide conflicts. The word aggression which is also a psychological factor comes from the Latin root aggredial (ortoward) and gradior (walk) which means to walk with the intent to "hurt" or "harm". Aggression has directional components some aggressions are directed in word and in their extreme form many culminate in self-destructive behaviors including suicide. The idea that aggression and performance are thought to be positively related in a sports setting is not surprising. Aggression is defined as the expression of stimulus in the human being. This expression may be either physical, verbal, or gesture on one person by another person. Actually, aggression is not an attitude of an individual but it is the behavior of an individual. The reflection of aggression can be seen in the acts of a person with the intention to injure others. Thus, in its broad meaning aggression includes ail acts such as physically hitting another and verbal abuse used by athletes, coaches, or spectators.

Aggression could have a positive influence on the performance outcome of an individual or team if the aggressive behavior harmed the opposition either physically or psychologically weakening their resources. Aggression could also improve a team's performance outcome by improving the process of that group. Aggressive behavior is quite visible in sports. To observe aggressive sports behavior, we could attend a kabaddi game and watch player's fights for points or we could watch runners throw elbows and Jostle of Position in 1500 mis race. More recently, the instinctive view of aggression has received its impetus from ethnologists such as Lorenz. He believes that aggression builds up within an individual and that this builds up needs some form of release. The release may occur through either an acceptable or an unacceptable (antisocial) act. Sports would serve as a suitable vehicle, for example, whereas war would not. According to Lorenz, sport is sought as a substitute for war because in all sports, competitive situations, some degree of opposition between opposite teams and players allows aggression to be dissipated in an acceptable manner. According to Singh (2008), aggression is

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a characteristic of negative nature. This characteristic is also associated with sports. Of course, aggression is an intentional physical or psychological behavior to harm another person. It is an important topic of academic research to study aggression in sports on all levels. Now a day's aggression in sports has become a social problem. The international society of sports psychology also recognized aggression as a social problem both on and off the playing field and also recommended ways to curtail this behavior. Due to girder biasness, research on aggression is limited in the sports with a collision is traditionally only available for males not for females and so no research has been done on female aggression. Many collision sports related to male shave amended rules and these modified rules disallow certain types of contact in the female collision sports, for example, ice hockey and lacrosse. A gap in the literature regarding aggression and contact sport type is created due to this type of activity. The Revised Frustration-Aggression Theory would predict that through participation in sport, male counter parts because of the opportunity for observation all earning and the presence of situational cues and reinforcements. More specifically, they would show similar aggression levels because of the similar sport socialization processes. (Keeler, 2007). The purpose of the present study was to evaluate the competitive sports aggression between football and hockey players during a competition and to investigate any possible differences between football and hockey players.

METHODOLOGY

The sample of the study consisted of 100 football and hockey players (100 men), who participated in intercollegiate and inter-university tournaments. The age range of samples was between 18 and 25 years. For this purpose, a list of students who represented inter-collegiate and inter-university tournaments was prepared and from these players subjects (100 men) were selected using the method of purposive sampling. To ensure the full cooperation from the subjects, the researcher had a meeting with them in presence of their coach/managers. The purpose of this study was made clear by giving a detailed explanation to ascertain that there was no ambiguity among the subjects regarding the efforts, which they had to put in the successful completion of the investigation. All subjects voluntarily agreed to extend full cooperation and coaches/managers ensured that the subjects were made available for the collection of data.

Data Collection

For the purpose of data collection, Sports Aggression Test, developed by Smith was used. This test consists of four questions and each question has five levels of responses. The level changes from strongly disagree to strongly agree. There spondents were made to encircle the appropriate number which suited their attitude. The test was scored with the help of the scoring key that is "1" marks for strongly disagree, "2" marks for disagree, 3 marks for undecided, 4 marks for agree, and 5 marks for strongly agree. The total range of score was from 4 to 20. The higher the score, the more aggressive the player.

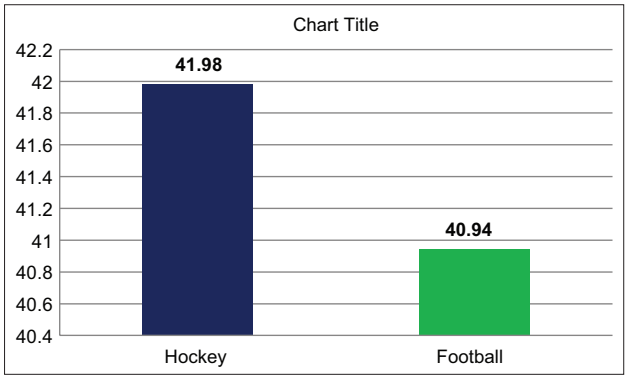


Figure 1: Mean scores of aggressions of football and hockey inter-collegiate players are also presented graphically in the following figure

Table 1: Comparison of aggression level among football and hockey inter-collegiate players

No.	Group	Mean	Mean Difference	Standard Deviation	"*t*"
1	Hockey	41.98	1.04	9.168	0.567
2	Football	40.98			

Statistical Analysis

For the statistical analysis of the data mean, sum of squares, degree of freedom, and mean squares were computed to estimate the differences among the groups. The "*t*"-test was used to compare the groups and for testing significance of the values ($t = 0.05$), for men football and hockey players. Results the data analysis revealed that the mean of aggression scores of football and hockey players were 10.90 and 9.16, respectively. The significant difference ("*t*" ratio) of aggression between football and hockey players is 2.76, which is more than the required value at 0.05 level of significance ($t = 2.009$). It shows there is significant difference between the performance of football and hockey players. Thus, it may be concluded that the aggression of men basketball players is greater than women basketball player. Significant difference between the means of aggression of men and women of basketball players given in the following table.

RESULTS

The data analysis revealed that the mean of aggression score of football and hockey inter-collegiate players was 41.98 and 40.98, respectively. The significant difference ("*t*" ratio) of aggression between football and hockey inter-collegiate players is 0.567, which is more than the required value at 0.05 level of significance. It shows there is significant difference between

football and hockey inter-collegiate players thus it may be concluded that the aggression of men hockey players is greater than men football players. Significant difference between the earns of aggression of football and hockey inter-collegiate players given in the following below.

The mean difference was received "t" ratio is, which is more than, hence, it was significant level at 0.05 (99) is 3.390.

From this table, it is seen that hockey group mean was 41.98 and football group mean was 40.98. Mean difference between these two groups was 1.04, standard deviation was 9.168, and "*t*" ratio was 0.567 which was insignificant at 0.05 level.

CONCLUSIONS

The results of study showed that there is significant difference between the performance of football and hockey players. In the support of result, the study of Buss (1963) is taken into the account. Buss (1963) made a study to determine differences in aggression of football and hockey players. He found that male is more aggressive than the female because male players have more passion to win against their opponents. Winning is most important for the male players so they can go to any extent in the game than to female. Similar results were also found by Ravneet (1995), Zoble (1976), and G. Devi (1967) in their respective studies. Thus, investigator's results are in the direction of Ravneet (1995), Zable (1976), G. Devi (1967), and Buss (1963) studies, which have revealed that there were significant difference among males and females sports aggression. Thus, the aggression of men is greater than women basketball players. Hence, it can be said at there is gender difference in the sports aggression in players play or they go to play in any tournament cond. Jsioo, lhe psychological preparation of basketball players (and women) must be taken into serious con during the coaching procedure. A coach must de psychological characteristics and specifies for professional help and programming of the phytological preparation of the players and observation of emotional condition before and during the game is to reduce sports aggression and contribute to the high effectiveness of basketball players. Nevertheless, further investigation is needed for the generalization of the results.

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Research Article

Indian traditional games the introduction and its impact

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ABSTRACT

In India whenever one thinks of sports, cricket is the only game that instantly comes to his mind. However, the country has a history of producing many other sports that are played in different parts but not known to all, as it is very much restricted to a particular state or region. Since India is known for its rich cultural heritage, it has a wonderful, exclusive tradition of games, which can be played, not only by skilled sports persons but also by every member of the family during leisure. Ancient India, even during the Vedic period, had a rich tradition of games, though mainly played for maintaining physical fitness. Hinduism has always given importance to physical perfection. And during the Vedic period and also during the period of the great epics, the Ramayana and Mahabharata, physical fitness was given prime importance, especially by the kings and the higher-class warriors. Wrestling seems to have been a popular sport among warrior kings, as there are numerous occasions in different forms of literature, which has an element involving wrestling. Sri Hanuman is said to be a master wrestler with immense physical strength, that he is considered even today, as a symbol of strength and courage. Jambavan, Jarasandha were some of the other great champions in wrestling. Two very significant events in the Mahabharata revolve around the sport of wrestling. The killing of Kamsa by Krishna as well as the killing of Jarasandha by Bhima, both took place on wrestling arena. Wrestling was known as Mallayuddha, translating to body combat.

INTRODUCTION

The Mahabharata also mentions the Pandavas and Kauravas in their childhood, playing different ball games. Several legends such as Krishna who is said to be an expert with his famous discus, Sudarshana chakra, Arjuna was an expert in archery and wielded the famous bow Gandeeva. Even the existence of the bow and arrow, the dagger, the axe and the mace found during the excavations at Harappa and Mohenjodaro confirm that during the Indus valley civilization these weapons were involved in war and hunting exercises. These weapons of war, for instance, the javelin (toran) and the discus (chakra), were frequently used in the sports arena. Women, too, excelled in sport and the art of self - defense, and were active participants in games such as - fighting, quail-fighting, and ram-fighting. Even as Buddhism preached and practiced non-violence, it never compromised on physical fitness. In fact, Gautam Buddha himself is said to have been an ace at archery, chariot - racing, equitation, and hammer-throwing.

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In Villas Mani Manjri, Tiruvedacharya describes many of these games in detail. In Manas Olhas (1135 AD.), Someshwar has written about bharashram (weight - lifting), bharamanshram (walking), both of which are established Olympic disciplines at present, and Mall - Stambha, a peculiar form of wrestling, wherein both contestants sit on the shoulders of their "seconds", who stand in waist-deep water throughout the game. Even the renowned Chinese travelers Hieun-Tsang and Fa-Hien wrote of a variety of sporting activities. Swimming, sword-fighting, running, wrestling, and ball games were immensely popular among the students of Nalanda and Takshashila. After the legends, even the Moghul history boasts about such sports, as the Mughal emperors were patrons of hunting and wrestling. The Agra Fort and the Red Fort were the popular venues of many wrestling bouts in the times of Emperor Shahjahan. During the Maratha period, Chhatrapati Shivaji's guru, Samarth Ramdas, built several Hanuman temples all over Maharashtra, for the promotion of physical culture among the youth. A large number of regional games have been played right from many centuries in India. The most popular traditional indigenous games that are played even today include the likes of Thoda, Khong Kangjei, Dhopkhel, Silambam, Vallamkali, Camel

Race, Kite Flying, Asol Aap and Asol - Tale Aap, Cheibi Gad-Ga, Hiyang Tannaba, Inbuan, Insuknawr, Kirip, Saldu, Ke Nang Haun, and Kho-Kho. Games like these have always been a part and parcel of India`s great culture. The improvised modern games actually trace their roots back in India. And surprisingly, these traditional games have yet not lost their touch, but actually kept their distinct nature alive, even today. If taken a look minutely, most of these games are played all over India, by different names and with a slightly little difference in their way of playing it. Hockey is the national game of India. It is played throughout the country. Many Maharashtrian hockey players have also contributed to India's rich hockey legacy. There are many hockey clubs in Maharashtra. From here the talented players are scouted for the national level hockey team. Many Maharashtrian players have been selected in the national hockey team of India and they have proved their talent there. Tushar Khandekar is referred to as "the Goal Poacher". Another shining star who made the country proud is Hiranna Nimal. He was the silver medalist at Asian Games, 1962 and also represented many other National & International Leagues.

Kabaddi is also one of the favorite sports of India. Many players from Maharashtra have played in the national Kabaddi team. Table tennis is an indoor sport, commonly played in Maharashtra. There are many table tennis clubs in Maharashtra and many tournaments are held in the different regions of Maharashtra. Kho-Kho is also very popular among the girls of Maharashtra.



Chess is another of the important sports of India. Dibyendu Barua; Koneru Humpy; Krishnan Sasikiran; Manuel Aaron; Viswanathan Anand; P. Harikrishna and Parimarjan Negi were the famous Indian Grandmasters. Likewise; Atya patya Thrilling game of India, Mallkahamb Mallakhamb or Malkhamb is a traditional Indian sport in which a gymnast performs feats and poses in concert with a vertical wooden pole or rope. Mallakhamb also refers to the pole used in the sport. The word "Mallakhamb" is composed of malla which denotes a gymnast or a man of strength and khamb which means a pole. Mallakhamb can therefore be translated to English as pole gymnastics. Similarly, Kushti, Kho-Kho, Thoda, Khong Kangjei, Silambam, Vallamkali, Asol Aap or Canoe Race, Hiyang Tannaba, Inbuan, Insuknawr or rod – pushing, Kirip, Saldu, Ke Nag-Haun, and Indian Marshal Arts were the terrific games so far.

CONCLUSION

Indian Traditional games are the best examples of the overall physical fitness; Most of the Indian Traditional games require courage, power, speed, agility, and endurance. Although all physical fitness is the requirement of the Indian Traditional games surprisingly it had no place at the International level. It might be our apathy or Government interest to popularize such games. Or in my view, such Indian Traditional games are injury prone that's why people may not attract toward Indian Traditional games.

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Research Article

Relationship of anthropometric measurements and pole dive skill of Kho-Kho game

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ABSTRACT

The purpose of this study was to find out the relationship of hand length and leg length with pole dive skill of Kho-Kho. This study was carried out by descriptive survey method on 25 students of U-19 age group from Sanmitra Sangh Kho-Kho club. All the players had experience of minimum 5 years of playing Kho-Kho and the had played at least at state level tournament. Data were collected by measuring Hand Leg (both Left and Right) and Leg Length. Hand length was measured from the acromion process to end of the middle finger and leg length was measured by subtracting sitting height from standing height. Rating scale was used to rate the Pole dive skill of the Kho-Kho player. Data were analyzed using spearman rank-order correlation. The player with more hand length and leg length can execute pole dive skill more efficiently. That might be because of the reach that players getting due to more hand length and leg length in reaching to the pole and also till the defensive player on the other side.

Keywords: Anthropometry, Kho-Kho, Pole dive skill, Rating scale

INTRODUCTION

The game of Kho-Kho involves individual and group skills, techniques and strategies for the success in the game. Various skills such as Chain Game, Ring Game, 3-6-9 game, 2-5-6 Game, 1-4-6 Game and faking form the defensive skills in the game, whereas the Giving Kho, Rush, Pole Dive, Ground Dive, Action Kho, Cover,Late Kho, Tapping form the offensive skills.

Physical fitness factors like Cardio Vascular Endurance, Strength, StrengthEndurance, Flexibility, Speed, Agility, Balance, Power, and Coordination are crucial to perform in every game. The professionals from Kho-Kho have realized that the game requires extreme levels of quickness, abrupt movements, high levels of quick reflexes, and great amount of stamina to execute the different techniques during the game.

Pole dive is a very effective method of touching by the chaser to catch the defender on the post. Sometime between the first seating square and post area defender gets some time and post to make adjustments for him to stable himself. If the active chaser wants to tag the defender, he has to either rush behind the runner by turning the post or leap on the post to touch defender out. In this kind of diving the chaser make sure he takes support of wooden pole. The chaser tries to hold the post in his/her elbow joint and tries to swing the other arm as far as possible.

Holding the post and swinging the arm is a simultaneous action. Nowadays this is a frequently used and strategically very important technique used in the game. It is one of the difficult but very attractive and thrilling skill to watch when it's performed at its best by any chaser during the match. Flexibility, explosive power in the legs, coordination, timing sense, space awareness are the most vital characteristics required to execute the pole dive skill. While defending, if defenders are very good in executing their defending skills on the central lane or in the outer side of the central lane tagging them becomes very difficult to the chasing team. At that time pole dive skills plays an important role for disturbing the defending flow of the defender.

The purpose of this study was to find out the relationship of hand length and leg length with pole dive skill of Kho-Kho.

Table 1: Correlation of Hand Length with Pole Dive Skill

???	Rating for Pole dive
Arm Length R	
Correlation Coefficient	0.914
Sig. (2-tailed)	0.000
n	25
Arm Length L	
Correlation Coefficient	0.885
Sig. (2-tailed)	0.000
n	25

Table 2: Correlation of Leg Length with Pole Dive Skill

	Rating for Pole dive
Leg Length	
Correlation Coefficient	0.914
Sig. (2-tailed)	0.000
n	25

METHODS

This study was carried out by descriptive survey method (Best, 2010). Total of 25 students of U-19 age group from the Sanmitra Sangh Kho-Kho club were selected for this study by using a convenience sampling technique (Gay, 2000). All the players had an experience of minimum 5 years of playing Kho-Kho and the had played at least at state level tournament. Data was collected by measuring Hand Leg (both Left and Right) and Leg Length. Hand length was measured from the acromion process to end of the middle finger and leg length was measured by subtracting sitting height from standing height (Miller, 2009).

Rating scale was used to rate the Pole dive skill of the Kho-Kho player. All the players were given 5 attempts in creating game-like situation and recording was done. Camera was set at both the side line near about at 4 feet height to capture the correct posture during pole dive skill. Rating was done by two experts by watching the recorded videos. Experts used Slow-motion technology and also rewind the video whenever required.

RESULTS

Data were analyzed using spearman rank-order correlation.

From the above table, it is seen that the correlation coefficient of arm length (right) with pole dive skill is 0.914 and that of the left hand is 0.885, hence it is interpreted that hand length (left and right) has a very good relationship with pole dive skill.

The above table shows that the correlation coefficient of leg length with pole dive skill is 0.914 hence it is interpreted that Leg length has very good relationship with pole dive skill.

CONCLUSION

Pole diving is a skill in Kho-Kho that has to be executed very efficiently in order to tag the defensive player. Coordinated and speed movements help attacking player to execute pole dive skill successfully. From above statistics, it can be concluded that Hand length and leg length also has a significant impact on pole dive skill. The player with more hand length and leg length can execute pole dive skill more efficiently. That might be because of the reach that players getting due to more hand length and leg length in reaching to the pole and also till the defensive player on the other side.

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Research Article

Herbal wound healer from Chandauli region: First aid for sportsman injuries

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ABSTRACT

Wound healing is a combined cellular and biochemical process of restoring normal structure and functions of damaged tissue. Healing is a natural phenomenon by which body itself overcomes the damaged to the tissue. The rate of healing is very slow and chance of microbial infection is high. Improvement in healing process can be accomplish either shorten the time required for healing or to minimize the undesired consequences. India has a rich tradition of herbal knowledge on health-care system. Several herbs and medicinal plants proved to be a wound healers were identified and formulated for treatment and management of wounds. Various herbal products have been used in management and treatment of wounds over the years. The present assessment attempt to highlight some medicinal plants proved to be scientifically used for the treatment of cuts and wounds as a wound healer from Chandauli region.

Keywords: Chandauli, Wound healing medicinal plants, Wound healing, Wound

INTRODUCTION

Wound may be defined as a distraction of the cellular and anatomic continuity of a tissue, with or without microbial infection. It is produced due to any accident or cut with sharp edged things. It may be produced due to physical, chemical, thermal, microbial, or immunological exploitation to the tissues. Wound healing is a process of restoring normal structure functions of damaged tissue. Healing is a natural phenomenon by which body itself overcomes the damaged to the tissue but the rate of healing is very slow and chance of microbial infection is high. This creates demand of a substance that speeds up the rate of healing. Wound healers are one of the most acute requirements in the essential medicaments for soldier and may help in putting injured soldier back on the war as quickly as possible. A wound healer also minimizes demand of other drugs like antibiotics and also their probable side effects by their use (Lazarus *et al*., 1994). India has a rich tradition of herbal knowledge on health care. A large number of plants/plant extracts/decoctions or pastes are equally used by tribal in India for treatment of cuts, wounds, and burns.

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Besides this, there is not a single synthetic drug formulation in the market which can claim for its wound healing properties. The drugs available are either bacteriostatic or bactericidal and in these cases healing is by a natural phenomenon only (Nguyen *et al*., 2009).

Classification of Wound

Wounds may be classified by several methods; their etiology, location, type of injury or presenting symptoms, wound depth, and tissue loss or clinical appearance of the wound. Wounds are classified as open and closed wound on the underlying cause of wound creation and acute and chronic wounds on the basis of physiology of wound healing (Roberts *et al*., 1998; Strodtbeck, 2001; Kumar *et al*., 2007).

Open wounds

Incised wound, laceration or tear wound, abrasions or superficial wounds, puncture wounds, penetration wounds, and gunshot wounds.

Closed wounds
Contusion or bruises, hematomas or blood tumor, crush injury, etc.

Acute wounds
Surgical incisions.

Chronic wounds
Wounds either require a prolonged time to heal or recur frequently.

Table 1: Regeneration of wound

S. No.	Type	Situation	Regeneration
1	Labile cells	Epidermis, respiratory tract, urinary tract, cells of lymph node and spleen	Under normal physiological condition, they are continuously dividing
2	Stable cells	Parenchymal cells of liver, kidney pancreas, smooth muscles and cartilage cells	Cells are in G0 phase and enter cell cycle after situation
3	Permanent cells	Nervous system, skeletal system, cardiac muscle.	Can't regenerate

Physiology of Wound Healing
Cellular activity
According to Thomson, 2006, the process of healing which restores normal structure and function involves two different processes.

Regeneration
Proliferation of parenchyma cells which result in complete restoration of original tissue. On the basis of capacity to divide cells are of three types as shown in Table 1.

MATERIALS AND METHODS

Chandauli is one of the hotspot of biodiversity in Western Ghat Detailed survey has made in Chandauli region and the information regarding the use of medicine has been documented [Figure 2]. The plants were identified using standard monographs and flora (Cooks flora). Ethno medicinal information about the plants was collected on the basis of frequent interviews with local physicians practicing indigenous system of medicine and villagers. Although ethnobotany provides several approaches in plant researches, here only the resources which help in aspect of medicinal plant research.

Table 2: Wound healing herbals with their activity

S. No.	Local name	Botanical name	Parts used	References
1.	Aloe/kumara	*Aloe vera. Aloe barbadensis*	Aq. Extract and juice of leaves	Udupa *et al*., 1994.
2.	Amla	*Phyllanthus emblica*	Ethanolic extracts of fruits	Suguna *et al*., 2000
3.	Panphuti	*Bryophyllum pinnatum*	Aqueous and alcoholic extract of leaves	Mahmood *et al*., 2002, Khan *et al*., 2004
4.	Aaghada	*Achyranthes aspera*	Aqueous and ethanolic extracts of leaves	Ghosh *et al*., 2011
5.	Vekhand	*Acorus calamus*	Ethanolic extract of leaves	Jain *et al*., 2010
6.	Bel	*Aegle marmelos*	Methanolic extract of root	Jaswanth *et al*., 2001; Udupa *et al*., 1994
7.	Brahmi	*Centella asiatica*	Aq. extract of flowers	Kumar *et al*. 1998 Shetty *et al*., 2006
8.	Charoli	*Buchanania lanzan*	Alcoholic Extract	Chitra *et al*., 2009
9.	Chaturangi/Ghaneri	*Lantana camara*	Ethanolic extract of Leaf juice	Nayak *et al*., 2009
10.	Chaulmogra	*Hydnocarpus weighuana*	oil	Oommen *et al*., 1999
11.	Jeera	*Cuminum cyminum*	Aqueous extract of leaves, seed	Patil *et al*., 2009
12.	Devadaru	*Cedrus deodara*	Oil	Dikshit *et al*., 1982
13.	Nilgiri	*Eucalyptus globulus*	Oil	Hukkeri *et al*., 2002
14.	Gudhagemodi	*Tridax procumbens*	Whole plants extract and alcoholic extract of leaves	Diwan*et al*., 1983; Raina *et al*., 2008
15.	Ginkgo	*Ginkgo biloba*	Ethanolic extract of stem	Bairy*et al*., 2001
16.	Indigofera	*Indigofera enneaphylla*	Alcoholic extract of aerial parts	Hemalatha *et al*., 2001
17.	Figwort	*Scrophularia nodosa*	Seeds, pods	Stevenson *et al*., 2002

(Contd...)

Table 2: ***(Cotinued)***

S. No.	Local name	Botanical name	Parts used	References
18.	Jasmine	*Jasminum auriculatum*	Ethanolic extract of leaves and flowers	Deshpande *et al*., 1967
19.	Kamal	*Nelumbo nucifera*	Methanolic extract of rhizomes	Mukherjee *et al*., 2000
20.	Jesthmadh	*Glycyrrhiza glabra*	Vacuum dried Ethanolic extract of bark and root	Kishore *et al*., 2001
21.	Zendu	*Calendula officinalis*	Flower extract	Preethi *et al*., 2001
22.	Piwala Dhotra	*Argemone mexicana*	Ethanolic and aqueous extracts of leaves	Dash *et al*., 2011
23.	Hirada	*Terminalia chebula*	Alcoholic extract of leaves and fruit	Saguna *et al*., 2002
24.	KaduNeem	*Azadirachta indica*	Methanol extract of leaves	Barua *et al*., 2007
25.	Nagarmotha	*Cyperus rotundus*	extract of tubers	Puratchikody *et al*., 2006
26.	Palas	*Butea monosperma*	Alcoholic bark extract	Sumitra *et al*., 2005
27.	Paras-pipal	*Thespesia populnea*	Aq. extract of fruit	Nagappa *et al*., 2001
28.	Peepal	*Ficus religiosa*	Ethanolic and aqueous extracts of leaves and plant	Roy *et al*., 2009; Garg *et al*., 2011
29.	Nivdung	*Opuntia ficus-indica*	Methanolic extracts of stem	Park *et al*., 2001
30.	Dudhani	*Euphorbia neriifolia*	Aqueous extract of latex	Rasik *et al*., 1996
31.	Sunflower	*Helianthus annuus*	Leaves, seeds, flowers, roots	Subashini *et al*., 2012
32.	Tulsi	*Ocimum tenuiflorum, Ocimum sanctum*	Ethanolic extract of whole part	Udupa *et al*., 2006
33.	Halad	*Curcuma longa*	Rhizomes	Mehra *et al*., 1984
34.	VishariVange	*Solanum xanthocarpum*	Ethanolic extract of leaves and fruits.	Dewangan *et al*., 2012

RESULTS

The survey of medicinal plant was conducted in Chandauli region. It is a one of the hotspot of biodiversity in Western Ghat site of important medicinal plants diversity due to its great variation in climate and topography. Thirty-five plants were selected for the study and recorded with respect to their local name, botanical name, part(s) used, and medicinal uses are given in Tabular form.

CONCLUSIONS

There are a number of plants which are used traditionally used the tribal people of India are not been validated or such plants not been evaluated keeping the traditional and conventional claim in mind. In general, pharmacologist should study traditional systems of medicine in scientific way and validate by screening plant/plant extracts for pharmacological activity. This review focused on the pharmacological reports of plant/plant extracts screens the soluble extracts in the development of an acceptable wound healing preparation, which if validated properly and proven scientifically can act as substitute or may even replace the modern wound healing agents. Considering the principle drawbacks, associated with synthetic compounds, plants which are the gift from nature having traditional knowledge, provide excellent raw material for the treatment of various diseases and disorders. As in the allopathic system of medicine, wound healers are available but traditional knowledge in the form of literature provides number of traditional and household preparations for those purposes. Preliminary scientific investigations on plants indicate that natural products could be exploited to discover some novel wound healers.

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Research Article

Specific sports injuries and their rehabilitation

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ABSTRACT

Injuries to the head are the most frequent catastrophic sports injury, and head injuries are the most common direct athletic cause of death. Although direct compressive forces may injure the brain, neural tissue is particularly susceptible to injury from shearing stresses, which are most likely to occur when rotational forces are applied to the head. The most common athletic head injury is concussion, which may vary widely in severity. Intracranial hemorrhage is the leading cause of head injury death in sports, making rapid initial assessment, and appropriate follow-up mandatory after a head injury. Diffuse cerebral swelling is another serious condition that may be found in the child or adolescent athlete, and the second impact syndrome is a major concern in adult athletes. Many head injuries in athletes are the result of improper playing techniques and can be reduced by teaching proper skills and enforcing safety promoting rules. Improved conditioning (particularly of the neck), protective headgear, and careful medical supervision of athletes will also minimize this type of injury.

Keywords: Athletes, Haemorrhage, Head, Injury, Sports

INTRODUCTION

Every day, millions of people in the world participate in games and sports activities, from soccer fields to softball diamonds and kabaddi courts. It is called playing, but sports activities are more than play. Participation in sports improves physical fitness, coordination, and self-discipline and gives individuals valuable opportunities to learn teamwork. Games and sports can also result in injuries some minor, some major, some serious, and still others resulting in lifelong medical problems. Sports injuries are commonly caused by overuse, direct impact, or the application of force that is greater than the body part can structurally withstand. Common injuries include bruises, sprains, strains, joint injuries, and nose bleeds. Among the sports-related activities that cause the highest number of head injuries for all ages are baseball and softball (when batting), cycling, football, hockey, horseback riding, skiing, and wrestling.

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SPECIFIC SPORTS INJURIES AND THEIR TREATMENT

Stress Fracture

Stress fracture is an injury caused by overtraining or using unsafe surface for running like running on cement tar road for training rather than properly maintain athletic track. This running on hard surface produces excessive stress on bones especially on shinbones. Sometimes use of improper shoes can also lead to this stress fracture hence wearing of proper sports shoes with good quality of sole material is also very important to avoid stress fracture. When the player goes for overtraining by mistake then he may develop stress fracture.

Symptoms

1. In this condition, person comes with the complaint of pain in shin-bones
2. The specialty of stress fracture is that it produces multiple minor cracks in the bone such as the old crockery
3. If this condition is slow to continue without attending it then this bone suddenly break down into multiple pieces
4. Another problem with stress fracture is that they can be

completely missed by the investigation of X-ray of bones. They are invisible on simple X-ray. They can be detected only by special advance investigation called as MRI (Magnetic Resonance Imaging) scanning of bone.

Treatment of stress fracture

1. Complete rest to the body part
2. Ice pack application is done over painful bones
3. Painkiller tablets will be taken by doctors' advice
4. To make the healing of bones faster and make the bone stronger player must take supplementary tablets of calcium and Vitamin D.

Gradually after 4 weeks player is given active training to the body parts. After this player is given progressive training program.

Micro-trauma

It occurs to the tissues when person performs exercises beyond his capacity. The reason for micro trauma is performing without proper warm-up and lack of stretching exercise.

Symptoms

1. During micro-trauma number of muscle fibers or body tissues may get injured. This produces pain in muscles and body
2. It produces stiffness of body or stiffness of joints
3. After completion of performance or training player has to cool down the body by performing limbering down and cooling down the body. If player does not go for limbering and cooling down exercises then also he may develop micro-trauma
4. It has been proved that player develops savior body pain and stiffness because of micro trauma of muscles and other body tissues.

Treatment

1. Cold pack application after injury
2. Rest to the body parts
3. Medicines according to the doctor's advice
4. Avoid over training
5. Use proper sports equipment's.

Such type of players must be given reduction of work load training and after recovery the workload is again elevated or raised slowly.

INJURIES TO HEAD AND THEIR TREATMENT

Head injuries can occur in many sports activities. These head injuries can be minor such as simple contusions, they can be somewhat problematic such as averagence or lacerated wounds or the head injuries can be very serious or dangerous and life threatening in nature, for example, fracture of skull or internal brain hemorrhage where sudden death can occurs.

Contusion over Head

This injury is caused by head and blunt object.

For example, accidentally banging the head on wall or two players banging their heads with each other.

i. In this injury, outer skin remains intact but there are swelling, pain, and redness
ii. Manage this patient with ice-packs, compression, elevation, and rest
iii. Pain killers are given according to doctor's advice
iv. It is important to know that if there is slight injury and impacts over brain tissue then such person will complaint of sewer headache, not responding to treatment followed by vomiting.

Such person must be admitted to hospital for observation.

Abrasion

i. These injuries are treated by clinic compression to stop bleeding, then disinfect the wound using salvon/dettol/sprit, apply dressing
ii. Give painkillers according to doctor's advice
iii. Keep close watch on the patient for any vomiting or fainting or giddiness
iv. If person develops any of such problems, he must be shifted to hospital for observation.

Lacerated Wound

These are deep wounds producing rupture of skin.

i. Compress the wound to stop bleeding and clean the wound carefully
ii. Apply dressing and bandage
iii. If the wound is deep, person is taken to hospital for applying stitches
iv. Keep the person under observation for vomiting, fainting, and unconsciousness
v. If any such things happen, person is admitted to hospital.

Internal Head Injury

i. Cerebral Contusion: In this contusion, there is blunt injury over the brain leading to swelling. In this condition, person develops headache, giddiness, and vomiting, he must be admitted in good hospital for at least 12–24 h for supervision. Most of the person recovers with rest and painkillers within 24 h
ii. Internal Brain Hemorrhage: In this condition, sometimes after head injury, player gets sewer unbearable headache. Most of the persons apply very tight bandage around the

head to obtaining some relief from headache. However, this does not relief from headache. Person may vomit in this stage. After sometime, person may become unconscious.

In this type of injury, persons' pupil of eye on one side becomes very large and wide and on other side it becomes very marrow. These persons need immediate brain surgery after brain computed tomography (CT) scan. These players should not be taken to ordinary hospital. They need advance investigation of brain CT scan and highly advance hospital where neurosurgery and brain surgery are available.

Fracture of Skull

If there is fracture of base of skull then player shows three different patterns according to the position of injury.

The base of skull is divided into three compartments:

i. If there is fracture in first compartment, person becomes unconscious, the blood comes from the nose
ii. If there is fracture in second compartment, the blood will come out through ear
iii. If there is fracture in third compartment, the blood goes down to the vertebral column. It can be detected by doctor by taking out fluid from inside the back bone. In this condition, if we examine the eyes of person, pupil of one eye becomes very narrow and other pupil becomes very wide.

All these three cares will need in investigation of CT scan of brain and brain surgery.

CONCLUSION

Sports persons of the same age can differ greatly in size and physical maturity. Some youngsters may be physically less mature than their peers and try to perform at levels for which they are not ready. Thus, coaches, parents, physical educators should try to group youngsters according to skill level and size not chronological age, particularly during contact sports. Wear appropriate clothing for the sport, do not wear any clothing that can interfere with vision, do not participate in sports when ill or very tired, avoid uneven or unpaved surfaces when cycling, skateboarding or rollerblading, perform regular safety checks of sports fields, playgrounds and equipment, discard and replace damaged sporting equipment or protective gear. This reduction in incidence and severity of athletic head injury has been the result of changes and improvements instituted following constant study and research.

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Research Article

Importance of daily physical activity

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ABSTRACT

Physical activity (PA) and exercise on a regular basis can help you stay healthy, energetic, and independent as you age. Exercise is important in preventing health problems such as heart disease and stroke. Many studies have demonstrated the health benefits of regular exercise. This report examines the evidence regarding the health benefits of exercise across the board. PA and exercise can help to lower stress and anxiety, enhance happy neurotransmitters, promote self-confidence, boost brain function, improve memory, and strengthen our muscles and bones. It also aids in the prevention and treatment of heart disease, obesity, blood sugar swings, cardiovascular disease, and cancer.

Keyword: Advantages, Exercise, Importance, Physical activity, Sports need

INTRODUCTION

Physical inactivity may be a modifiable risk factor for disorder and a widening sort of other chronic diseases, including diabetes mellitus, cancer (colon and breast), obesity, hypertension, bone and joint diseases (osteoporosis and osteoarthritis), and depression (Wilmore and Knuttgen, 2003). Physical activity (PA) is described as any bodily movement formed by skeletal muscles that need energy consumption. The term "PA" is not adequate to "Exercise." Exercise may be a subcategory of PA which is structured, repetitive, and purposeful. PA is a crucial determinant of health. Its fundamental role in energy balance and weight control and in decreasing the risks of coronary heart condition, stroke, hypertension, diabetes, carcinoma, carcinoma, and depression is widely known. However, during this fast-moving life, people hardly integrate PA into their daily routine. Non-communicable diseases have, as a result, been on the increase across the planet.

PA and exercise can have existing and lifelong health benefits. Regular activity can improve your constitution of life (Jones *et al*., 1998). "A sound body features a sound mind." It means if an individual is weak, dull, and sick, he is unable to try to do his work efficiently and quickly. It is vital to possess a fresh mind before any work, such as paperwork, study, or some creative work. The people that make exercise as essential a part of their routine are better off and efficient than others (De Vos *et al*., 2005).

Available experience and scientific evidence show that the regular practice of appropriate PA and sports provides people, male, and feminine, of all ages and conditions, including persons with disabilities, with a good range of physical, social, and psychological state benefits. It interacts positively with strategies to enhance diet, helps reduce violence, enhances functional capacity, and promotes social interaction and integration. PA is for an individual; a robust means for the prevention of diseases and for the nation's cost-effective methods to enhance public health across the population (Craft and Perna 2004).

According to the newest shape of the stater report (12), both the National Association of Sport and Physical education and therefore the American Heart Association believe PA achieved through participation in education improves one's overall well-being and is one among the simplest preventers of serious health problems linked to several chronic diseases (e.g., obesity, high vital sign, and high cholesterol). No other school subject has the potential to satisfy these health needs. If schools are to form a positive impact on our children's health now and within the future, education must be present in schools, be taught by qualified teachers, and specialize in healthy behaviors.

Regular PA, fitness, and exercise are critically important for the health and well-being of individuals of all ages. Research has demonstrated that virtually all individuals can enjoy regular PA, whether or not they participate in vigorous exercise or some sort of moderate health-enhancing PA. Even among frail and really old adults, mobility and functioning are often improved through PA (World Health Organization, 2016). Therefore, fitness should be a priority for all ages.

DIRECT AND INDIRECT HEALTH BENEFITS

Daily workouts, activity, and sports are often practical means to achieving numerous health benefits, either straightly or indirectly through their impact on other major risks, especially high vital signs, high cholesterol, obesity, tobacco use, and stress. Workout reduces the danger of the disorder, some cancers, and sort 2 diabetes (World Health Organization, 2016). These benefits are mediated through a variety of mechanisms: In general, it improves glucose metabolism, reduces body fat, and lowers vital signs. Workout may cut down the danger of carcinoma by effects of prostaglandins, reduced intestinal transit time, and better antioxidant levels. PA is additionally related to a lower risk of carcinoma, which can be the result of effects on hormonal metabolism. Participation in PA can improve musculoskeletal health, control body weight, and reduce symptoms of depression (Winter *et al*., 2007).

Regular Workout

1. Reduces the danger of dying prematurely
2. Reduces the danger of dying from heart condition or stroke, which are liable for one-third of all deaths
3. Reduces the danger of developing a heart condition, carcinoma, and sort 2 diabetes
4. Helps to prevent/reduce hypertension, which affects one-fifth of the world's adult population
5. Helps control weight and lower the danger of becoming obese
6. Helps to reduce osteoporosis, abbreviating the danger of hip fracture in women
7. Reduces the danger of developing lower back pain can help within the management of painful conditions, such as back pain or knee pain
8. Helps build and maintain healthy bones, muscles, and joints
9. Make people with chronic, disabling conditions improve their stamina.

Promotes psychological well-being, helps prevent or control risky behaviors, especially among children and children, like tobacco, alcohol or other substance use, unhealthy diet or violence.

DIRECT AND INDIRECT MENTAL HEALTH BENEFITS

Exercise and Depression

Studies show that exercise can treat mild to moderate depression as effectively as antidepressant medication-but without the side effects, of course. Research also shows that maintaining an exercise schedule can prevent you from relapsing.

For a variety of reasons, exercise may be an effective depression combatant. Most importantly, it encourages a variety of changes in the human brain, including neuronal development, reduced inflammation, and new activity patterns that enhance sensations of calm and well-being. It also causes your brain to release endorphins, which are potent molecules that stimulate your spirits and make you feel happy. Finally, do some exercises.

Anxiety and Exercise

Exercise may also be an effective and natural anti-anxiety medication. Through the release of endorphins, it relieves tension and stress, increases physical and psychic vitality, and improves overall well-being. Anything that gets you moving will help, but concentrating instead of zoning out will have a far greater effect.

Try to notice the sensation of your feet hitting the floor, the rhythm of your respiration, or the feel of the wind on your skin, for instance. You will not only improve your fitness faster by adding this mindfulness element-really focusing on your body and how much it feels when you work out, you will also be able to break the flow of incessant anxiety going through your head.

Stress and Exercise

Have you ever realized how your body reacts to stress? Your muscles, particularly those in your face, as well as unpleasant headaches. You may experience chest tightness, a hammering pulse, or muscle cramps. In addition, you may feel sleeplessness, heartburn, stomachache, diarrhea, or frequent urination.

Fear and discomfort associated with those bodily symptoms can lead to even more stress, creating a vicious cycle between your mind and body. Exercising is a good way to get out of this track. PA relaxes the muscles and relieves tension in the body, as well as releasing endorphins in the brain. Because the mind and body are so intertwined, your intellect will improve as your body improves.

Exercise and Attention Deficit Hyperactivity Disorder (ADHD)

Regular exercise is one of the simplest and most effective strategies to reduce ADHD symptoms and improve

concentration, motivation, memory, and mood. PA raises dopamine, norepinephrine, and serotonin levels in the brain, all of which affect focus and alertness. Exercise acts in a similar way to ADHD drugs such as Ritalin and Adderall in this way.

Exercise and Post-traumatic Stress Disorder (PTSD) and Trauma

Evidence suggests that focusing on your body and how it feels while exercising will assist your systema nervosum to get "Unstuck" and begin to move away from the immobility stress response that characterizes PTSD or trauma. Rather than allowing your mind to wander, focus on the physical sensations in your joints and muscles, as well as your insides, while you move your body. Cross-movement exercises that work both arms and legs, such as walking (particularly in sand), running, swimming, weight training, or dancing, are among your best options.

Hiking, sailing, mountain biking, hiking, whitewater rafting, and downhill and cross-country skiing (both downhill and cross-country) have all been demonstrated to reduce PTSD symptoms.

OTHER MENTAL HEALTH ADVANTAGES OF EXERCISING

Even if you do not have a mental health issue, regular PA can improve your mood, attitude, and mental well-being.

Exercising can assist with:

Memory and Reasoning Skills are Improved

Endorphins, which make you feel better, also help you concentrate and stay intellectually alert for the tasks at hand. Exercise also promotes the growth of new brain cells, which aid in the prevention of age-related deterioration.

Self-esteem is Improved

Exercise on a regular basis is an investment in your mind, body, and soul. It can boost your self-esteem and make you feel strong and powerful if you make it a habit. You will feel better about yourself and have a sense of success if you achieve even tiny workout goals.

More Restful Slumber

Even small spurts of exercise early in the morning or late in the afternoon can help you sleep better. Relaxing exercises such as yoga or moderate stretching can help you sleep better if you like to exercise in the dark.

More Efficiency

Increasing your pulse several times a week will help you feel more energized. Begin with a few minutes of exercise per day and gradually increase your routine as your energy levels rise.

Greater Resiliency

When confronted with mental or emotional obstacles in life, exercise can help you build resilience and cope in a healthy way, rather than turning to drink, drugs, or other bad behaviors that just exacerbate your symptoms. Regular exercise can also assist to strengthen your immune system and lessen the effects of stress. (Burroughs and Dahners, 1990).

Be a Smart Person

Fitting exercise into your daily routine will pay off in terms of everyday activities, sporting achievements, stronger muscles, self-sufficiency, and overall fitness. Is not that fantastic? Even yet, finding the time and motivation to exercise may be difficult. Experts argue that setting SMART goals-specific, measurable, achievable, realistic, and time-based-is more likely to lead to success. As you are defining a goal and writing it down on the worksheet, make sure it passes the SMART test, which is outlined below.

Smart

Make a very precise goal,-for example, on Mondays and Wednesdays, I will undertake strength training. On Tuesday, Thursday, and Sunday, I will complete a set of front and side planks.

Smart

Find a mechanism to track your progress,-for example, I will keep track of my efforts on a daily calendar, crossing off days when I reach my objective.

Smart

Make sure it is a realistic goal. Make sure you are physically capable of achieving your goal in a safe manner. If not, start with a more modest goal.

Smart

Make sure it is attainable. Choose the change you are most confident you will be able to ake, rather than the one you are most desperate for. Focus on safe bets: Your target should be in the 7–10 range on a scale of 1–10, with one equaling no confidence and ten equaling 100% certainties. If it does not, reduce the size to something more workable. I will do cardio 3 times a week, for example.

Set time commitments with SMART. Choose a start date and time,-for example, starting this week, on Wednesday and Friday, I will get up half an hour earlier to go to a yoga session. Choose weekly check-in times to keep track of whether you are on track or running across roadblocks: Every Friday evening, I will review my schedule to see if I need to make any modifications to my routines to succeed (Fletcher *et al*., 1996).

CONCLUSION

Exercise not only improves your physical fitness, but it also enhances your overall health and well-being. PA and exercise can help people avoid diseases such as Type 2 diabetes, cancer, and cardiovascular disease. Daily exercise can lower stress and anxiety, enhance happy chemicals, promote self-confidence, boost brain function, sharpen memory, and strengthen muscles and bones. PA and exercise can boost your health both now and in the future. Most naturally, regular exercise can help you live a better life. These advantages can be obtained by exercising for at least 30 min/day.

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Research Article

A comparative study of selected shooting ability skills in basketball among trained and untrained players of RTM Nagpur University, Nagpur, Maharashtra

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ABSTRACT

The present study is to compare the selected shooting ability skills in basketball among trained and untrained players of RTM Nagpur University, Nagpur. The data pertaining to this study were collected from the players participating in selection trials and other important competitions. The study was conducted on 60 male players of RTM Nagpur University, Nagpur. The age of the subjects ranged from 18 years to 28 years, respectively. The samples of 60 players were divided in to two groups (30 trained and 30 untrained groups). Three shooting ability skills (45° angle from the right side and 45° angle from the left side) and Free Throw Line Skills were conducted. For the analysis of data, mean, standard deviation, and *t*-ratio were used to compare the pre-test and post-test of both experimental and control group. The level of significant was kept at 0.05.

Keywords: 45° angle and throw line, Accuracy, Basketball players, Shooting ability, Shooting skills, Trained group, Untrained group

INTRODUCTION

Basketball is a team sport, the objective being to shoot a ball through a basket horizontally positioned to score points while following a set of rules. Usually, two teams of five players play on a marked rectangular court with a basket at each width end. Basketball is one of the world's most popular and widely viewed sports.

A regulation basketball hoop consists of a rim 18 inches (46 cm) in diameter and 10 feet (3.0 m) high mounted to a backboard. A team can score a field goal by shooting the ball through the basket during regular play. A field goal scores two points for the shooting team if a player is touching or closer to the basket than the three-point line, and three points (known commonly as a 3 pointer or three) if the player is behind the three-point line. The team with the most points at the end of the game wins, but additional time (overtime) may be issued when the game ends with a draw. The ball can be advanced on the court by bouncing it while walking or running (dribbling) or throwing (passing) it to a team mate. It is a violation to move without dribbling the ball (travelling), to carry it, or to hold the ball with both hands then resume dribbling (double dribble).

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SHOOTING

Shooting is the act of attempting to score points by throwing the ball through the basket, methods varying with players and situations. Typically, a player faces the basket with both feet facing the basket. A player will rest the ball on the fingertips of the dominant hand (the shooting arm) slightly above the head, with the other hand supporting the side of the ball. The ball is usually shot by jumping (though not always) and extending the shooting arm. The shooting arm, fully extended with the wrist fully bent is held stationary for a moment following the release of the ball, known as a follow-through. Players often try to put a steady backspin on the ball to absorb its impact with the rim. The ideal trajectory of the shot is somewhat controversial, but

generally a proper arc is recommended. Players may shoot directly into the basket or may use the backboard to redirect the ball into the basket.

The two most common shots that use the above described setup are the set-shot and the jump-shot. The set-shot is taken from a standing position, with neither foot leaving the floor, typically used for free throws, and in other circumstances whilst the jump-shot is taken in mid-air, the ball released near the top of the jump. This provides much greater power and range, and it also allows the player to elevate over the defender. Failure to release the ball before the feet return to the ground is considered a traveling violation.

Another common shot is called the lay-up. This shot requires the player to be in motion toward the basket, and to "lay" the ball "up" and into the basket, typically off the backboard (the backboard-free, underhand version is called a finger roll). The most crowd-pleasing and typically highest-percentage accuracy shot is the slam dunk, in which the player jumps very high and throws the ball downward, through the basket whilst touching it. Another shot that is becoming common is the "circus shot." The circus shot is a low-percentage shot that is flipped, heaved, scooped, or flung toward the hoop while the shooter is off-balance, airborne, falling down, and/or facing away from the basket. A back-shot is a shot taken when the player is facing away from the basket, and maybe shot with the dominant hand, or both; but there is a very low chance that the shot will be successful.

A shot that misses both the rim and the backboard completely is referred to as an air-ball. A particularly bad shot, or one that only hits the backboard, is jocularly called a brick.

OBJECTIVES OF THE STUDY

- To find out the shooting ability in basketball among trained and untrained players
- To find out the goal speed in basketball among trained and untrained players
- To find out the accuracy in basketball among trained and untrained players.

Collection of Data

The data pertaining to this study were collected from the players participating in selection trials and other important competitions. The study was conducted on 60 male players of RTM Nagpur University, Nagpur. The age of the subjects ranged from 18 years to 28 years, respectively.

Selection of Subject

The researcher selects the 60 subjects 30 from each group. The samples of 60 players were divided in to two groups (30 trained and 30 untrained groups).

Sampling Method

The simple random sampling was applied to select the subjects for this study.

Statistical Analysis

For the analysis of data, mean, standard deviation, and t- ratio were used to compare the pre-test and post-test of both experimental and control group. The level of significant was setup at 0.05. Analysis of the data and results of the study. The result of the study presents through table and figures, which are given below.

Mean score, standard deviation, and *t*- value of heighted and non-heighted group students from different angles.

From the Table 1, it is observed that the mean of trained group in pre- and post-test in 1.2 and 1.66 and the t-ratio was statistically analyzed as (t = 1.32). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 1.

From the Table 2, it is observed that the mean of untrained group in pre- and post-test in 0.93 and 1.2 and the t-ratio was statistically analyzed as (t =784). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 2.

From the Table 3, it is observed that the mean of trained group in pre- and post-test in 1.2 and 1.46 and the t-ratio was statistically analyzed as (t = 0.718). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 3.

Table 1: Statistical comparison of trained group from 45° angle from the right side

Test	Mean	SD	*t*-ratio
Pre-test	1.2	1.04	1.32
Post-test	1.66	0.86	

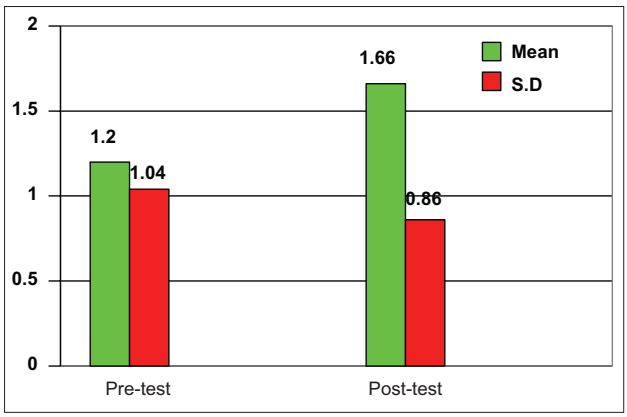


Figure 1: Statistical comparison of trained group from 45° angle from right side

From the Table 4, it is observed that the mean of trained group in pre- and post-test in 1.06 and 1.13 and the t-ratio was statistically analyzed as (t = 3.33). This was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 4.

From the Table 5, it is observed that the mean of trained group in pre- and post-test in 0.86 and 2 and the t-ratio was statistically analyzed as (t = 4.35). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 5.

Table 2: Statistical comparison of untrained group from 45° angle from tright side

Test	Mean	SD	*t*-ratio
Pre-test	0.93	0.99	0.784
Post-test	1.2	0.90	

Table 3: Statistical comparison of trained group from 45° angle from the left side

Test	Mean	SD	*t*-ratio
Pre-test	1.2	0.90	0.718
Post-test	1.46	1.08	

Table 4: Statistical comparison of trained group from 45° angle from the left side

Test	Mean	SD	*t*-ratio
Pre-test	1.06	0.92	3.33
Post-test	1.13	0.84	

Table 5: Statistical comparison of trained group from above 45° angle from the right side

Test	Mean	SD	*t*-ratio
Pre-test	0.86	0.71	4.35
Post-test	2	0.73	

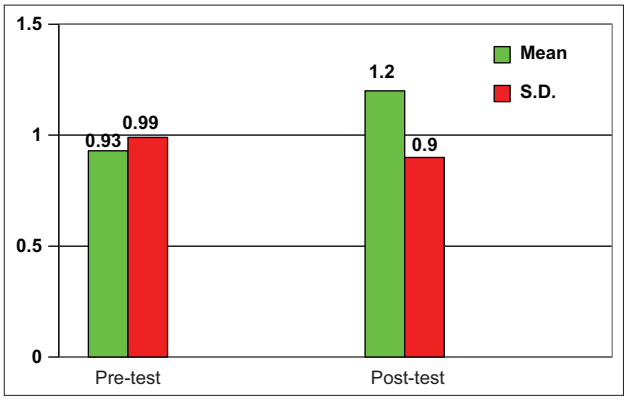


Figure 2: Statistical comparison of untrained group from 45° angle from right side

From the Table 6, it is observed that the mean of heighted group in pre- and post-test in 0.66 and 1.33 and the t-ratio was statistically analyzed as (t = 2.97). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 6.

From the Table 7, it is observed that the mean of trained group in pre- and post-test in 0.8 and 1.73 and the t-ratio was statistically analyzed as (t = 3.81). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 7.

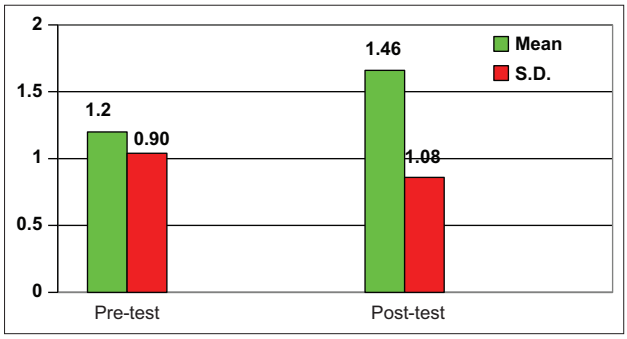


Figure 3: Statistical comparison of trained group from 45° angle from left side

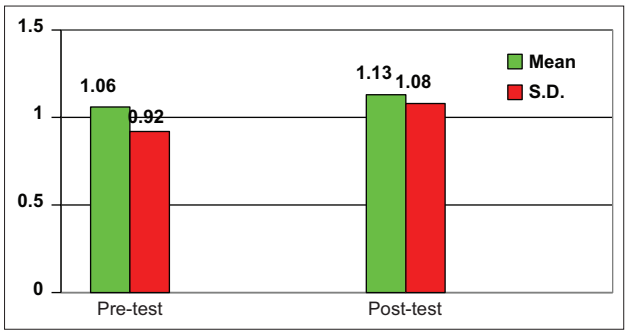


Figure 4: Statistical comparison of untrained group from 45° angle from right side

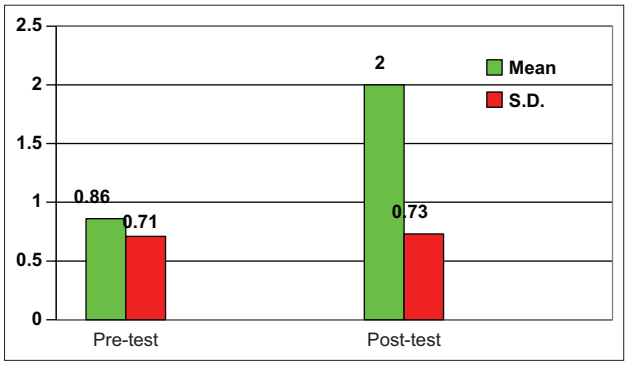


Figure 5: Statistical comparison of trained group from above 45° angle from right side

From the Table 8, it is observed that the mean of trained group in pre- and post-test in 0.53 and 1.33 and the t-ratio was statistically analyzed as (t = 3.81). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 8.

From the Table 9, it is observed that the mean of trained group in pre- and post-test in 0.26 and 1.13 and the t-ratio was statistically analyzed as (t = 4.57). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 9.

From the Table 10, it is observed that the mean of trained group in pre- and post-test in 0.06 and 0.86 and the t-ratio was statistically analyzed as (t = 1.13). Which was not significant at 0.05 level of significance. Thus, the hypothesis was rejected Figure 10.

DISCUSSION AND FINDINGS

From the above study, the following findings have been drawn:

1. The hypothesis of the present study was that there would be significant difference of shooting accuracy in basketball among trained and untrained players. From the right side 45^0 as the t ratio was calculated as = 1.32 and 0.784 which were significant at 0.05 level of significance. Hence, the hypothesis was rejected
2. The hypothesis of the present study was that there would be significant difference of shooting accuracy in basketball among trained and untrained players. From the left side 45^0 as the t ratio was calculated as = 0.718 and 3.33 which were significant at 0.05 level of significance. Hence, the hypothesis was rejected

Table 6: Statistical comparison of untrained group from above 45° angle from the right side

Test	Mean	SD	*t*-ratio
Pre-test	0.66	0.69	2.97
Post-test	1.33	0.54	

Table 7: Statistical comparison of trained group from above 45° angle from the left side

Test	Mean	SD	*t*-ratio
Pre-test	0.8	0.8	3.50
Post-test	1.73	0.65	

Table 8: Statistical comparison of untrained group from above 45° angle from the left side

Test	Mean	SD	*t*-ratio
Pre-test	0.53	0.61	3.81
Post-test	1.33	0.54	

Table 9: Statistical comparison of trained group from free throw line

Test	Mean	SD	*t*-ratio
Pre-test	0.26	0.43	4.57
Post-test	1.13	0.61	

Table 10: Statistical comparison of untrained group from free throw line

Test	Mean	SD	*t*-ratio
Pre-test	0.06	0.43	1.13
Post-test	0.86	0.78	

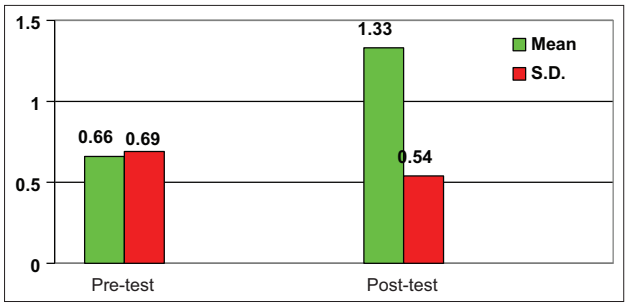


Figure 6: Statistical comparison of untrained group from 45° angle from right side

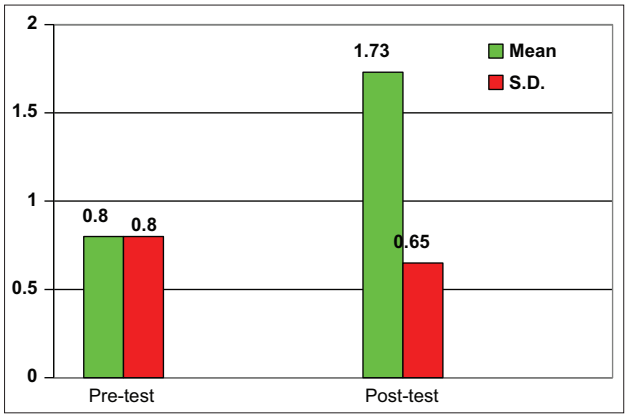


Figure 7: Statistical comparison of trained group from 45° angle from left side

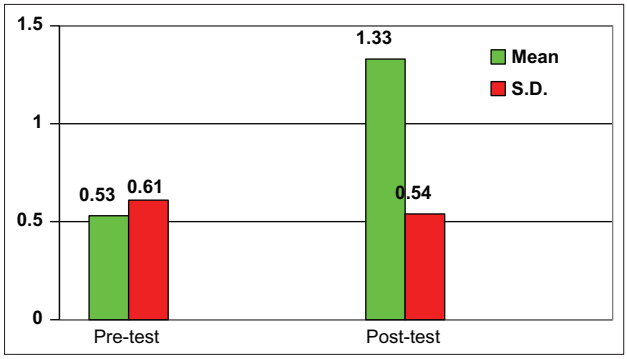


Figure 8: Statistical comparison of untrained group from 45° angle from left side



Figure 9: Statistical comparison of trained group from free throw line

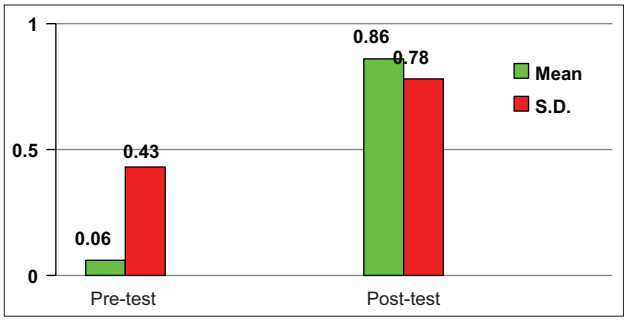


Figure 10: Statistical comparison of untrained group from free throw line

3. The hypothesis of the present study was that there would be significant difference of shooting accuracy in basketball among trained and untrained players. From the right side above 45^0 as the t ratio was calculated as = 4.35 and 2.97 which were significant at 0.05 level of significance. Hence, the hypothesis was rejected
4. The hypothesis of the present study was that there would be significant difference of shooting accuracy in basketball among trained and untrained players. From the left side above 45^0 as the t ratio was calculated as = 3.50 and 3.81 which were significant at 0.05 level of significance. Hence, the hypothesis was rejected
5. The hypothesis of the present study was that there would be significant difference of shooting accuracy in basketball among trained and untrained players. From free throw line as the t ratio was calculated as = 4.57 and 1.13 which were significant at 0.05 level of significance. Hence, the hypothesis was rejected.

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Research Article

Effects of corrective exercises on kyphosis of adolescence

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Received: XXX **Acceptance:** XXX

ABSTRACT

The aim of the study was to effects of corrective exercises on kyphosis of adolescence. For this, after survey of schools, only those subjects who had kyphosis deformity were selected in this study and the age of selected subjects in this study was between 10 and 15 years. Who were selected from different schools of Asegaon Purna, Amravati (Maharashtra). To measure this deformity, the students were made to stand in the anterior position and the students were made to stand in such a way that an angle of 90° would be formed at the base of the foot and the plumb line would be in the head, neck, shoulders, waist, knees, and ankle joints. The plumb line will be in such a way that all the joints will come in a straight line. If there is a deformity in the student, then the examiner will see if the spinal cord comes out of the plumb line from a distance of 10 feet and give marks such as 5, 3, and 1 based on the standard. It was concluded that the above training program can be done by students or individuals with kyphosis deformity to eliminate the kyphosis deformity in them.

Keywords: Adolescence, Exercises, Kyphosis

INTRODUCTION

Adolescence is the period of maturity. This period is considered to be the most important period in the life of any person. Because during this time, along with his anatomy, his mentality also develops. Based on that development, small and big changes will take place in the life of person. Adolescents are very sensitive during this period. Human-animal health is a basic need, and of course no one can enjoy life without good health. Sickness can be a constraint on one's life. Nature has designed the human body in a wonderful way. The human body is a kind of wonder. This body, created by nature, has never been harmed in the past. However, due to the present situation, the human body is afflicted with many diseases. The human body has been undergoing renewal since time immemorial. Along with the renewal, some deformities are also forming in the human body. Among them, the backbone is bent and the back is protruding. However, these problems can be overcome to some extent through exercise. That is why the researcher decided to do the present study.

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METHODOLOGY

For this, after survey of schools, only those subjects who had kyphosis deformity were selected in this study and the age of selected subjects in this study was between 10 and 15 years. Who were selected from different schools of Asegaon Purna, Amravati (Maharashtra). To measure this deformity, the students were made to stand in the anterior position and the students were made to stand in such a way that an angle of 90° would be formed at the base of the foot and the plumb line would be in the head, neck, shoulders, waist, knees, and ankle joints. The plumb line will be in such a way that all the joints will come in a straight line. If there is a deformity in the student, then the examiner will see if the spinal cord comes out of the plumb line from a distance of 10 feet and give marks such as 5, 3, and 1 based on the standard.

Training

The following exercises were used to help prevent or improve kyphosis, as well as repeat these exercises for 6 days/week to see the results of exercises. Such a program was carried on for 6 weeks. Before starting the exercise routine, the students were asked whether you had any pain or strain and during the

Table 1: Mean, SD, and "*t*-test" of kyphosis deformity of adolescence between pre- and post-test

Test	Mean	SD	SE	MD	Ot	df	Tt
Pre	1.78	0.67	0.33	0.78	5.29*	8	2.31
Post	2.56	0.73					

exercise also, the students were prevented from doing this exercise due to pain and strain.

Exercise	Repetition	Duration
1. Side-to-side	15–15	2 min
2. Up-and-down	15–15	2 min
3. Ear-to-shoulder	15–15	2 min
4. Shoulders up-and-down	10–10	2 min
5. Rotating one shoulder at a time	10–10	2 min
6. Rotating both shoulders together	10–10	2 min
7. Head retraction	10	3 min
8. Life extension	20	2 min
9. Thoracic spine foam rolling	10	2 min
10. Dips	10	2 min
7. Rest per exercise	–	30 s

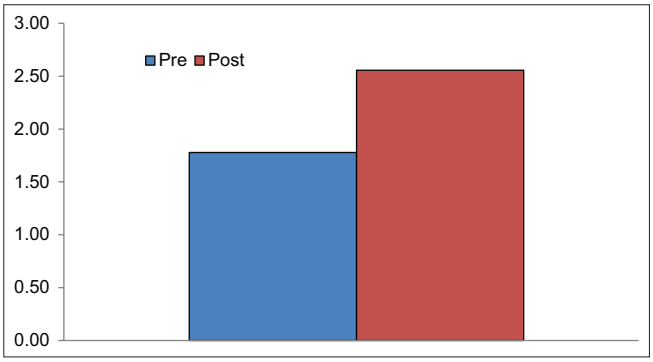
Statistical analysis

Statistical analysis was performed using mean, standard deviation, and paired *t*-test to compare pre- and post-training values. $P < 0.05$ is considered as statistically significant.

Table 1 shows that the significant difference in kyphosis deformity between pre- and post-test. The obtained "*t*" value of 5.29 is more than the table value of 2.31 with 8 degree of freedom.

CONCLUSIONS

Based on the results obtained, the above training program can be done by students or individuals with kyphosis deformity to eliminate the kyphosis deformity in them. Physical exercise is very useful for keeping your body healthy, fit, in good shape, and running daily activities regularly. There is a very wide field of physical exercise, it is for each person but it is different for everyone, the exercises are divided according to men, women, their age, children, young, and old. Ordinary men do physical exercise only for his fitness and in case of any deformity or malfunction of body parts, it is necessary to do the same type of exercise. Exercise has the ability to cure any ailment quickly. Exercise should be done with proper advice only.



Graph 1: Mean of kyphosis deformity of adolescence between pre-test and post-test

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Research Article

Physical fitness the components of health-related and skill-related physical fitness its utility in the development of fit youth and fit nation

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Received: XXX **Acceptance:** XXX

ABSTRACT

The subsequent subject matters determination survive enclosed on top of the consideration: Components of health-related fitness (flexibility, body composition, cardio-respiratory endurance, muscular strength, and muscular endurance) FITT Principle; Training Principles; Components of skill-related fitness (agility, balance, coordination, power, reaction time, and speed); Careers in health and fitness; Fitness assessments(e.g., Presidential Fitness Challenge); Fitness logs and goal setting throughout life; Health and Fitness Plans; Safety Principles; P.R.I.C.E; Warm up and Cool down. Physical Fitness the components of Health-Related and Skill-Related Physical Fitness are responsible for the fit individual and fit nations. Through the facts of Physical Fitness, the components of Health-Related and Skill-Related Physical Fitness working ability and skill might be improved.

Keywords: Strength, Fitness

INTRODUCTION

What is Physical Fitness?

Physical fitness can be defined as a set of characteristics that are either health-related or skill-related. It refers to the individual's ability to perform physical tasks efficiently as it relates to a particular sport or the persons day-to-day activities. In addition to physical health, being physically fit helps improve individual's mental, emotional, and social health along with spirituality.

Key Concepts

Health-related physical fitness is primarily associated with disease prevention and functional health. Taking interest towards the participation in continues and obedient manner health-related physical fitness activities it might be useful to control the weight. It is also responsible to prevent diseases and sickness As well. It could be able to advances in the betterment of mood. It may improve the utilization of energy. It might be useful in the developments of sleeping disorders and able to resist the Alzheimer disease as well an able to control the Parkinson disease.

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It is made up of five sections: cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. Let's take a closer look at the five sections of health-related fitness:

Cardiovascular endurance is the ability of individual's heart, blood cells, and lungs to work continuously for extended periods of time. This is how efficiently individual's body takes in, transports, and uses oxygen while exercising. The fit persons possessing functional heart and lungs working efficiently which leads to improved consumption of energy throughout the routine works of the day.

Muscular strength is the maximum amount of force a muscle can produce in a single effort or how much Individual can

lift in one attempt. Performing exercises that use individual's own body weight, free weights or weights on a machine are excellent ways to develop muscle strength. Having muscular strength will ensure that Individual has the strength needed to lift a heavy object, for example, a box full of books.

Muscular endurance is individual's ability to contract individual's muscles several times without excessive fatigue. On the other side or the way to consider about it is the length of time individual's muscles can continue to work before exhausting. What this means is once Individual have picked up that heavy box of books, Individual can then carry that box for a long period of time before Individual need to take a break.

Flexibility is the range of motion that individual's joints have during movement. Maintaining flexibility can improve individual's performance in physical activities in addition to decreasing individual's risk of injuries by helping individual's joints move through their full range of motion, therefore, allowing individual's muscles to work most in point of the fact. Activities like stretching and practicing yoga might be useful in the improvement of individual's flexibility.

Body composition is the ratio of water, bone, muscle, and fat in the body. Individual's in a good physical shape of the body composition indicates that individual's may have less risk of developing obesity-related diseases, such as diabetes, high blood pressure, and even a number of cancers.

There were two ways to measure body composition are body mass index, (BMI), which is a measure of body fat based on height and weight, and the skin fold test, which measures total fat percentages by measuring the layer of fat that is directly under the skin.

SKILL-RELATED PHYSICAL FITNESS

Skill-related physical fitness is the ability to perform during games and sports; it is also known or called performance fitness. Skill-related Physical Fitness type of physical fitness is significant and useful for performing the more technical aspects of a lot of sports. There were six skill-related physical fitness subdivisions: which are agility, balance, coordination, power, Reaction Time (RT), and speed.

PROMPTS ABOUT HEALTH-RELATED AND SKILL-RELATED PHYSICAL FITNES:

Six Components of Skill-related Fitness

There are six skill-related fitness components: agility, balance, coordination, speed, power, and reaction time. Skilled athletes typically excel in all six areas. Agility is the ability to rapidly and accurately change the direction of the body.

Prompt to React with Study

Generate a set of sparkle cards that make available the definitions of all of the bolded terms from the lesson (physical fitness, health-related physical fitness, cardiovascular endurance, muscle strength, muscular endurance, flexibility, body composition, obesity-related diseases, body mass index BMI, skin-fold test, skill-related physical fitness, performance fitness, agility, balance, coordination, power, reaction time, speed). For For example: Power refers to the combination of simultaneous strength and speed.

PROMPT TO ESSAY

The skill of writing an essay of more or less two to three paragraphs that judges against and contrasts health-related physical fitness and skill-related physical fitness. A Special person can enhance individual's essay by as long as for examples of every subjects.

For example Skill-related physical fitness is also known as performance fitness because it refers to how a person can perform components of sports and physical activities.

In something like two to three paragraphs, write an essay that illustrates body composition and how it can be measured. This is able to explain the perception of obesity-related diseases, providing For examples.

For example: Certain cancers are linked to obesity.

PROMPT IN PRESENTATION

Make a PowerPoint or Prize presentation that details the five sections of health-related physical fitness.

For example: Individual could have a slide depicting people who take responsibility to accept the practice yoga to demonstrate the improvement in flexibility.

PROMPT TO GRAPHIC ORGANIZER

While creating it is the need for a poster, chart, or some other type of graphic organizer that lists and describes the six sections of skill-related physical fitness.

For example: Coordination involves the use of the eyes and ears to help command body movements.

CONCLUSION

Physical Fitness the components of Health-Related and Skill-Related Physical Fitness are responsible for the fit individual and fit nations. Through the facts of Physical Fitness the components of Health-Related and Skill-Related Physical Fitness working ability and skill might be improved.

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Research Article

Investigation of job satisfaction for the soccer referee of Madhya Pradesh football association

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Received: XXX **Acceptance:** XXX

ABSTRACT

The purpose of this study was to profile the job satisfaction for the soccer referee of Madhya Pradesh football association. The total number of 20 (n = 20) physical personnel was sampled with an available number of soccer referees of Madhya Pradesh football association. To find out the present study was to describe the job satisfaction for the soccer referee of Madhya Pradesh football association. The selection variables for this study were selected from psychological variables, namely, job satisfaction through questioner by Singh and Sharma, 1999. The scores obtained in the questionnaire of job satisfaction was the criterion measure of this study. Descriptive statistics were employed to find out the job satisfaction of the state-level referee football association of Madhya Pradesh.

INTRODUCTION

Sports psychology is an interdisciplinary science that draws on knowledge from many related fields including biomechanics, physiology, kinesiology, and psychology. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors. Sports psychology is an interdisciplinary science that draws on knowledge from many related fields including biomechanics, physiology, kinesiology, and psychology. It involves the study of how psychological factors affect performance and how participation in sport and exercise affect psychological and physical factors. The sport of soccer (called football in most of the world) is considered to be the world's most popular sport. In soccer, there are two teams of 11 players. Soccer is played on a large grass field with a goal at each end. The object of the game is to get the soccer ball into the opposing team's goal. The key to soccer is that, except for the goalie, players cannot touch the ball with their hands, they can only kick, knee, or head the ball to advance it or score a goal. The contemporary history of the world's favorite game spans more than 100 years. It all began in 1863 in England when rugby football and association football branched off on their different courses and the football association in England was formed – becoming the sport's first governing body. Job satisfaction is a measure of workers' contentedness with their job, whether or not they like the job or individual aspects or facets of jobs, such as nature of work or supervision. Job satisfaction can be measured in cognitive (evaluative), affective (or emotional), and behavioral components. Researchers have also noted that job satisfaction measures vary in the extent to which they measure feelings about the job (affective job satisfaction). Orcognitions about the job (cognitive job satisfaction). One of the most widely used definitions in organizational research is that of Locke (1976) who defines job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences." Others have defined it as simply how content an individual is with his or her job; whether he or she likes the job or not. It is assessed at both the global level (whether or not the individual is satisfied with the job overall), or at the facet level (whether or not the individual is satisfied with different aspects of the job). Spector (1997) lists 14 common facets: Appreciation, communication, coworkers, fringe benefits, job conditions, nature of the work, organization, personal growth, policies and procedures, promotion opportunities, recognition, security, and supervision.

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The Objective of the Study

To find out, the present study was to describe the job satisfaction for the soccer referee of Madhya Pradesh football association.

METHODOLOGY

A purposive sampling device was employed to include all the available state-level soccer referees of the Madhya Pradesh football association. The total number of 30 (n = 30) physical personnel was sampled with an available number of soccer referees of the Madhya Pradesh football association.

The selection variables for this study were selected from psychological variables, namely, job satisfaction through questioner by Singh and Sharma, 1999.

The scores obtained in the questionnaire of job satisfaction were the criterion measure of this study.

Administration of the Test and Collection of Data

The questionnaire of three tools along with a response sheet prepared with detailed instructions to be followed by the subjects. The purpose of the study was explained to the subjects were also assured that their answer was kept confidential and will not be disclosed to anyone in any case. Before attempting the questionnaire, the subject was requested to read the instruction carefully and follow them in true spirits. They were allowed to seek any clarification whatever they needed from the researcher, the subjects gave assurance that they would provide correct information to the best of their knowledge.

The following tools were used for the collection of the data.

Job satisfaction scale (Singh A.P. and Sharma T.R., 1999).

Construction of the job satisfaction scale.

While framing the present scale, almost all known factors of job satisfaction given above including Ginsberg, triple factors, and Kelliberg's work values and job rewards were kept in view. The level of job satisfaction was measured in two types of areas – job-intrinsic (factors lying in the job itself) and job-extrinsic (factors lying outside the job).

Scoring

The scale has both positive and negative statements. Items at sr. no. 4, 13, 20, 21, 27, and 28 are negative, others all positive. The positive statement carries a weightage of 4, 3, 2, 1, and 0 and the negative ones a weightage of 0, 1, 2, 3, and 4. The total score gives a quick measure of satisfaction/dissatisfaction of a worker toward his/her job.

Score	Degree of satisfaction
74 or above	Extremely satisfied
63–73	Very satisfied
56–62	Moderately satisfied
48–55	Not satisfied
47 or below	Extremely dissatisfied

As a result of careful manipulation of the scale, satisfaction/dissatisfaction of a worker can be seen on any factor/variable by administering the scale in full or in parts as desired and then steps taken to enhance satisfaction by removing the irritants. The scale is brief, reliable, and valid and has administrative facilities. It is easily scorable. It can be administered to any category of workers. Each of the 30 statements has been providing with suitable alternatives characterized by the nature of the statement. All statements are clear, distinct, and concept-based. The following table shows the degree of satisfaction among workers:

Statistical Procedure

Descriptive statistics were employed to find out the job satisfaction of the state-level referee football association of Madhya Pradesh.

RESULTS OF THE STUDY

The mean and standard deviation of job satisfaction for the soccer referee of Madhya Pradesh football association. The

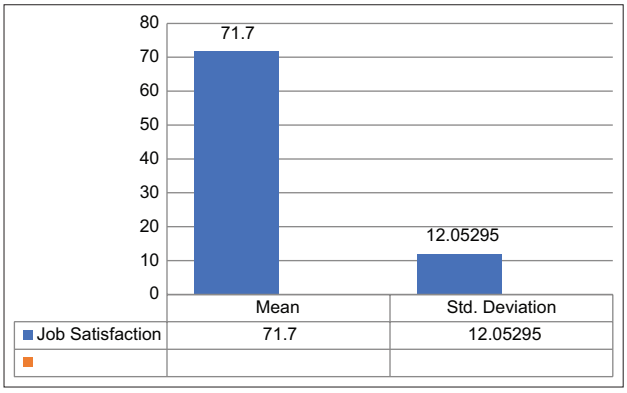


Figure 1: Mean of job satisfaction for the soccer referee of Madhya Pradesh football association

Table 1: Descriptive statistics related to job satisfaction of state-level referee football association of Madhya Pradesh.
Descriptive Statistics

	n	Minimum	Maximum	Mean	Std. Deviation
Job satisfaction	20	49.00	90.00	71.7000	12.05295

*Significant set at 0.5 level

descriptive statistics about job satisfaction of state-level referee football association of Madhya Pradesh.

Table 1 indicates that the mean and standard deviation of job satisfaction of the state-level referee football association of Madhya Pradesh were 71.70 and 12.05295.

DISCUSSION OF FINDINGS AND CONCLUSION

The present study deals with the job satisfaction of state level referee football association of Madhya Pradesh. Twenty state-level soccer referees were selected randomly selected from the Madhya Pradesh football association. These referees were administered the job satisfaction through questioner by Singh and Sharma, 1999. After the data collection, the statistical analysis was done with the help of a computer. Means and standard deviations were found out for job satisfaction of the state-level soccer referee. The obtained results were subsequently organized in the table for analysis and interpretation. First, overall descriptive statistics were applied to analyze the data to see that mean and standard deviation of job satisfaction of state-level referee football association of Madhya Pradesh were 71.70 and 12.05295.

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Review Article

Competition anxiety need not be bothered; Control over anxiety might be useful in sports performance

Amol Thakare Akola

Received: XXX **Acceptance:** XXX

"Meet with triumph and disaster and treat these two impostors just the same." Rudyard Kipling

Sport is under attack with the broken dreams of those who faltered when they most needed to be in control of themselves and focused on the task at hand. Here is the exploration the nature of anxiety and its common symptoms, review the latest competition anxiety research, and provides with five techniques that either control anxiety or guide it optimistically into our sports performance.

When a competitor "freezes" in the big moment or commits an inexplicable error, anxiety, in one of its many guises, is very often the root cause. The precise impact of anxiety on sporting performance depends on how we interpret our world. Unfortunately, far too many athletes accept high levels of anxiety as an inevitable part of the total sporting experience and fail to reach their potential.

Laughter is shared; it binds people together and increases happiness and intimacy. In addition to the domino effect of joy and amusement, laughter also triggers healthy physical changes in the body. Humor and laughter strengthen your immune system, boost your energy, diminish pain, and protect you from the damaging effects of stress. Best of all, this priceless medicine is fun, free, and easy to use.

WHAT PRECISELY IS ANXIETY?

Anxiety is a natural reaction to threats in the environment and part of the preparation for the "fight or flight" response. This is our body's primitive and automatic response that prepares it to "fight" or "flee" from perceived harm or attack. It is a "hardwired" response that ensures survival of the human species. Sporting competition promotes similar psychological and bodily responses because there is often a threat posed toward the ego; our sense of self-esteem. Essentially, when the demands of training or competition exceed one's perceived ability, anxiety is the inevitable outcome.

Sport places a wide variety of stressors on participants; it can be physically exhausting, it pitches us against superior opponents, hostile fans might verbally abuse us, the elements may need to be overcome, and your emotional frailties are constantly laid bare for all to see. Despite this sport offers participants an opportunity for growth and have a chance to push back personal boundaries and a mean by which to liberate the body and the mind.

Superficially, there is nothing damaging about the stress associated with a sporting contest, and in fact stress can be a very positive influence that leads us to tackle the challenges that make life far more rewarding. However, when we perceive stress to be negative, it causes anxiety and therefore, much depends on how we view the demands placed on us.

THE MAIN CAUSES OF ANXIETY

At the same time as providing challenge and stimulation, sport also provides considerable uncertainty. At the precise moment, the Olympic archer releases an arrow, or the rugby fly-half kicks for goal, the outcome is unknown. The stress that sport provides therefore is inevitably linked with its inherent uncertainty. Sport is a cultural focal point because it is a theatre of unpredictability.

While stress and uncertainty may motivate some athletes, they induce anxiety in others. There are some distinct factors that can increase athletes' level of anxiety. For example, the more important the contest the greater the stress, and the more likely it is that a competitor will be prone to anxiety.

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Furthermore, spectators can have a huge impact on how athletes feel. In fact, studies of the home advantage phenomenon show that teams playing at their home venue win on average, around 56-64% of the time (2,3), depending on the sport. The impressive medal count of host nations during Olympic Games is also notable, in particular the record-breaking haul of medals won by Australia in Sydney (2000) and by Greece in Athens (2004).

Participants in individual sports have been shown generally to suffer more anxiety before, during, and after competition than participants in team sports. This is because the sense of isolation and exposure is much greater in sports such as triathlon, tennis, and snooker than in the relative anonymity of field sports.

For athletes in high-contact sports such as boxing and martial arts, the possibility of getting hurt can also be a source of anxiety. Typically, this anxiety causes some critical changes in technique. For example, anxious boxers will often lean too far forward, be clumsy in their leg movements or fight defensively, any of which may result in them getting knocked out.

An additional factor that causes anxiety is the expectation of success. The expectations held by British tennis fans for Tim Henman and Greg Rusedski to win the men's singles title at Wimbledon have hung over these players such as a dark cloud. Some athletes rise to the challenge imposed by public expectation while others can choke. The trick is to become sufficiently "psyched-up" without becoming "psyched-out."

COMPETITION ANXIETY THEORY AND RESEARCH

British sport psychologist Graham Jones developed a model of competition anxiety that has been widely used in the past decade. Jones contends that it is the perception of our ability to control our environment and ourselves that determines the anxiety response. Hence, if we believe we can cope in a particular sporting situation, we will tend to strive to achieve our goals with positive expectations of success. Having positive expectations will invariably mean that you will be more confident and therefore more likely to perform close to our best.

The feeling that we can control a particular stressor such as a menacing rival or a niggling injury will mean that the symptoms of anxiety – butterflies in the stomach, elevated heart rate, sweat secretion, and so on are interpreted as facilitative or helpful toward performance. If our judgment is that we do not have control over the situation – that your opponent is too strong or that a sore calf muscle will hold you back – then those same symptoms will be interpreted as debilitative, or likely to impair performance. The probable consequence is that this interpretation will become a self-fulfilling prophecy and our performance levels will plummet.

The extent to which we expect to control various competition stressors depends on factors that are specific to individuals, such as their personality, upbringing, experiences, and trait anxiety – the degree to which individuals are predisposed to feel anxious. These are known as individual differences because they are the factors that serve to make each of us unique. In Jones's model, individual differences mediate the relationship between a stressor and one's perception of control.

The propositions of Jones's model have generally been supported in the literature. One of the most recent studies examined the intensity and direction of anxiety as a function of goal attainment expectation and competition goal orientation. The intensity of anxiety is how much anxiety one feels, whereas direction has to do with whether they interpret the symptoms as being facilitative or debilitative to performance.

Team sport players who reported positive expectations of goal achievement and indicated some input into the goal generation process experienced the most facilitative interpretations of anxiety symptoms. The implications of this study are that athletes should set their own goals rather than have goals imposed on them by a coach or team manager.

Research has shown that coaches and team managers may, however, have a key role to play in buffering the effects of anxiety. When researchers examined the influence of perceived coach support on anxiety among high school tennis players, their results indicated that for players who were predisposed to feeling anxious (trait anxious), the perceived support of their coach tempered their anxiety and helped them to cope far better with the psychological demands of competition.

Very recent work has examined the impact of motivational climate on young athletes' anxiety. The results showed that coaches who promoted a mastery climate – one in which personal skill development was emphasized rather than superiority over peers (performance climate) – enabled their athletes to experience a significant decrease in anxiety from pre-season to late-season. This was in contrast to the anxiety of a control group of athletes, which increased over the season.

If we are interested in measuring competition anxiety, the instrument of choice for almost 15 years has been the competitive state anxiety inventory-2; however, this instrument has been severely criticized and its validity challenged. Researchers have recently attempted to address the limitations of the original 27-item CSAI-2 and the result is a new version – the 17-item CSAI-2 Revised (CSAI-2R), which is more valid and reliable than its predecessor. I strongly recommend use of the CSAI-2R should you wish to assess competition anxiety.

Five techniques to help to control competition anxiety to reach an optimum psychological state, you need to understand your own natural responses to stress and be sensitive to our bodily signals. Learning to handle the demands of competition involves learning to read our thought patterns and physical responses, and to develop the skills necessary to find your ideal arousal level. Stress management requires excellent self-awareness because, if we know our self well, we will better understand the roots of our anxiety.

It will begin by outlining a self-awareness technique that allows us to "capture in a bottle" the feelings you associate with success – "the winning feeling." I will then present the popular "centering" exercise which relieves tension through focusing attention to the center of our body. Following this, the "five breath technique" will be described; an ideal prelude to competition for over-anxious athletes. The penultimate exercise is "thought-stopping" which deals with the cognitive symptoms of anxiety such as negative thoughts and images. Finally, "letting go" will be presented – the deepest relaxation exercise of the five and ideal for the night before competition.

Establishing our "Winning Feeling"

Think carefully about the past time we were performing at the top of our game then list every detail you might associate with your "winning feeling." Pick out the eight most important aspects of this positive feeling and write them down. We can use our winning feeling to help create an optimum competition mindset through consciously reproducing the desired elements.

CENTERING

The second technique is known as "centering" because it involves focusing attention on the center of your body, the area just behind your navel. This is a technique that is particularly effective during sports that have breaks in the action, such as in between sets in tennis, or before a penalty in soccer. Centering has a calming and controlling effect, providing a simple but effective way to counteract the negative effects of anxiety:

Stand with on feet flat on the ground, shoulder width apart, and arms hanging loosely either side of your body;

Close your eyes and breathe evenly. Notice that when you breathe in, the tension in your upper body increases, but as you breathe out, there is a calmer, sinking feeling;

Inhale deeply from your abdomen and, as you do, be aware of the tension in your face, your neck, your shoulders, and your chest. As you exhale, let the tension fall away and focus on the feeling of heaviness in your stomach;

Continue to breathe evenly, focusing all your attention internally on the area immediately behind your navel;

Maintain your attention on that spot and breathe normally, feeling very controlled, heavy, and calm;

On each out-breath use a word that encapsulates the physical feelings and mental focus that you want, for example, "loose," "calm," "focused," "sharp," "strong" etc.

The Five Breath Technique

This anxiety control exercise can be performed while you are standing up, lying down, or sitting upright. It is ideally used just before competition, or whenever you feel particularly tense. You should inhale slowly, deeply, and evenly through your nose, and exhale gently through your mouth as though flickering, but not extinguishing, the flame of a candle:

- Take a deep breath. Allow your face and neck to relax as you breathe out
- Take a second deep breath. Allow your shoulders and arms to relax as you breathe out
- Take a third deep breath. Allow your chest, stomach, and back to relax as you breathe out
- Take a fourth deep breath. Allow your legs and feet to relax as you breathe out
- Take a fifth deep breath. Allow your whole body to relax as you breathe out
- Continue to breathe deeply for as long as you need to, and each time you breathe out say the word "relax" in your mind's ear.

Thought-stopping

When you experience a negative or unwanted thought (cognitive anxiety) such as "I just don't want to be here today" or "She beat me by 5 m last time out," picture a large red stop sign in your mind's eye. Hold this image for a few seconds then allow it to fade away along with the thought. If you wish, you can follow this with a positive self-statement such as "I am going to hit it hard right from the off!" Thought-stopping can be used to block an unwanted thought before it escalates or disrupts performance. The technique can help to create a sharp refocus of attention keeping you engrossed in the task at hand.

Letting Go

You will need to lie down somewhere comfortable where you are unlikely to be disturbed. If you wish, you can also use this exercise to aid a restful night's sleep. Allow your eyes to close and let your attention wander slowly over each part of your body – starting from the tips of your toes and working up to the top of your head. As you focus on each part of the body tense, the associated muscles for a count of five and then "let go." If this does not relieve the tension in a particular body part, repeat the process as many times as you need to. Once you have covered each body part, tense the entire body, hold for five, and then "let go." You will feel tranquil and deeply relaxed.

CONCLUSION

The major problem in competition is letting our mind work against we rather than for us. We must accept anxiety symptoms as part and parcel of the competition experience; only then will anxiety begin to facilitate our performance. The techniques that had presented herein are but a small selection from the pantheon of stress management interventions. We should adapt these techniques to suit our needs or those of our athletes. Remember that pressure is our friend and will habitually bring out the best in us, just as coal under pressure can produce a diamond!

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Review Article

Physical fitness and wellness

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ABSTRACT

Physical fitness is the general capacity to adapt and respond favorably to physical effort. Wellness is the search for enhanced quality of life, personal growth, and potential through positive lifestyle behaviors and attitudes. It is an active process of becoming aware of and making choices toward a more successful existence. Physical fitness and wellness are closely related and often interdependent. To live long and successful happy life, fitness and wellness are must. In recent times, maintaining the physical fitness and wellness are the biggest challenge. Movement and physical activity are basic functions for which human organism was created. Advances in modern science and technology provide all amenities and conveniences that make our life easier and comfortable which almost eliminated the need of physical activity in most of every ones' daily life. At the same time, handling such amenities create lots of pressure and stress; affect our mental health, alertness, and personal relationship. The progress of medical science led to elimination of most of common health problem. However, the changing lifestyle increases the chronic health problems such as hypertension, diabetes, and strokes. A fitness and wellness movement was taken place gradually at the end of the 20th century.

PHYSICAL FITNESS

It is the ability of an individual to carry out his daily routine without getting tired and having extra amount of energy to meet any kind of unforeseen emergency. Fitness is very important for good health. Besides feeling better mentally, exercising can help protect you from heart disease, stroke, obesity, diabetes, and high blood pressure; and it can make you look younger, increase and maintain bone density, improve the quality of your life, and may keep you from getting sick.

DIMENSIONS OF WELLNESS

Wellness is a familiar term, but what is its true definition? Is it simply the absence of disease? This chapter will define all the components of holistic wellness and describe the factors that contribute to not only a person's physical and mental health, but also their ability to develop, thrive, succeed, enjoy life, and meet challenges head on with confidence and resolve.

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Wellness is far broader than fitness. Wellness encapsulates your entire life, whereas fitness tends to focus on your physical health. It tends to focus on nutrition, strength, conditioning, flexibility, and body composition.Wellness is finding a balance between all of these and enhancing your sense of happiness.

THE NINE DIMENSIONS OF WELLNESS

Physical Wellness

People who are physically well actively make healthy decisions on a daily basis. They eat a nutritionally balanced diet; they try to get an adequate amount of sleep, and they visit the doctor routinely. They make a habit of exercising 3–-5 times/week; they have the ability to identify their personal needs and are aware of their body's limitations. They maintain positive interpersonal relationships and make healthy sexual decisions that are consistent with their personal values and beliefs.

EMOTIONAL WELLNESS

An emotionally well person successfully expresses and manages an entire range of feelings, including anger, doubt, hope, joy, desire, fear, and many others. People who are emotionally well maintain a high level of self-esteem. They

have a positive body-image and the ability to regulate their feelings.

INTELLECTUAL WELLNESS

Those who enjoy intellectual wellness engage in lifelong learning. They seek knowledge and activities that further develop their critical thinking and heighten global awareness. They engage in activities associated with the arts, philosophy, and reasoning.

SOCIAL WELLNESS

A socially well person builds healthy relationships based on interdependence, trust, and respect. Those who are socially well have a keen awareness of the feelings of others.

ENVIRONMENTAL WELLNESS

An environmentally well person appreciates the external cues and stimuli that an environment can provide. People who have achieved environmental wellness recognize the limits to controlling an environment and seek to understand the role an individual plays in the environment.

OCCUPATIONAL WELLNESS

An occupationally well person enjoys the pursuit of a career which is fulfilling on a variety of levels. This person finds satisfaction and enrichment in work, while always in pursuit of opportunities to reach the next level of professional success.

FINANCIAL WELLNESS

Those who are financially well are fully aware of their present financial state. They set long- and short-term goals regarding finances that will allow them to reach their personal goals and achieve self-defined financial success.

CULTURAL WELLNESS

Culturally well people are aware of their own cultural background, as well as the diversity and richness present in other cultural backgrounds. Cultural wellness implies understanding, awareness, and intrinsic respect for aspects of diversity.

SPIRITUAL WELLNESS

People who can be described as spiritually well have identified a core set of beliefs that guide their decision making and other faith based endeavors. While firm in their spiritual beliefs, they understand others may have a distinctly different set of guiding principles. They recognize the relationship between spirituality and identity in all individuals.

Regular exercise and physical activity promote strong muscles and bones. It improves respiratory, cardiovascular health, and overall health. Staying active can also help you maintain a healthy weight, reduce your risk for type 2 diabetes, heart disease, and reduce your risk for some cancers.

WHAT ARE PHYSICAL ACTIVITY AND EXERCISE?

Physical activity is defined as any movement carried out by skeletal muscle that requires energy and is focused on building health. Health benefits include improved blood pressure, blood-lipid profile, and heart health. Acceptable physical activity includes yard work, house cleaning, walking the dog, or taking the stairs instead of the elevator. Physical activity does not have to be done all it once. It can be accumulated through various activities throughout the day. Although typing on a phone or laptop or playing video games does involve skeletal muscle and requires a minimal amount of energy, the amount required is not sufficient to improve health.

The word exercise, although often used interchangeably with the phrase physical activity, denotes a sub-category of physical 3 Flynn | fitness principles activity. Exercise is a planned, structured, and repetitive movement pattern intended to improve fitness. As a positive side-effect, it significantly improves health as well. Fitness improvements include the heart's ability to pump blood, increased muscle size, and improved flexibility.

COMPONENTS OF HEALTH-RELATED FITNESS

To carry out daily activities without being physically overwhelmed, a minimal level of fitness is required. To perform daily activities without fatigue, it is necessary to maintain health in five areas: Cardio respiratory endurance, muscular strength and endurance, flexibility, and body composition. These five areas are called the components of health related fitness. Development of these areas will improve your quality of life, reduce your risk of chronic disease, and optimize your health and well-being. Each of these five areas will be explored in depth at a later time.

Cardiorespiratory endurance is the ability to carry out prolonged, large muscle, and dynamic movements at a

moderate to high level of intensity. This relates to your heart's ability to pump blood and your lungs' ability to take in oxygen.

Muscular strength is the ability of the muscles to exert force over a single or maximal effort. Muscular endurance is the ability to exert a force over a period of time or repetitions. Flexibility is the ability to move your joints through a full range of motion. Body composition is the relative amount of fat mass to fat-free mass.

SKILL-RELATED COMPONENTS OF FITNESS

In addition to the five health-related components, there are six skill-related components that assist in developing optimal fitness: Speed, agility, coordination, balance, power, and reaction time. Although important, these areas do not directly affect a person's health. A person's ability to perform ladder drills (also known as agility drills) is not related to his/her heart health. However, coordination of muscle movements may be helpful in developing muscular strength through resistance training. As such, they may indirectly affect the five areas associated with health-related fitness. Skill related components are more often associated with sports performance and skill development.

TYPE OF EXERCISE

The type of exercise performed should reflect a person's goals. In cardio respiratory fitness, the objective of the exercise is to stimulate the cardio respiratory system. Other activities that accomplish the same objective include swimming, biking, dancing, cross country skiing, aerobic classes, and much more. As such, these activities can be used to build lung capacity and improve cellular and heart function. However, the more specific the exercise, the better. While vigorous ballroom dancing will certainly help develop the cardio respiratory system, it will unlikely improve a person's 10 k time. To improve performance in a 10 k, athletes spend the majority of their time training by running, as they will have to do in the actual 10 k. Cyclists training for the Tour de France, spend up to 6 h a day in the saddle, peddling feverishly. Metabolic stress results from exercise sessions when the energy systems of the body are taxed. For example, sprinting short distances requires near maximum intensity and requires energy (adenosine triphosphate [ATP]) to be produced primarily through anaerobic pathways, that is, pathways not requiring oxygen to produce ATP. Anaerobic energy production can only be supported for a very limited time (10 s–2 min). However, distance running at steady paces requires aerobic energy production, which can past for hours. As a result, the training strategy for the distance runner must be different than the training plan of a sprinter, so the energy systems will adequately adapt.

INTENSITY

Intensity, the degree of difficulty at which the exercise is carried out, is the most important variable of FITT. More than any of the other components, intensity drives adaptation. Because of its importance, it is imperative for those beginning a fitness program to quantify intensity, as opposed to estimating it as hard, easy, or somewhere in between. Not only will this numeric value provides a better understanding of the effort level during the exercise session, but it will also help in designing sessions that accommodate individual goals. How then can intensity be measured? Heart rate is one of the best ways to measure a person's effort level for cardio respiratory fitness. Using a percentage of maximum lifting capacity would be the measure used for resistance training.

REST, RECOVERY, AND PERIODIZATION

For hundreds of years, athletes have been challenged to balance their exercise efforts with performance improvements and adequate rest. The principle of rest and recovery (or principle of recuperation) suggests that rest and recovery from the stress of exercise must take place in proportionate amounts to avoid too much stress. One systematic approach to rest and recovery has led exercise scientists and athletes alike to divide the progressive fitness training phases into blocks, or periods.

REVERSIBILITY

Chronic adaptations are not permanent. As the saying goes, "Use it or lose it." The principle of reversibility suggests that activity must continue at the same level to keep the same level of adaptation. As activity declines, called detraining, adaptations will recede.

CREATING A SUCCESSFUL FITNESS PLAN

Often, the hardest step in beginning a new routine is simply starting the new routine. Old habits, insufficient motivation, lack of support, and time constraints all represent common challenges when attempting to begin a new exercise program. Success, in this case, is measured by a person's ability to consistently participate in a fitness program and reap the fitness benefits associated with a long-term commitment.

ASSESS YOUR CONDITION

To adequately prepare, you will need to take a hard look at your present level of fitness. With multiple methods of assessing your fitness, you should select the one that most

closely applies to you. Obtaining a good estimate will provide you a 1-time glance at your baseline fitness and health and provide a baseline measurement for gauging the efficacy of your fitness program in subsequent reassessments. Assessments are specific to each health related component of fitness. You will have the opportunity to assess each one in the near future.

SET GOALS

Using the map analogy, now that you know your present location, you must determine your destination and the best route for getting there. You can start by setting goals. In his bestselling book, The seven Habits of Highly Effective People, author Stephen Covey suggest you should "Begin with the end in mind." seven While Covey's words may not be directly aimed at those seeking to complete a fitness program, his advice is useful to anyone making a significant lifestyle change. To be successful, you must develop a clear vision of your destination. Setting specific goals about how you want to feel and look increase your chances of success. Without specific goals to measure the success of your efforts, you could possibly exceed your target and believe you failed.

CREATE A PLAN

Once you know exactly what you want to achieve, generate a strategy that will help you reach your goals. As you strategize, your goal is to determine the frequency, the intensity, and the duration of your exercise sessions. While doing this, it is imperative to keep in mind a few key principles. First, use your goals as the foundation for your program. If your goal is related to weight loss, this should drive the frequency, duration, and intensity of your daily workouts as these variables will influence your body's use of fat for fuel and the number of calories burned. If you feel more interested in improving your speed, you will need to dedicate more workout time to achieving those results.

FOLLOW THROUGH

Once you have assessed your present fitness levels, set goals using the SMART guidelines, and created your personalized fitness plan, you should feel very proud of yourself! You have made significant progress toward achieving a healthier lifestyle. Now is when the "rubber hits the road." (Literally so, if your plan includes walking or jogging.) Now that you have invested time and energy to develop a thoughtful, well-designed fitness program, it is time to reap the returns of good execution. The assessment, planning, and preparation are really the hardest parts. Once you know what to do and how to do it, success is simply a matter of doing it.

HOW THE CARDIO RESPIRATORY SYSTEM WORKS

The cardio respiratory system operates to obtain and circulate key compounds throughout the body—specifically, oxygen and nutrients, such as food energy, vitamins, and minerals. Both oxygen and nutrients, which are imperative for cellular energy production, must be taken in from the lungs and digestive system.

THE CR SYSTEM AND ENERGY PRODUCTION

Clearly the cardiovascular and respiratory systems function as one, but why is the CR system so important? What makes the distribution of oxygen throughout the body so key to existence? The answer is simple: ENERGY. While oxygen in and of itself does not contain any energy (calories), it does combine with fuel extracted from food once it has been introduced into the cell to help produce ATP. ATP is the basic form of cellular energy found in the body.

IMMEDIATE/EXPLOSIVE ENERGY SYSTEM

While the oxidative system is the primary source of ATP production, it does require a few minutes for the system to begin operating at full capacity during exercise. How then could the body immediately produce enough energy to perform a strenuous activity, such as sprinting 50 m? Clearly, another energy system must drive ATP production. The immediate or explosive energy system utilizes the storage of creatine phosphate and the storage of adenosine diphosphate, which is stored in very small amounts, to generate ATP.

ENERGY SYSTEMS COMBINE

It is important to understand that energy systems do not operate in a compartmental fashion, but rather operate simultaneously, each carrying some of the burden of ATP production. For example, a professional soccer player would spend most of the match "cruising" at a light/moderate intensity level, thus primarily utilizing the oxidative energy system. However, during the match, he or she may sprint for several hundred meters, utilizing the explosive and non-oxidative system, or he or she may jump, requiring use of the explosive system.

CONCLUSION

Fitness is very important for good health. Besides feeling better mentally, exercising can help protect you from heart disease,

stroke, obesity, diabetes, and high blood pressure; and it can make you look younger, increase and maintain bone density, improve the quality of your life, and may keep you from getting sick. Exercising also helps you control stress better, and can make you feel happier and less nervous. Before you start an exercise routine, ask your doctor about what exercises to do. Then, make a plan to spend less time in front of the television and/or computer, and begin exercising more. Your doctor may suggest that you begin by doing little things first, such as parking in the farthest corner of your parking lot at work, taking the stairs rather than the elevator, taking your dog for a walk, or riding a stationary bike. Little by little, adding daily exercise will help you begin to feel better. Eating healthy foods are important for good health, too. Changing the kinds of food you eat means paying attention to what you eat and how much you eat. Depending on your location of employment, it may be nearly impossible to get healthy food from vending machines or in a cafeteria, so you will need to be smart and make a good food plan for yourself. It is important to eat a healthy breakfast; eat more fruits, vegetables, salads, whole-grain breads, and egg whites; and foods that are boiled or grilled – not fried. Ask your doctor or a dietician about starting a healthy, balanced diet.

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Review Article

The science behind strength training

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ABSTRACT

Strength training is a type of physical exercise specializing in the use of resistance to induce muscular contraction which builds the anaerobic endurance, size of skeletal muscles, and strength. Sports with strength training as the central object are body building, weight lifting, power lifting, shot put, discus, hammer, javelin throw and wrestling, etc. Since strength is an important component of motor fitness or performance-related fitness, almost all sports use strength training as a part of their training regimen. The players of lawn tennis, rugby, rowing, hockey, soccer, judo, basketball, volleyball, and all athletes are involved strength training in their periodization of training. The terms weight training and resistance training are also called strength training and used synonymously by coaches and trainers for the development of strength. Resistance training is any exercise that causes the muscles to contract against an external resistance with the expectation of an increase in strength, tone, mass, and muscular endurance. The external resistance can be dumbbells, free weights, rubber bands, your own body weight, etc. Weight training is also performed through barbell with weight plates, single station weight machines, multi-gym, dumbbells, etc. The athlete should follow the basic law and principle of strength training before starting strength training. He must understand the types of muscle contractions and how muscles work together at the time of joint movement. This is the main objectives of this topic.

Keywords: Is kinetic, Isometric, Isotonic, Power, Resistance, Strength, Weight training

INTRODUCTION

Strength training is a method of improving muscular strength by gradually increasing the ability to resist force through free weights, machines, and players' own body weight. Strength training is also called resistance and weight training. Resistance or weight training was once considered inappropriate for athletes except for weight lifters, power lifters, body builders, and throwers. Women were not advised to do weight training exercises. Researchers and coaches have discovered the benefits of strength training for all sports and it has since become more popular globally. Finally, in late 1980s and early 1990s, health professionals began to recognize the importance of resistance training for overall health and fitness. Most athletes including female, now incorporate strength and power training as important components of their training schedule. Resistance training is an important part of the exercise programmers for those who seek health-related benefits of fitness. Strength training programmers differ for each sport. Even the resistance exercise training schedule for power sports such as body building, power lifting, and weight lifting also differs. Body builders need more hypertrophy and muscles definition whereas power lifters require maximum strength and weight lifter needs more explosive strength. This entire training programmer for the three different sports is complex in nature but strength is the ultimate goal. Since, strength training is complex in nature; one must have basic knowledge about muscles fiber, motor units, principles, and laws of strength training. There are various types of strength training exercises for our upper body and lower body parts. All these exercises are selected and designed for specific purposes called types of strength training, such as circuit training, super set system, antagonist super set system, maximum load method, is kinetic method, and slow or super slow system. As per the requirement of types of strength for different sports, the coaches design various exercises for their athlete's strength training programmers. This paper focuses on physiological aspects of

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muscle fibers, motor units, muscles contraction, principles, and laws of strength training.

STRENGTH IT'S MEANING OF TYPES

Strength is the ability to overcome the resistance. Strength comes in many forms and more complex in nature. It is classified into various categories. (a) Maximal strength refers to the maximum amount of weight that a person can lift 1 time. For example, a weightlifter lift 60 kg in his front press or 130 kg in his back squat, so his maximum shoulder and leg strength will be 60 kg and 130 kg, respectively, which is his 100%. Of course to reach 60 kg in his front press, he might have start his first set from 50% of his maximum strength (60 kg) that is 30 kg/5 Rep, second set 60% that is 36 kg/4 Rep, third set 70% that is 42 kg/3Rep, fourth set 80% that is 48 kg/2 Rep, fifth set 90% that is 54 kg/1 Rep, and finally in his sixth set 60 kg with one Rep which is his maximum shoulder strength (100% intensity). Similarly, he might have started with 50% in his back squat and finally reach in his last set 130 kg with one rep and complete. Hence, his maximum leg strength is 130 kg (100% intensity). It reflects the heaviest load an athlete can lift in one attempt, expressed as 100% of maximum or one repetition maximum. It is highly important to know one's maximum strength of shoulder, leg, back, etc., in strength training, it is the basis for calculating loads for every strength phase or strength training schedule. (b) Relative strength refers to the ability to work against one's body weight. Relative strength is associated with weight lifting and power lifting sports. For example, a 60 kg weightlifter lifts a total 280 kg (both snatch and clean and Jerk) his relative strength will be 280-60 = 4.66. Whereas, a 100 kg body weight weightlifter lifted a total of 350 kg (150 kg + 200 kg) and his relative strength will be 350 kg = 100 kg = 3.5. If we will compare the relative strength of both the lifter, the 60 kg lifter's relative strength is more.

(c) Eccentric strength, or "Yielding" strength, is the ability of a muscle to develop force while it is lengthening. This form of strength is essential to success in power tasks such as jumping, cutting, or changing direction. (d) Strength endurance is the ability to sustain muscle force production at a high level over a period of time. A body builder performing a bicep curl exercise 20 times (Rep) with a 20 kg bar is the example of strength endurance exercise. This is also called muscles endurance.

(e) Power is defined as the rate of performing work. It is the product of force and velocity. Maximal muscle power generally referred to as power that is the explosive aspect of strength and speed of movement.
Power = Force x Distance/time (Acceleration)
Where Force = Strength and distance/time = speed

TYPES OF MUSCLE CONTRACTION

Skeletal muscles are responsible for both contraction and relaxation. A muscles contract when it is stimulated and contraction stops it relaxes. The sportsman in different sports involved in weight training exercises and depending on their training schedule and equipment muscles contraction occurs. There are three types of muscles contraction which is isometric, isotonic, and is kinetic. Isometric is a muscle contraction in which no movement occurs. The length of the muscle remains constant under tension. For example, if an athlete pushes against a wall, tension will be created in the muscles without changing the length of it. Isotonic is a muscle contraction that pulls on the bones and produces movement. Most types of lifting would be considered isotonic. It is of two types one is concentric and second is eccentric. In concentric contraction, the muscle shortens its length. For example, in bicep curl exercise with dumbbell or barbell, the bicep muscle shortens. In leg extension exercise, quadriceps contract concentrically, eccentric contraction is the reverse process of a concentric action. During a bicep curl, the eccentric contraction occurs when the arm extended fully and come to the starting position. Similarly, in after leg extension movement, eccentric contraction occurs when knee joint bend and come to starting position. Is kinetic is a type of contraction which maintains constant velocity throughout the range of motion. Is kinetic work out needs special equipment that designed to allow a constant velocity of contraction regardless the load? Mini-gym and cyber are the best example of is kinetic equipment which is very expensive. When athlete performed exercise in this equipment, both concentric and eccentric contractions occur and the machine provides a resistance that is equal to the force generated by the athlete. That means equal amount of force is applied in each repetition. The main benefits of this exercise are it allows the muscles to work maximally throughout the entire movements.

HOW MUSCLES WORK TOGETHER

The skeletal muscles do not contract independently of one another, but they contract together with a different role. Prime movers or agonist and synergists are muscles that work together as a team, cooperating to perform a movement. The synergists are the muscles that provide assistance to agonist or prime movers. Antagonists act in opposition to agonists during the movements. For example in our bicep curl movements (elbow flexion), bicep is the agonist, triceps muscle is antagonist and trapezes are the synergist. Stabilizers or fixates are usually small muscles that contract somatically to anchor or steady a bone so that prime movers have a farm base support for the movement. A stabilizer may be a muscle in the same limb or other parts of the body at the time of a joint movement. For example, in a pitcher curls exercise (elbow flexion where

upper arm or triceps rested on a firm support), the shoulder and abdomen muscles contract as so metrically and act as stabilizer in the bicep curl movements.

TYPES OF MUSCLE FIBER, MOTOR UNIT, AND RESISTANCE TRAINING

All muscle fibers in our body are not alike. A single skeletal muscle contains fibers having different speeds of shortening and strength: Slow twitch, or type I fibers, and fast twitch or type II fibers. Type II fibers are further classified into two: Fast twitch type II (type II) and fast twitch type II (type II). Since there is a difference in between type I and type II fibers, there are two different functions which are associated with related to exercise. In general, type I muscle fibers have a high label of aerobic endurance. Aerobic means in presence of oxygen. Type I fibers are very efficient at producing ATP from the oxidation of carbohydrate and fat. Type II muscle fibers, on the other hand, have relatively poor aerobic endurance. Thus are better suited to perform an aerobically (without oxygen). Type la fibers play a major in high intensity exercise. Type II fibers are activated when the force demanded of the muscles is high. A motor unit is made up of a single motor neuron and it connected to a number of muscle fibers. The motor neuron appears to determine whether the fibers are type I or type II. The motor neuron in a type I motor unit has a smaller cell body whereas motor neuron in a type Il motor unit has a larger cell body. Small motor units (Type I motor unit) contain slow-twitch fibers while large motor units (type II motor units) contain fast-twitch fibers. Type II motor unit muscle fibers per motor unit than do the type I motor unit. Generate more force because they have larger fibers and more motor unit recruitment happens when strength is required; nerves assist with the action. The number and type of motor units recruited are dependent on the amount of strength required. Hence, strength is not the solely a property of muscles rather it is a property of motor unit. Motor unit recruitment, stimulation frequency, and neural factors are also quite important to strength gain. This is most important aspect of strength training so far as exercise physiology is concerned.

LANGUAGE OF STRENGTH TRAINING

- Intensity in weight training says about hardness of the exercise. How hard the exercise is? In general, it is based on the amount of weight or load you lift. For example, a lifter performs 150 kg in his back squat (one rep) which is his maximum strength, and then, we called it 100% intensity. When the intensity of the exercise will more, the reps will be less
- Volume in weight training is how much work you do, such as the number of reps you perform in an exercise
- Sets are a group of repetitions of a specific exercise. Each set should be followed by a period of rest before another is performed
- Reps are repetitions used to describe the number of consecutive times you perform an exercise
- Hypertrophy means increase in muscles size. Hypertrophy is two types, one is transient and second is chronic. Transient hypertrophy is the increased muscle size that develops after a weight training programmers. This results mainly from fluid accumulation in the interstitial and intercellular space of the muscles which last for a short time. The fluid returns to blood within hours after exercise. Chronic hypertrophy refers to the increase in muscle size that occurs with long-term resistance training. This reflects actual structural changes in the individual muscle fiber (fiber hypertrophy) in the number of muscle fibers (fiber hyperplasia)

Muscle Definition (MD)

This term is used in body building (best physique) training programmers. MD is a training phase using specific training methods, where the objective is to burn fat and in the process further improves muscle striation and vascularization.

Low Load

It means pertaining to loads up to 49% of 1 RM.

Medium Load

It means pertaining to loads between 50 and 89% of 1RM.

Maximum Load

It refers to a load of 90–100% of 1RM.

Super Maximum Load

A load that exceeds 100% of 1 RM. These weights are used by experienced weight lifters to improve their maximum strength.

PRINCIPLES OF STRENGTH TRAINING

Work Capacity Training

This is the most basic level of training for strength development which is called "work capacity." Every coach or physical education teacher must adopt this in their preparatory phase. This phase consists of developing various physical qualities such as (i) core strength, (ii) joint mobility, (iii) strength endurance, (iv) anaerobic capacity, and (v) body composition. We must consider these factors before start strength training in case of a group of school athletes (11–14 years of age) or a group of untrained older athletes. As we have already discuss three basic laws of weight training. The training intensity and volume should be very less. The Set and Rep must be calculated properly.

Principle of Progression of Load

According to this principle, the training load should be gradually increase as per their adaptation of the load. All of sudden they must not start with maximum load in their training schedule. In resistance training, the load should be gradually increased for a better performance. Otherwise, the performance will deteriorate due to over load. This is also called step load or pyramid type load. Gradually, athlete's body's adaption capacity will improve.

Principle of Reversibility

According to principle of reversibility, training benefits are lost if resistance training is either discontinued or reduced abruptly. To avoid this training, programmers should continue and maintained though out their periodization.

Principle of Hard and Easy

According to the principle of hard and easy, 1 or 2 days of hard training (maximum load) should be followed by 1 day of easy training (moderate or low load), allowing the body and mind to fully recover before the next hard day of training.

Principle of Individuality

Athletes are not equal with the same ability to respond or adapt to resistance training. A group of weight lifters having 60 kg body weight categories are different so far as their structure, body function, and maximum strength though their body weight is same. The coach should take individual attention so far as training load is concerned.

Principle of Periodization

In resistance training, periodization is the gradual cycling of specificity, intensity, and volume of training to achieve peak level of performance in completion. Whole year (macro cycle) is divided in to preparatory, competition, and transitional periods with various mesa and microcycles. In body building training, these mesa and micro cycles are confined with hypertrophy, mixed training, maximum strength, and muscles definition.

RESISTANCE TRAINING NEEDS TO BE ANALYSIS

Except weight lifting, power lifting, and body building, the coaches of all other sports should analysis following points before prescribing a resistance training programmers for their athletes.

a. What major muscles group needs to be trained?
b. What type of training is required?
c. Which exercises will be selected and performed?
d. What will be the order of exercises in which they will be performed?
e. What will be the number of sets and reps of each exercise?
f. What will be rest periods between each sets?
g. What will be the intensity and volume of the training?
h. What preventive major will be taken to avoid injury?

All these points are very important to analysis before start a resistance training programmers for different sportsman.

CONCLUSION

In this paper, I have considered the role of resistance training in increasing muscular strength and improving performance. The laws, principles, and role of motor unit in strength training which is highly important have been discussed. We come to know how muscle strength is gained through both muscular hypertrophy and neural adaptation. Resistance training equipment are very expensive so far as is kinetic training is concerned. Strength training can benefit almost everyone, regardless of age, gender, or athletic involvement. Most athletes in all sports can benefit from resistance training if appropriate programmers are designed for them. To ensure the success of the programmers, it should be assessed periodically.

The training regimen with intensity and volume of load, sets with repetitions should be adjusted as required to avoid injury and negative effects.

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Review Article

Development of adventure sports and adventure tourism in Madhya Pradesh

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ABSTRACT

At present tourism is considered as one of the important economic sector, which impels the growth and development of many of the states of India. This article analyses the problems and strategies for tourism and resource development which bears great prospects in the future development of tourism. Madhya Pradesh sends the largest number of travellers to almost every corner of the world, but its strength to be host is not yet been fully utilized due to the lack known, as the "Heart of India." It offers colorful experience to its travelers packed with pleasant surprises, endeared with forest and deserts, hills, plains and lakes, tribal hinterlands, and special interest destination with a strong rail, road, and air network. Madhya Pradesh contributes little over 2% to the total tourist trappie of the country.

INTRODUCTION

The State of Madhya Pradesh is unique in the tourism offering being one of the most prominent states of India that is topographically landlocked. However, the lack of a coastline has not taken away from its charm, because quite evidently Madhya Pradesh unique sailing point is its rich and varied forest cover, easily making it one of the most promising eco-tourism products of India. Madhya Pradesh has got many locations which are tremendously suited for the promotion of Adventure Tourism owing to its landscape, water bodies, hilly terrain, gorges, rocky mountains, and abundance of preserved natural beauty. The pollution-free environment in these locations is an added boon supported by traditional cultural values and local cuisine. The Adventure Tourism activities are conducted without making any dent in the existing ecological balance. In Madhya Pradesh's adventure sports are also very fast developing. The activities such as trekking, mountain biking, paragliding, boating, mountaineering are part of natural process which rejuvenates the individual and paves the way for him to be ambassador of the conservation which is fighting a losing battle today with the onslaught of uncontrolled modernization and development.

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CANOEING SAFARI AND WHITE WATER RAFTING

Though the state is not blessed with a sea fort, water sports have been planned in various districts across the state. Projects that are part of the development plan of the eco-tourism policy of the state in the area of water sports are as follows:-

- Tawa Project, District Hoshangabad
- Kaliasot Project, District Bhopal
- Halali Project, District Raisen
- Barna Project, District Raisen
- Gandhi Sagar Project, District Mandsaur
- Tigra Project, District Gwalior
- Harsi Project, District Gwalior
- Mohini Sagar Project, District Shivpuri
- Kolar Project, District Sehore
- Rani Avanti Bai Project, District Jabalpur.

ROCK CLIMBING AND MOUNTAINEERING

The state has also identified a few areas suitable for the promotion of eco-tourism associated with mountain activities such as rock climbing, mountaineering, and trekking. Pachmarhi has been identified as one of the most promising

areas for eco-tourism promotion in the area of mountaineering. It is one of the most celebrated hill stations of the state grilled in the Satpura Range. The region possesses rock paintings in the cave shelters of the Mahadeo hills.

OPERATING BOAT CLUBS

- Upper lake boat club, Bhopal
- Tawa Resort, Tawa district Hoshangabad
- Tigra boat club, Tigra dam Gwalior
- Boat club, Maikal resort Bargi, district Raisen
- Boat club, tourist village, district Shivpuri

1. Rafting at Betwa River, Orchha, district Tikamgarh
    - Presently, operating seven boat clubs with in house O.B.M. Engine repair workshop at upper lake boat club Bhopal were trained mechanics do repairing of O.B.M. engines for these boat clubs Paddle Boat, Speed Boat, Mini Cruise Boat, Mechanized Boat, Shikara Boat, Cruise Boat and Pontoon/Floating Jetty. Life jacket and spare parts of water sports equipment are being purchased and maintained by ETA wing.
    - Helps in purchasing of water sports equipments of Madhya Pradesh government on nominal supervision charges.
    - Is developing adventure comes in Madhya Pradesh for giving them on lease as per tourism policy 2010.
    - Is organizing school education tours for children to gain more knowledge of environment.

16 BEST ADVENTURE SPORTS IN MADHYA PRADESH

Blessed with various forest areas housing a large diversity of flora and fauna, Madhya Pradesh is heaven for nature and wildlife lovers. The state claims a total of six tiger reserves and 25 wildlife sanctuaries in Madhya Pradesh which are absolute treats for those seeking the ultimate adventure of wildlife safari.

Experience me thrill of watching tigers and other exotic animal species in their natural habitats by taking a wildlife safari tour at Bandhavgarh National Park where India's first white tiger was spotted. Kanha National Park and Pench National Park are equally great choices in Madhya Pradesh to sight wide varieties of flora and fauna.

Best National Parks for wildlife safari in Madhya Pradesh:

1. Bandhavgarh National Park is located in the Umaria district and the safari charges here are INR 5500 per vehicle
2. Kanha National Park is located in Mandla district and the safari charges here are INR 6500 per vehicle
3. Pench National Park is located in Seoni and Chhindwara districts and the safari charges here are INR 1,500 per vehicle
4. Panna National Park is located in Chhatarpur district and the safari charges here are INR 1000 per vehicle
5. Satpura National Park is located in Hoshangabad District and the safari charges here are INR 3050 per vehicle
6. Sanjay National Park is located in Sidhi District and the safari charges here are INR 4500 per vehicle
7. Madhav National Park is located in Shivpuri and the entry fee here is INR 15 per person
8. Van Vihar National Park is located in Bhopal and the entry fee here is INR 15 per person
9. Fossil National Park is located in Dindori District and entry here is free.

2. River Rafting in Betwa River, Orchha
River rafting is another adventure activity that adds grace to the image of Madhya Pradesh as an ideal location for adventure enthusiasts. If you love the feeling of getting thrilled, Betwa River flowing through Orchha is the spot where you can indulge in the thrilling activity of river rafting.).

Betwa River, which is one of the tributaries of the Yamuna River, features Grade and Grade Il rapids, appropriate for river rafting. The scenic environs of the river will keep you hooked while you raft through its turbulent currents, having some exhilarating moments.

3. Trekking
One of the best gifts Madhya Pradesh has in store for thrill-seekers is the wide range of exhilarating trekking trails. From dense forests to steep rocky terrains and forested valleys - Madhya Pradesh boasts of some scenic trails that are equally thrilling as well. From easy nature walks to challenging hikes, you will find options that complement your desires.)

(There is a number of places where you can go trekking in Madhya Pradesh:

1. Ralamandal Wildlife Sanctuary Trek
2. Pachmarhi Hill Trek
3. Tincha Fall Trek
4. Bamıniya S Mehendi kuing Trek
5. Patalpani Waterfall Trek
6. Chidiya Bhadak Waterfall Trek.

4. Rock Climbing in Pachmarhi
Rock climbing in Pachmarhi offers you an unnerving adventure of climbing up the rocky terrains of the Satpura Range, creating an experience you probably have not had before. After you are done testing your endurance, breathtaking views from the top add a satisfying conclusion to the experience.

While in Pachmarhi, you can also visit amazing waterfalls of Pachmarhi that will make you love with nature more than ever.

5. Camping

The land of Madhya Pradesh is blessed with valleys and hills carpeted in a velvety cover of greenery, offering a number of opportunities for adventure enthusiasts to enjoy the fun of jungle camping.

Besides, you can also indulge in the adventure of riverside camping here. The scenic rivers such as Betwa and Narmada offer their barks as the perfect spot to pitch your tent at and spend the most exciting time of your life in an untainted atmosphere under a sky fun of stars.

There is a number of places where you can go camping in Madhya Pradesh:

1. Choral Dam
2. Kalakund Jungle
3. Pachmarhi
4. Hanuwantiya
5. Sailani Tapu.
6. Speed Boating at Upper Lake, Bhopal
   The fun of speed boating on the calm waters of this serene lake, while the setting sun makes the horizons appear dreamy, is an "experience one should not skip. This adventure activity combines the thrill of speed with the undiluted beauty of nature this place is blessed with to create an unforgettable experience.
7. Sail through the Marble Rocks in Balaghat
   The adventure of sailing on the waters of Narmada River, through the huge marble rocks in Bhedaghat is a visual treat, and also a great means to get your adrenaline pumping. If you love nature, Bhedaghat is going to impress you with its unparalleled beauty, and if you love adventure, it is going to entice you with the thrilling adventure activities you can try here.
   Here, you can indulge in some of the best adventure sports in Madhya Pradesh including an exciting boat ride between the rocks. Owing to the beautiful sights created by giant rocks with the Narmada River flowing through them and Dhuandhar Falls, Bhedaghat is a popular choice among tourists.

8. Parasailing and Parasliding in the Hills of Pachmarhi
   The only hill station in Madhya Pradesh, Pachmarhi has gorgeous hills, perfect for various adventure sports in Madhya Pradesh. The station is frequented by tourists in the quest for thrill all around the year. Parasailing and paragliding are among the most popular adventure sports in Pachmarhi.
   What makes the fun of parasailing and paragliding in Pachmarhi more exciting is the picturesque vistas of the green landscapes of this quaint hill station you get to witness while you are sailing in the air, hundreds of feet above the ground. The experience is thrilling and calming simultaneously.
9. Cycling in a thickly Forested Island formed near the Betwa River, Orchha
   Madhya Pradesh is blessed with the best of nature. The state has varied landscapes apt for different types of adventure sports. If imagining about cycling on a thickly forested island between two rivers excites you, you need to experience the adventure of cycling on the island between the Betwa River and the Jamni River, featuring amazing trails in the middle of the raw jungle. The challenging trails of this region make cycling here one of the most thrilling adventure activities in Madhya Pradesh. The rich biodiversity you get to witness along the way is just a bonus.
10. Enjoy water Sports at Bargi Dam, Jabalpur
    Madhya Pradesh is dotted with places that can conveniently be called "adventure hubs." Bargi Dam is one of the priceless gems Madhya Pradesh boasts of. It is a scenic place offering a plethora of water sports to indulge in.
    Built on Narmada River, Bargi Dam is a known recreation spot. If you are looking for a place in Madhya Pradesh to get adventurous, this is the place to be. At Bargi Dam, you can experience a range of activities such as speed boating, paddle boating, water scooter, and hot air balloon ride. However, the major attraction here is the exciting cruising experience in double-decker boats.
11. Kayaking in River Betwa and Narmada
    Kayaking is one of the most thrilling water sports you can experience in Madhya Pradesh. Confront the exhilarating thrill of Kayaking in the waters of the Betwa River and the Narmada river. This adventure activity does not only give you a perfect dose of adventure but also gives you a perfect opportunity to see a different aspect of the natural diversity of the state.
    Whether you are exploring Madhya Pradesh with your family or friends, kayaking in either of these rivers deserves to be on the list of the things you plan to experience here.
12. Sailing at Bada Talab, Bhopal
    Bada Talab, popularly referred to as "Upper Lake" is the star attraction in the capital city of Madhya Pradesh, Bhopal. Owing to the charm it wears and the numerous activities it offers Bada Talab is frequented by tourists and locals alike. One of the best ways to explore this place is to sail on its calm waters and experience the tranquility it offers along with some breathtaking views if you indulge in the activity at the lake during sunset. It is a perfect adventure activity if you intend to calm your senses on your visit to Bhopal.
13. Water Sports at Hanuwantiya
    One of the best places in Madhya Pradesh to visit with a hunger for thrill is Hanuwantiya Island, located at the bank of Indira Sagar Dam. Moreover, the scenic beauty of this island blanketed in lush greenery is breathtaking.

Owing to an impressive range of adventure sports available here, this place serves as a hotspot for tourists seeking an offbeat experience. You can indulge in fun water sports such as banana boat ride, parasailing, jet-skiing, cruising, and speed boating in the tranquil waters of Asia's second-largest reservoir, Indira Sagar Lake. Besides, you can also undertake a trekking expedition to Boriyamal Island. Hanuwantiya Island has a lot of offerings to satisfy the adventurer in you.

14. Cable Car Ride over the Marble Rocks, Bhedaghat
    Located a distance of 20 km from the city of Jabalpur, Bhedaghat is one of the most sought-after tourist destinations in Madhya Pradesh. Apart from the presence of Narmada River, the place is renowned for the marble rocks, almost 100 feet tall, sitting on either side of the river.
    During the cable ride, you also get to witness the stunning views of Dhuandhar Falls, making the experience all the more enjoyable.

15. Kalakund Forest Night Trek, Indore
    Madhya Pradesh has some trek-worthy valleys and hills and claims a wide range of exciting trekking trails all over it. Kalakund trek near Indore is one of the most popular ones. Embrace the thrill of trekking through dense jungles at night and camping in the wild by indulging in Kalakund Forest night trek.)

16. Flying Fox over Kerwa Dam, Bhopal
    Kerwa Dam has a wide array of adventure activities on offer which makes it a perfect weekend destination for adventure enthusiasts. Out of all the exciting activities, you can indulge in here. zip lining at Flying Fox tops the list, as the level of thrill this activity offers is unrivaled.

This 520-meter long twin zip line in Bhopal is claimed to be the longest twin zip line in India. Experience the ultimate thrill of whizzing over the Kerwa Dam Lake, suspended in the air while breathtaking views of Bhopal city steal your attention.

DEVELOPMENT OF TOURISM IN MADHYA PRADESH

Tourism means the traveling for pleasure. Maximum people of the whole world are in the habit of traveling in order to see the places of their respective interests such as the structures of sculptural beauty, attractive spots of nature and so on. Hence, we find a lot of foreign tourists in different countries.

Tourism has become a source of income for the countries. Hence, tourism is now developing as a great industry over 200 million people were involved in this industry. Such a great industry can't be ignored by India and Madhya Pradesh which abounds in the spot of tourist interest.

MADHYA PRADESH STATE TOURISM DEVELOPMENT CORPORATION (MPSTDC)

MPSTDC is a government agency that conducts and regulates the tourism activities of the Indian state of Madhya Pradesh. The MPSTDC is headquartered at Bhopal and has offices across all the districts of Madhya Pradesh. The agency also operates homestays, hotels, resorts, and tourist rest houses in different key locations within the state. The department also has an official slogan – "Heart of the incredible India."

M.P. Tourism operates various resorts, hotels, homestays at most of the strategic tourist destinations of M.P. Madhya Pradesh Tourism offers a wide variety of accommodations to suit the taste and budget of a tourist traveling to Madhya Pradesh. M.P. Tourism offers its finest accommodations at each and every place of tourist interest in the state.

CONCLUSION

Government of Madhya Pradesh is doing well in this field. It is planning to about new schemes for effecting tourist complexes by joining a number of tourist spots by means of road link and air services. If we follow the above suggestion, we will surely achieve our goal. We only need determination and strong political will power for this. Other states Government in India are also busy in developing the places of tourist interest in their respective states. I hope that tourism will develop in M.P. and I also wish that tourism in India will highly develop by the combined efforts of the Central Government and the State Governments.

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Review Article

Do physical and sports education made compulsory in school/ college curriculum?

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ABSTRACT

There is a need of development of physical education culture in India. Nation must develop sports infrastructure. It is the need of time that demands skill-base education in India. Who will take the responsibility to develop the base of physical education in India? Naturally we must shoulder the responsibility as we are learned physical educator, the teachers in the colleges and schools who devote their time in day-in and day-out to develop sport infrastructure and sport abilities among the individuals. Surprisingly, what is the observation about the ratio of the physical educator? What is a loop as compare to developed country and our Nation? It was observed that it is very low as compared to the developed countries such as USA, China, UK, France, Germany, Australia etc. They have great ratio physical educators per child. In the western and developed countries, more stress is given on physical education in a large scale to generate a very active and healthy way of life in the forthcoming generations. How to overcome these situations? General thought among parents is that they consider sports as a deviation and a causative factor for lower marks on the other hand it is the need of thinking, a number of studies have shown healthier educational grades in active children. Increasing obesity levels among kids in our country are also disturbing. A study published in Pediatric fatness, an international journal highlights that - by 2025, over 17 million obese children might be found in India and will have stand second among 184 Nations with respect to child obesity. Commonly, in India sports are not considered as a profession, so college/school authorities and parents step back when it comes to investment in sports for the children. Divergent to these thoughts, quite a few studies have exposed improved scholarly performance.

Keywords: Kids and obesity, Sports education

The main objective of the study is to create physical education as a fundamental part of educational system. Main aim is to encourage physical activity among students. The Stakeholders, that is, students learning in the institutions should have the advantage of sports and physical education. It should be compulsory to improve the health related fitness and knowledge about the health fitness and its utility parallel to the academic activities of college education. The course must be designed to ensure that on completion of this course, the stakeholders must attain the minimum prescribed syllabus. Overall it could be said that physical education had very diminutive importance as compared to the academic activities. There is a clear apathy toward these activities. Then the question arise, are we giving proper attention to it? Well, the answer is no. In India, there was no obliges to necessitate of physically powerful and healthy physical education system. Expansion of sports is impossible and meaningless until we develop a strong physical education system. Anywhere does the setback be positioned in the colleges/schools? How much of a sports experience is authentic for a child? At present, the situation is that if there are ten sports educators, there are ten different ways of teaching the same topic/skill. This is not to indicate that our instructors are incompetent or incapable, but to state that it is relevant to have certain standards that provide more meaning to a child's involvement in sports and the learning outcomes from it.

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Syllabus Must Include

Physical Education, Physical Fitness, Sports injury, Movement Education (Biomechanics and kinesthetic), Sports Physiology, Sports psychology, Kinesiology, Yoga and Health Education, and Cognitive development.

THE RATIO OF PHYSICAL EDUCATION TEACHERS MUST BE IN PROPORTION OF 300:1

Bodily apathy, that is, enjoying sedentary life is an explanation of determinant of strength from corner to corner of the existence. A be short of movement enlarges the danger of myocardial disease, colon and breast cancer, diabetes mellitus, hypertension, osteoporosis, anxiety and depression, and others diseases. Promising invented chronicle has recommended that in provisions of mortality, the worldwide communities' physical condition weight and obesity etc., due to of physical inactivity come close to that of smoking cigarette. The predominance and considerable infection danger linked with physical inactivity have been illustrates as a deadly disease (Pandemics).

The occurrence, physical condition as important as the confirmation of indecisiveness all have resulted that it is the quick need for act to add the physical activity across the existence of human being. To come back to a health priority, the requirement is to find ways to make physical activity for youth compulsory. It is the need of the formation of the institute such as Medicine's Committee on Physical Activity and Physical Education in the school/college ruling areas. The purpose of the same formation was to review the present status of physical activity and physical education in the schools/colleges. Such environment, including before, during, and after school/college, and examine the influences of physical activity and physical education on the short and long term physical, cognitive and brain, and psychosocial health and development of children, adolescents and youth as well younger to all stages of growth and developments.

Cultivating the learners' body makes advised about move toward for reinforcement and getting better programs and guiding principles for physical activity and physical education in the school/college atmosphere. This description put down a series of conduct of code of principles to direct its work on these tasks. These incorporated: Be recognizable with the compensation of inculcating life-long physical activity routines in children. The values of using systems are accepted wisdom in getting better physical activity and physical education in the school/college environment. The acknowledgment of existing differences in openings and they require achieving fairness in physical activity and physical education. The significance is for taking into consideration all categories of school backgrounds. There is necessitating taking into deliberations the variety of students as suggestions are developed.

This report will be of interest to local and national policymakers, school/college officials, teachers, the education community, researchers, professional organizations, parents interested in physical activity, physical education, and health for school-aged children and adolescents. Brendan O'Malley May 01, 2020 was made a survey on higher education. In his study, he came across the 200 number of higher institutions in Europe. He founded that it was need to provide considerably more funding and other resources.

In the western countries, college/school authorities and parents are progressively realizing the importance of sports in the overall development of children. Extremely high cut-throat marks, ambitious education environment has made parents tremendously worried and worried about academic progress. Universal consideration in the midst of parents is that they consider sports as a divergence and a contributing factor for poorer marks. On the other hand to these thoughts, quite a lot of studies have exposed improved educational progress in active children. Intensifying tubbiness stages surrounded by children in our nation is also frightening. A study published in pediatric obesity, an international journal highlights that - by 2025, India will have over 17 million obese children and stand second among 184 with respect to child obesity. Commonly, in India sports are not considered as a profession, so college/school authorities and parents step back when it comes to investment in sports for the children. However, in India, sports are considered more of an interruption rather than a constructive activity therefore due to this reason many parents are restricting their children from taking active part in activities such as sports. The private tuition classes are equally responsible for the students to take part in sports. Several kids show a quantity of signs of interest in sports from a premature age and this phenomenon should be motivated. Children should be given appropriate quantity of supervision and support by the college/school authorities and parents. By means of appropriate hold up and classification of physical education and sports in India, kids will be able to pass out the best in themselves and be able to represent the country at some point of time in the future. Thus, encouraging physical education and sports in India are important and compulsory activities in colleges/schools must become conscious the settlements that can be accomplish commencing a small number of hours of activity every day.

IMPROPER ALLOTMENT PLUS UTILIZATION OF FINANCIAL PLAN

The financial support value before the competition is less. Provision for financial support sports is under the Union Ministry, Sports and Youth Affairs of India. The allotments are not over and done with as efficient as other countries of the universe.

NEED OF SKILLED TRAINER

Coaching training programs are not encouraged in India; as a result schools and colleges lack qualified and experienced

Particulars	Actual 2017–2018	RE 2018–2019	BE 2019–2020	% Change (BE over RE)
Khelo India	349	551	601	9
Assistance to National Sports Federations	278	245	245	0
Nehru Yuva Kendra Sangathan	215	270	257	–5
Rashtriya Yuva Sashaktikaran Karyakaram	111	138	138	0
Others	240	403	525	30

Sources: Expenditure budget, Union budget 2019–2020, PRS. BE: Budget estimate, RE: Revised estimates. Others: National Sports Development Fund, and contribution to the World Anti-doping Agency

coaches. Deficient in facilities with sports grounds and infrastructure improvement. Due to lack of facilities at cities, rural towns, and villages, there is an inadequate provision of facilities equipment teaching materials and large sizes grounds. There is a scarcity of efficient coaches and physical education teachers.

CONCLUSION

Sports need to be put at equal footing as any academic subject. It deserves as much sincerity and attention. It is the duty of institutions to recognize this importance and develop/implement a good SPORTS EDUCATION curriculum that interests students and bring together support from the parents. While a university/broad level framework is to be given by government, the responsibility of practical implementation at schools will be the accountability of the institutional managements, leaders, and teachers team. Without participation in at least one activity, students are not supposed to be declared pass or upgrade in the higher standards.

THERE ARE A FEW RECOMMENDATIONS WHICH COME INTO FOCUS THROUGH THIS DOCUMENT

Recommendations

1. Advocate the importance of sports education
2. Encourage sports participation in schools/colleges
3. Increase sporting opportunities for the young
4. Sets consistent national standards to improve the outcomes for all the students. From childhood to adults.

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Review Article

An analytical review on stress management approach for athletes during sports

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ABSTRACT

Stressors have a significant impact on disposition, our feeling of prosperity, conduct, and well-being. Intense pressure reactions in youthful, solid people might be versatile and normally do not force a well-being trouble. Nonetheless, if the danger is unremitting, especially in more established or undesirable people, the drawn out impacts of stressors can harm well-being. This paper endeavors to take a gander at the systems for sports mentors in overseeing distressing circumstances in sports contests. This paper thusly, writes in the presentation, the ideas of stress contest based pressure, the executives, stress the board in sports, and stress in sports brain research. The paper additionally looks at the wellsprings of stress. It takes a gander at the degrees of stress in aggressive games. The connection between psychosocial stressors and sickness is influenced by the nature, number, and perseverance of the stressors just as by the person's organic weakness (i.e., hereditary qualities and sacred elements), psychosocial assets, and learned examples of adapting. Psychosocial intercessions have demonstrated valuable for treating pressure related issues and may impact the course of ongoing sicknesses. The paper likewise features some particular pressure the executive's methodologies which sports mentors need to utilize to help great execution in sports contest. It additionally recognizes the instructive ramifications of stress the executives in sports contests.

Keywords: Psychosocial interventions, Psychosocial stressors, Sports, Stress management, Stress responses, Stressor interactions

INTRODUCTION

The more extensive the utilization of the term "stress," the trickier its significance. The present day meanings of stress all perceive that it is an individual encounter brought about by pressing factor or requests on an individual, and effects on the person's capacity to adapt or rather, his/her view of that capacity. Business related pressure happens when there is a crisscross between the requests of the work and the assets and abilities of the individual laborer to fulfill those needs. Abstract and self-detailed assessments of stress are similarly just about as substantial as "objective" information, such as insights on mishaps or non-attendance. A new report by the National Association of Mental Health recognizes pressure and pressing factor, where pressing factor can be characterized as an abstract sensation of strain.

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In sports brain science, stress is viewed as a type of excitement which is explicitly - connected with detail task assumption for the interest which a circumstance puts on singular acting in cutthroat games. Stress is seen from various discernment. A few clinicians or educators or even the mentors consider pressure the board to be a fundamental element for phenomenal execution. Other accepts that pressure affects execution mental perspective; stress could be fortunate or unfortunate. This relies on its level and the type of the individual influenced. Stress is a focal idea for understanding both life and advancement. All animals face dangers to homeostasis, which should be met with versatile reactions. Our future as people and as an animal category relies on our capacity to adjust to intense stressors. At a cultural level, we face an absence of institutional assets (e.g., lacking medical coverage), plague (e.g., HIV/AIDS), war, and global psychological oppression that have arrived at our shores. At an individual level, we live with the weaknesses of our everyday presence including position pressure, conjugal pressure, and risky schools and neighborhoods. These are not an altogether new condition as, somewhat recently alone, the world experienced examples of mass starvation, annihilation, unrests,

common conflicts, major irresistible sickness pestilences, two universal conflicts, and a malignant virus war that compromised the world request. Despite the fact that we have decided not to zero in on these worldwide dangers in this paper, they do give the background to our thought of the connection between stress management during sports.

SOURCES OF STRESS

It is notable that first burdensome scenes regularly foster after the event of a significant negative life occasion. Besides, there is proof that unpleasant life occasions are causal for the beginning of despondency. An investigation of 13,006 patients in Denmark, with first mental affirmations determined to have discouragement, discovered later separations, joblessness, and suicides by family members contrasted and age and sex coordinated with controls. The finding of a significant clinical disease regularly has been viewed as an extreme life stressor and frequently is joined by high paces of gloom. For instance, a meta-investigation tracked down that 24% of malignancy patients are determined to have significant sadness.

Scanlan (1978) announced that the two expected wellsprings of stress were the intrapersonal factor of cutthroat quality nervousness and the situational variable of win-misfortune. The serious quality nervousness (CTA) is a steady character attitude that mirrors the inclination, to see cutthroat circumstances as threatening to confidence. This cutthroat quality tension was a critical wellspring of pre-contest pressure and that of win-misfortune was the significant reason for post-rivalry stress. Fun as one of the intrapersonal variables of serious circumstances was discovered to be related with post-rivalry stress. It is said that fun and stress are conversely related, and that this relationship remains constant for losing just as winning players. The situational wellspring of post-contest pressure is rout, with state tension levels in any event, fluctuating with the level of progress or disappointment achieved. At the end of the day, the wellsprings of cutthroat pressure among others incorporate the expectations of somebody (competitor), what the person in question desires to get or achieve or win in the opposition. The dread of disappointment, outrage, dissatisfaction, disappointment, expectation of accomplishment, expansion in task, conduct, swarm interest, solid pressure, carelessness, over inspiration, injury, distress, failure to adapt to tactile data, temperature narrow mindedness, that is powerlessness to endure heat, cold, mentality, and modesty is wellsprings of stress. Others could be absence of rest, helpless sustenance, vulnerability, absence of acknowledgment, powerlessness to assess the real presentation reaction, and breakdown of individual play or execution structure.

CAUSES OF STRESS

Stress is brought about by different elements - not which are all business related obviously, (which unexpectedly does not diminish the business' commitment to ensure against the reasons for pressure at work). Reasons for pressure known as stressors are in two classifications: Outside stressors and inward stressors.

a. External stressors-states of being, for example, warmth or chilly, unpleasant mental conditions such as working conditions and oppressive connections, for example, tormenting
b. Internal stressors-actual sicknesses such as contamination or irritation, or mental issues such as agonizing over something.

From the abovementioned, it is not difficult to see that work can be a wellspring of both outer and inside stressors.

Stressors are additionally depicted as either present moment (intense) or long haul (ongoing):

a. Short-term "intense" stress is the response to prompt danger, otherwise called the battle or flight reaction. This is the point at which the crude piece of the mind and certain synthetics inside the cerebrum cause a response to conceivably unsafe stressors or alerts (similarly as though setting up the body to flee or protect itself), such as clamor, stuffing, risk, tormenting or provocation, or even an envisioned or compromised insight. At the point, when the danger dies down the body gets back to business as usual, this is known as the "unwinding reaction." (NB the unwinding reaction among individual's changes; i.e., individuals recuperate from intense pressure at various rates.)
b. Long-term "constant" stressors are those pressing factors which are progressing and ceaseless, when the inclination to battle or flight has been smothered. Instances of constant stressors include: Progressing compressed work, continuous relationship issues, disengagement, and persevering monetary concerns.

LEVEL OF STRESS IN COMPETITIVESPORTS

To the game and exercise clinician, stress is neither an occasion (stressor), a physiological reaction, nor a stressor-reaction chain. That load of ideas misses the key mental segment the individual and all the more explicitly, the person's discernments and perceptions. Stress is the thing that you think it is. Thought, or cognizance, is the key component separating a mental methodology from some others.

The following illustration from work captures the key aspects of most psychological models:
Stressor → Perception and Appraisal of Threat → State Anxiety

In the first place, there is the stressor (e.g., contest, heat, and weakness). Then, at that point comes apparent danger, or the examination interaction. Without this discernment ("I

believe I am worried") there is no stressor. This examination is neither programmed nor as basic as it shows up; however, this apparent danger is the thing that gets the pressure reaction. State tension is the reaction Spiel Berger features and is the reaction concentrated most by game and exercise therapists. In all human endeavor and all exercises, there should be specific level of pressure which invigorates a person to activity or activities. The degree of stress in cutthroat games incorporate:

i. Low
ii. Moderate and
iii. High-excessive levels of stress.

RELAXATION TECHNIQUES THAT KILLS STRESS FAST

As before clarified, stress the executives in sports contest might be viewed as the way or methods of dealing with pressure among the competitors during sports investment. Stress the executives which include adapting to pressure in sports rivalry is a higher priority than proposing for an end of pressure. Rushall (1.985) in Eze (2002) recorded some particular pressure the board strategies or procedures which had helped incredible execution in sports contest as follows:

i. Positive intuition toward ones anticipated accomplishment
ii. Mental act of the ability, or on the other hand, example of play as an impression of self as an onlooker and as an insight self as dynamic member
iii. Mental practice - the expertise is intellectually practiced over and before the genuine actual exhibition
iv. Imagery practice - this includes going through the way toward envisioning its ideal structure. There and shutting out any pressure inciting thought
v. Development fearlessness previously and during the opposition and taking part in certain self-proclamation
vi. Eliminating inhibitory messages and explanations
vii. Developing the attention to muscles this might be the sensation sense through basically going over an expertise without genuine execution
viii. The mentor or educator ought to hold fast to the utilization of prompting words for instance hit, bounce, volley, kick more diligently, drive in expectation for an activity, and quieting down words such as unwind, cool it down, and concentrate
ix. Believing in oneself and one's capacity is extremely compelling in overseeing pressure
x. Mediation - this requires mental and body discipline and mental focus
xi. Relaxation - this helps the preservation of energy
xii. Bio-input - this upgrades self-guideline. It is asserted that ideal self-guideline is the way to effective games execution as the individual is not battling with his development, no solid pressure; flawlessness is capable through agile development which limits cost of development. The under covering measure is to move the competitor structure an outer locus of control to an interior one.

Uncommon consideration ought to be given to the competitors with low degree of stress since they effectively give indications of exhaustion. For focus and shutting out pressure inciting thought, the ramifications for mentor or actual teacher are to give exercises that ought to be intriguing to them; he permits the competitors to pick games that they like to participate in before the genuine rivalry.

CONCLUSION

Stress the executives in sports rivalry implies how somebody adapts, controls, and diminishes the event of the negative clash of pressure. The principle wellsprings of stress are the expectations of the competitor; what he desires to accomplish or win in the opposition; the dread of disappointment, outrage, dissatisfaction, injury, and uneasiness which he might want to keep away from. Other upsetting circumstance incorporates crow's interest, strong strain, over inspiration, and powerlessness to adapt to tangible data. The educator/mentor should expand the control of feeling in singular competitor and gathering circumstances. The coach/teacher ought to hold fast to the utilization of prompting words, participants ought to be gathered to lessen exorbitant degree of stress and should think and shut out pressure inciting thought. Uncommon consideration ought to be given to the competitors with low degree of stress; symbolism practice ought to be clung to. Mental practice ought to be seen by the competitors before the genuine actual exhibition.

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Review Article

Women's health and healthy lifestyle

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ABSTRACT

It is a fact that health is the real wealth. While this is true, today we see that a healthy life is rare for a person due to luxurious lifestyle, material pleasures, and race to make money, stress, rush, etc. The world has been in a corona epidemic for a year and a half. Therefore, mental well-being is just as important as physical well-being. Because we are going through a very delicate state of mind at this time. The physical and mental health of everyone in the house, young and old, adults, and the elderly, is at stake. Therefore, it is the responsibility of everyone in the household to maintain good physical and mental health. In it, women seem to take less care of them in this regard. However, whether a woman is a housewife or a working woman, her health is the most important part. However, often we see that more and more women are neglecting their own health, diet, rest, and sleep. Not on purpose but due to work stress, the responsibilities in the home cause health neglect. It is important for every woman to remember that just as every person has the basic right to live a healthy, wholesome, healthy life, and so does she. However, we see that women have a secondary place in patriarchal culture. Therefore, her perception is that this is the way of life for women. Even so, at every stage of a woman's life, she has to carry out many physical and mental responsibilities. For this, if a woman or a woman's overall health remains good, she can live her life well. For this, the researcher needs to study these topics. Their physical and mental health problems need to be addressed. Secondary tool materials have been used for this research. Books, Magazines, Letters, Google Websites, etc.

Keywords: Diet, Exercise, Health, Healthy, Mental, Physical, Vihar, Wholesome

PREFACE

The human body is a precious gift from nature to man. Our first duty is to safeguard this gift. It is true that a healthy body is inhabited by a healthy mind. Because body and mind are two sides of the same coin. We need to keep our bodies healthy on both sides so that we cannot imagine one without the other. However, nowadays we see that our physical and mental health is endangered due to material pleasures, comfortable lifestyle, sedentary work, stress, and money. In fact, there is a saying, "Sir salamat to pagdi pachas." In this way, if the body is healthy, we can enjoy all the good things in life.

In the case of women, this is a matter of secondary importance. Of course, today we see that women have gone ahead in housework and job occupations. However, to some extent, she neglected herself and her own health. That is, she takes care of everything in the house. However, she does not care about eating two grasses herself. One is that today's woman has become aware of her own diet and beauty. However, still she does not take her own health very seriously. This is because not all women have enough time to exercise and eat a balanced diet. Besides, every woman always wants you to look healthy and beautiful. However, a healthy lifestyle is also very important for this eternal youth. For this, we can keep ourselves healthy by making certain changes in our daily lifestyle by women and insisting on certain things regularly. Taking care of fitness or well-being requires some changes in the daily lifestyle. By planning the time, we can make the daily routine very beautiful and in this time it is more necessary. Women have the responsibility of the whole family. Hence, it is very important that she stays fit. Normally, normal working women consume 2200–2300 calories. Do women eat in this way? What kind of work do they do? Does the body get energy properly? This is also a must see.

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EXPLANATION

Health
Health is not just a lack of disease; it is a state of physical, mental, social, and spiritual balance - World Health Organization.

Mental Health
Mental health allows a person to experience their own potential. That person can contribute to society by managing all the stresses in life - World Health Organization.

Diet
Diet is an essential food for the body, a food that provides the body with the right amount of energy.

Exercise
Exercise is an activity that promotes and maintains physical health.

Promenade
In the daily routine, take some time out of the house and do small common activities such as walking, jogging, cycling, and picnic.

Purpose of the Research
The physical and mental health and lifestyle of women are ideal, and then the researcher feels it is necessary to study this subject for the well-being and development of women, be they housewives, workers, or athletes. Hence, today women need to be aware of their physical and mental health and their problems. It is also important to keep yourself healthy. She carries many responsibilities from birth to death. During this time, it is important for her to find a solution to her physical and mental problems and to find a way to make her life happier.

METHODS OF RESEARCH

Secondary tools are used for the presented dissertation. This includes references, newspapers, magazines, and Google websites.

Objective Practice
We see that women face many physical and mental health problems from birth to old age and aging, menstruation. By nature, women have big responsibilities such as pregnancy and menopause. Along with these physical responsibilities, she has to deal with many mentalities at every stage of her life. Therefore, in addition to a lot of physical stress, her mental state also changes when she is confronted with ailments and diseases. By nature, women are a little more emotional. They do not openly talk about their own illness; they do not talk about the disease. This, in turn, leads to more stress. Therefore, irritability, stress, depression, and nervousness endanger her mental health and affect the whole family.

Physical Illness/Illness
Among them, about 28% of women in the city are at risk of breast cancer, according to a medical survey. Furthermore, the incidence of cervical cancer in women has increased rapidly. In addition, there are common ailments such as arthritis, diabetes, hypertension, obesity, and thyroid disease. A medical study found that five out of ten women die of breast cancer. This means that the level of awareness about diseases in our country is very low. In addition to back pain, knee pain, spinal cord disease, and anemia are a very common disease.

Mental Illness
Problems during menstruation, puberty, pregnancy, reproductive system diseases, menopause, or menopause are more physical as well as mental. Because she goes through a kind of fear, anxiety, nervousness, irritability, depression, anxiety, and she does not openly talk about the changes that are taking place in her. Frightened, she sits in front of herself, which also changes the way she expresses her feelings. There is a lot of sadness, anger, rage, and irritability in simple things that seem simple but have a profound effect on her mental health. Although, the government has implemented a number of initiatives related to women's health. However, it is unfortunate that it is not being implemented.

In fact, women should be developed from an early age. Her physical and mental health must be taken care of. Getting proper nutrition through your childhood can help you in determining your future life and health. The problem of malnutrition in pregnant women is still not solved. This is a serious matter. Even if we take the example of a pregnant woman, the nutrition she gets during pregnancy does not seem to be good. The condition of such women, especially in rural, forest, and tribal areas, is very poor. If the fetus is not properly nourished during this period, the unborn child will be born with low birth weight and malnutrition. If the mother is malnourished, how will the baby grow? How will his immunity develop? Besides, how can a woman's body be repaired during this entire period if there is no good nutritious food? If we want to stop all this, it is very important to create awareness among women about health. Because the housewife is in good health, she can take good care of others.

REMEDY

Get Up Early in the Morning
There is an old saying, "Get up early, get good health." Having the right lifestyle is very important for staying healthy. Sleep early, wake up early in the morning but come early. For this, it is necessary to follow some schedule. That means TV, mobile,

and laptop should be turned off at least one hour before going to bed. Make your bed clean, light the room so you can sleep well. Getting up early in the morning will encourage you to exercise and feel energized throughout the day.

Get in the Habit of Regular Exercise/Yoga/ Pranayama

Exercise in the morning to stay healthy should include yoga, sun salutation, pranayama, or running. Set aside at least half an hour for yourself throughout the day, no matter how busy you are at home or outside. Plan the day's work the day before. This means that time will be saved and there will be no stress. In the beginning, do the exercises that will suit your age. Gradually, your ability will definitely increase automatically. Do pranayama regularly. It gives a kind of energy. It increases mental and spiritual health. Pranayama increases breathing control. It also supplies your body with adequate oxygen. Yoga and pranayama can alleviate the health problems of some women. Then, do it under the guidance of the right and expert person, it will definitely benefit.

Meditation

Meditation, perception, and prayer always have a positive effect in our daily life. For this, you must meditate for a few minutes in the morning if possible. If not in the morning, do it in the evening. Meditation is directly related to our mind and the mind is so powerful that it can give us all the quality and good things in life. Thoughts in the mind affect our health. In the morning, meditation, Omkar, etc., not only improve our spiritual progress but also change our outlook on life. Our mental capacity also increases many times. Apart from this, if you have a positive start to the day, you will feel enthusiastic in all the activities throughout the day. Be sure to meditate so that you do not feel tired.

Positive Thoughts

These are affecting your life. Positive thinking can always keep us energized and refreshed. Positive thoughts have a positive effect on your whole personality, just like your body. Do not allow negative thoughts into your life. Stay away from such people. Because positive thinking people are always loved by everyone. The habit of thinking positively can make all the good things happen in your life. We must change ourselves, imitate good thoughts, and conduct.

Balanced Diet and Water

I think this is the most overlooked factor in women's own case. Because women make a nutritious balanced diet for all. However, they do not necessarily complete the diet themselves. Due to the busyness of the housework, rush, lack of time, etc., she gets bored of some things on her own. In fact, a balanced diet is very important for a healthy life. To some extent, women have become aware of this. However, their proportion is low. Women's health can be endangered due to junk food, stale food intake, wrong diet, meal times etc. The diet should include green leafy vegetables, pulses, dried fruits, and fresh fruits. The diet should include maximum protein and complex carbohydrates. Furthermore, it is important to drink plenty of water throughout the day. There is no reason to drink too much water. Have a healthy breakfast. Furthermore, make sure that you get proper nutrition while dieting. Drinking enough water keeps the body healthy. Dehydration occurs if you do not drink enough water. This has a direct effect on your skin. The skin becomes dry and dull. The body suffers the consequences of drinking less water. Drink enough water to stay healthy.

Build Confidence

Equally important is staying confident to stay healthy. If you are constantly depressed due to lack of self-confidence, it has an effect on your body. Watch inspirational books and videos to build confidence. It boosts your confidence and keeps both mind and body healthy. No matter how big the crisis is, deal with it with confidence. Do not sit around worrying about yourself. Life is definitely happier if you have confidence.

Cultivate the Hobbies

We see that women live with a lot of hearts. However, to make time for you at a certain time, to cultivate a hobby, to cultivate a hobby to do something that is left to do. It may be a good time, but it gives us a different mental satisfaction that we can master an art with confidence. This is the happiness you get from it, so take care of your hobbies, choices, skills, and keep on cultivating. It also helps to get peace of mind.

Get Regular Health Checkups

It is very important to have a complete health check-up once after forty to stay healthy. Certain tests should be done every year. Because there are some silent disorders. Illnesses that do not show symptoms quickly can be cured with timely and timely treatment, or treatment can be started early and the disease should be cured sooner rather than later. Many women suffer from minor ailments, illnesses, or mental illness. Without doing so, treatment should be done in the right way with the advice of an expert doctor. Do not go to the doctor out of fear or stress.

SUMMARY

Considering the overall national health, women's health and healthy lifestyle are of paramount importance. This cannot be denied at all, only if the health of women in this country remains good, it can definitely have an impact on the overall development of the country.

- What we are seeing today is that the health of women in our country has become a matter of concern and concern.

Therefore, the development of women should be both physical and mental but from an early age. It is everyone's duty to take care of her health

- Women play a role as the foundation and pillar of this family. Therefore, if their health is good, then the health of the family and the community can be better. May 28 is International Women's Health Day. However, there is no doubt that women's contribution to the progress of the country will be invaluable if women's health is improved by taking public awareness measures for women's health, not just on paper or for a day.

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Review Article

Types of roller skating and its information

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ARTISTIC SKATING

Artistic roller skating is a sport which consists of a number of events. These are usually accomplished on quad skates, but inline skates may be used for some events. Various flights of events are organized by age and ability/experience. In the US, local competitions lead to nine regional competitions which led to the National Championships and the World Championships. Its popular skating type as it involves both ice artistic and skating rink artistic single player or pair can perform in it.

FIGURES SKATING

A prescribed movement symmetrically composed of at least two circles, but not more than three circles, involving primary, or primary and secondary movements, and with or without turns. Figures are skated on circles, which have been inscribed on the skating surface. Now a days, this type of skating getting popular in every country in India also most of the skaters play figure skating.

DANCE SKATING

In competition, skaters can enter more than one event; Solo Dance; this is a competition starts at tiny tot and goes up to golden, for a test it starts with bronze and goes up to gold. You do not have to take tests anymore to skate in harder categories; you must have a couple of tests once you get to a certain event, though. In competition, these dances are set patterns and the judges give you marks for good edges, how neat they look and how well they do turns, etc. Team Dance; this is where two people skate together doing the set dances. Most people skate with a partner the same ability and age. Skaters are judged by the accuracy of steps that they skate when performing a particular dance. In addition to being judged on their edges and turns, skaters must carry themselves in an elegant manner while paying careful attention to the rhythm and timing of the music.

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FREESTYLE SKATING

Freestyle roller dancing is a style of physical movement, usually done to music that is not choreographed or planned ahead of time. It occurs in many genres, including those where people dance with partners. By definition, this kind of dance is never the same from performance to performance, although it can be done formally and informally, sometimes using some sparse choreography as a very loose outline for the improvisation.

SPEED SKATING

Speed skating originally started on traditional roller skates, quads, or four wheels per skate. The first organized, national competition was held in 1938 in Detroit Michigan at the Arena Gardens Roller Rink, once home of "Detroit's Premier Sports Palace." The Arena opened in 1935 as roller skating began its ascension as a top sport. In the early years, competitors representing the mid-west states, primarily Illinois, Indiana, Michigan, and Ohio dominated the sport. By 1950 as rinks hired speed skating coaches who trained competitors, the east and west coast began to compete effectively for the national titles. However, in the early years, national titles were dominated by Chicago, Detroit, Cleveland, and Cincinnati.

As rules were established for state and national competitions, the speed skating season began in fall and continued through spring

leading up to a state tournament. Eventually approximately 1947, due to the growth of speed skating, the top three places at a state tournament would qualify skaters for a regional tournament. The top three places at regional tournaments then went on to compete at a national tournament. Skaters could qualify as individuals or as part of a two-person or four-person (relay) team. Qualification at regional events could warrant an invite to the Olympic Training Center in Colorado Springs, CO for a 1 week training session on their outdoor velodrome. Inline speed skating is a competitive non-contact sport on inline skates. Variants include indoor, track, and road racing, with many different grades of skaters, so the whole family can compete.

JAM SKATING

Jam skating is a skating style consisting of a combination of dance, gymnastics, and roller skating, performed on roller skates. Jam skating is the predominant style of skating featured in the documentary film United Skates.

INLINE ROLLER SKATE ON SLALOM

Among skaters not committed to a particular discipline, a popular social activity is the group skate or street skate, in which large groups of skaters regularly meet to skate together, usually on city streets. One such group is the San Francisco Midnight Rollers. In 1989, the small 15-20 group that became the Midnight Rollers explored the closed double-decker Embarcadero Freeway after the Loma-Pietà earthquake until it was torn down. At which point, the new route was created settling on Friday nights at 9 pm from the San Francisco Ferry Building circling 12 miles around the city back at midnight to the start. Although such touring existed among quad roller skate clubs in the 1970s and 1980s, it made the jump to inline skates in 1990 with groups in large cities throughout the United States. In some cases, hundreds of skaters would regularly participate, resembling a rolling party. In the late 1990s, the group skate phenomenon spread to Europe and East Asia. The weekly Friday night skate in Paris and France (called Pair Roller) is believed to be one of the largest repeating group skates in the world. At times, it has had as many as 35,000 skaters participating on the boulevards of Paris, on a single night. The Sunday Skate Night in Berlin also attracts over 10,000 skaters during the summer, and Copenhagen, Munich, Frankfurt, Amsterdam, Buenos Aires, London, San Francisco, Los Angeles, New York, and Tokyo host other popular events. Charity skates in Paris have attracted 50,000 participants (the yearly Paris-Versailles skate). The present Official Guinness World Record holder is Night skating Warszawa (Poland) in number of 4013 participants from June 19, 2014, but their real record from April 25, 2015 is 7303 participants and over 38 000 skaters total in ten events in season 2015.

AGGRESSIVE INLINE

Aggressive inline skating is trick-based skating. The individual performs tricks using modified skates, which have grind blocks between two wheels, and boots designed to take additional strain. The wheels have a flat large contact surface for grip. Aggressive inline can either take place at a skate park or on the street, and typically involves predominantly grinds but also air tricks such as spins and flips.

ROLLER HOCKEY

Roller hockey is the overarching name for a roller sport that existed long before inline skates were invented, and thus has various names. Quad skate roller hockey has been played in many countries worldwide, and was a demonstration roller sport in the 1992 Summer Olympics in Barcelona. Other variations include skater hockey, played with a rubber ball total player with 12 player team and inline hockey with Puck total with 16 player team is form.

ROLLER DERBY

Roller derby is a team sport played on roller skates on an oval track. Originally a trademarked product developed out of speed skating demonstrations, the sport underwent a revival in the early 2000s as a grass-roots-driven, five-a-side sport played mainly by women.[30] Most roller derby leagues adopt the rules and guidelines set by the Women's Flat Track Derby Association or its open gender counterpart, Men's Roller Derby Association, but there are leagues that play on a banked track, as the sport originally played from the 1930s.

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Review Article

High intensity interval training for better fitness and cost effective

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ABSTRACT

Every year, we hear and read about the new fitness trends, fitness crazes, and buzz words from the fitness industry High Intensity Interval Training for Better Fitness and Cost Effective. Mountain climbers, burpees, squats, lunges, star jumps, and box jumps location: In the gym or outside the gym. Body weight training using triceps extension suspension equipment for press ups, rows, reverse lunges, lateral lunges (side to side), and plank. Using only our body for press ups, skydivers, super mans, squats, and lunges. Thus, the high interval training is cost efficient and strengthens our body, burns fat, and builds muscle we can work out at a time that suits us and health monitors can flag potentially serious health conditions

Keywords: Interval training, Burpees, Squats, Lunges, Triceps extension and gym

Every year, we hear and read about the new fitness trends, fitness crazes, and buzz words from the fitness industry. It is hard to keep track and know how we could fad up as opposed to what will actually help us achieve our long-term fitness goals. Fad exercises may help we achieve short term results but we wanted to find the most comprehensive ones to follow that will achieve long-term results. When reviewing the researches up to 2014's, new fitness trends across the globe to get ahead of the game and put together the best of the bunch that will help us improve our fitness and give long term health benefits.

HIGH INTENSITY INTERVAL TRAINING

High intensity interval training stands for high intensity interval training. This is a powerful way to exercise, especially when we want to burn calories and lose weight. It is also a great way to change our training to go up a gear. It involves short bursts of activity followed by a short rest or recovery period. A full program can be completed in 30 minutes so it is a very efficient way to train! Talk to a fitness professional about high intensity interval training to get a program to suit our level of fitness, as injuries are likely if we do too much.

Suits Fitness Level

Beginner to advanced level.

Example of Exercises

Mountain climbers, burpees, squats, lunges, star jumps, and box jumps.

Location

In the gym or outside the gym.

Benefits

Short workouts improve cardio and muscular fitness and burns fat.

BODY WEIGHT TRAINING

This one does what it says on the tin. We use our own body weight to add resistance to our exercises. Minimal or no equipment is used so we can exercise anywhere, making this a very affordable option. It is been around for a long time but with

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the economic downturn this way of exercising is going to become more main stream. It is great for beginners as we can start slowly and build up our routine and repertoire of exercises over time.

Suits Fitness Level
Beginner to advance.

Example of Exercises
Using triceps extension suspension equipment for press ups, rows, reverse lunges, lateral lunges (side to side), and plank. Using only our body for press ups, skydivers, super mans, squats, and lunges.

Location
In the gym or outside the gym.

Benefits
Very cost effective, strengthens our body, burns fat, builds muscle, and improves flexibility.

STRENGTH TRAINING

This fitness trend has been around for decades, but has always been left to the body builders. As the health benefits become more apparent, more and more people are adding in a strength element to their exercise routines. It is recommended that adults (19–64 years) perform at least two strength training sessions per week, along with their cardio activity. Strength training helps maintain bone density and muscle mass as we age and this can keep our more agile and active through our later years.

Suits Fitness Level
Beginner to advance.

Example of Exercises
Using any portable weighted piece of equipment (kettle bells, dumbbells, VIPR etc.) to perform press ups, rows, squats, lunges, and dead lifts.

Location
In the gym or outside the gym.

Benefits
Strengthens our body, burns fat, and builds muscle.

USING A FITNESS PROFESSIONAL OR PERSONAL TRAINER

More and more people are recognizing the value of working with a fitness industry professional to achieve their fitness goals. More importance is now being placed on the education and training of fitness professionals themselves. Hence, always check that the trainer we pick have up to date experience and the right credentials!

SUITS FITNESS LEVEL BEGINNER TO ADVANCED LEVEL

Example of Exercises
Anything we can think of could be used!

Location
In the gym, in the park, at our house, and at a PT (personal training) studio.

Benefits
1-2-1 training with personalized exercise programs, progressive training that will give we live long term results. Increased knowledge of exercise and the science behind it to keep us as motivated and more likely to adopt a lifestyle change to benefit our long term health.

TECHNOLOGY – ONLINE AND GADGETS

Many people are using the internet as a source for training programs that can be targeted to their specific requirements. This combined with online exercise classes are a massive resource for people who want to know more about training but are time poor! Please note that whilst it is a huge resource the quality of programs can vary. Fitness monitors have grown in popularity as the technology behind them improves. Nike, Fuel band, Fit bit, and Jawbone's UP will monitor our steps, sleep and other bodily functions! Syncing with our smart phone will show us personalized analysis which can help guide our in our fitness and health goals.

Suits Fitness Level
Intermediate to advance for online classes/programs and beginner to advanced level for monitors

Example of exercises: Classes such as zumba, body pump, body attack that combine cardio and strength elements

Location
At home, on the move.

Benefits
We can work out at a time that suits us and health monitors can flag potentially serious health conditions.

CONCLUSION

Thus, the high interval training is cost efficient and strengthens our body, burns fat, and builds muscle we can work out at a time that suits us and health monitors can flag potentially serious health conditions.

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Review Article

Effects of sports training on physical activity in personality

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ABSTRACT

The present article is to investigate the effects of sports training on physical activity in personality ability education on muscular power and explosive strength of male inter-collegiate players analyzing diverse schools. Sports training are an essential function in day nowadays existence because elevated needs and speedy life method wishes a healthy and sound mental and bodily health. Maintaining in view, this critical element of existence researcher could be very eager to discover the effect; effects of sports training on physical activity in personality on college stage students. Training on physical activity plays an important role in personality development. Physical education contributes a lot to the development of all aspects of personality such as health, mental status, and social adjustment.

Keywords: Effects of sports, Physical activity in personality, Training

INTRODUCTION

Physical fitness is the capacity to carry out responsible lively physical hobbies and consists of features in pertain to the person's fitness and well-being. Sports education in large part depends on physical fitness. Physical fitness improves the general fitness, fitness, natural functioning capability, power, stability of muscular and skeleton gadgets, and so forth. The significance of bodily health or motor skills is the primary criteria in sports schooling. As in keeping with Sebastian Coe - says that the premise for overall physical fitness is accomplished by means of improving your respiration and your circulation, and to the end, the handiest interest is strolling. The longer you maintain jogging and workout well the longer you will stay properly. Physical fitness is the simple standard for each character inside the society. To steer a successful life and character has to go through health programs in his everyday life. It is far a vital program for sportsmen. Through health, a sportsman effortlessly adapts motor abilities and conditioning.

Physical activity is one of the principal public health issues in both developing and advanced international locations. Up to now, we have strong evidence that physical hobby is associated with aging technique and level of physical interest decreases at some point of lifespan. At the other facet, age-associated adjustments in neuromuscular and sensor motor devices negatively affect all health associated bodily health additives. Low level of typical fitness represents a high danger.

It is well known that enhancing or keeping physical fitness reduces the danger of all-cause and cardiovascular sicknesses if popular recommendations are carried out during the education programs. However, conclusions from one-of-a-kind research have proven contradictory effects regarding fitness-related bodily fitness additives in an elderly population. A number of the research showed nice effects of electricity and resistance training on body composition and muscle fitness with minimum effect on different components. In addition, slight intensity continuous running and excessive-intensity c programming language strolling in addition to brisk walking are efficient interventions for enhancing aerobic respiratory health and frame composition regarding age, gender, or training repute. Regardless of that, which training program simultaneously improves all health-associated physical fitness additives is still unclear. Glaringly, we want greater research to be able to inspect complex schooling programs and their effect on frame composition, muscle health, aerobic respiration health, and versatility.

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To social scientists, personality is the sum general of behaviors, attitudes, standpoints, and beliefs that can be features of a man or woman. Our character tendencies determine how we regulate with our society and how we react specifically to situations. No two people have the same personalities. Every character has his or her own way of interconnecting with different people and together with his or her social surroundings.

The time period character reflects the specific nature of a person and how he thinks about different and approximately himself. Character is a set of physical and mental characteristics that mirror how someone seems, thinks, acts, and feels. Sincerely, a personality is a way of life of a person and his tendency to behave with relation to the surroundings and surrounding, and his outlet of emotion.

PERSONALITY AND SPORT

Beginning with Coleman Griffith, considered to being the promoter of sports personality has remained an essential element in this place, and psychologists have persevered to make efforts to understand the persona of the hit athlete. Sport is surprised that no matter the overwhelming proof that highlights the function of persona in accomplishing extremely good game overall performance, many researchers accept as true with that this topic has not found out full-size consequences. Valley, however, is contradicted with the aid of Allen in an analytical take a look at regarding research on sports activities psychology that carries descriptive reports of athletes' character profile, changes in personality and game performance improvement, persona differences among athletes, and individuals who are not practicing a prepared sport, variations within the character of athletes working toward distinctive sports activities or between athletes and participants of various physical sports businesses.

In the present years, the frequency of studies on athletes' personalities has decreased, with very little development in answering some of the fundamental questions raised at the start of the final century. The decline of the hobby for studying character is difficult to give an explanation for a proof can be the reality that the research of the athlete's personality became to extra specific principles consisting of tension, optimism, resistance, and mental sturdiness. These factors have been over-studied lately and researchers used trendy ideas measured in the context of recreation which will recognize the behavior of athletes throughout the opposition.

REVIEW OF RELATED LITERATURE

Singh (2016), this paper indicates the capacity for the usage of dynamic linear fashions as an aid to planning schooling in elite athletes. As it is far a famous announcing that "the first impact is the ultimate influence." The first effect is largely judges through your fitness degree. Hence, physical look be counted lots while we spotlight the traits of persona government's role may be very vital on this regard as coverage should be built in the sort of manner that physical training becomes essential concern from number one stage and is being adopted by way of the majority of the populace.

Vinayagam and Selvamuthukrishnan (2018), the studies aim to investigate the consequences of sports education with perceptual skill education on muscular power and explosive power of male inter-collegiate players studying various faculties. The subjects have been randomly divided into three identical companies of fifteen each, of which two were experimental groups and one a control group. Exercising plays a key role in day-to-day existence, due to the fact expanded needs and fast life technique wishes a healthy and sounds mental and physical health. Preserving in view, this critical issue of existence researcher could be very eager to find out the impact of yogic and physical activities on personality variables, a study on university-level college students.

Buhaş and Stance (2017), the present article is a meta-evaluation of the existing literature concerning the relationship between persona and bodily pastime. The hobby of experts for the position of the athlete's persona in attaining sports activities overall performance is highlighted through various research and studies. However, it becomes no longer feasible to set up a sure "trendy" for the persona of the athletes who attain wonderful recreation performance, but several common features have been revealed. However, the second direction of this meta-analytical takes a look at regards to character improvement primarily based on its classical structure, mood, abilities, and character individual of recreation practicing topics.

Barnett *et al*., (2010), there are problems task managed education research with elite athletes. For this reason, information from non-elite performers is regularly provided in medical journals and finally used to manual fashionable training ideas. In this paper, we describe how dynamic linear models offer a possibility to use these records to tell schooling. Facts from an elite female triathlete gathered over a 111 day training period had been used to version the connection between training and self-reported fatigue. The dynamic linear model evaluation confirmed the impartial results of the three modes of triathlon education on fatigue, how those can alternate throughout time, and the possible influence of other unmeasured variables.

Bishop and Girard (2013) inside the absence of such studies, this evaluation will identify essential determinants of team-game physical performance that can be stepped forward through altitude education, with potential blessings for group-sport

performance. These determinants can be extensively defined as elements that enhance either sprint performance or the capacity to get over maximal or near-maximal efforts. There is a few evidence that some of these bodily capacities may be better using altitude schooling; however, further studies are needed to verify that these diversifications occur, that they are more than what could be achieved using suitable sea-level training and that they translate to progressed crew-game overall performance.

Toleaa *et al*., (2012), institutions among persona as measured by way of the five-issue model, physical interest, and muscle power were assessed the usage of information from the Baltimore longitudinal take a look at of growing older. Fashionable linear modeling with adjustment for age, sex, race, frame mass index, and bootstrapping for mediation had been used. We observed neuroticism and maximum of its sides to negatively correlate with power. The extraversion domain and its aspects of heat, hobby, and effective emotions have been positively correlated with electricity and impartial of covariates. Mediation analysis outcomes advocate that these institutions are in part explained through the bodily hobby stage. Findings make bigger the proof of an association among persona and bodily characteristics to its energy component and indicate health behavior as an essential pathway.

PHYSICAL ACTIVITY AND TRAINING

Adaption to physical activity and training is a complex physical process, however might also, within the context of this paper, be simplified with the aid of an essential fundamental precept: The general adaptation syndrome. This precept assumes that physical activity disturbs the frame's physiological balance, which the frame then seeks to restore, all in a dose-associated response dating. The overload principle states that if workout intensity is simply too low, overload is not reached to induce desired physiological diversifications, whereas a depth too high will bring about fatigue and in all likelihood overtraining. For this reason, for the version to occur, more than ordinary stress should be brought on, interspersed with sufficient healing durations for restoration of physical stability. For the duration of and straight away after physical exercise/schooling, capabilities of affected tissues and systems are impaired, manifested as quickly decreased performance. You sense tired. On the way to gradually improve overall performance capability, repeated cycles of ok overload and recovery are required. In practice, positive effects may be visible after a tremendously quick period of some weeks, but greater widespread upgrades if the schooling is maintained for an extended length. Although some capacities, including muscle memory, appear to persist for lifestyles. Popular tips for fitness can be stated; however, personal predispositions make general education schedules for unique overall performance effects unpredictable. All exercising education must be adjusted to individual purposes, dreams, and occasions.

EFFECTS OF PHYSICAL ACTIVITY AND TRAINING

Human biology calls for a sure amount of physical activity to maintain top fitness and wellness. Biological adaption to existence with less physical pastime could take many generations. People dwelling these days have, extra or less, the same necessities for the physical hobby as 40,000 years ago. For an average guy with a frame weight of 70 kg, this corresponds to about 19 km daily on foot in addition to ordinary physical activity. For the general public, day by day physical hobby decreases, at the same time as deliberate, aware exercise and education will increase. Unluckily, common daily strength consumption is increasing extra than daily strength output, growing an energy surplus. This is one motive for the growing variety of obese humans, and a robust contributor to many fitness problems. Greater sedentary residing (no longer accomplishing encouraged stage of physical hobby), mixed with multiplied strength consumption, impairs both bodily and intellectual abilities, and increases the danger of ailment. Notwithstanding, this is regarded to be as bodily energetic and pressured but had higher popular health in stated better usual fitness (more county-dots are blue) and much less fatigue (smaller county-dots) with a similar stage of physical interest.

BENEFITS OF PHYSICAL ACTIVITY

Physical activity performs as an important issue for the boom and development of children and teens. The physical pastime has an effective effect on a pupil's intellectual, physical nicely-being, pupil's fulfillment, readiness to learn, conduct, and self-worth. Many research studies suggest that due to the absence of physical pastime children is likely to face serious sicknesses associated with obesity. With the physical interest, there is a growth and upkeep of muscular energy, stability flexibility, reaction time, universal coordination, and it additionally improves mental concentration. On the other side, physical hobby prevents muscle decay. In psychological factor additionally, physical pastime increases tolerance to pressure and improves self-confidence, temper even it decreases the risk of tension and despair. There are other advantages of physical activities.

- Using bolstering the immune machine increases resistance to illnesses
- Ailments consisting of coronary heart disorder, hypertension, stroke, type 2 diabetes, and osteoporosis are reduced with physical interest
- Physical pastime with wholesome nutrients is the most and effective method to keep a healthy weight
- Hypertension, excessive blood cholesterol, and diabetes can be managed with the aid of bodily activity

- The threat of unintended harm is decreased through physical interest and additionally, it shortens the recovery duration from a twist of fate and infection
- Quality of life and longevity is increased by physical activity.

GAMES IMPROVE PERSONALITY

The main advantage of the physical pastime is to enhance the physical fitness stage. Fitness is defined as acting everyday ordinary sports with complete enthusiasm and reduces the danger of numerous health-associated problems. All additives of physical fitness are similarly important and required to be healthy people. Research indicates that being part of any sports activities pastime will defiantly boom the level of health of participants. As we know, the majority of video games are required to perform moves so every time we take part in games it positioned strain on the physiological device of our body which enhances our productiveness and performance. Regular exercising is shall in this regard. Diverse fitness troubles such as obesity, diabetes, and excessive blood pressure take place in a number of inactive adults. This caution signal ends in risky persistent ailment. Hence, stress on physical interest has to receive from primary degree so as to offer an important milestone.

CONCLUSION

We are able to state that, to a certain extent, athlete's character is under the have an effect on of genetic trends; however, it typically forms because of the surroundings in which the athlete develops bodily and mental skills, paperwork cognitive patterns that lead to the formation of character a good way to expect on long-term the athletes' conduct with the intention to achieve overall performance in sports activities. It is not essential that each one the components of cohesion are to be alike for a group or companies. Although a number of the qualities of a man or woman are inborn and refined all through studying technique, some of the characteristics are regarded to be received in elements with particular sports activities situations. It is inevitable to extend the researches in spotting the development of cohesion among teens through sports participation, as it is lead to a healthful life fashion and well-being of our children. Coaches, bodily educationists, and game psychologists could be nicely suggested to evaluate crew brotherly love and expand crew-building techniques to improve project concord. Specially, coaches may want to work on making sure that crew members are clear approximately and happy with team goals and the extent of shared commitment.

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Review Article

Importance of physical education in the modern life styles for kabaddi players

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We know that healthy mind lies in healthy body. Now a day's, video games and computer games have taken the place of our traditional games. Man does not have time to play indoor or outdoor games in the modern age of technology. Sport is important for man's all round development and for living healthy life. Today, very fast changes are seen in the field of physical education. First of all, man gets physical education and then gets social education. Thus, man's social education has the basis of physical education. Today, it has become technological education. Thus, very deep change is seen in education. The education has become so much dependent on technology that man does not spare enough time to take care of his or her body which is a very valuable gift of nature to man. Man has stopped physical exercises because of technological tools and other facilities. Previously, man used to remain healthy by playing various outdoor games and thereby doing physical exercise. Now, the games are played on computer so the life has become idle. The body has become the storehouse of various diseases. Physical education makes the immunity of our body stronger and so makes body more beautiful.

IMPORTANCE OF PHYSICAL EDUCATION

Helpful for Natural Development

Man's body develops very naturally from the prenatal stage to the old age. When this natural development is accompanied with some physical exercises, it improves the energy level of the body. Considering this fact, even special body exercises are suggested for the pregnant women. In the same way, there are different types of exercises for different age stages such as infant, adolescent, young, adult, and old age. This exercise becomes like a supplement to natural development in scientific way. The balanced emotional development is possible only with good body health and development. It can be considered as a fundamental use of physical education.

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BODY CHARM

Beautiful body is considered as the first step toward success in life. Therefore, people do so many efforts for well figured body. The beauty of the body depends on healthy muscles. Body can be well shaped through physical exercise just as an expert sculpture brings out a beautiful idol by carving an ordinary stone structure. The secret of charming body lies in the muscles of the body. From the very ancient time, sculptures have been giving the importance and value to the beauty of the body. Keeping that image of beautiful and handsome body in our mind, we can also mould our body by giving enough exercise to the muscles. Thus, we can get proper advantage of physical education.

STRONG AND HEALTHY BODY

We can make our body stronger and healthier through physical education. The significance of strong body lies in the happiness that we get after doing some hard physical or mental work. In other word, for a strong person, hard work does not remain a matter of tiredness. The reason of physical weakness found in the society is that physically man is not strong and healthy. Man feels weakness and tiredness even after small physical work.

Its psychological effect takes place that man does not stand for any physical work. Therefore, on the large scale, the society has to suffer as a lack of work efficiency and willingness for that. However, the truth is that the peace and happiness of fresh life is possible only through hard work. It is physical work and effort through which we can fulfill our all the basic needs. Strong body is always healthy. Strong and healthy body can protect itself from various diseases because its immunity also remains strong. Healthy man can suffer hardness of all the seasons whether it is hot, cold, or rainy season. In short, he can enjoy the pleasure of all things in nature.

BOOSTS THE SELF CONFIDENCE

There is no doubt about the advantages of physical education for strong and healthy body. Therefore, the saying is also heard that healthy mind resides in healthy body. A healthy body is the gateway for reaching the supreme soul. Strong and healthy body can give boost strength and increases the self-confidence. And for, the man who is full of self-confidence even the problems become a game playing. He can pass his life with full happiness and peace of mind. It will become a service to humanity, if this psychological secret of advantage of physical education is spread and attract the people toward it.

DEVELOPMENT OF DISCIPLINE

Physical education develops not only self-discipline but also supports to maintain external discipline on man. Discipline is as important as the food for life. People with uncontrolled behavior deny any kind of restriction and control. However, they do not know that the real freedom lies in restriction. The pain of restriction itself becomes the pleasure of freedom. Physical education is a never failing key to bring discipline. Self-discipline comes in man while concentrating on and following different rules of the games. This self-discipline comes into action through different activities and arts and thereby creates interest in life. Well-organized life style leads man toward living happy and peaceful life.

CHARACTER BUILDING IN LIFE

The presence of the three qualities - energy, character, and beauty in life is very important for being a complete man in the Indian culture. Energy and beauty are the direct advantage of physical education but indirectly it builds character too. Character can be developed well by physical education. The process of character building through physical education is so gradual that it cannot be seen directly but can be felt. All the weaknesses from man's life fall down like the dry leaves from the tree. The ideal form of the culture and the civilization of any nation and society are developed through good character. All the vices such as violence, wars, jealousy, unhealthy competitions, and hatred give way to the character.

CONSTRUCTIVE USE OF TIME

It is man's natural desire that he or she wants relaxation from work. In the state of relaxation, man neither works too much nor takes complete rest but he combines both the work and the rest. In combining the rest and the work, most of the people waste time in gossiping, playing card games, and other useless activities. Physical education provides new option in place of such useless activities. Moreover, this option is always healthy. Today, there are entertaining games and skills available for playing. The saying "One way for Two" comes to true when man gets both the physical advantage and the entertainment through physical education. In this way, physical education becomes the best means of entertaining activity or time pass during the spare time.

HELPFUL FOR AWARENESS IN SOCIETY

Physical education is helpful for creating intimacy with society. In physical education, team spirit is very important. Team is like a family. It is a miniature form of society. Team is the center where the person gets opportunity to know the importance of cooperation with other people. According to the saying "With One Hand No Clap," the person cannot get complete advantage of physical education on his own. This limitation motivates man to cooperate with others. Thus, man develops faith in the feelings of communality and oneness with others.

This faith becomes a part of man's character and connects man with his or her family, society, nation, and the world. Physical education prepares an ideal citizen unknowingly and unintentionally. Moreover, such ideal citizen breathes in the air of freedom in the society being free from limited narrow mindedness. He creates happiness not only for himself but also for the society. Thus, people devoted to the society, nation, and the world can be prepared through physical education.

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Review Article

Comparative study of fat percentage and lean body mass of college students of hilly and plain areas

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ABSTRACT

The main purpose of the investigation was to compare fat percentage and lean body mass between the college students of hilly and plain areas. In this study, only 40 male students (20 from Amravati Maharashtra and 20 from Kulgam Jammu and Kashmir) of 18–23 years old were selected as subjects using Simple Random Sampling Method. Data were collected for this study through skin fold caliper and weighing machine. To calculate the fat percentage and lean body mass. Independent *t*-test was used to find out the significant difference in fat percentage and lean body mass at 0.05 level of significance.

Keywords: Fat percentage, Hilly area and plain area, Lean body mass

INTRODUCTION

In evaluating the body in relation to its structure and nutritional status, health and physical educators are generally limited to external measures of body bulk, linearity, and skin fold thickness. These measures do not permit an adequate differentiation between lean and fat body tissues. A number of sophisticated laboratory methods have been developed for making this as well as other differentiations. Behnke and Wilmore have discussed such methods, including hydrostatic weighing, radiographic analysis, helium dilution, ultrasound, potassium K, and other chemical approaches.

While still largely a laboratory method, the simplest approach to the determination of lean body weight is by employing the Archimedian principle that a body immersed in fluid is acted on by a buoyancy force, which is evidence by a loss of weight equal to the weight of the displaced fluid. Thus, when an individual is weighted under water, while totally submerged, his total body volume is equal to his loss of weight in water. Specific gravity, which reflects body density, may be obtained by dividing the body weight in air by the body weight displayed in water. Behnke and Wilmore have presented several regression equations based on skin folds and various other anthropometric measures for predicting lean body weight (LBW). Based on a multiple correlation of 0.931, the following equation was reported for young men:

LBW=10.260+.793(weight)-.368(abdominal skin fold)

The abdominal skin fold was taken at the horizontal fold adjacent to the umbilicus.

For young women, four measures were necessary to obtain a multiple correlation of 0.916. The equation was: LBW=8.629+0.680(weight)-0.163 (scapular Skin fold)-0.100 (triceps skin fold)-0.054 (thigh skin fold). For both equations, weight was measured in kilograms and the skin folds were recorded in millimeters.

METHODOLOGY SELECTION OF SUBJECTS

For the purpose of the study, 40 male students (20 from Amravati Maharashtra of plain areas and 20 from Kulgam Jammu and Kashmir of hilly areas) were selected randomly

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as subjects. The age of the subjects was ranging from 18 to 23 years.

Collection of Data

The necessary data were collected by administrating the tests for measuring the selected variables. Before collecting the data, the subjects were given a chance to practice the prescribed tests so that they should become familiar with the tests and know exactly what is to be done. The data were collected after the administrating the test on the selected subjects of the study. After collection of data, the tabulation and statistical analysis were arranged in a prescribed manner.

ANALYSIS AND INTERPRETATION OF DATA

The data collected from the groups were statistically analyzed using *t*-test. The collected data were analyzed using (SPSS) statistical package for social sciences. In all the cases at 0.05 level of significance. The collected data can be further analyzed and justified is shown in following tables given below:

Table 1 reveals that there is difference between means of hilly area group and plain area group because mean of hilly area group is 8.2 which is less than the mean of plain area group 10.4 so this mean difference is found as 2.2.To check the significant difference between hilly area and plain area groups, the data are again analyzed by applying *t*-test. Before applying *t*-test, standard deviation is calculated between hilly area and plain area group which are 3.49 and 2.88, respectively, and the calculated value of "t" is found as 2.17, is greater than tabulated "t" which is 2.021 at 0.05 level of significance. This shows that plain area college students are having more fat percentage than hilly area college students. Hence, the hypothesis which was given by the researcher is accepted. This is presented graphically in Figure 1.

Table 1: Comparison of fat percentage of college students of hilly and plain areas

Group	Mean	S.D.	Mean Difference	Degree of Freedom	O.T	Tabulated 't'
Hilly Area	8.2	3.49	2.2	38	2.17	2.021
Plain Area	10.4	2.88				

Level of significance=0.05 Tabulated 't'0.05 (38)=2.021

Table 2: Comparison of lean body mass of college students hilly and plain area

Group	Mean	S.D.	Mean Difference	Degree of Freedom	O.T	Tabulated 't'
Hilly Area	59.69	4.48	3.15	38	2.98	2.021
Plain Area	56.54	1.51				

Level of significance=0.05

Tabulated't'0.05 (38)=2.021

Table 2 reveals that there is difference between means of hilly area group and plain area group because mean of hilly area group is 59.69 which is greater than the mean of plain area group which is 56.54 and therefore mean difference is 3.15 to check the significant difference between hilly area and plain area group, data are again analyzed by applying *t*-test. Before applying test, standard deviation is calculated between hilly area and plain area group which are 4.48 and 1.51, respectively, and then the calculated value of "t" is found as 2.98, is greater than tabulated 't' which is 2.021 at 0.05 level of significance. This shows that hilly area college students are having more

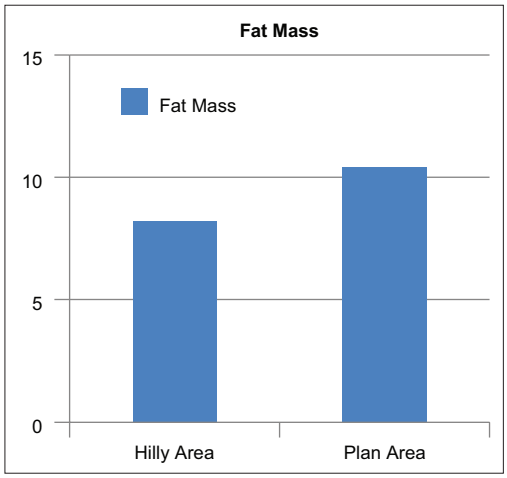


Figure 1: Graphical representation of mean difference between hilly and plain area group

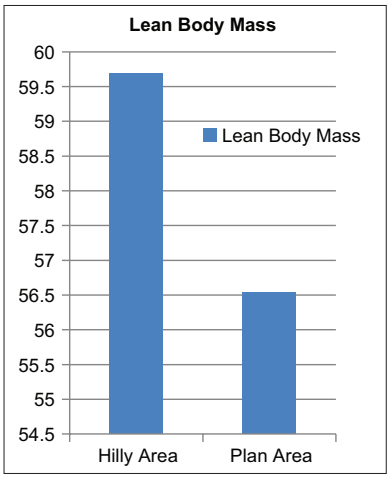


Figure 2: Graphical representation of mean difference between hilly and plain area group

muscle mass than plain area college students. Hence, the hypothesis which was giving by the researcher is accepted. This is presented graphically in Figure 2.

CONCLUSION

In overall numerical and statistical analysis, the comparison of fat percentage and muscle mass in between the college students of hilly and plain areas, it is found that there is significance difference found between college students of hilly and plain areas. The study showed the partially significant difference among the mean of selected items of the groups. This research work may aware the students as well as players about the muscle mass while performing any physical activity.

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Review Article

Impact of emerging media on sports

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ABSTRACT

In recent years, technology has had a great impact on almost every aspect of our society. The world has changed dramatically and now other people can access information faster, communicate more directly and effectively, and develop ideas. From healthcare to government, education, and business to sports, technology has affected every corner of society and every industry. Although not always immediately apparent, the impact of technology on sports is enormous. Many processes are now easier and faster, so industry attention and revenue have increased.

Keywords: Sports, Sports media

INTRODUCTION

An outstanding development in modern physical education is the increased use of supplementary devices by which the people through the use of more than one sensory channel helps to clarify establish and correlate accuracy. Concepts interpretations and appreciations; increase knowledge process interest and even evoke worthy emotions and enriches the imagination of sport lovers. This paper will provide detail information of Present Scenario of Sports Media and its benefits.

Technology has changed the sports industry. Due to technological advances, sports coverage is more extensive than ever. In the past, viewers had to choose from multiple channels to watch the game, but now there are many options. Coverage is available anytime, anywhere. Plus coverage can now be streamed live and played in its entirety. In recent history, missing a big game means having to participate until the next morning, once you can read the clues in the newspaper carefully or hear them from your friends. However, now people are ready to record, save, and playback any footage.

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Channels broadcasting sports events are currently able to use digital technology to share info quicker than ever. News and updates will be quickly transmitted to the smartphone at the moment they occur. In addition, social media is creating opportunities that will never be realized. A few years ago, Twitter, Facebook, and other social media provide a great platform for fans and athletes to join. This connection increases the enthusiasm and contribution of fans to sporting events. Instagram and other social media sites have connected sports communities.

SPORTS MARKETING

Sports are more than just participation. It is also part of the business world, making money through management and trading. Sponsorship and the media now have a major impact on sports.

The Influence of the Media on Sports

Most people, regardless of whether they participate in or watch sports, learn about sports through the media. This includes local, national, and international sports. From school sports briefings to global TV reports, the media can be a powerful voice and influence on sports.

TYPES OF MEDIA

- Television
- Broadcast
- News
- Movies
- Internet.

MEDIA INFLUENCE

The media can have a positive and negative impact on sports. Think about the inspiring images of the Paralympics and how they change people's perceptions of people with disabilities in our society. Compare this to media reports of athletes who appear to be "failed."

The media and the increasing popularity of media have vast positive effects on sports and athletes including the positive promotion of the sports, athletes, events, and sports fans alike. Media altogether forms present both positive and negative effects on sports.

THE POSITIVE INFLUENCE OF THE MEDIA

- Raise awareness of sports
- Promote active and healthy lifestyles
- Demonstrate the positive value of sports
- Show positive and inspiring role models
- Inspire people to participate
- Set high standards of performance
- Provide examples of skills, tactics, etc.
- Promote various sports
- Make sports more fashionable
- Introduce followers to sports
- Educate the spectator through analysis
- Celebrate success
- Give sports an experience High social status
- For people a sense of belonging
- Create income for sports and attract investment
- Create income for charity.

NEGATIVE MEDIA INFLUENCE

- Infringe on artist privacy
- Destroy people's trust and career
- Demonstrate negative prayers of value and behavior
- Undermining officials and their decisions
- Defining event schedules and availability
- Changing matches
- Editing reports to make them incomplete or biased
- Obstructing audiences and participants
- Reducing audience attendance to live events
- Strengthen inequality by restricting coverage of traditional sports or social groups
- Incite mistrust and prejudice between groups
- Prevent events by encouraging armchair spectators.

CONCLUSION

Sports and media are bound to work together. The value of sport to businesses has increased considerably and corporations are investing tons within the sport. The company raises different issues related to sports from time to time, which is beneficial to sports. The media has had a great influence on sports and has also been accepted by sports organizations and athletes. The sports media promotes values related to capitalism, nationalism, and racism. The media also promotes audiences, dramatization, and personalization.

Sports media wisely selected and intelligently used, arouse and develop intense and beneficial interest and so motive the peoples to play the game. Moreover, properly motivated sports media means improved attitudes, permanency of impressions and rich experiences and ultimately more wholesome living.

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Review Article

Critically analyzing how doping, a contemporary issue is affecting sports

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INTRODUCTION

In this essay, doping as a contemporary issue has been chosen. Policies made by World Anti-Doping Agency (WADA) and its impact on athletes and in the world of sports have been discussed in context of the Russian doping crisis.

In recent decades, sport has been very heavily medicalized (Ohl, 2011); athletes at all levels take lots of capsules and supplements to enhance performance and recover from the training (Ohl, 2011). Doping is undoubtedly the most flourishing phenomenon within the field of sports (Lock, 2018). However, definition of doping could vary from international organizations to national governing bodies of different nations (Moller, 2016). In simple words, doping means consumption of banned/illegal substances to improve performance while doing any sports (Houlihan, 2015) and since intake of these substances are associated with health risks, their usage has been prohibited (Read, 2018).

In early Olympics, there were no set rules against doping; Consumption of sheep's testicles, extracts of mushrooms, raw eggs, and plant seeds were believed to make an athlete performance faster and stronger (Prokop, 1970). The first documented instance of doping took place in 1904 Summer Olympics held at St. Louis; Tom Hicks, Britisher by birth, an American marathoner was given strychnine with brandy and egg-white by his coach Charles Lucus before the marathon, where he almost collapsed after crossing the finishing line, although due to lack of academic knowledge and anti-doping policies at that time, he kept his medal with himself and this incidence was not referred as doping but "cheating" (Pound, 2004). By 1933, the word "doping" had officially become a part of English dictionary (Prokop, 1970). Moreover, later on various different medical methods were introduced to escape from the same (Ohl, 2011). A long-distance runner named "Kaarlo Maaninka" was transmitted with two pints of blood before the marathon in 1980 Summer Olympics held in Moscow. That was the first ever recorded official blood doping case, although the accused athlete was not declared guilty due to lack of written doping rules and regulation at that time (Pound, 2004).

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CRITICAL DISCUSSION OF WADA'S POLICY WITHIN THE SPORTING ENVIRONMENT

Soon after which, an independent international organization was set up in 1999 namely "World Anti-Doping Agency" (WADA) with a vision and mission of creating a "doping free and clean sporting domain" (Wada-ama.org). However, on contrary, increasing advancement in technology was alarming and was challenging the mission of WADA (Ohl, 2011).

The major issue/target for WADA was to create a written set of rules and regulation against doping as soon as possible; and to present all these policies, rules, and regulation, WADA created their core document "Code" within the sports authorities and organization around the world. WADA Code was designed/based on criteria which further included four parameters, that is, "credibility, representativeness, meaning, and authenticity" (Wada-ama.org); code work in accordance with "eight international standards" which aims to promote uniformity among various anti-doping governing bodies operating in different areas around the globe (Wada-ama.org).

Hunt (2011) believes that formation of WADA was directly connected to the 1998 Festina Crisis in the Tour de France

where International Olympic Committee (IOC) failed its fight against doping. Ultimately, it was led WADA to design a legal framework for anti-doping rules and regulation which complied into the "World Anti-Doping Code." However, a few scholars such as Mollar (2016) and Skinner (2017) questioned the coherence of anti-doping policies through their research data of drugs involved in elite sports and inconsistency in testing and prosecution of the cheater athletes.

Doping was a widespread phenomenon in Russia even before the 2016 scandal. The systematic usage of performance enhancing substances was identical to the East German pattern (Pound, 2004).

(The following discussion could be easily understood by the flow chart attached in the appendix below.

All this started 2010 when the anti-doping organization WADA was contacted by a whistle-blower from Russia, who was the husband of the victim who was a part of institutional doping which was being done by the Russian agencies (Ohl, 2020). Years before the 2016 crisis, anti-doping organization knew how are Russian athletes trained; instead of questioning the Russian Anti-Doping Agency, WADA broadcasted a documentary on television channels in 2014 by the name of "*The Doping Secret: How Russia Creates its Champions*." During that time period, WADA faced various challenging situations and number of criticisms from the audience around the globe, which was mainly done by the organizations encouraging sports participation and the state sponsored anti-doping groups (Axon, 2016). Even after the detection of the cheating going on, it took so long for WADA to raise its voice and takes an intense action against them (Ohl, 2020). From here, this crisis turned into a "political drama" (Seippel, 2018) where IOC and WADA were in the spotlights (Meier, 2018). As stated in their core document, it is one of their policies to get hold of "anyone" who tries to violate any rules and regulation, encourages the use of performance enhancing drugs and spoils the sporting environment (WADA Core). However, on contrary, according to Hanstad and Houlihan (2015), despite of their policies and commitment, they had already failed miserably multiple times in catching and punishing the cheaters, that they had developed a trust issues in the eyes of people before the Russian doping scandal. Meier (2018) believed that both IOC and WADA should set up some "realistic promises" within their policies.

In November 2014, WADA itself declared that the organization has no right to investigate and to do so an independent Compliance Review Committee (CRC) was set up. A major weakness within the policy was then highlighted, that the policymakers were driven by the stakeholders rather than the proactive assessments which lead these policies to be "politicized" (Seippel, 2018). The repercussion of these politicized policies was actually being faced by the athletes who were going through poor concussion protection, unfair anti-doping policies, and dissimilar treatment in the elite level sports (Seippel, 2018). Polices were designed for short term benefits for policymakers and the dominant stakeholders (Jackson, 2014). It focused on untangling the present complex issues rather than finding a long-term solution (Ritchie, 2014); these made WADA's long-term reaction time poor and slow (Jackson, 2014).

Significant changes were made in the WADA Code in 2015. One of the most important amendment made was, WADA now had an official right to investigate (WADA Code, 2015). By the beginning of 2016, there were new allegations from Russian whistle-blower that something huge is going inside the Moscow's laboratory (Mc. Laren Report). It was now WADA's call to take quick decision to remove the blanket from Russia to expose and punish them (Nauright, 2018). Finally, in 2016, Russia was banned for 4 years from participating and hosting any major sports tournament including the Olympic Games (Nauright, 2018). After WADA's investigation, it was also exposed in the media that Russia had successfully escaped the bans for Rio Olympics and Pyeong Chang Olympics (BBC Sports). However, as per WADA's policy – "protects athletes from exploitation" lead to a mutual consent. It included that the clean Russian athletes were allowed to take part in the tournaments as "neutral athletes" obeying some conditions such as they cannot show their national flag, sing/play national anthem, and had to clear the doping screening of WADA (NCB Sports Report, 2020). With this, IOC also made a commitment of taking extra precautions and keeping a strong check on award evaluation during the world championships (NCB Sports Report, 2020). However, according to NBC Sports report dated December 17, 2020, anti-doping organization appealed to punish and fine everyone involved in the conspiracy but Court of Arbitration for Sports did not endorse the same.

Another major issue which has deeply impacted sports is "burden of promises" (Hanstad, 2015). From the time of WADA's creation, there were considerably many responsibilities on the organization (Moller, 2016). Huge number of expectations was set up by the stakeholders (Houlihan, 2015) with a motive to restore the confidence in anti-doping and convince the population of new century (Hanstad, 2015). Several concepts were developed such as the WADA Code. However, the mission of creating "clean sports" started to become a burden on the organization itself (Moller, 2016). Russian scandal made it worse and weakened their spine (Seippel, 2018). From making realistic policies to idealistic promises, WADA started to lose trust (Moller, 2016). Around 2007, "zero-tolerance policy" came into effect as a major amendment in the documents (WADA Code) but, its implementation during the Russian crisis was ineffective (Moller, 2016).

During the Russian ban, there were reportedly many instances where IOC and WADA had gap in their communication (Altukhov, 2018), lack of coordination and communication between two highly reputed bodies was disturbing for the people observing around the globe (Hunt, 2011). The two were found publicly arguing and criticizing each other on the ban (Seippel, 2018). Moreover, both chose different justification to address the scandal. WADA addressed and defended itself by accepting and apologizing for not being able to react significantly before 2015 and on the other hand, IOC promised to create better communication and testing organization to avoid such scandals (WADA 2018; ITA). Since these two were unable to maintain a public appearance of unity and "team-presentation," once again this increased the distrust in anti-doping policies and organization (Read, 2018). This was the reason WADA had to make a strong commitment for Russia's cheating after exposing them. The decision of banning Russia for 4 years from all the major sporting events; this somewhere challenged the power and freedom of IOC (Altukhov, 2018). Therefore, IOC experienced economic and political restrictions thereafter (Hunt, 2011). These two continued to have a cold war (Altukhov, 2018). However, later they mutually decided to keep this conflict behind the screen as it was ruining their public image (Nauright, 2018).

In this situation, one such critical role was performed by the sport journalists. Instead of focusing on the decision of the ban, media criticized the social presentation of WADA and IOC (Nauright, 2018). During a press conference, media spoke-person asked the member of WADA about the lack of their power to investigate before 2015, where WADA member replied smartly by saying, if they would have disclosed the initial information received by the whistle-blowers in 2010 and 2013, they would not have received the ultimate success of today which is "banning Russia" (Seippel, 2018).

Another big reveal of "political pressure" was indicated during the conference (Altukhov, 2018). Since the beginning, anti-doping organization knew the involvement and role of Russian governing bodies in encouraging the crisis yet WADA was not allowed to publicly declare the link between Putin and member of Russian anti-doping agency (Altukhov, 2018) later on it was very clear that the scam was "state sponsored" which ultimately led to a sporting cold war between the USA and Russia in the world of sports (Nauright, 2018).

CONCLUSION

This crisis was a clear evidence of failure of anti-doping policy to an extent (Axon, 2016) which directly points toward the inefficiency of the world level organization to implement them when required (Moller, 2016). However, some believed that a policy could not be implemented 100% (Read, 2017) and implementation would always be given a subjective definition that would vary from person to person (Moller, 2016). According to Skinner (2017), policymakers should shift their focus from dominant stakeholder's ideologies to "reactive policies" and train their member of staff to deal/resolve multiple conflictions at a same time.

Since 2016 till date there have been various amendments in the WADA Code (WADA.org). There have been an increased number of members working in their investigation and intelligence department (WADA Code). With the ongoing advancement in technology, organization has now offered an online platform which has been designed in a partnership with "FairSport" to help the whistle-blowers from all over the world to raise their voices. Website offers platform namely "WADA Speak Up!" This initiative encourages and gives athletes an opportunity to contribute toward creation of "clean sports domain" and maintain integrity of sports (Speak Up!). "Speak Up!" Promises to take appropriate action against any misconduct which are reported on their website and would not break the "trust" of its people while their investigation and intelligence team would also maintain an utmost privacy at the same time.

Duval (2017) suggested, unified structure should be built and maintained at an international level for better social performance of these sport organization at all time; competing to proof one's power should be avoided by IOC and WADA as they are working in a same field for the betterment and development of sporting environment. They should together protect their jurisdiction (Skinner, 2017). These policies are only effective when the organizations are working together (Read, 2017).

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APPENDIX

2010

- Husband of the athlete (victim) who was being institutionalized doped by the Russian governing bodies approached WADA for the first time to place a complaint but due to lack of evidences, he was ignored.

2013

- Whistle-blower's wife was suspended in the charge of doping in Russia.

2014

- For the second time, two whistle-blowers came from Russia to report the case of systematic doping, bribery, and corruption going on in their nation. They also complaint about the slow and poor response of WADA. WADA justified itself by saying, it has no power to investigate and independent CRC was established to take further action

2015

- After many critics, new amendment was made in the WADA Code 2015 which gave the organization investigating power'

2016

- Investigation was conducted and Russia was exposed in front of the world and was punished with a ban for 4 years. In the mean-time, WADA and IOC started to develop conflict on the decision which resulted into a cold war.

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Review Article

Coronavirus disease 2019 pandemic: The necessity of physical activity, nutrition, and immunity

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ABSTRACT

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 which was first detected in December 2019 in the city of Wuhan, China. At present, this pandemic has affected millions of people in nearly 210 countries around the world resulting in nearly 500,000 deaths. The epidemic has posed significant obstacles in terms of the economy, social interactions, and individual lifestyles all around the world. As a result, the epidemic has centered on the immune system's function, as well as exercise and nutrition. The rapid growth in the number of cases of corona virus (COVID-19) in 2020, combined with the lack of a suitable pharmacological therapy, necessitated the implementation of social restrictions, which had a significant influence on the population's physical activity, immunity, and nutrition. Physical activity, on the other hand, has a beneficial effect on the immune system and lowers the risk of disease. Increased amounts or intensities of physical activity, on the other hand, can weaken the immune system's response and raise the risk of respiratory infections. As a result, the goal was to compile a list of recommendations for physical activity and diet during the COVID-19 pandemic.

Keywords: Immunity, Nutrition, Pandemic, Physical Activity, Ventilation

INTRODUCTION

The coronavirus disease 2019 (COVID-19) pandemic is a recent worldwide health catastrophe and pandemic that is quickly spreading. This is the first time that the entire planet gets touched at the same moment and in such a powerful way in such a short period of time. The death rate from COVID-19 was around 2% at first, but it has since risen to around 4–6% the World Health Organization (WHO) 2020.The exponential rise in COVID-19 instances has resulted in billions of people being isolated and the planet being put under lockdown. People have also been thinking about an important issue at home, namely, the importance of their health and fitness. The authorities' announcement of a sudden lockdown of all services and activities, with the exception of a few necessary services, has caused a drastic shift in people's lifestyles and badly harmed their mental health, shown in heightened anxiety, stress, and sadness (Chtourou *et al*., 2020). COVID-19 home confinement, according to Ammar *et al*., (2020), resulted in a decrease in all levels of physical activity, a 28% increase in daily sitting time, and an increase in unhealthy food consumption patterns. People have been compelled to stay at home due to the closure of fitness centers and public parks, which have disrupted their daily routines and affected their fitness activities. While being forced to stay at home for an extended period of time can make it difficult to maintain physical fitness, the experience of limited physical activities, limited social communication, uncertainty, and helplessness can contribute to psychological and physical health problems. However, during the COVID-19 pandemic, good coping skills, psychological resources, and regular physical activity can be beneficial in dealing with such health-related issues (Chtourou *et al*., 2020). Physical activities and exercise not only help our bodies maintain physical and psychological health, but they also help our bodies respond to the harmful effects of a variety of diseases such as diabetes,

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hypertension, cardiovascular diseases, and respiratory diseases (Owen *et al*., 2010; Lavie *et al*., 2019; and Jiménez-Pavón *et al*., 2020). Bentlage *et al*., (2020) stated in a recent assessment of 31 published studies that physical inactivity as a result of present pandemic restrictions is a major public health issue that is a major risk factor for shortened life expectancy and a variety of physical health disorders (Jurak *et al*., 2020). Regular physical activity, combined with other measures, is also thought to be useful in addressing the health consequences of the COVID-19 pandemic (Chen *et al*., 2020).Regular exercise, according to researchers from the University of Virginia Health System (Yan and Spaulding, 2020), may minimize the risk of acute respiratory distress syndrome, which is one of the leading causes of mortality among COVID-19 patients.

Impact of Physical Activity on the Immune System during Pandemic

To minimize pandemic transmission, public health guidelines such as stay at home orders, park, gymnasium, and fitness center closures have the potential to restrict daily physical activity. These recommendations are disappointing because every day exercise can help us fight the disease by boosting our immune systems and combating comorbidities such as obesity, diabetes, hypertension, and serious heart conditions that make us more susceptible to severe COVID-19 illness. Disrupting physical activity and exercise habits, as well as lowering physical fitness, may increase susceptibility to infection and, if left untreated, may worsen some of the comorbidities linked to poor COVID-19 results. Starting with lesser intensities and durations and gradually increasing them is a smart technique. Regular exercise can boost your immune system and help fight off infections. Exercise allows immune cells to perform effectively. It can increase blood flow, help clear bacteria out of your airways, cause a brief elevation in body temperature that may be protective, strengthen antibodies to help fight infection, and reduce stress hormones.

Effect of Exercise on Respiratory System during Pandemic

COVID-19 patients develop respiratory failure and require mechanical ventilation to maintain appropriate pulmonary gaseous exchange, although mechanical ventilation is frequently life-saving, and a side effect of continuous mechanical ventilation is the rapid development of respiratory muscle weakness due to diaphragm muscle atrophy and contractile malfunction, commonly referred to as ventilator-induced diaphragm dysfunction. Performing endurance exercise for 10 days in a row provides significant protection against ventilator-induced diaphragm dysfunction. Therefore, it is predicted that endurance trained individuals that develop COVID-19 and require ventilator support will benefit from the exercise-induced preconditioning of the diaphragm. Physical activity can help your lungs stay healthy by forcing your respiratory tracts to work harder to produce the extra oxygen that your muscles require. The body improves its ability to transport oxygen into the bloodstream and to the working muscles. As a result, you become less likely to be out of breath during activity over time.

Effect of Exercise on Cardiovascular System during Pandemic

Humans originated as physically active animals, and regular physical activity is ingrained in our DNA. Inactivity, for whatever reason, harms the heart and raises the risk of coronary artery disease and sudden cardiac death in the long run. According to the present studies on steps per day and other measures of activity, frequent physical activity improves cardiovascular health, and people with higher levels of fitness have better exercise stress testing outcomes. Physical activity and exercise will have a good and negative impact on individual health outcomes during the COVID-19 pandemic. COVID-19 infection, on the other hand, increases the risk of heart injury and death during activity, and this risk may persist into the post-infection time period. Physical activity is not suggested during any systemic viral disease. Regular exercise, on the other hand, increases cardiorespiratory fitness and lifespan. An advice to healthy people during and after the COVID-19 pandemic is to stay physically active and exercise while socially isolated when they are healthy, stop exercising when they acquire symptoms or signs of illness, and gradually return to physical activity and exercise once they have recovered. Mildly affected people can progressively resume physical activity and exercise once they are fully recovered, with the goal of regaining their pre-infection fitness. Returning to physical activity may necessitate testing or imaging for persons with more severe COVID-19 sickness. If exertion-related symptoms such as palpitations, chest pain, exercise intolerance, or dyspnea develop during the return to activity, a cardiac imaging and stress test may be needed to rule out COVID-19 myocardial damage before increasing physical activity levels.

PROPER NUTRITION AND IMMUNITY DURING PANDEMIC

Human health, especially the maintenance of a strong immune system, is influenced by nutrition. The progression of COVID-19 symptoms from mild to severe is tightly linked to dietary condition. As a result, evaluating dietary status is critical during COVID-19 infection. Vitamins and trace elements are necessary for the immune system to operate properly. As a result, supplementing with the right vitamins and trace components may help to boost COVID-19 immunity. Strengthening the immune system is the only long-term method to live in the present environment. Hippocrates remarked almost 2500 years ago, “let food be

thy medicine, and medicine be thy food. "Nutritional status is very important to maintain a strong immune system against the virus. A well-balanced diet will help you maintain a robust immune system that will help you withstand any virus attacks. Except for Vitamin C, there is currently no evidence that any supplement may "boost" our immune system or treat or prevent viral infections. Vitamin C is one of the most important water soluble vitamins for maintaining a healthy immune system. Vitamin C has a daily recommended dietary requirement of 90 mg/day for men and 75 mg/day for women. To combat COVID-19 in the present circumstances, it is vital to be aware of the specific forms of food that might enhance our immune system. Calcium absorption is facilitated by Vitamin D. Vitamin D not only helps to maintain correct bone formation, but it also helps to regulate the immune response. Vitamin D, according to several studies, generates antimicrobial peptides that destroy invading pathogens such as bacteria, viruses, and fungus. To lower the incidence of COVID-19, Vitamin D supplementation is highly advised. One of the most essential nutrients for immune system function is Vitamin A. It is known as an anti-inflammation vitamin because of its critical role in enhancing immune function. Vitamin B is a group of water-soluble vitamins that serve a variety of roles in the body. Vitamin B6 deficiency has been linked to a weakened immunological response in the host. Vitamin E is an antioxidant that weakens both humoral and cellular immunity when it is deficient. Supplementing with Vitamin E is particularly effective in boosting age-related immunity especially older people. Multiple vitamin supplementations are indicated to the lower COVID-19 risk due to the preventive action of these vitamins against viral infection.

Here are some professional and authentic dietary guidelines to withstand COVID-19:

- Aim for two cups of fruit per day (guava, apple, banana, strawberry, cantaloupe melon, grapefruit, pineapple, papaya, orange, Longman fruit, blackcurrant, and pummelo) (four servings)
- Include fresh veggies in your diet (green bell peppers, garlic, ginger, kale, lime, coriander (dry), broccoli, green and chilli pepper) legumes 2.5 cup vegetables (five servings) (beans and lentils)
- Consume 180 g of healthy grains and nuts (unprocessed maize, oats, wheat, millet, brown rice, or roots such as yam, potato, taro, or cassava)
- Choose white meat which is generally low in fat rather than red meat
- Do not overcook vegetables as it leads to the loss of important nutrients such as vitamins and minerals
- Choose unsaturated fats over saturated fats
- Drink 8–10 glasses of water every day. It helps to transport nutrients in the blood, gets rid of waste, and regulates the body temperature
- Stay away from fizzy, carbonated, concentrated juices, and sugary drinks
- Maintain a healthy lifestyle that includes frequent exercise, meditation, and adequate sleep.

A set amount of a specific vitamin saturates cells, preventing any nutritional shortage. Individuals who eat a well-balanced diet appear to be healthier and have higher immune systems and can withstand the virus's attack.

RECOMMENDATIONS TO BE PHYSICALLY ACTIVE DURING THIS TIME

The WHO and the American College of Sports Medicine have developed physical activity guidelines that can be culturally tailored at this time. They have especially advised the general public, particularly those who exercise often and those who have been exposed to COVID-19.

GENERAL POPULATION RECOMMENDATIONS

Individuals should avoid sedentary behavior as much as possible while confined. If you are watching TV, get up and walk for 2–3 min every 20 min (or more frequently). If you are working at a computer, get up and walk for 2–3 min every 20 min. Take a walk around the house or do something energetic such as sweeping and cleaning. Engaging in some type of physical activity offers health benefits. All adults should aim to do at least 150 min of moderate-intensity aerobic physical activity per week or at least 75 min of vigorous-intensity aerobic physical activity per week, as well as two sessions of muscle strength training per week. Individuals who have been sedentary or physically inactive should begin with light activity (a slow walk around the house) for 10–15 min/day and progressively move to the above general suggestions. Adults over the age of 65 are recommended to follow the same guidelines as younger people. The older adults who cannot do so should be active through light activities and avoid sedentary behavior.

As time and space permit, children and adolescents should be allowed to engage in moderate to vigorous-intensity physical activity/active play for 60 min each day. This should be done for 180 min/day for children aged 2–5, with 60 min of moderate to vigorous-intensity physical exercise for children aged 3–4. We recognize social distancing and confinement make these recommendations a challenge, and, as such, creative approaches to facilitate increased physical activity are needed.

We feel that adults who have been diagnosed with one or more chronic diseases (e.g., diabetes, heart disease, high blood pressure, cancer, etc.) and are active can follow the above adult guidelines. Individuals who were not active before COVID-19 should begin with light intensity activity for 10–15 min each day until a health expert advises them to progress. It is preferable to maintain weight without excessive exercise if a person is on a weight-loss program.

RECOMMENDATIONS FOR INDIVIDUALS WHO EXERCISE REGULARLY AND ATHLETES

It may be sensible to titrate the training regimen during this period to "maintain" fitness with periodization and adequate rest in between sessions for individuals who were participating in a regular exercise program before COVID-19, in particular high-intensity and high-volume training (>1–2 h/day). Attempting to meet the above adult guidelines, which include limiting excessive intensities and volumes of aerobic exercise per day and 2–3 days of resistance training per week, with adequate rest between sessions, good hydration, hygiene, adequate sleep, and adequate carbohydrate intake, will help to maintain immune function.

TO EXERCISE OR NOT TO EXERCISE WHEN FLU OR COVID-19 SYMPTOMS ARE OBSERVED OR EXPOSED TO COVID-19

Fever, cough, shortness of breath, and breathing difficulty are common COVID-19 symptoms. Infection can lead to pneumonia, organ failure, and even death in severe situations. Symptoms normally occur between 2 and 14 days, and it is tough to tell the difference between flu and COVID-19. In either case, the physical activity or exercising individual should seek medical diagnosis and discontinue physical activity and exercise immediately. When you have body aches, exhaustion, fever, or symptoms such as a stomachache or cough, you should stay in bed until the symptoms go away. Even at this stage, it is a good idea to take a few days off from physical activity or exercise to allow the body to fully recover. If you are not sure whether or not you should exercise, consult your doctor. Reduce physical activity and exercise intensity and duration for many days or even weeks after becoming physical activity or commencing activity after an illness. Complete healing is reliant on the intensity and duration of the sickness. Each person reacts to illnesses and heals in their own unique way. Attempting regular exercise intensity and duration before fully recovered increases the risk of more serious injury or sickness.

CONCLUSION

The COVID-19 pandemic has brought major upheaval in the life of every individual across the globe. Most countries are enduring significant health, economic, and social issues as a result of the COVID-19 epidemic. Almost everyone's day-to-day activities have been hampered. Due to home confinement, participants reported a major change in their sleeping pattern, unexplained lethargy, and mental exhaustion, as well as an overall sensation of fear, anxiety, stress, and annoyance, which hindered their motivation to continue fitness workouts. Exercise has been proven to mitigate these effects, and the immune system is important in preventing a person from getting the new coronavirus and advancing to a severe stage. Physical activity, nutrition, mental health, behavior, and individual coping methods are all advised by the WHO as ways to improve overall health. One, in particular, is the suggestion that moderate-intensity and moderate-duration exercise can be used to combat the epidemic. Therefore, it is necessary that we maintain a proper diet which can ensure that the body is in proper state to *defeat* the virus and exercise regularly to fight the pandemic.

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Review Article

Impact of physical education and sports in promoting social values among youth

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ABSTRACT

The purpose of this study is to investigate the impact of physical education and sports in promoting social values among youth. Physical education and sports play a vital role in educating the youth regarding the importance of social values in their life. Reviewed literature investigated that the importance of association in educating both minds and body. Further, it also encourages the social values among youth that allow them to develop social relations with their community. Moreover, the benefits of physical education and sports can influence both academic learning and physical activity of the youth.

Keywords: Academic learning, Physical education, Social values, Sports, Youth

PHYSICAL EDUCATION PROGRAMME

Physical education curriculum can offer youth with the appropriate knowledge, skills, behaviors, and confidence to be physically active for life. Moreover, physical education is the basis of a school's physical activity program. In the same vein, participation in physical activity is correlated with academic advantages such as improved concentration, memory, and classroom behavior. According to the World Health Organization (2001), it includes development of physical abilities and physical conditioning; motivating the students to continue sports and physical activity; and providing recreation activities.

DEVELOPMENT OF PHYSICAL ABILITIES AND PHYSICAL CONDITIONING

Physical education facilitates to build up and practice physical fitness entails basic motor skills (Barton *et al*. 1999) and gets hold of the competency to perform various physical activities and exercises. Physical fitness builds mentally sharper, physically comfortable, and also able to deal with the day-to-day demands (Jackson, 1985).

MOTIVATING THE STUDENTS TO CONTINUE SPORTS AND PHYSICAL ACTIVITY

Teachers always motivate the youth to contribute in sports and physical activities as well as academic education programs. Further, they always direct and instruct them, sports and physical activity are vital part of academic education. Further, teachers must engage parent or family members in physical activity, for example, by giving youth physical activity "homework" which could be performed together with the parent's viz., family walks after supper or playing in the park.

PROVIDING RECREATION ACTIVITIES

Institutions must focuses on the implementation of physical activity course which facilitates to make enjoyable participation to all youth in physical activity program which provides the youth with a collection of ideas for active games and activities

and the skills and fitness to play them (Fox and Harris, 2003) in order to reduce the stress, anxiety, drug abuses, and obesity.

PROMOTING THE SOCIAL VALUES AMONG YOUTH

Physical education and sports play a vital role in promoting the social values among the youth. Moreover, physical education is considered as a school subject, which facilitates to prepare the youth for a healthy lifestyle and focuses on their overall physical and mental development, as well as imparting important social values among the youth such as fairness, self-discipline, solidarity, team spirit, tolerance, and fair play.

DISCUSSION AND CONCLUSION

The present study focuses on physical education and sports helps to promote the social values among youth. Physical education and sports are considered as an essential part of education and culture. Further, voluntary people, given appropriate training and supervision, can make an invaluable contribution to the inclusive expansion of sport and promote the participation of the inhabitants in the training and association of physical and sport activities. In addition, it also focuses on adequate and sufficient facilities and equipment which meet the needs of exhaustive and safe participation in both in-school and out-of-school programs regarding physical education and sport. To conclude, education in general, and physical education in particular should respond to the needs of optimally developing individuals' capabilities and provide opportunities for personal fulfillment and social interactions, fundamental in human co-existence.

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Review Article

Progression of sports and games through media

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ABSTRACT

Progression of sports through media has a wide-reaching and an on the whole activity. They are jump to cooperate. The cost of game to the organizations has expanded definitely and organizations are put a great deal in the game. The organizations lift now and again, the various issues interfacing with sports and that is helpful to the games. The media has biased the game without question and it has been additionally settled by the games bodies and competitors. Sports media has advanced the qualities related with free undertaking, nationalism, and bias. The media has additionally advanced the watchers, performance, and racial separation.

Keywords: Free enterprise, Media, Patriotism and racial discrimination, Sports

INTRODUCTION

Good to go of active work is sports. Actual physicality or actual finesse is the base of sports. Winning can be solid disapproved by actual occasions; for example, scoring objectives or intersection a line initially is critical of sports. Broadcasting is normally connected with radio and TV. The field of broadcasting incorporates local area radio, society radio and beneficial radio, urban TV, and attractive TV. Broadcast of radio and TV programs from a radio or TV channel to home collectors is communicated utilizing a mix of satellite and wired transmission such as digital TV is additionally viewed as broadcasts and do not need a permit. Transmissions of TV and radio through advanced innovation have progressively been alluded to as communicating. We have seen as contribution expanded of online media in sports during the previous years.

CORRESPONDENCE AMONG FANS AND STARS

The ongoing correspondence between online media and sports is firmly connected to the contact among fans and sports stars.

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Fans need to append and interrelate with the stars on the field and the other way around.

THE SPORT-MEDIA BUSINESS

Sports have become huge exchange. It is currently a very much perceived overall business. It has its occasion's groups, clubs, and first class entertainers. Sports can make reserves; however, athletes get almost no piece of the acquired assets by various associations. The association with media is a key to the political market of game. Through media, we can get all kind of data about sports.

THE MEDIA COMMITMENT TO THE CHANGING HIGHLIGHTS OF GAME

Today media, uncommonly TV offers game added attractions regarding venture from broadcasting expenses and exposure to promoters, supports, and a more extensive onlookers. Thus, sports associations are quick to get worried about media.

This can be harming to sports. Rivalry for broadcasting rights has sensational impact on the charges paid to certain games. The support organizations go through a ton of cash in some place to remain, travel, and gear. It is not unexpected,

subsequently, that a media organization will practice generous power over the occasion as changes in sports, for example, to dates, times, and scenes. The genuine construction and presentational style of an occasion might be firmly insightful of the media's prosperity. Sports authority over its own fortune has destabilized.

Media is in execution a critical part in both the creation and destruction of wearing constructions and practices. The media has additionally helped in rising the new rivalries, occasions, and classes. The framework has been changed and in front of an audience circumstance amended to improve media inclusion. Indeed, even the garments, competitors wear and gear they use have come to reflect media related interests.

Forename on the players' stuff help the observers, support's logos spread. Game has gotten extra of a creation that is imagined, purchase, and sold. The games associations have gone along with this and have utilized specialists and promoting organizations to get their demanding items into the media sport commercial center.

THE MEDIA SPECIALISTS

The media specialized exist to create a media sports wrap up that means to pull in see and enthuse their observers. Their accentuation is in make the creation eye-getting and to this end it is in some cases hard to set up where the game beginnings and the media occasion closes. Publicizing a TV sports program is the incomparable concern. Ends are taken for the onlookers, you are guided what to see and peruse and how to make rationale of it.

TRANSFORMATION

An incredible nature of media sport make is that of variation. The media sets up story lines around the wearing episode and the people in question. They work to composing the occasion to enthuse. They give pre-occasion discussion and examination. The onlooker's hankering is separating. Expectation, conflict, and contention are underscored to the arranged impact. The media guarantees to get their observers as close as conceivable to the activity. You can see every one of the activities of the players. Cameras are presently in any event, going into the evolving rooms. This media makes legends and miscreants in the games.

THE MEDIA SPORT ONLOOKERS

A fundamental trouble nearby media sport is the pretended by onlookers. Is it true that they are recognizable about the media sport creation to which they appearing? Is it accurate to say that they are ready to settle on proficient decisions about what they notice, tune in, and decipher? However, one perspective keeps up that the onlookers do not practice free decision. Their necessities are reflected in the yield from the media organizations and the experts who work for them. The alternative and realities about sports regularly observers rely on what the media presents before them. In this manner, we see that media has caught the games and alternatives, realities, and any remaining information about players. On one hand, we feel impaired about sports without media.

CONCLUSION

- Sport and the media have both a worldwide and a restricted extent of activity and are jump together in a diverse organization of affiliations
- Since the 1980s, the estimation of game to media organizations and their resource in sport have developed perceptibly
- The authority of the small number of principle media organizations raises critical issues of induction and decency, particularly with the growth of pay-to-see games
- While the media has showed a generous capacity to control the nature and extension of game, it ought to be noticed that there is little realities of a conflict to commodification from sports bodies or competitors
- Sports media by and large support and reinforce a one of a kind arrangement of qualities related with free endeavor, enthusiasm, and racial segregation.

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Review Article

Statistical relationship measurement through Karl Pearson's coefficient of correlation in behavioral sciences

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ABSTRACT

The role of Karl Pearson's coefficient of correlation is to function as a tool in designing research, analyzing its data, and drawing conclusions. Descriptive statistics concern the development of certain indices from the raw data. The important statistical measures that are used to summarize the survey or research data are measures of relationship. Amongst the measures of relationship, Karl Pearson's coefficient of correlation is the frequently used measured in case of statistics of variables often used by a researcher.

Keywords: Descriptive statistics, Karl Pearson's coefficient of correlation survey research and behavioral sciences

INTRODUCTION

Karl's Pearson's coefficient of correlation (or rank correlation) is the technique of determining the degree of correlation between two variables in case of ordinal data where ranks are given to the different values of the variables. The main objective of this coefficient is to determine the extent to which the two sets of ranking are similar or dissimilar. As a rank correlation is a non-parametric technique for measuring relationship between paired observations of two variables when data are in the ranked form. Karl Pearson's coefficient of correlation (or simple correlation) is the most widely used method of measuring the degree of relationship between two variables. This coefficient assumes the following;

1. That there is linear relationship between the two variables
2. That the two variables are causally related which means that one of the variables is independent and the other one is dependent; and
3. A large number of independent causes are operating in both variables so as to produce a normal distribution.

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When in a given group of individuals measures of two characteristics of each individual are obtained, it may frequently be observed that the two measures of each individual have a tendency to occupy almost the same relative position in their respective distributions. Thus, if measures of heights and weights of the students of a class are secured it will be seen that if he height of a student is considerably above the average height, his weight will also be considerably above the average the weight will also tend to be correspondingly below the average. When this kind of phenomenon is observed, we say that the two characteristics are mutually related or correlated.

Thus, two variables will be said to be correlated if an increase in one variable is on an average accompanied by an increase (or decrease) in the average of the other and correspondingly a decrease in one variable is on an average accompanied by a decrease (or increase) in the other. Simply stated, correlation is said to exist when the two groups or series of items vary together directly or inversely the lower values of the other (i.e., when the movements of the two variables are in the same direction) it is side to be positive or direct correlation, for example, the greater the radius of the circle, the great will be its circumference; the higher the evident declared by a company, the higher will be the market price of its shares.

If, on the other hand, the higher values of the one are associated with the lower values of the other (i.e., when the movements of the two variables are in opposite direction), the correlation is said to be negative or inverse, for example, the income of individuals and the proportion of income spent on food is likely to be negatively correlated.

CORRELATION WITH CRITERION AND INTERCORRELATIONS

The complexity of statistical procedures will vary in difficulty from the correlation of a single test item with the criterion test to cases where there are multiple items in the test battery. When only one test is used to measure a criterion, a simple Pearson's product the test battery. For example, a hockey hitting test is used as a measure of the criterion along with hockey hitting ability as revealed by ratings of experts. Both the experimental test item (a hockey hitting) and the criterion test (ratings of hockey hitting by experts) are given to the identical group of students. Two sets of paired scores result from this procedure, one set from the new and one from the ratings. When these two sets of paired scores are correlated, a validity coefficient is found. This approach lends itself to the product moment method of correlation where "r" can be computed.

There are a number of confusions and chaos while they are compared with the multiple items. In this situation, the test maker should make the best possible combination of items for purposes of validity and practicability.

The first step is the same as described above for the single item. Each experimental test item should be correlated with the criterion test results. This step provides item correlation with the criterion. In the second step, each experimental test item is correlated with each of the other experimental items, thereby producing a table of inter correlations.

DEGREE OF CORRELATION

Between two observed phenomena, the relationship may range all the way from no relationship at all to a relationship so close that one is inclined to think that one phenomenon is the function of the other. Correlation will be perfectly negative if an increase in one variable is accompanied by a decrease, in a perfectly definite ratio, in the other variables. In correlation, of variables from social sciences, however high it may be, an increase in one variable need not always be accompanied by a corresponding increase (or decrease) in the other variable. It is only on an average that an increase in one is accompanied by a corresponding increase (or decrease) in the other.

Again, there may be cases where correlation exists only to a limited extent. Correlation is said to exits to a limited extent when a change in one variable brings about a change in the other variable, but the change in the latter bears no definite ratio to the change in the former. Thus, correlation may be

1. Perfect positive, limited degree of positive, no correlation at all, limited degree of negative and perfect negative

When we find perfect positive relationship existing between two variables, we designate it as +1; perfect negative relationship is described as −1 and no relationship as 0. Thus, our observed result must vary in between −1 and +1.

CAUSATION AND CORRELATION

The presence of correlation between two variables does not necessarily imply the existence of direct causation, though causation will always result in correlation may be due to any one of the following factors;

One Variable being the Cause of the Other

As to which is the cause and which the effect is to be judged from the circumstances of the case. That variable which is the cause is called subject or independent variable and is usually taken as x. The one which is the effect is called relative/ dependent variable and is represented by y.

Both Variables being the Result of a Common Cause

It may sometimes be observed that the correlation that exists between variables is due to there being related to some third force.

Change

It might sometimes happen that between two variables a fair degree of correlation may be observed when one exists in the universe. Such a correlation is known as spurious. While interpreting the correlation coefficient, it is essential to see if there is any likelihood of any relationship existing between variables under study.

The coefficient of correlation measures the degree of correlation existing between two phenomena. A good measure of coefficient of correlation is one which supplies the answer in pure number, independent of the units in which the variables have been expressed, and also indicates the direction of the correlation.

To determine the exact degree of correlation and direction of correlation. Karl Person's method is the most satisfactory. Coefficient of correlation is usually designated by the letter r. Its formula is:

$$r = \frac{\sum xy}{N\sigma_x\sigma_y}$$

$$r = \frac{\sum xy}{\sqrt{\sum x^2 . \sum y^2}}$$

x stands for the deviations of the individual items of the subject from their mean. y for the deviation of the individual items of the relative from their mean, N for the number of pairs of items, σ_x for the standard deviation of x, and σ_y for the standard deviation of y.

The technique was used to find out the relationship between two variables. Following formula was used for computation of "r" value.

$$r = \frac{N\Sigma XY - \Sigma X\Sigma Y}{N[(\Sigma X^2 - (\Sigma X^2)]\, N[(\Sigma Y^2 - (\Sigma Y^2)]}$$

Where,

N = number of observations
ΣXY = sum of products of independent variables
ΣX = sum of independent variables
ΣX^2 = sum of square of independent variables
ΣY = sum of depend variables
ΣY^2 = sum of square of dependent variables
(ΣX^2) = square of sum of independent variables
(ΣY^2) = square of sum of dependent variables

r = coefficient of correlation

CONCLUSION

Karl Pearson's coefficient of correlation is important measures which help to know the data better. This measures give the idea of overall distribution of the observations in the data set. It is not observations in the data set. It is not affected by change in scale or by change in location. It is a unit free measured of relationship between two variables and takes values in −1, +1. When r is close to +1 (−1), there is strong positive (negative) relationship. It also measures only linear relationship.

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Review Article

Physical fitness the components of health-related and skill-related physical fitness its utility in the development of fit youth and fit nation

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ABSTRACT

The subsequent subject matters determination survive enclosed on top of the consideration: Components of health-related fitness (flexibility, body composition, cardiorespiratory endurance, muscular strength, and muscular endurance) frequency, intensity, time, and type principle; training principles; components of skill-related fitness (agility, balance, coordination, power, reaction time, and speed); careers in health and fitness; fitness assessments (e.g., presidential fitness challenge); fitness logs and goal setting throughout life; health and fitness plans; safety principles; P.R.I.C.E; warm up; and cool down. Physical fitness, the components of health-related and skill-related physical fitness are responsible for the fit individual and fit nations. Through the facts of physical fitness, the components of health-related and skill-related physical fitness working ability and skill might be improved.

Keywords: Fitness, Strength

INTRODUCTION

What is Physical Fitness?

Physical fitness can be defined as a set of characteristics that are either health related or skill related. It refers to the individual's ability to perform physical tasks efficiently as it relates to a particular sport or the persons day-to-day activities. In addition to physical health, being physically fit helps improve individual's mental, emotional, and social health along with spirituality.

Key Concepts

Health-related physical fitness is primarily associated with disease prevention and functional health. Taking interest toward the participation in continues and obedient manner health-related physical fitness activities, it might be useful to control the weight. It is also responsible to prevent diseases and sickness as well. It could be able to advances in the betterment of mood. It may improve the utilization of energy. It might be useful in the developments of sleeping disorders and able to resist the Alzheimer disease as well an able to control the Parkinson disease.

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It is made up of five sections

Cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. Let's take a closer look at the five sections of health-related fitness:

Cardiovascular endurance is the ability of individual's heart, blood cells, and lungs to work continuously for extended periods of time. This is how efficiently individual's body takes in, transports, and uses oxygen while exercising. The fit persons possessing functional heart and lungs working efficiently which leads to improved consumption of energy throughout the routine works of the day.

Muscular strength is the maximum amount of force a muscle can produce in a single effort or how much individual can lift in one attempt. Performing exercises that use individual's

own body weight, free weights, or weights on a machine are excellent ways to develop muscle strength. Having muscular strength will ensure that individual has the strength needed to lift a heavy object, for example, a box full of books.

Muscular endurance is individual's ability to contract individual's muscles several times without excessive fatigue. On the other side or the way to consider about it is the length of time individual's muscles can continue to work before exhausting. What this means is once Individual have picked up that heavy box of books, individual can then carry that box for a long period of time before individual need to take a break.

Flexibility is the range of motion that individual's joints have during movement. Maintaining flexibility can improve individual's performance in physical activities in addition to decreasing individual's risk of injuries by helping individual's joints move through their full range of motion, therefore, allowing individual's muscles to work most in point of the fact. Activities such as stretching and practicing yoga might be useful in the improvement of individual's flexibility.

Body composition is the ratio of water, bone, muscle, and fat in the body. Individual's in a good physical shape of the body composition indicates that individual's may have less risk of developing obesity-related diseases, such as diabetes, high blood pressure, and even a number of cancers.

There were two of the ways to measure body composition are body mass index (BMI), which is a measure of body fat based on height and weight, and the skinfold test, which measures total fat percentages by measuring the layer of fat that is directly under the skin.

Skill-related Physical Fitness

Skill-related physical fitness is the ability to perform during games and sports; it is also known or called performance fitness. Skill-related physical fitness type of physical fitness is significant and useful for performing the more technical aspects of a lot of sports. There were six skill-related physical fitness subdivisions which are agility, balance, coordination, power, reaction time (RT), and speed.

Prompts about Health-related and Skill-related Physical Fitness

Six components of skill-related fitness

There are six skill-related fitness components: Agility, balance, coordination, speed, power, and RT. Skilled athletes typically excel in all six areas. Agility is the ability to rapidly and accurately change the direction of the body.

Prompt to react with study

Generate a set of sparkle cards that make available the definitions of all of the bolded terms from the lesson (physical fitness, health-related physical fitness, cardiovascular endurance, muscle strength, muscular endurance, flexibility, body composition, obesity-related diseases, BMI, skinfold test, skill-related physical fitness, performance fitness, agility, balance, coordination, power, RT, and speed). For example: Power refers to the combination of simultaneous strength and speed.

Prompt to essay

The skill of writing an essay of more or less two to three paragraphs that judge against and contrasts health-related physical fitness and skill-related physical fitness. A special person can enhance individual's essay by as long as for examples of every subjects.

For example: Skill-related physical fitness is also known as performance fitness because it refers to how a person can perform components of sports and physical activities.

In something like two to three paragraphs, write an essay that illustrate body composition and how it can be measured. This is able to explain the perception of obesity-related diseases, providing for examples.

For example: Certain cancers are linked to obesity.

Prompt in presentation

Make a PowerPoint or prize presentation that details the five sections of health-related physical fitness.

For example: Individual could have a slide depicting people who take responsibility to accept the practice yoga to demonstrate the improvement in flexibility.

Prompt to graphic organizer

While creating it is the need for a poster, chart, or some other type of graphic organizer that lists and describes the six sections of skill-related physical fitness.

For example: Coordination involves the use of the eyes and ears to help command body movements.

CONCLUSION

Physical fitness, the components of health-related and skill-related physical fitness are responsible for the fit individual and fit nations. Through the facts of physical fitness, the components of health-related and skill-related physical fitness working ability and skill might be improved.

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