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CONTENTS

S.No.	Name of the Articles	P.Nos
1	Data Analysis for Fitness and Nutrition of an a Sports person-S.A.R. Niha	1-2
2	A Eminent Personality in Indian Volley Ball Arena Zameer Ahmed Khan – Mr.Syed Yunus, Dr.L.S.Biradar	3-5
3	Importance of Nutrition And Diet For Sports person -Dr.Rajashekhar M. Hiremath	6-8
4	Benefit Of Exercises On Health: Study Of Health Status Of Young Adult Women Participating Exercise Regularly -Jhuma Sarkar,Dr. Pintu Sil	9-12
5	The Effect Of Yogic Practices On Selected Motor Related Physical Variables Of College Women Hockey Players -Aparna Alva N, Gerald SanthoshD'Souza	13-16
6	Effect of varied Aerobic Exercises on select health related Physical Fitness Variables among obese engineering college students-Dr.N.S.Dilip, Mr. Bh. Arun Kumar	17-19
7	Comparative Study on Speed and Agility between State Level Football and Cricket Players-Sanjit Mandal,Shubhankar Roy	20-22
8	Effect Of The Rehabilitation Program On The Strength Of The Muscles Working On The Shoulder Joint Of Handball Players With Shoulder Pain- Adnan Fadaws Omar,Dr. Nassr Khalid Abdul Razzaq,Seezar Suheir Ibrahim	23-27
9	Influence Of Psychological Factors On Sports Injuries -Dr.Ravindra Baliram Khandare	28-29
10	Pedagogical determinants of behavior in the status of a problem while the share of physical education and sports.-Dr. Labane Karim, Dr. Fahssi Ryad, Dr. Amrouche Mustapha	30-35
11	A study on relationship between Calf Girth andperformance of Football players -Ch.Mahesh, N.S.Dileep & Tara Singh Thakur	36-40
12	Role Of Herbs In Enhancing Athletic And Excise Performance -Dr. Rajashekhar M Hiremath	41-43
13	Evaluating the Effect of Economic Factors of Family and Individual Factors in Sport and Games Contribution of Visakhapatnam Citizens, Andhra Pradesh, India. -B.Gowri Naidu, Prof.N.Vijay Mohan	44-50
14	The Management Model Of Regional Sport Science Center -Athiwat Dokmaikhao, Issadee Kutintara,Vullee Bhatharobhas	51-54
15	Visual Reaction Time of Youth and Senior Kabaddi Players -Mahesh R. Patil	55-57
16	Effect of, off Season Fitness Training Programs on	58-60

	Body Weight Characteristics of Cricketers. Dr. Dinanath Nawathe	
17	A Study On Mental Imagery Among The Players Of Different Selected Sports- Dr. Sagar Pralhadrao Narkhede,	61-63
18	A Study on Occupational Stress, Organization Climate and Work Motivation among Physical Education Teachers Working in Different Management Schools of Bellary District-Dr.Raj Kumar Karve,Prof.Pratap Singh Tiwari	64-69
19	Basket Ball Game: Injuries And Preventions,-Dr. A. Praveen Kumar A. Kiran Kumar	70-72
20	Comparative Study Of Physical Fitness AmongFemale Basketball And Volleyball Players-Bhupender Kumar, Anurag Choudhary Dr. Amandeep kaur , Dr. Mandeep Thour	73-76
21	A Study On Status For Women In Sports In Colleges Of Karnataka State Hemalatha C.S ,Dr.Gerald Santhosh D'Souza	77-79
22	Latest Trends in Fitness and Sports -Dr.K.Satya Bhaskar Reddy	80-81
23	Comparative Analysis On Aerobic Fitness Among Soft Ball And Base Ball Players Of Osmania University-Prof.L.B.Laxmikanth Rathod,Prof.Rajesh Kumar,Prof.B.Sunil Kumar,Prof.K.Deepla	82-83
24	Effect of Physical Activity Programme on Academic Competence of Students with Intellectual Disability -Lipsy John L & Dr. G. Vasanthi	84-86
25	The Attitude of Out-of-State Students Studying in Physical Education Colleges of Maharashtra State Towards Physical Education -Dr. Rahul Thakur	87-89
26	Physical Fitness Among Hockey And Football Players -Kavita Sangangouda, Ravi Nayak	90-91
27	Anthropometric Measures On Volleyball Playing Ability-Kavita Sangangouda,Majeed,Kinnu Jadhav	92-93
28	Physical Fitness for Women -Dr.H.S.Jange	94-95
29	A Comparative Study of Achievement Motivation among Athletes and Non Athletes of Gulbarga University -Majeed	96-97

Data Analysis for Fitness and Nutrition of an a Sports person

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Introduction

Data analysis is the process of analyzing the data in order to draw conclusions about the information they contain. Data analysis has been applied in various domains, it plays an important role in wide range of domains. They assist in decision making. They are used in various domains such as retail industry, medicine, financial data analysis, business, production engineering etc. Data analysis is now being used in the domain of sports for decision making.

The objective of any sports is to win the respective sports. Physical fitness is very important factor for a sports person to perform well. A sports person has to be physically fit to achieve his goal in the competitive world of sports. The fitness of the athletes is very important and they have rigorous practice sessions for hours in a day. In the competitive world of sports the prime focus of the athlete is his fitness and they work hard to prepare their body to achieve results. For the long training sessions, the athletes have fitness trainers with them. They monitor and help the athlete in improving his fitness through training and exercise. For data analysis, data can be recorded and analyzed. The data can be stored by using the proposed approach.

Winning in any sports has always been of prime importance. This proposed approach is used for decision making to develop and coach the athlete. Analysis of data or information helps in the acceleration of athlete performance. The identification of fitness indicators, methods for collection of data and the manner in which the information is analyzed, are all key factors to a successful analysis of data.

Methodology:

This software program is developed to comprehensively organize and manage all the information associated with nutrition, training and fitness of an athlete

The software gives complete freedom to the trainers and the coaches to organize and manage the fitness and nutrition of the athlete. There are several main modules that can be utilized.

The software has the below modules:

Body Management module - enables you to record and modify an athlete's body details such as body weight, body measurements, body fat, percentage of muscle, heart rate, blood pressure

Exercise module—This module is used to plan the training sessions and exercises for training.

Fitness Module – We can assess the fitness of the athlete by monitoring the fitness using various parameters body analysis.

Nutrition Module – This module will list the nutrition requirements of the athlete. It will also show the daily meal plan, customized food recipes, customized plans, food list with the nutrition value and also records intake history.

History Analysis Module –It reports can be produced for all recorded intake, exercise and body history. The reports generated will show the information displayed in tabular and graph formats, which assist the coacher or the trainers to analyze the fitness of an athlete.

Conclusion:

Using this approach of data analysis, the coaches and mentors, can keep a track of the fitness and nutrition of the athlete to achieve their goals and excel in their respective sport. The information can also be helpful to forecast the performance of the athlete. Athletes can also use the software for self-assessment and self-evaluation to improve their performance

References:

[1] Olson, David L.; Delen, Dursun "Advanced Data Mining Techniques"

Springer; 1 edition (February 1, 2008), ISBN 3540769161

[2] Tan, Steinbach, Kumar, Introduction to Data Mining (2004)

[3] A Short Introduction to Data Mining and Its Applications

Haiyang Zhang, 2011 International Conference on Management and Service Science

Year: 2011

[4] Bharati M. Ramageri .Data Mining Techniques. Indian Journal of Computer Science and Engineering Vol. 1 No. 4 301-305

A Eminent Personality in Indian Volley Ball Arena Zameer Ahmed Khan

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Introduction

Physical education is to develop human personality in its totality. In other words physical education aims at all round development of the personality of an individual or wholesome development of human personality and it includes physical, mental, social, emotional and moral aspects to make an individual a good citizen, who will be able to contribute to the development process of nation. Physical education means making an individual physically fit mentally alert, emotionally balanced, socially well adjusted, morally true and spiritually uplifted.

Statement of Problem :

The investigator has conducted a study on the renowned personality Mr. Zameer Ahmed Khan and the contribution he made to the field of volleyball. Hence to achieve this purpose the problem selected by the present investigator was cited as below.

Objective of Study : .

To study Zameer Ahmed Khan's childhood, family background, educational background, nature behaviour and hobbies, practice methodology, like styles and techniques, training method like physical training. To study coach and mentors role of Zameer Ahmed Khan. To study the role of media.

Limitations :

The study is limited only to Mr. Zameer Ahmed Khan's contribution to volleyball sports. The investigator has collected information regarding the events and occasions which covers the published records.

Delimitations :

The present study is delimited in the following aspects.

The study is delimited to only one person because method of study is single case study.

The study is delimited to the official records and reports in institutions office.

The study is delimited to his present economic conditions his social status, attitude and hobbies, ambitions, present family situation, present health conditions.

Hypothesis :

The researcher formulated the following hypothesis for the present study on Mr. Zameer Ahmed Khan. On the basis of the interview taken with Mr. Zameer Ahmed Khan and his family member's friends, teammates and students, it was assumed that the information provided by them will be true towards the subject's life and his contribution in the field of volleyball.

On the basis of the questionnaire sent to Mr. Zameer Ahmed Khan and the persons related to the subject, it was assumed that the information provided will be true about the subject as a player, as a mentor, as a personality and as a team manager and administrator, in his sporting career.

Methodology : The design of the study. The selection of the subject for primary and secondary sources. The construction of questionnaire and rating scale .Reliability of the interview .The tools for collection of data. The methods employed to collect data .The methods for analyzing data .

Childhood information Mr. Zameer Ahmed Khan was born on 1st November 1950 in Dharward in the state Karnataka. He was born to parents Mr. Gouse Mohiuddin and Mrs. Rabiya Begum. He has 11 siblings among which he has 1 eldest brother 4 elder brother 4 elder sister called as Khan family he from true urban area and his upbringing was done in the lap of nature.

Table No. 1 Opinion rating survey of student on Zameer Ahmed Khan as a personality

S. No.	Statements	Students			
		Agree	Strongly agree	Disagree	Strongly disagree
1	Behaves in sober manner	50	50	0	0
2	Follows the rules	0	100	0	0
3	Behave boldly in decision making	50	50	0	0
4	Acts in self reliant manner	100	0	0	0
5	Is a practical man	100	0	0	0
6	Respects established traditions	100	0	0	0
7	Behaves in relaxed manner	100	0	0	0
8	Is a warm hearted person	100	0	0	0
9	Acts in a controlled manner	50	50	0	0
10	Acts in a dominant manner	50	0	50	0
11	Takes his own decision	100	0	0	0
12	Possesses a very pleasant personality	50	50	0	0
13	Very friendly and cooperative	0	100	0	0
14	Health conscious	50	50	0	0
15	Has a good physique	50	50	0	0
16	Not stubborn	100	0	0	0
17	Never loses his cool	100	0	0	0
18	Has lot of patience & perseverance	100	0	0	0
19	Believes mush in social service	100	0	0	0
20	His attitude towards others	100	0	0	0

The option of various students for 20 different questions on Zameer Ahmed Khan as a personality is shown in table 1 from the tabular data the researcher has interpreted the responses of the students of Zameer Ahmed Khan which is shown as below.

Behaves in sober manner :

Here the tabular data depicts that among the students 50% agreed, 50% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan always used to behave in a sober manner.

Follows the rules :

Among the students 0% agreed, 100% strongly agreed 0% disagreed and 0% strongly disagreed. Thus the table depicts that majority of them i.e., 100% either agreed or strongly agreed whereas 0% disagreed or strongly disagreed that Zameer Ahmed Khan follows the rules strictly.

Behaves boldly in decision making :

The table shows that out of the students 50% agreed, 50% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan behaves boldly in decisions – making.

Acts in self reliant manner :

The tabular data depicts that among the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan acts in self reliant manner.

Is a practical man :

Here the tabular data depicts that among the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan is a practical man.

Respects established traditions :

Among the students 100% agreed, 0% strongly agreed 0% disagreed and 0% strongly disagreed. Thus the table depicts that 100% agreed, whereas 0% disagreed or strongly disagreed that Zameer Ahmed Khan respects established traditions.

Behaves in relaxed manner : The table shows that out of the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan is a relaxed manner.

Is a warm hearted person : The tabular data depicts that among the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan is a warm hearted person.

Acts in a controlled manner : Here the tabular data depicts that among the students 50% agreed, 50% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan acts in a controlled manner.

Acts in dominant manner : Among the students 50% agreed, 0% strongly agreed 50% disagreed and 0% strongly disagreed. Thus the table depicts that majority of the relatives i.e., 100% either agreed or strongly agreed whereas 0% disagreed or strongly disagreed that Zameer Ahmed Khan acts in a dominant manner.

Takes his own decision : The table shows that out of the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan takes his own decision.

Possess a very pleasant personality : The tabular data depicts that among the students 50% agreed, 50% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan possesses a very pleasant personality.

Very friendly and cooperative : Here the tabular data depicts that among the students 0% agreed, 100% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan is a very friendly and cooperative man.

Health conscious : Among the students 67% agreed, 33% strongly agreed 50% disagreed and 50% strongly disagreed. Thus the table depicts that majority of the relatives i.e., 100% either agreed or strongly agreed whereas 0% disagreed or strongly disagreed that Zameer Ahmed Khan is a health conscious person.

Has a good physique : The table shows that out of the students 50% agreed, 50% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan has a good physique.

Not stubborn : The tabular data depicts that among the student 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan is a not a stubborn man.

Never loses his cool : Here the tabular data depicts that among the students 100% agreed, 0% strongly, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan never loses his cool.

Has lot of patience and perseverance : Among the students 100% agreed, 0% strongly agreed 0% disagreed and 0% strongly disagreed. Thus the table depicts that majority of them responded that Zameer Ahmed Khan has lots of patience and perseverance.

Believes much in social service : The table shows that out of the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan much in social service.

His attitude towards others is always human : The tabular data depicts that among the students 100% agreed, 0% strongly agreed, 0% disagreed and 0% strongly disagreed. This indicates that Zameer Ahmed Khan attitude towards others is always human.

Conclusions : The following conclusions may be drawn from the analysis of the data gathered from the subject and other associates in responses to the questionnaires served to them and interviews conducted. Though the subject belongs to a middle class family now, it was the self interest, willpower, a strong and firm determination of the subject that took him to the present height in volleyball career. The subject possesses very sound habits, discipline, sincerity, humbleness, regularity, punctuality, calmness, relaxed approach, optimistic attitude, die hard attitude, aggressive attitude and a very positive and favorable approach towards sports and people, and has shown that dedication, will power, determination and involvement as a volleyball player and coach at various levels. .

References

Play it may way an auto biography Sachin Tendulkar.

Straight from the Heart – Kapil an autobiography publisher – Macmillan India Ltd 2004.

Dave James “Volley Ball for school” published by S Chand and Compay Pvt Ltd Ramnagar New Delhi – 110055.

David Roy parsons “Personality trait if Natural representative Allumes of Canada 1962” completed research in Health in Physical Education and Recreation.

FivB (Federation of International volleyball) 2012 edition an refereeing guidelines and instructions.

Importance of Nutrition And Diet For Sports person

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Abstract

Appropriate nutrition complements training and recovery and can induce metabolic adaptations to training. Adequate energy should derive from a variety of foods that provide carbohydrates, proteins, fat and micronutrients. Maintenance of the energy balance in individuals with increased requirements because of physical activity is important. Habitual carbohydrate intake is essential for physically active individuals and should be timed according to training sessions to ensure optimal pre-, during, and post-workout nutrition. Dietary protein requirements are slightly elevated in the case of strength, speed and endurance training. Consideration of the quality and timing of protein intake is important. The fat requirements of athletes are similar or somewhat higher, so consumption of adequate amounts of fat is essential for optimal health, maintenance of energy balance, optimal intake of essential fatty acids and fat-soluble vitamins. Vitamins and minerals are needed to provide a health benefit, although the ergogenic effect of most micronutrients is still unclear and warrants further research. Supplements and sports foods are used extensively and although the use of some supplements may be ergogenic, the risk to benefit ratio needs to be carefully considered before embarking on the widespread use of supplements.

Introduction:

The International Society for Sport Nutrition (ISSN) also published two consensus documents; one in 2008 that focused on nutrient timing and another in 2010 that reviewed research on and recommendations for exercise and sport nutrition.³ The American Dietetic Association (ADA), the Dietitians of Canada and the American College of Sports Medicine (ACSM) teamed up in 2000 and 2009 to publish their position stand on nutrition and athletic performance. These consensus documents are complemented by a variety of reviews and position stands on fluid and physical activity, individual nutrients and sport supplements. General nutritional needs for physical activity Good nutrition assists in the ability to train intensely, as well as in muscle recovery and metabolic adaptations to endurance exercise. Adequate energy should derive from a wide variety of available foods that provide carbohydrates, proteins, fat and micronutrients. Energy and energy availability In most instances, a well-balanced diet should be sufficient in energy in order to maintain the energy balance in individuals with increased energy requirements because of physical activity. However, it might be challenging to meet the energy needs of athletes with a high body weight and height, i.e. larger athletes and athletes who partake in high-volume intense training. A negative energy balance is common in endurance athletes, such as runners, cyclists, swimmers and triathletes, as well as in sports in which dietary restriction is part of the strategy to modify body composition and size, such as gymnastics, skating, dancing, wrestling and boxing. These athletes sometimes attempt to lose weight too quickly and in mismanaged ways. Historically, female athletes are more prone to eating disorders, which lead to a disturbed energy balance. A negative energy balance in female athletes can lead to the development of the female athlete triad, which includes disturbed eating patterns, menstrual disorders and low bone mineral density. It is possible for a female athlete to become energy deficient without having a clinically diagnosed eating disorder. Apart from this, high intensity training can decrease appetite and change hunger patterns. Some athletes may be uncomfortable eating meals before exercise because of gastrointestinal discomfort. Travel and training also influence food availability and safety, and careful planning around travel schedules is of vital importance. Insufficient energy intake can result in weight loss, especially of muscle mass; injury, illness, increased prevalence

of overtraining syndrome and ultimately decreased exercise performance. To overcome this, athletes should focus on maintaining an energy balance to suit their energy expenditure and have 4-6 meals per day, including nutrient dense food. The use of low-risk supplements, such as liquid meal replacements and multivitamin and mineral preparations, can also be considered.

Macronutrient requirements:

Carbohydrate requirements Habitual or daily carbohydrate intake is essential in physically active individuals, and should be timed according to training sessions in order to ensure optimal pre-workout nutrition, as well as to encourage recovery post workout. If this is not possible during the day, the intake should be tailored according to individual preference and tolerance, provided that the total daily requirements are met

Daily carbohydrate requirements Muscle glycogen and blood glucose are the primary sources of energy for contracting muscles. Carbohydrates before exercise The limited glycogen stores in the body will only last for approximately 90 minutes to three hours during moderate- to high-intensity exercise.² Carbohydrate loading is a strategy that involves changes to training and nutrition which can maximize muscle glycogen stores prior to endurance exercise lasting longer than 90 minutes. This strategy elevates muscle glycogen stores and has been found to increase endurance and exercise performance.

Carbohydrates during exercise Common complaints during endurance events include muscle fatigue and hypoglycaemia, often as a result of low muscle glycogen stores. Therefore, an increase in liver and muscle glycogen stores, as well as optimal fluid intake, is needed for peak performance to be achieved. Symptoms of suboptimal carbohydrate intake include low levels of energy, heavy legs, fatigue or “hitting the wall”, a slow rate of recovery, loss of concentration, dizziness, irritability and fainting. Ingestion of carbohydrates is recommended during exercise. The type, amount and timing of carbohydrate intake during exercise is important, and should be tailored to individual preference.

Carbohydrates after exercise Carbohydrate intake is mainly responsible for increasing glycogen stores. Available evidence indicates that ideal levels of carbohydrate intake optimize muscle glycogen resynthesis. Speedy refueling is particularly important when there is less than eight hours of recovery time between events or training sessions

Protein requirements Dietary protein requirements are elevated with strength, speed or endurance training. Energy intake, exercise intensity and duration, ambient temperature, and gender and age also influence protein requirements. There are increased requirements in the case of strength or resistance training because protein supports muscle protein synthesis, reduces muscle protein breakdown and repairs muscle damage. Endurance exercise increases leucine oxidation. Therefore, endurance athletes may have slightly higher protein requirements than their sedentary counterparts.

Daily protein requirements According to the DRIs, and more specifically, the recommended dietary allowance (RDA), the general protein requirement for a sedentary person is 0.8 g/kg BW/day. Incidentally, this requirement suffices for general fitness and can be slightly elevated to 1.0 g/kg body weight/day.

Protein before exercise The ACSM recommends that a moderate amount of protein is added to the pre-event meal. No specific guideline on ingestion of protein before exercise is included in the consensus document.

Protein after exercise After exercise, the ACSM recommends that the primary goals of recovery should be to provide sufficient fluid, electrolytes, energy and carbohydrates to replace muscle glycogen stores and facilitate recovery. The addition of proteins can provide amino acids for the maintenance and repair of muscle protein, but no specific guideline has been provided by the ACSM to include protein as part of the recovery programme after exercise.

Fat requirements the fat requirements of athletes are similar, and are slightly higher than those in non-athletes. It is important to consume adequate amounts of fat to ensure optimal health, maintenance of energy balance, optimal intake of essential fatty acids and fat-soluble vitamins, as well as to replenish intramuscular triacylglycerol stores. The amount of required fat depends largely on the training status and goals of the athletes.

Sports food and supplement requirements The ACSM has concluded that “athletes should be counselled regarding the appropriate use of ergogenic aids. Such products should only be used after careful evaluation for safety, efficacy, potency, and legality”.

The ISSN 2010 review notes that while some supplements might have a beneficial effect on athletic performance, no amount of supplementation will compensate for inadequate dietary intake. According to this consensus document, supplements are categorised in the following manner according to safety and efficacy: Apparently effective and generally safe: These supplements include weight-gain powders, creatine, protein, EAAs, lowcalorie foods, ephedra (a banned substance), caffeine, water and carbohydrate-electrolyte solutions, sodium phosphate and bicarbonate and beta-alanine.

Supplements that are possibly effective: These include β -hydroxy- β -methylbutyrate in untrained subjects, branched chain amino acids (BCAA), calcium, conjugated linoleic acid (CLA) and green tea extract. Supplements whose effectiveness is too early to tell: The list extends to α -ketoglutarate, α -ketoisocaproate, ecdysterones, growth hormone-releasing peptides and secretogues, ornithine- α -ketoglutarate, zinc-magnesium aspartate, chitosan, phosphatidyl choline, betaine, Coleus Forskolol, dehydroepiandrosterone (DHEA), psychotropic nutrients or herbs and medium-chain triglycerides.

Supplements which are apparently not effective or are dangerous to use: Examples of such supplements are glutamine, smilax, isoflavones, sulphopolysaccharides, boron, chromium, CLA, gamma oryzanol, prohormones, tribulus terrestris, vanadium, calcium pyruvate, chitosan, L-carnitine, phosphates, herbal diuretics, ribose and inosine.

Conclusion

The aim of this review was to summarise and critically analyse key concepts, elements and guidelines from the ACSM, ISSN and IOC consensus documents. No single consensus document provides all the necessary guidelines and recommendations needing 16 Review Article: Sport nutrition: A review of the latest guidelines for exercise and sport nutrition S Afr J Clin Nutr 2013;26(1) for consultation with an athlete with regard to sport nutrition. Therefore, a combination of these and other guidelines should be used to individualise the nutritional management of athletes. Apart from the abovementioned guidelines and recommendations, sport-specific nutritional strategies should also be implemented in training programmes to aid in exercise, sports performance and recovery.^{30,36-39} A nutritionally complete, balanced diet should provide ample amounts of energy, carbohydrates and protein to ensure sustained exercise performance and optimal nutrition to support exercise performance.

References

1. Maughan RJ. Abstracts of BASES (British Association of Sport and Exercise Sciences 2011. September 5-8, 2011. Colchester, United Kingdom. J Sports Sc. 2011;29 Suppl 2:S1-S132.
2. Kerksick C, Harvey T, Stout J, et al. International Society of Sports Nutrition position stand: nutrient timing. Int J Soc Sports Nutr. 2008;5:17 [homepage on the Internet]. c2012. Available from: <http://www.jissn.com/content/pdf/1550-2783-5-17.pdf>
3. Kreider RB, Wilborn Cd, Taylor L, et al. ISSN exercise and sport nutrition review: research and recommendations. Int J Soc Sports Nutr. 2010;7:7 [homepage on the Internet]. c2012. Available from: <http://www.biomedcentral.com/content/pdf/1550-2783-7-7.pdf>
4. Position of the American Dietetic Association, Dietitians of Canada and the American College of Sport: Nutrition and athletic performance. J Am Diet Assoc. 2000;100(12):1543- 1556 [homepage on the Internet]. c2012. Available from: <http://download.journals.elsevierhealth.com/pdfs/journals/0002-8223/PIIS0002822300004284.pdf>
5. Rodriguez NR, DiMarco NM, Langley S. Position of the American Dietetic Association, Dietitians of Canada, and the American College of Sports Medicine: Nutrition and athletic performance. J Am Diet Assoc. 2009;109(3):509-527 [homepage on the Internet]. c2012. Available from: http://journals.lww.com/acsm-msse/Fulltext/2009/03000/ Nutrition_and_Athletic_Performance.27.aspx
6. Sawka M, Burke L, Eichler R, et al. Exercise and fluid replacement. Med Sci Sports Exerc. 2007;39(2):377-390.[homepage on the Internet]. c2012. Available from: <http://www.acsm-msse.org>
7. Burke LM, Castell LM, Stear SJ. BJSM reviews: A-Z of supplements: dietary supplements, sports nutrition foods and ergogenic aids for health and performance Part 1. Br J Sports Med. 2009;43(10):728-729.
8. Maughan RJ, Depiesse F, Geyer H, et al. The use of dietary supplements by athletes. J Sports Sci. 2007;25 Suppl 1:S103-S113.
9. Claassen A, Meltzer S, Havemann-Nel L, et al. Position statement of the South African Institute of Drug Free Sport (SAIDS) on the use of supplements in sport in adults [homepage on the Internet]. 2011. c2012. Available from: <http://www.drugfreesport.org.za/wp-content/themes/dfs/pdf/SAIDS%20Sport%20SupplementsPosition%20Statement.pdf>
10. International Olympic Committee (IOC) consensus statement on sports nutrition 2010. J Sports Sci. 2011;29(SI):S3-S4.

Benefit Of Exercises On Health: Study Of Health Status Of Young Adult Women Participating Exercise Regularly

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Abstract

Introduction: Health is considered as most precious wealth. Every individuals of any age has to participate in Physical exercise regularly to stay healthy and fit. Exercise helps to maintain high standard of physiological health, normal body weight, muscular endurance, flexibility etc which are the important criteria to stay fit and healthy. Purpose: The purpose of the present study was to review the health status of the young college level women who participates exercise on regular basis. Findings will be helpful to prove strongly the benefits of exercise on women's' health. Material and Methods: A total of 84 active college women in between the age of 21 to 30 were randomly selected in this study. All subjects were participating in physical exercise regularly at morning and evening for average four hours per day. Their schedule was involved five day per week. Health status was assessed by measuring the BMI, VO₂ max, flexibility, strength and strength-endurance. These parameters were considered as criterion of this study. Queens college test, modified sit and reach test and bend knee sit ups for one minute were used as tools in this study. Mean and standard deviation were computed as descriptive statistics Standard norms have used to take inference about normal status of health of the subjects. Result: Result revealed that the active college women had normal level of BMI (20.92 Kg/m²) and also good level of VO₂ max (Mn = 37.73 ml min⁻¹ Kg⁻¹) which indicated their good physiological health. Active college women also had good amount of flexibility (36.24cm) and strength-endurance (36.14times/min). When compared with standard norm it has seen that their health status in this category were also good. Conclusion: Therefore it was concluded that regular exercise helps young college level women to maintain their good health status in respect of BMI, VO₂max, flexibility and strength-endurance.

Key Words: Health Status, Exercise benefits, BMI, VO₂max, Young adult women.

Introduction

Regular physical activity is vital for good physical and mental health. It helps improve one's overall health and fitness, maintain a healthy weight, reduce health risk and promote good mental health. Several studies confirmed about the effectiveness of regular physical activity in the primary and secondary prevention of several chronic diseases (e.g., cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis) and premature death. There appears to be a linear relation between physical activity and health status, such that a further increase in physical activity and fitness will lead to additional improvements in health status.^[1]

Regular physical activity can improve womens' health and help prevent many of the diseases and conditions that are major causes of death and disability for women around the world. Many women suffer from different disease like Cardiovascular diseases, Diabetes, Osteoporosis, Breast cancer etc that are associated with inadequate participation in physical activity:^[2]

In a study comparing a group of women who were self-selected to participate in an exercise regimen versus a sedentary group, it was shown that "the moderate-intensity physical activity program experienced potentially valuable health and social cognitive improvements relative to those who did not participate."According to the American College of Obstetrics and Gynecology, physical activity not only improves cardiovascular health, but also helps to keep blood pressure, weight, and cholesterol in control.

The American College of Obstetrics and Gynecology educational bulletin recommends that both premenopausal and menopausal women exercise in order to prevent osteoporosis. In 2003, the Journal of Cardiopulmonary Rehabilitation reported that even small amounts of physical activity done routinely are found to improve quality of life and mood.^[3]

Physical Activity has also been associated with improved psychological health by reducing levels of stress, anxiety and depression. This is particularly important for women who demonstrate an incidence of depression that is reported to be almost double that of men in both developed and developing countries. It has also been suggested that physical activity can contribute to building self-esteem and confidence and can provide a vehicle for social integration and equality for women in society.^[3]

The purpose of the present study was to review the health status of the young college level women who participate exercise on regular basis. Findings will be helpful to prove strongly the benefits of exercise on women's' health.

Materials And Methods

Subject: A total of 85 active college women in between the age of 21 to 30 were randomly selected in this study. All subjects were participating in different types of physical exercise, games and sports regularly at morning and evening for average three hours per day for five days per week.

Criterion measure

Health status was measured by assessing the body mass index (BMI) and health status was assessed by measuring the VO₂ max, flexibility, strength and strength-endurance. These parameters were considered as criterion of this study.

Test and Tools used

Stadiometer, weigh machine were used to measure height and weight respectively. Jhonson box was used to measure the flexibility. Queens' college test was used as tools to measure VO₂ max and one min curl up was used to measure strength endurance.

Statistical Design:

Mean and standard deviation were computed as descriptive statistics and percentage value was calculated to represent the data in graphical form. Standard norms have used to take inference about normal status of health of the subjects.

Results And Findings

The collected data for selected parameters in this study have presented in Table-1 below.

Table-1: Descriptive statistics for BMI, Flexibility, Strength-endurance and VO₂ max of active adult women

Statistical Parameters	BMI (Kg/m ²)	Flexibility (cm)	Strength-endurance (sit up/min)	VO ₂ max ml min ⁻¹ Kg ⁻¹
Maximum value	29.47	47	42	49.56
Minimum value	14.47	20	22	30.35
Mean value	20.92	36.24	36.14	37.73
Standard Deviation	2.64	5.94	5.74	3.57

The body mass index (BMI) is a value derived from the mass (weight) and height of an individual. It is defined as the body mass divided by the square of the body height, and is universally expressed in units of kg/m², resulting from mass in kilograms and height in meters.

The BMI is an attempt to quantify the amount of tissue mass (muscle, fat, and bone) in an individual, and then categorize that person as *underweight*, *normal weight*, *overweight*, or *obese* based on that value. Commonly accepted BMI ranges as per WHO, are underweight: under 18.5 kg/m², normal weight: 18.5 to 25, overweight: 25 to 30, obese: over 30 (presented in Table-2)^[4] and compared the present mean BMI value of the subjects with BMI classification in Figure-1. People of Asian descent have different associations between BMI, percentage of body fat, and health risks than those of European descent, with a higher risk of type-2 diabetes and cardiovascular disease at BMIs lower than the WHO cut-off point for overweight, 25 kg/m², although the cutoff for observed risk varies among different Asian populations.^[5]

Table-2: WHO classification of body mass index (BMI) and health of women and men

Category	BMI (kg/m ²)	
	from	to
Very severely underweight		<15.0
Severely underweight	15	16
Underweight	16	18.5
Normal (healthy weight)	18.5	25
Overweight	25	30
Obese Class I (Moderately obese)	30	35
Obese Class II (Severely obese)	35	40
Obese Class III (Very severely obese)	40>	

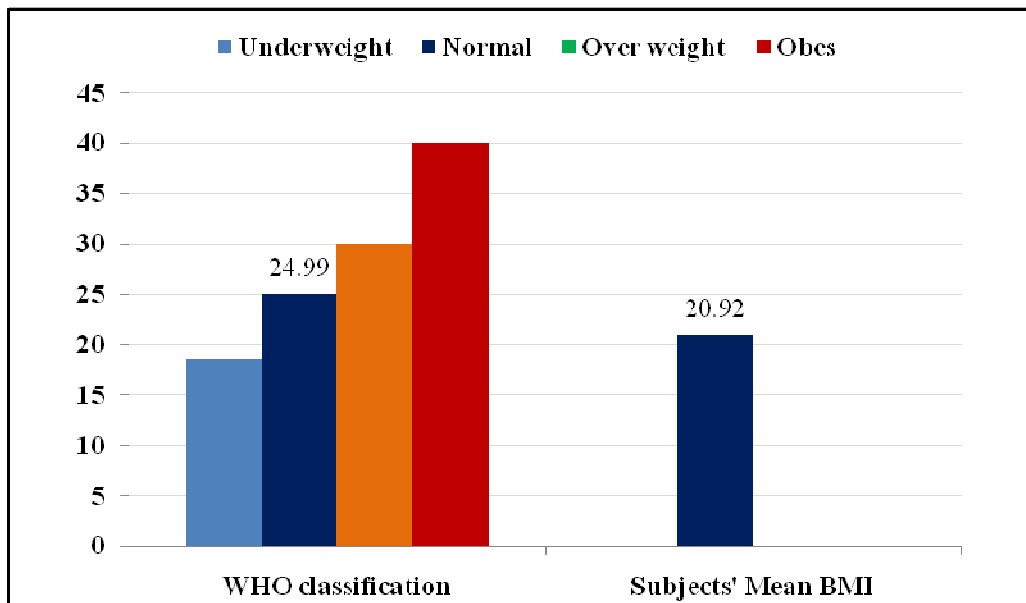


Figure-1: Comparison of subjects' BMI with the reference value of WHO

The present study found the mean BMI value of the active women was 20.92 Kg/m² (Range 14.47 to 29.47 Kg/m²) which was within normal value and in healthy category. All the subjects of this study actively participate in regular vigorous physical training and sport therefore their body weight was normal and their BMI was also in healthy and normal range. The findings proved the fact that as the women engaged in regular physical activity so that they have normal BMI and lesser health risk.

The comparison between the subjects BMI with the standard value has presented in Figure-3 which is clearly shown that it was normal and healthy. This might be due to the participation in exercise on regular basis.

The health related fitness component flexibility of the subjects was in normal range which also indicated their superior health status. The flexibility develops through the participation of stretching exercises in which subjects were involved daily basis. The normal value of flexibility might be the beneficial effect of regular participation in exercise. The strength endurance of the present subjects was also in good level as per standard norm which was also another beneficial effect of exercise for women.

VO₂ max is considered as the most powerful indicator of aerobic fitness and health status of human being. The normative range of fair level of VO₂ max was 29-34 ml min⁻¹ Kg⁻¹ as per literature available.^[6] The present value of VO₂ max was above the fair level which also reflecting their good health status and the beneficial effect of regular exercises. Several studies reported the benefits of exercise on health and prevention of life style diseases.^[7,8,9,10,11] Present findings also highlighted the same health benefits of participation in exercise and physical activities on regular basis among young adult women.

Conclusion

On the basis of above findings flowing conclusions were drawn:

The BMI of the active adult women was normal and in the healthy category.

The status of flexibility and strength endurance were higher and good for active adult women.

The active adult women had above fair level of VO₂ max which clearly indicated their better cardiovascular health status.

References:

Whitney, D.E.R. Nicol, C.W. and Bredin, S.S.D. Health benefits of physical activity: the evidence. *CMAJ*. 2006; 174(6): 801–809.

Hafeez, A. and Lee, M. Physical Activity and Women, Internet Source of article, Physiopedia; (2017); web link: www.physio-pedia.com/Physical_Activity_and_Women

WHO: *BMI Classification and Global Database on Body Mass Index*. (2017). Web source: World Health Organization official website. weblink: <http://www.who.int/nutrition/databases/bmi/en/>

WHO Expert Consultation (2004), Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. *The Lancet*. 363 (9403): 157–63.

Marrow, J.R. Jackson, A.W. Disch, J.G. and Mood, D.P. Measurement and Evaluation in Human Performance, 4th Ed. (2011), Human Kinetics, Champaign, USA; p: 204-206.

Astrand, (1960). *ACTA Physiol Scand*. 49 (suppl): 169. Web Source: <http://harristrainingsystems.com/wp-content/uploads/2011/05/VO2Max-Norms-Chart.pdf>

Warburton, D.E.R. Nicol, C.W. and Bredin, S.S.D. Health benefits of physical activity: the evidence. *CMAJ*, 2006; 174(6): 801–809.

Bouchard, C. and Shephard, R.J. and Stephens, T. Physical activity fitness and health: the model and key concepts. *Physical activity fitness and health: International proceedings and consensus statement*. Champaign (IL): Human Kinetics; 1994. p. 77-88.

Blair, S.N. and Brodney, S. Effects of physical inactivity and obesity on morbidity and mortality: current evidence and research issues. *Med Sci Sports Exerc*. 1999; 31:S646-62.

Oguma, Y. Sesso, H.D. Paffenbarger, R.S.(Jr), Physical activity and all cause mortality in women: a review of the evidence. *Br J Sports Med*. 2002; 36:162-72.

Macera, C.A. Hootman, J.M. Sniezek, J.E. Major public health benefits of physical activity. *Arthritis Rheum*. 2003; 49: 122-8.

The Effect Of Yogic Practices On Selected Motor Related Physical Variables Of College Women Hockey Players

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Abstract

The Researcher aims to identify the effect of yogic exercise on selected physical variables, of college women Hockey players. The research introduces yogic practices like Asanas and Meditation into the routine practice for the Experimental Group while the control Group carries on their routine physical training activities under the instruction of their coach. Yoga training was continued for a period of 6 weeks along with their Routine practices and included 3 sessions per week of 60-90 minutes duration. The subjects of two groups were tested using standardized tests and procedures on selected physical variables before and after the training period. The following test items were used - 60 meters Run to measure speed. Stork stand test for static balance, JBMT test for dynamic balance, and Illinois test for Agility. There were significant changes in the dynamic balance, agility in the Hockey experimental group when compared to the control group but no such significant difference was found in speed, static balance.

Key words: Stork test, 60 meter test, sprint test, dynamic balance, speed, static balance etc.

Introduction:-

Yoga not only consists of various postures called asanas which is called as Hatha yoga, but also includes meditation. Nowadays, every individual wants their own living styles adopting yoga as a alternative for the physical activities. The use of yoga as a supplementary exercise routine can improve the performance of any sport. Yoga is the catalyst that supports a player or an athlete to that extra edge against the competition. Substantial research has been conducted to find the benefits of yoga for sports person. Here we find that yoga can have impact on performance, anxiety and concentration and also it says that it increases the strength, speed, balance, flexibility, and range of Motion. Hockey is a competitive sport which has now become a game of International repute. This game is played for recreational and competitive purposes. It helps in promotion of health, body control, alertness endurance, co-ordination, flexibility agility and team spirit. Hockey requires aerobic endurance, balance, concentration, agility, strength, power, skill and speed for the game.

Benefits of Yogic Asana

Yoga combines exercise, breathing, relation and meditations. It is a combination of physical and mental disciplines which make the body stronger and healthier and the mind calmer and more controlled. Yoga promotes harmony and balance in all functions of the body and keeps the body fit and healthy. In pranayama, specific point of force within the body or the left and right nostril, the duration of the breath and the number of inhalation and exhalation is very important.

Yogic asanas strengthen the weak parts of the body and helps to regulate weight and immunity.

Proper breathing ensures proper oxygen supply to R.B.C and in turn better circulation and adequate oxygen intake by muscles leading are active agile life.

Concentration is said to be improved through constant practices of yoga. Asanas Reduces in the muscles tension.Asanas improves the flexibility and balances. Improves the blood flow & lower respiratory rate.Provides energy and endurance strength.

Need of the Study:-

The purpose of the study was to find out the effect of asanas on motor related performances of Hockey players. The study could be used to extend the benefits to other specific sports as well.

Methodology:-

Totally one hundred hockey players in the age group of 17-25 were randomly selected. Fifty each were treated as the experimental group and the control group. Both the groups maintained their daily routine activities under guidelines of their coach whereas the experimental group were given the intervention of yoga practice as per the established protocol.

The researcher used the following test items to measure motor related variables like Balance, Dynamic balance, Agility and Speed.

Dependent Variables:

60 M Run,(Speed)Illinois Agility Test,(Agility)Stork Stand Test(Static Balance)
BMT(Dynamic Balance)

Independent Variables:

The selection of asanas is based on the premise that all the parts of body should involve in performing asanas. Asanas Performed by the experimental group were

- I. Standing postures : 1.Vrikshasana 2.Thrikonasan 3. Garudasana
- II. Sitting postures: 1. Purvathasana2.Paschimottanasan 3. Shashankasana. 4 Vajrasana
- III. Laying down postures: 1. Bhajangasana 2. Dhanurasana 3.Sarvangasana 4.Halasana
- 5. Naukasana 6. Savasana.
- IV. Meditation

Statistical method:

The pretest and post test performance of subjects in the selected variables was subjected to appropriate statistical analysis to find out the significance of practices of yogic asanas and practices on them at 0.5 levels of significance.

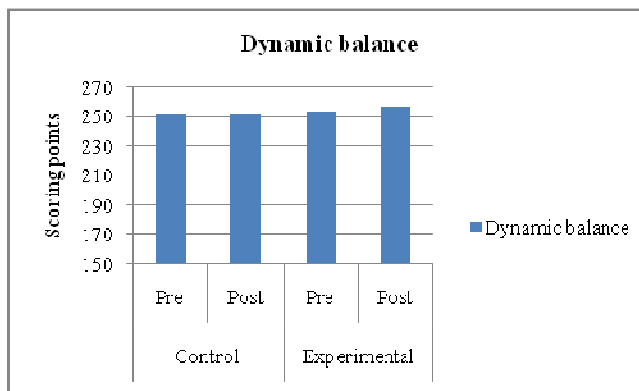


Figure1: The Pre test And Post test performance of both control and experimental groups in the dynamic balance test

The above figure (figure 1) indicates that the post test performance in JBME test for dynamic balance of experimental group significantly improved as compared to their pre test values of JBMT dynamic balance test due to 6 week of the yogic asanas practices. The control group did not show any improvement in post test performance dynamic balance test.

The dynamic balance in the control group shows no difference as such there was no change in the dynamic balance levels of the control group. Though there are slight changes on the positive side for the experimental group, it is not significant enough to come to the conclusion that the yogic practices would have contributed towards it. Therefore it can be deduced that yogic practices may not have an effect on the dynamic balance of hockey players

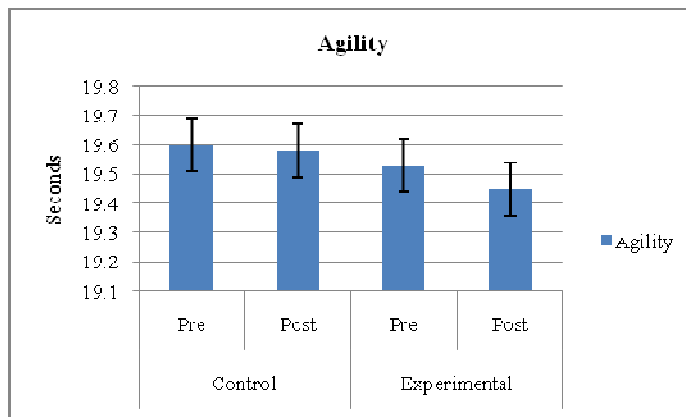


Figure2: The Pre test And Post test performance of both control and experimental groups in the Illinois test of agilityThe above figure (figure 2) indicates that the post test values of experimental group significantly improved their performances in the Illinois agility test in comparison with the pre test group.

There is no change in the agility level of control group while the experimental group shows significant difference. Agility can be said to be the ability to change direction without loss of speed and plays an important role in hockey. It also requires neuromuscular coordination. So it can be concluded that the yogic practices may have most likely had an effect on the neuromuscular coordination which in turn would have helped the experimental group to improve their agility

Figure 3 indicates such improvement clearly through graphical representation.

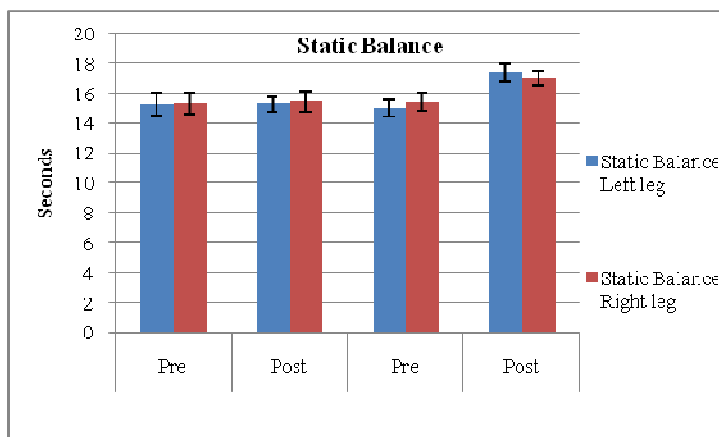


Figure3: The Pre test And Post test performance of both control and experimental groups in the stork stand balance test for left legThe above figure indicates such improvement clearly through graphical representation.

Figure 3 indicates that the yogic practices significantly increases the performance in stork test for static balance in both the left and right feet as shown by the experimental group. The nature of yogic asanas and breathing techniques concentrate on controlling and increasing awareness of body movements which has definitely helped the experimental group

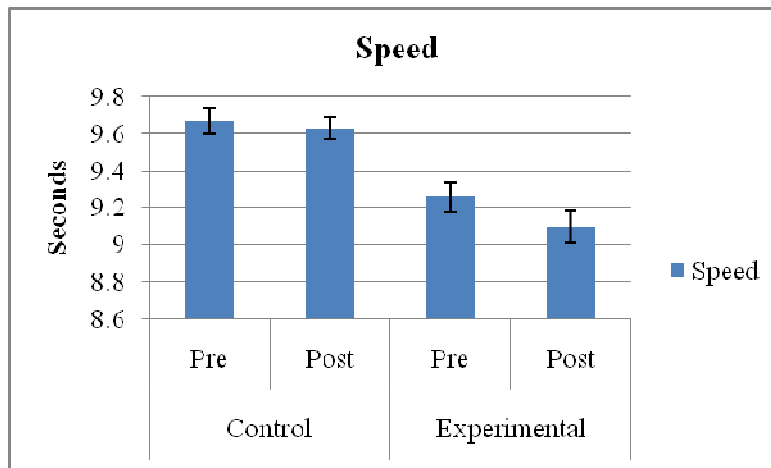


Figure 4: The Pre test And Post test performance of both control and experimental groups in the speed test
 The above figure (figure 4) indicates that the post test values of experimental group of hockey players improved significantly in their speed performances when compared with the control group.
 Though there is improvement in speed in both the control and experimental groups, the experimental group shows significant improvement in speed at 0.01 level of significance. As discussed in the agility test, practice of yoga may have an effect on the neuro muscular connections of the practitioner which in turn might have a positive effect on the conduction of nervous impulses to the muscles. This might explain the improvement in both agility and speed of the experimental group.

Conclusion:

This study agrees that there is positive impact of yogic practices on motor related variables among the Hockey players. The study provides conclusive evidence that the six week practice of yoga asanas has resulted in improvement in speed, agility and static balance of the practitioners while the improvement in dynamic balance is negligible. The researcher recommends the use of Yogic practices to players because it's clear that there is positive impact on motor variables. So it can be concluded from the study that speed, balance and agility can be increased with the practice of selected asanas. Further research can be done on sedentary people on general health related fitness variables which do not require advanced skills like agility and speed. Research is also recommended on players of other games which require balance and neuromuscular coordination like football, volleyball, basketball etc.

References

U.K.Singh, J.M.Dewan;Sports Management-A P H Publishing Corporation, 4435-36/7, Ansari Road, Daryaganj, New Delhi-2012.
 Pandithshambhunath. Speaking Of Yoga –Sterling Paperbacks (2005), Sterling Publishers(P)Ltd Isbn: 978-81-207-1794-7
 K.S.Joshi. Speaking Of Yoga And Nature-Cure Therapy - New Dawn Press Group 2005
 Saroja M.(2012), "Effects Of Complex Training And The Combined Effects Of Complex Training And Yogic Practises On Selected Physical And Physiological Variables Among College Boys", Yoga Mimamsa, 3(Xliv), Pp 206-215.
 Yahiyah.N. (2010), Impact Of Hatha Yoga Exercise On Some Of The Psychological , Physiological And Level Of Performance In Judo. Procedia Social And Behavioral Sciences.Retrieved [Http://Www.Sciencedirect.Com/Science/Article /Pii/S18770428100 18379](http://Www.Sciencedirect.Com/Science/Article /Pii/S18770428100 18379),

Effect of varied Aerobic Exercises on select health related Physical Fitness Variables among obese engineering college students

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Abstract:

All exercise burns calories for they involve movements and energy is required for every movement made. Many exercises can called aerobic and are performed at moderate levels of intensity for extended periods. The aim of this study was to find out the effect of varied aerobic exercises, namely, step aerobics and floor aerobic exercises on selected health related physical fitness variables among obese engineering college students. Sixty men who were more than 30 kg/m² were selected and divided into three groups, step aerobic, floor aerobic and control group consisting of 20 each. The groups were given respective treatments. Pre and post test scores on cardiovascular endurance, flexibility and body mass index were measured and statistically analyzed. The results proved that floor aerobic exercises significantly improved cardiovascular endurance and flexibility and reduced body mass index (P<0.05). Comparing between the treatment groups, step aerobic exercises were significantly better than floor aerobic exercises in reducing body mass index (P<0.05). The effects of varied aerobic exercises were determined based on the data obtained. It was concluded that the benefits of aerobic exercises to obese men in reduction of their fat, improvement in the health related fitness were proved among other fact that intensity of exercise was linked with the reduction of fat.

Key Words: Step Aerobics, Floor Aerobics, Cardiovascular Endurance, Flexibility etc.

Introduction:

The World Health Organization (WHO) estimates that 1.9 million deaths worldwide are attributable to physical inactivity and at least 2.6 million deaths are a result of being overweight or obese. In addition to this, the WHO estimates that physical inactivity causes 10% to 16% of cases each of breast cancer, colon, and rectal cancers as well as type 2 diabetes, and 22% of coronary heart disease and the burden of these and other chronic diseases has rapidly increased in recent decades.¹ Obesity is one of the leading preventable causes of death worldwide. Excessive body weight is associated with various diseases, particularly cardiovascular diseases, diabetes mellitus type 2, obstructive sleep apnea, certain types of cancer, and osteoarthritis. As a result, obesity has been found to reduce life expectancy. Exercising our muscles burns both fat and glucose (carbohydrates in the blood) in different proportions and depends on how an individual exercises muscle can burn fat in a larger proportion to glucose. It means to burn fat directly we should exercise at a lower level of effort and for longer duration. However some people just don't have the time to exercise for longer periods. The only way to burn fat quickly is to increase the metabolism through anaerobic exercise so we burn the fat indirectly. Fitness experts taught people worldwide exactly how to use certain exercises to burn fat fast.² All exercise burns calories for they involve movements and energy is required for every movement made. The calorie burning ability of each exercise depends on the speed and/or force at which the exercise is performed. This proves the calorie burning potential of an exercise can be increased depending on an individual's motivation for that movement.

Many types of exercise are aerobic, and by definition are performed at moderate levels of intensity for extended period. To obtain the best results, an aerobic exercise session should involve a warming up period, followed by at least 20 minutes of moderate to intense exercise involving large muscle groups, and a cooling down period at the end. Aerobic training will produce an increased capacity for pumping larger volumes of blood to accommodate the need for extra energy and extra oxygen.³

Cadmus L, (2010) evaluated the effectiveness of a community-based aquatic exercise program for improved quality of life moderated by BMI ($P < 0.05$) such that benefits were observed among obese participants. **Viskić, et.al. (2007)** analyzed the impact of special programmed physical education including dance, aerobics and rhythmic gymnastics on the development of motor and functional abilities and found experimental program to significantly influence the development of coordination/agility and specific rhythm coordination, functional aerobic ability, repetitive and explosive strength and flexibility, along with significant reduction of overweight and adipose tissue. **Kim (2007)** found that an exercise program could be an effective intervention to increase physical fitness in non-obese and obese women and to decrease obesity indices (body weight, BMI) in obese women. **Tsourlou, et.al. (2006)** examined the effectiveness of a 24-week aquatic training (AT) program, which included both aerobic and resistance components, on muscle strength (isometric and dynamic), flexibility.

Life style of students of engineering colleges deprive them of their time for physical activity either in the morning or in the evening. Normally they spend more than 4 hours a day in transportation to and from college. This resulted in either minimal physical activity or no physical activity and there was no possibility of burning the excess fat accumulated in the body. Because of these life patterns, an approximate estimation revealed that more than 50% of the engineering students enrolled in first year became overweight or obese in the next year and about 70% of the students became overweight or obese at the time of their completion of the degree course. In view of the theoretical foundations laid through previous researches, suitable aerobic exercises would provide engineering college students better health and this study is devoted to find out the effect of varied aerobic exercises on selected health related physical fitness variables, namely, cardiovascular endurance, flexibility and body mass index.

Methodology:

Sixty obese men, whose body mass index was 30 kg/m^2 were selected from different engineering colleges in Andhra Pradesh. The subjects ($N=60$) were randomly assigned to three equal groups of twenty male adults each. The groups were assigned as Experimental Group I – (step aerobic exercises), Experimental Group II (floor aerobic exercises) and Controlled Group respectively. Pre tests were conducted for all the 60 subjects on selected health related physical fitness, cardiovascular endurance, flexibility and body mass index. After the experimental period of twelve weeks, post test were conducted and the scores were recorded. ANCOVA was employed to test the statistical significance of the effect of varied aerobic exercises.

Results:

Table I: Effect of Varied Aerobic Exercise on Selected Health Related Physical Fitness Variables

	STEP AEROBICS GROUP	FLOOR AEROBICS GROUP	CONTROL	SOURCE OF VARIANCE	SUM OF SQUARES	Df	MEAN SQUARES	OBTAINED F RATIO
EFFECTS ON CARDIOVASCULAR ENDURANCE								
Pre Test Mean	1789.00	1819.75	1882.50	Between	90835.83	2	45417.92	2.91
				Within	889778.75	57	15610.15	
Post Test Mean	2303.50	2347.00	1883.75	Between	2617885.83	2	1308942.92	79.91*
				Within	933668.75	57	16380.15	
Adjusted Post Test Mean	2318.13	2350.77	1865.35	Between	2711072.31	2	1355536.15	92.27*
				Within	822652.64	56	14690.23	
EFFECTS ON FLEXIBILITY								
Pre Test Mean	23.85	23.30	23.70	Between	3.23	2	1.62	0.95
				Within	96.95	57	1.70	
Post Test Mean	25.90	26.05	25.05	Between	11.63	2	5.82	3.87*
				Within	85.70	57	1.50	
Adjusted Post Test Mean	25.78	26.22	25.01	Between	14.83	2	7.41	7.02*
				Within	59.19	56	1.06	
EFFECTS ON BODY MASS INDEX								
Pre Test Mean	39.35	39.63	39.45	Between	0.82	2	0.41	2.23
				Within	10.42	57	0.18	
Post Test Mean	36.55	37.45	38.65	Between	44.35	2	22.17	188.74*
				Within	6.70	57	0.12	

Adjusted Post Test Mean	36.63	37.35	38.67	Between	42.58	2	21.29	441.92*
				Within	2.70	56	0.05	

Table F-ratio at 0.05 level of confidence for 2 and 57 (df) =3.16, 2 and 56 (df) =3.16

*Significant

The results presented in Table I proved that there were significant influence on selected health related physical fitness variables, cardiovascular endurance, flexibility and body mass index as the obtained F values 92.27, 7.02 and 441.92 respectively were greater than the required table F value of 3.16 to be significant at 0.05 level. Since significant results were obtained, the data was further subjected to statistical treatment using Scheffe's confidence interval.

Table II: Multiple Comparisons of Paired Means on Health Related Physical Fitness Variables.

VARIABLES	MEANS			Mean Difference	Required . C I
	Step Aerobics Exercise Group	Floor Aerobic Exercise Group.	Control Group		
CARDIOVASCULAR ENDURANCE	2318.13	2350.77		32.64	95.44
	2318.13		1865.35	452.78*	95.44
		2350.77	1865.35	485.41*	95.44
FLEXIBILITY	25.78	26.22		-0.44	0.81
	25.78		25.01	0.77	0.81
		26.22	25.01	1.21*	0.81
BODY MASS INDEX	36.63	37.35		0.72*	0.17
	36.63		38.67	2.04*	0.17
		37.35	38.67	1.32*	0.17

* Significant at 0.05 level.

Analysis:

Obesity increases the risk of many physical and mental conditions. Complications are either directly caused by obesity or indirectly related through mechanisms sharing a common cause such as a poor diet or a sedentary lifestyle. The Government, Parents, Students, Educational Authorities and Philanthropists who put enormous efforts, time, labour, management, finance and place cannot allow hindering the functioning of the trained skilled force produced because of the obesity of the engineering graduates. The results of the study proved that step aerobic exercise significantly improved health related physical fitness variables, cardiovascular endurance and reduced body mass index, while floor aerobic significantly improved health related physical fitness variables, cardiovascular endurance, flexibility and body mass index. The comparisons between the treatment groups proved that step aerobic exercises were significantly better than floor aerobic exercises in reducing body mass index and there was no significant difference on cardiovascular endurance and flexibility.

The results that step aerobic exercises were better than aerobic exercises may be due to the increased intensity of exercises. Thus the findings of this study are in agreement with the findings of **Viskić, et.al. (2007)**, **Kim (2007)** and **Tsourlou, et.al. (2006)** that endurance and flexibility would be improved due to aerobic exercises. The findings were further in agreement with the findings of **Cadmus L, (2010)**, and **Gappmaier. et.al. (2006)** that the body mass index of obese can be altered by intensity of exercise and the findings that step aerobic exercises which is more intense has reduced more body mass index than floor aerobics.

Conclusion:

The benefits of aerobic exercises to obese men in the reduction of their fat, improvement in the health related fitness were proved among other facts that the intensity of exercise is directly linked to the reduction of fat.

References:

Dobbins M, et.al. (2013), "School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6 to 18.", *Cochrane Database Syst Rev*.Feb 28;2
 Haslam DW, James WP (2005). "Obesity". *Lancet* 366 (9492): 1197–209
 Kolata, Gina (2002). Why Some People Won't Be Fit Despite Exercise. *The New York Times*.
 .Cadmus L, et.al. (2010), "Community-Based Aquatic Exercise and Quality of Life in Persons with Osteoarthritis", *Medicine & Science in Sports & Exercise*, 42: 8-15
 Kim Y, et.al. (2009), "Telephone intervention promoting weight-related health behaviors.", *Prev Med*.
 Tsourlou T, Benik A, Dipla K, Zafeiridis A, Kellis S. (2006) "The effects of a twenty-four-week aquatic training program on muscular strength performance in healthy elderly women". *J Strength Cond Res*. Nov;20(4):811-8
 Viskić et.al. (2007) "The impact of dance-aerobics training on the morpho-motor status in female high-schoolers", *Coll A*

A Comparative Study on Speed and Agility between State Level Football and Cricket Players

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Abstract:

Speed and agility are the important motor components that requires in every game for improvement of performances. Agility is the quality of being agile. Agile refers to the ability to move quickly and easily, either physically or mentally. Agility is also the ability at the body to quick change direction from one place to another. Agility is one of the components at physically fitness. Speed is used in sports for such muscle reaction that are characterized by maximally quick alteration of contraction and relaxation of muscle. Speed performances can't be improved to considerable extent as is in case strength and endurance. The aim of the study is to compare the differences between speed and agility football and cricket players of university level males. A total number of 30 University level football and cricket players were selected 15 football and cricket players of university level were considered as the subject of the present study. The speed was measured by 30m dash and agility was measured by 4x10m shuttle run, using standard procedures. The mean performance in speed and agility of the football and cricket players were 0.336 and 1.296 respectively. Using t-test it was observed that the speed and agility of the cricket and football players did not differ significantly.

Keyword: Speed, Agility

Introduction:

Speed and agility are the important motor components that requires in every game for improvement of performances. Agility is the quality of being agile. Agile refers to the ability to move quickly and easily, either physically or mentally. Agility is also the ability at the body to quick change direction from one place to another. Agility is one of the components at physically fitness. Speed is used in sports for such muscle reaction that are characterized by maximally quick alteration of contraction and relaxation of muscle. Speed performances can't be improved to considerable extent as is in case strength and endurance.

Football--

The game of football is any of several similar team sports of similar origins which involve advancing a ball into a goal area in an attempt to score. Many of these involve kicking a ball with the foot to score a goal, though not all codes of football using kicking as a primary means of advancing the ball or scoring. The most popular of these sports worldwide is association football, more commonly known as just "Football" or "Soccer" unqualified the word football applies to whichever form of football is the most popular context in which the word appears, including American football, Australian rules football etc.

Cricket--

It is believed to have been born in England in the late middle ages. Edward III banned a game similar to cricket in 1369, 'Pila baculorea' or 'club ball' as it was known, as he saw it as being a distraction to his war effort.

Statement of the Problem:

Speed and agility are such components of physical fitness that reqinterested to find out the extent of agility and speed criteria of the footballers and cricketers and the problem is stated as “Comparative study of speed and agility between university level football and cricket players” uires in every sportive activity including the games football and cricket. Therefore the researcher is highly

Objectives of the study:

- To assess the speed ability of the university level football players;
- To assess the speed ability of the university level cricket players;
- To assess the agility of the university level football players;
- To assess the agility of the university level cricket players;
- To compare the speed and agility between the footballers and cricketers separately.

Delimitations:

The delimitation of the study were listed as following –
 Area – The study was conducted on the student of Visva-Bharati. Santiniketan.
 Age – 18 to 25.
 Sex – Only university level male players was selected.
 Number of subject – 30 players (15 players from cricket and 15 player football.)

Test Items:

Only 30 m. dash for measuring speed and for agility 4x10m. Shuttle run have selected for this study.

Hypothesis:

- H₁: A significant difference would show in speed criteria between footballers and cricketers
- H₂: A significant difference would show in agility between footballers and cricketers

Significance of the study:

The study may help to the coaches and physical educators to know the status of motor components of the footballers and cricketers.
 The study may suggest to the coaches to prepare their training schedule as per the need of the game.

Limitations:

The Study could not control the underlying variables such as injuries, sickness or tiredness.
 The effort at the subjects in performing the tests was uncontrollable which might influence the results at the study.
 Daily routine, dietary habits, socio-economic condition, physical and the social environments were considered as the limitation of the study.
 The Study could not control the subject's daily life behaviors, such as smoking and drinking.

Methodology:

The main purpose of this study was to compare of speed and agility among cricket and foot ball players, those who participate university level, the methodology for this study would be presented in the following section subjects, ethical consideration, variables and test, criterion measures, testing techniques, collection of data, reliability of data statistical techniques.

Study Area- Department of physical education
 Subjects:- 30men players (15from cricket and 15 from football.)
 Age- (18- 25)
 Criterion Measure: Speed -30 meter dash –
 Agility - 4 x10 mts Shuttle run

Statistical Applications:

To obtain the mean performance of the subject’s descriptive statistics and to determine the significance of difference between the group means of the criterion measures t-test was employed.

Analysis of Data and Result of the Study:

The analysis of data collected from the two play groups namely football and cricket players of 30 subjects. The data were analyzed by applying t’ test, by testing mean difference of speed and agility for two groups that is football and cricket. The level of significance to the test t’ ratio was fixed at 0.05 level which was considered to be appropriate for the purpose of the study.

Comparison of Speed and Agility between Football and Cricket players

Variable	Speed		Agility	
	Foot Ball	Cricket	Foot Ball	Cricket
Mean	4.63	4.61	9.41	9.56
SD	0.14	0.17	0.26	0.34
t- Value	0.336(NS)		1.296(NS)	

NS = Not significant

1. There was no significant difference between football and cricket groups on speed.
2. There was no significant difference between football and cricket groups on agility.

Discussion of Findings:

the findings of data it was observed that in speed football players are better than cricket players and in case for agility cricket player were more better compare to football players , but it may be also stated that after applying t-test it was observed that it remain insignificant.

Conclusions:

Within the limitation of the study the study may be concluded that-The mean performance in speed of the university level cricket players was to some extent better than the football players but not significant. The mean performance in agility of the university level cricket players was to some extent lower than the football players but not significant.

Recommendations:

In light of conclusion drawn the following recommend have been made

Similar study may be conducted by taking more number of variables using more number of subjects. The coaches and physical education teacher must put due emphasis on speed abilities while selecting their teams.

References:

Books:

1. Dr.P.L.Karad Test, Measurement and Evaluation (Khel sahitya Kendra New Delhi 2011
2. Singh. A et al ,”Essentials Of Physical Education” 3RD ED Kalyani Publishers; 2009
3. Singh.H ,Science of Sports Training (D.V.S.Publications New Delhi, 1991)
4. Uppal.A ,Principle of sports Training (Delhi: Friend Publications, 2001)
5. Yobu,A.Test ,Measurement and Evaluation in Physical Education and Sports,Friend Publications New Delhi 2011.

Journal:

1. .kote “ A comparative study of development of speed abilities” Asian journal of Physical Education and computer science ISSN 0975-9714 vol.- issue iv , may 2011
2. Balm Reddy et.al Comparative study of speed among Basketball players and korf ball players of Osmania University In India Dr,“ISSN 0975-7732 Asian Journal of Physical Education and computer science.
3. Bilda A Comparative study On Speed among kabadi players and kho kho players of Osmania University” ISSN 0975-7732 Asian journal of phy.edn and computer science.
4. Gourav et. Al “Comparison of selected Physical fitness variables of school level Football and Hand ball players.” ISSN 0975-7732 Asian journal Physical Education and computer science in Sports Volume.4,No 1, pp54-55
5. Indian Federation of computer science in sports.www.ifcss in.under the Auspios ISSN 0957-7732 Volume.5,No.1 Half Yearly June 2011 to December 2011
6. Rao “A study on speed among Junior National Swimmers and Senior national Swimmers in Hyderabad”.ISSN 0975-7732 Asian journal of Physical Education and computer science in sports volume no. ppj 63-65 Prabhakar Rao, Head Department of physical Education OU, Hyderabad
7. Srivasabs” A comparative study of speed among football players and Hockey players of Kakatiya University” ISSN 0975-7732 Asian journal of physical education volume.4.No 1 pp41-43

Effect Of The Rehabilitation Program On The Strength Of The Muscles Working On The Shoulder Joint Of Handball Players With Shoulder Pain

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Abstract:

The purpose of the study is to Shoulder injuries intennis players are both a diagnostic and therapeutic challenge. Knowledge of every aspect of the development of shoulder disorders is necessary to apply proper treatment modalities. The mechanism of the overhead action in throwing sports has been studied extensively. This motion is unnatural and highly dynamic, often exceeding the physiological limits of the joint. Owing to overload of various anatomical structures, the shoulder is susceptible to injury. Optimal shoulder function requires good kinetic chain function, optimal stability, and coordination of the scapula in the overhead action. A well balanced action of the rotator cuff muscles and capsular structures is necessary to obtain a stable centre of rotation during the overhead action. This review concerns shoulder injuries, related to the overhead motion in tennis players, which can be explained by the same mechanism as thrower's shoulder. The study constitutes of 5 shoulder injured tennis players (age: 20 – 30 years)at Hyderabad. In this study, we report the results of patients treated with an arthroscopic capsular release, lysis of adhesions, and manipulation under anesthesia for the treatment of shoulder stiffness following RCR. This combination of procedures represents a safe and reliable means to regain shoulder motion, specifically FE and ERS, after the onset of post-operative shoulder arthrofibrosis that is recalcitrant to conservative measures. Furthermore, no significant differences in outcome existed based on whether the index surgery was performed open, mini-open, or arthroscopic. Worker's compensation status resulted in lower validated outcome measures, but no difference in ROM.

INTRODUCTION:

Bear torment can happen in tennis players in light of the fact that there are rehashed stresses amid tennis strokes, especially the serve. There are a few wellsprings of shoulder agony in tennis players, yet a standout amongst the most widely recognized causes is Shoulder Bursitis. Bursitis is irritation of a sac of liquid called a Bursa. In the shoulder visit abuse of the Rotator Cuff muscles (a gathering of little muscles, arranged near the ball-and-attachment joint of the shoulder, that give security to the ball and attachment) can bring about the Bursa to get encroached' between the muscles and the hard noticeable quality of the shoulder, prompting to irritation. This causes torment at whatever point the arm is raised.

What a great many people call the shoulder is truly a few joints that consolidate with ligaments and muscles to permit an extensive variety of movement to the arm, from scratching your back to immaculate turn stroke in tennis. Most shoulder issues include the delicate tissues, muscles, tendons, and the ligament as opposed to bones and fall into three noteworthy classes;

- tendinitis/bursitis
- injury
- arthritis

On account of expert or recreational exercises the tissue is identified with monotonous strain damage likewise called cumulative injury issue, abuse disorder or enthesopathy. Likewise with numerous other hand and arm conditions, exceptionally restricted logical support has been watched. The ligament as a string associates a muscle to a bone or other tissue and most tendinitis are the consequence of the wearing procedure that happens over a timeframe.

- intense/subacute tendinitis after some abuse inordinate exercises endless
- tendinitis coming about because of degenerative illnesses or dull developments
- the splitting and tearing of the ligaments of the rotator cuff,(that is a game plan of muscles and their ligaments that gives the shoulder movement and steadiness).



Figure 1: Shoulder Injury

The point of the paper is to clarify the most well-known reason for tennis shoulder, side effects and symptomatic methodology and also conceivable measures. The pathophysiology of enthesopathy is identified with the levator scapular muscle connection on the upper average corner of the scapular sharp edge. Non-incendiary, endless degenerative changes are recognized in surgical pathology examples. This muscle has little beginning and does not transmit extensive powers through its ligament amid repetitive nature of hitting a great many balls which prompts to minor tears in the tissue. This frequently is seen at the solid tendinous intersection by direct palpation.

For tennis players consideration must be paid to adaptability, quality and perseverance of the shoulder muscles. Bear adjustment practices under the supervision of a sanctioned physiotherapist can likewise counteract impingement. Furthermore, any increments in the measure of preparing or rivalry must be progressive so as not to over-burden the shoulder. Specifically, redundancies of the administration activity ought to be expanded bit by bit to permit the body to adjust to expanded workload. The main point of treatment is to decrease the measure of aggravation through ice treatment (never apply ice specifically to the skin) and calming medicine endorsed by a specialist. The Shoulder Cryo/Cuff is the best technique for ice treatment at home. It is anything but difficult to utilize and remains frosty for 6 - 8 hours. On the other hand, a reusable icy pack can be utilized with a wrap that fixes the chilly pack set up. In the event that kept in the cooler this can be utilized over and over. In the event that you don't have admittance to a cooler where you play tennis, then Instant Cold Packs give a speedy dispensable technique for ice treatment. Once the irritation and torment has settled, activities to recover full development can start, trailed by a deliberately evaluated reinforcing and balancing out program.

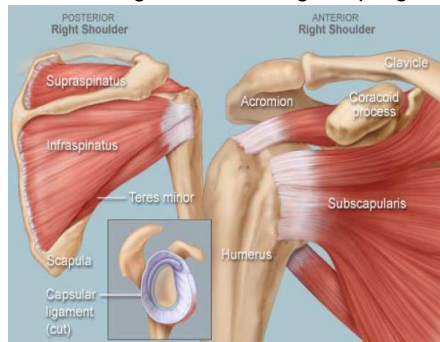


Figure 2: Shoulder Injury

PARTICIPANTS:

In this study we choose participants were divided into two groups: Group 1 (n = 5, age: 18±2.58) attended a Volleyball physiotherapy treatment Program and Group 2 (n = 5, age: 18±2.58) was composed of Control Group. Therefore the aim of this study was to assess whether physiotherapy Treatment can rehabilitation taken over 6 months would improve performances among rotary cuff injury volleyball players.

METHODS:

There is a high prevalence of shoulder disorders in the community. Shoulder disorders can result in considerable pain and disability. Physiotherapy is often the first line of treatment for shoulder disorder. Twenty-six trials presented sufficient data to be included in meta-analysis. There is some evidence from methodologically weak trials to indicate that some physiotherapy interventions are effective for some specific shoulder disorders. The results overall provide little evidence to guide treatment. There is a clear need for further high quality trials of physiotherapy interventions, including trials using combinations of modalities, in the treatment of shoulder disorders.

TOOLS:

The mean time from the date of index operation to lysis of adhesions was 9.7 months (range 4.2–36.2 months), and the mean time from lysis of adhesion to most recent follow-up 18.2 months (range 4.1–43.7 months). Post-operative evaluation was performed using Shoulder Surgeons Score (ASES), Visual Analog Score (VAS), Single Assessment Numeric Evaluation (SANE), and Simple Shoulder Test (SST) on 18 (62%), while range of motion (ROM), dynamometer strength testing, and Constant-Murley Scoring were performed on 13 (45%). Statistical analysis was performed using a Student's t-test.

Material And Methods:

A retrospective review of all patients at our institution who underwent arthroscopic lysis of adhesions, capsular release, and manipulation under anesthesia for the treatment of arthrofibrosis following either an arthroscopic, open, or mini-open RCR were identified from July 2016 to April 2017. Typically in our practice, patients must demonstrate suitable PROM prior to undergoing the index RCR surgery; thus, the shoulder stiffness that developed mostly occurred post-operatively. Inclusion criteria were that patients required surgical treatment of shoulder stiffness following a RCR with a minimum of 3-month follow-up during which time non-operative measures were exhausted. Non-operative measures typically consisted of aggressive physical therapy, oral corticosteroids (4 day tapering Methylprednisolone regimen – Medrol Dosepak - beginning at 24 mg and ending at 4 mg), and in all cases, intra-articular steroid injections. We excluded two patients who required additional surgical procedures other than capsular release. One excluded patient was found to have diffused bipolar glenohumeral chondromalacia at the time of arthroscopic capsular release and was ultimately treated with a total shoulder arthroplasty. The other excluded patient underwent a glenohumeral fusion after sustaining a chronic anterior glenohumeral dislocation. Of note, the only glenohumeral dislocation and failed RCR in this series occurred in this patient. Any patient requiring an additional capsular release was included, but considered a failure. The study group consisted of 7 patients: arthroscopic (62%), 8 open (28%), and mini-open (10%) repairs. The average age at the time of index operation was (range 24–70, SD 11), 4 patients (62.1%) were male, the dominant extremity was involved in 4 (69.0%), and 3 (55%) were involved in workman's compensation claims. The average number of months from the date of index operation to lysis of adhesions was 9.7 months (range 4.2–36.2, SD 6.9), and from lysis of adhesion to most recent followup 18.2 months (range 4.1–43.7, SD 13).

RESULTS:The mean duration of follow-up of 18.2 months, (range 4.1–43.7 months, SD 13.1 months) for all patients involved in this study (n = 4). This group of patients demonstrated a statistically significant increase (P<0.0001) in shoulder motion in forward elevation and external rotation following arthroscopic capsular release. Preoperatively, mean forward elevation (FE) was 103.8°, (range 60°–145° SD 26.3°) and external rotation at the side (ERS) was 25.3°, (range 5° – 70° SD 15.1°). Post-operatively, at the most recent followup, mean FE significantly improved to 158.3°, (range 110°–180° SD 22.3°, P<0.0001), and ERS improved to 58.9° (range 15°–90°SD 18.6°, P<0.0001).

Table 1: Players Body Mass Index

Variable	Experimental Group (n = 5)	Control Group (n = 5)	P value ^f
Age (years) ^a	18 (8.6)	18 (9.7)	0.115
Gender (m:f)	10	10	0.311
Weight (kg) ^a	79 (14.6)	81 (14.5)	0.646
Height (cm) ^a	176 (11.4)	174 (8.8)	0.626
BMI (kg/m ²) ^a	25.7 (4.5)	26.5 (3.5)	0.318
Smoker (yes:no)	4	5	0.631
Alcohol (yes:no)	3	8	0.144
Shoulder Pain	6	4	0.796

Table 2: Participants BMI

Participants	PRE-TEST (Range of Motion)	PRO-TEST (Range of Motion)
Group – I (N = 5) Experimental Group	100 ⁰	180 ⁰
Group - II(N = 5) Control Group	104.6 ⁰	130 ⁰

Table 3: ROM Test Results

Participants	Forward Flexion ROM	External Flexion ROM
Group – I (N = 5) Experimental Group	103.8 ± 26.3	153.8 ± 22.3
Group - II(N = 5) Control Group	25.8 ± 16.3	54.6 ± 18.3

Mean follow-up in this cohort: 18.2 ± 13.1 months. (b) Outcomes after arthroscopic lysis of adhesions in patients available for final followup ($n = 13$). Mean follow-up in this cohort: 24.6 ± 10.0 months.

We also compared shoulder scores (ASES, CM, VAS, SANE, and SST). Postoperative mean scores were as follows: ASES was 75.5, (range 36.7 – 100, SD 23.5), CM was 68.9, (range 30.9 – 80.9, SD 16.0), VAS was 2.5, (range 0 – 9, SD 2.9), and SANE was 80.3 (range 50 – 100, SD 18.7). There were insufficient pre-operative shoulder scores to permit a direct comparison. Additionally, we analyzed the results based on the technique of index RCR (open, mini-open, or all arthroscopic) and found no statistically significant difference with regards to postoperative motion or validated shoulder scores ($P > 0.05$).

Thirteen patients were available for an independent follow-up appointment at a mean of 24.6 months, (range 8.7 – 40.3 months, SD 10.0) at which time we obtained subjective shoulder scores and a physical examination consisting of ROM and dynamometer strength testing. For this group, pre-operative motion measured 104.6° of FE, (range 75 – 140, SD 25.5) and 25.0° of ERS, (range 5 – 40, SD 11.7). Postoperatively their motion measured a mean of 157.0° of FE, (range 110–180, SD 28.3) and 60.0° of ERS, (range 15 – 90, SD 23.0), [Table 4.1b].

These results were also statistically significant ($P \leq 0.0001$). Sixteen of the 29 patients were treated under a worker's compensation claim [Table 4.2]. There was no statistically significant difference in final ROM across these groups ($P > 0.05$, Figure 3a). There was, however, a statistically significant difference between the post-operative VAS ($P < 0.05$), ASES ($P < 0.01$), and SANE ($P < 0.001$) scores. There was one failure that required a revision arthroscopic capsular release, lysis of adhesions, and manipulation under anesthesia due to recurrent stiffness 17 months after first capsular release. There was one post-operative dislocation but no deep infections or nerve injuries.

Conclusion:

Most of the guiding principles used for decision-making in treating rotator cuff disease are based on limited evidence and minimal science. Factors that seem to be important include duration of symptoms, weakness, size of the tear, and muscle atrophy. If surgery is performed, either by a mini-open or arthroscopic technique, a double row bridging repair seems to be biomechanically stronger, provided this can be performed in a tension-free environment. At this point in time there is no functional evidence to support double row repair over single row repair, however the re-rupture rate is diminished after a double row repair. In our clinical experience with shoulder stiffness, we have found that loss of shoulder motion, when compared to the contralateral, shoulder, occasionally occurs following RCR, particularly in patients less compliant with post-operative rehabilitation. If identified early in the post-operative period, treatment with aggressive PROM can be successful in restoring satisfactory motion. This form of treatment, however, is less likely to be beneficial when the patient is 12 weeks or more out from surgery; thus, we believe that persistent post-operative stiffness refractory to conservative management for 3 months would be an indication for an arthroscopic capsular release and manipulation under anesthesia. Arthroscopic capsular release may have the advantage of decreased morbidity and uncomplicated rehabilitation. Patients can safely be accelerated in an aggressive active and PROM therapy protocols. Further study is necessary to elicit the risk factors associated with failed non-operative treatment and the timing of surgery to optimize treatment of this problem.

References:

- Anderson K, Boothby M, Aschenbrener D, van Holsbeeck M. Outcome and structural integrity after arthroscopic rotator cuff repair using 2 rows of fixation: minimum 2-year follow-up. *Am J Sports Med.* 2006;34:1899–905.
- Boden, B. P., Dean, G. S., Feagin Jr, J. A., & Garrett Jr, W. E. (2000). Mechanisms of anterior cruciate ligament injury. *Orthopedics*, 23(6), 573-578.
- Brislin KJ, Field LD, Savoie FH., 3rd Complications after arthroscopic rotator cuff repair. *Arthroscopy.* 2007;23:124–8.
- Chen AL, Shapiro JA, Ahn AK, Zuckerman JD, Cuomo F. Rotator cuff repair in patients with type I diabetes mellitus. *J Shoulder Elbow Surg.* 2003;12:416–21.
- Cyriax, J. H. (1936). The pathology and treatment of tennis elbow. *The Journal of Bone & Joint Surgery*, 18(4), 921-940.
- DeHaven, K. E., & Lintner, D. M. (1986). Athletic injuries: comparison by age, sport, and gender. *The American journal of sports medicine*, 14(3), 218-224.
- Denard PJ, Ladermann A, Burkhart SS. Prevention and management of stiffness after arthroscopic rotator cuff repair: Systematic review and implications for rotator cuff healing. *Arthroscopy.* 2011;27:842–8.
- Gerber C, Espinosa N, Perren TG. Arthroscopic treatment of shoulder stiffness. *ClinOrthopRelat Res.* 2001;390:119–28.
- Gruchow, H. W., & Pelletier, D. (1979). An epidemiologic study of tennis elbow Incidence, recurrence, and effectiveness of prevention strategies. *The American Journal of Sports Medicine*, 7(4), 234-238.
- Holloway GB, Schenk T, Williams GR, Ramsey ML, Iannotti JP. Arthroscopic capsular release for the treatment of refractory postoperative or post-fracture shoulder stiffness. *J Bone Joint Surg Am.* 2001;83-A:1682–7.
- Huberty DP, Schoolfield JD, Brady PC, Vadala AP, Arrigoni P, Burkhart SS. Incidence and treatment of postoperative stiffness following arthroscopic rotator cuff repair. *Arthroscopy.* 2009;25:880–90.
- Henn RF, 3rd, Kang L, Tashjian RZ, Green A. Patients with workers' compensation claims have worse outcomes after rotator cuff repair. *J Bone Joint Surg Am.* 2008;90:2105–13.

Influence Of Psychological Factors On Sports Injuries

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Abstract

Sports injuries can be caused by different factors. Scientific literature indicates physical, as well as situational, sports and psychological aspects. This work sets out the main aspects that relate psychological variables to injuries in the sport context. In this regard, it turns to the fundamental theoretic models, falling upon the stress and injury model by Andersen and Williams (1988). On the other hand, it highlights some investigations that have been a reference in the study of vulnerability to injury due to psychological factors, as well as in the psychological consequences from the injury itself. It also discusses research in which the aim is rehabilitation help through specific psychological training. Finally, it shows a new model that integrates previous contributions into the psychology and injuries field.

Key words: Injuries; Vulnerability; Rehabilitation; Psychological variables

Introduction:-

The study of sport injuries within Sport Psychology is one of the areas that has grown most in the last few years. The professionalization of sport practice along with the increase in the number of professional athletes and of participants in nonprofessional physical activities and sports has provoked an increase in the number of injuries with the derived consequences, which are not only health related. In addition, sport injuries are not only present in young or adult populations but also in children and in adolescents in periods of sport initiation. However, there are still many professionals in the field of sport who question whether there is any relationship between sport injuries and psychology. More and more, there are fewer doubts regarding the influence that certain psychological factors have on the athlete's risk of injury. Within the scientific field of psychology, it is known that psychological factors influence the fact that injuries happen. Which factors and how important these are, are two aspects researchers study in order to better comprehend sports injury and, therefore, make it possible to implement actions that, in one way or another, will help prevent sports injuries, or at least, minimize those aspects that increase the possibility of injury in the athlete. Sport injury is relevant not only due to its direct influence on performance but also to the personal and social consequences associated to it, among which we can find the following (Buceta, 2008):

- ✓ Changes in the sports environment (readjustments, changes in positions that affect teammates).
- ✓ Interruption or limitation of the usual extra-sport activities such as attending work or school. ✓ In general, changes in personal and family life due to the diminished possibility of performing tasks (cannot get dressed or cannot even be alone).
- ✓ Alteration of other psychological variables related to the injuries that will be discussed later (major irritability, hostility, negative thoughts, sadness). Multidisciplinary work focused on sports injuries is becoming increasingly frequent.

Bahr and Krosshaug (2005), point out that to explain all the internal and external risk factors, as well as the mechanisms involved in the apparition of injury, it is necessary to have a multifactorial point of view, which is congruent with other studies (Hanson, McCullagh and Tonymon, 1992; Heil, 1993; Palmi, 2001). In general, the authors classify the factors associated to the injury in the following: (a) Internal factors: physiological, biomechanical, psychological, age-related, deterioration of the body, history of injuries, lack of physical preparation for a certain task, lack of adherence to a preventative measure, inadequate diet, fatigue or risk behaviors, overtraining, etc. (b) External factors: deficiency in the environmental conditions, the type and condition of the sport surfaces, sports equipment environmental temperature, intense play, etc.

Psychological Variables And Vulnerability To Sports Injuries:-

The study of the relationship between psychological variables and sports injuries has significantly increased in the last few years, basically attempting to analyze the influence of psychological factors in the athlete's vulnerability to injury (Udry and Andersen, 2002), or the perception itself of the psychological influence on the injury (Olmedilla, Ortega, Prieto and Blas, 2009), although with great variability of data and concepts which suggests the necessity of proposing new lines of work (Olmedilla and García-Mas, 2009). The psychological variables more frequently studied have been the following

✓ Anxiety of competition ✓ Psychosocial stress ✓ Motivation ✓ Self-confidence.

Conclusion:-

As mentioned at the beginning of this article, other relevant external factors have been considered to be related to sports injuries. Among these external factors we find situational and sport-related factors, such as the category of the game, the result itself, the surface, age, history of previous injury or the athlete's participation time.

References

- Andersen, M.B. and Williams, J.M. (1988) 'A model of stress and athletic injury: prediction and prevention', *Journal of Sport and Exercise Psychology*, vol. 10, no. 3, pp. 294–306.
- Brewer, B.W. (1994) 'Review and critique of models of psychological adjustment to athletic injury', *Journal of Applied Sport Psychology*, vol. 6, no. 1, pp. 87–100.
- Evans, L. and Hardy, L. (1995) 'Sport injury and grief responses: a review', *Journal of Sport and Exercise Psychology*, vol. 17, no. 3, pp. 227–45.
- Galambos, S.A., Terry, P.C., Moyle, G.M. and Locke, S.A. (2005) 'Psychological predictors of injury among elite athletes', *British Journal of Sports Medicine*, vol. 39, no. 6, pp. 351–4.
- Johnson, U., Ekengren, J. and Andersen, M.B. (2005) 'Injury prevention in Sweden: helping soccer players at risk', *Journal of Sport and Exercise Psychology*, vol. 27, no. 1, pp. 32–8.
- Kübler-Ross, E. (1969) *On Death and Dying*, Toronto, Macmillan.
- Nicholl, J.P., Coleman, P. and Williams, B.T. (1995) 'The epidemiology of sports and exercise related injury in the United Kingdom', *British Journal of Sports Medicine*, vol. 29, no. 4, pp. 232–8.
- Timpka, T., Lindqvist, K., Ekstrand, J. and Karlsson, N. (2005) 'Impact of social standing on sports injury prevention in a WHO safe community: intervention outcome by household employment contract and type of sport', *British Journal of Sports Medicine*, vol. 39, no. 7, pp. 453–7.
- Wiese-Bjornstal, D.M. and Shaffer, S.M. (1999) 'Psychosocial dimensions of sports injury' in Ray, R. and Wiese-Bjornstal, D.M. (eds) *Counseling in Sports Medicine*, Champaign, IL and Leeds, Human Kinetics.
- Williams, J.M. and Andersen, M.B. (1998) 'Psychosocial antecedents of sport injury: review and critique of the stress and injury model', *Journal of Applied Sport Psychology*, vol. 10, no. 1, pp. 5–25.

Pedagogical determinants of behavior in the status of a problem while the share of physical education and sports.

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Abstract :

In light of changes in the teaching of physical education and sports field, we can talk about Alhdeddat to behaviors teaching for pupils to get to accomplish Activity kinesthetic proposal from the breeder party, and this is a plan search of a scientific connotation explores all notices researcher through a network Note scientific tool. The goal of our research was to highlight the determinants of students to express behaviors that give the true picture of the creation of pedagogical interaction in order to solve a problem that characterize the status of a proposed pedagogical Gel It has TouseInl to the presence of significant differences between the pupils who seem correlation between their behavior and pedagogical have the Breeder's quota in educational / learning.

Keywords: Specific pedagogical, Pedagogical behavior, Teaching approach competencies etc.

Introduction and research problem:

The share of physical education and sports as a means of educational means experimental depending on where the field to achieve the objectives underlined the composition of the individual, so that the physical movements made by the individual in his life at the level of a simple education in the Framework orderly and structured working on the development and improvement and development of the body and its components, and to provide the individual with the knowledge, experience and skills that make it easier to satisfy his desires by trial and all the mental aspects, social, moral and health psychological, Nash Viarafha "as" part of the public education exploiting the motives of normal activity in each person for the development of organic and harmonic and emotional side "(Nash Jay, 1948, p 13) this will ensure the formation and development of the individual, to achieve the objectives underlined at the level of groups as well as the role effective played by social and psychological factors in helping the student teenager to practice physical education and sports in high school. The status of the problem is also defined as the situation requires the learner (student) in dealing with a logical path leads to the result , on the track and the output will be new or at least one , and calling him position to do the attempts such as the construction of hypotheses , ask questions to search for intermediate solutions in preparation for the final solution and compare the results and evaluate the problem and that the situation is a model for the organization of teaching through awaken curiosity and motivation of the learner through what question or ambiguity, and put the learner in the status of knowledge building , restructuring Almhamat even employ every learner mental processes the trigger inadvertently learning. " Malcom. D, " points out in his book that the problem is : " pedagogical method allows the learner employ knowledge and experience and abilities acquired previously to reach prospective field, required by a new condition or familiar, feel a real tendency to be considered and resolved according to his abilities , and under the guidance of a teacher , depending on the Doing multiple learning " (Malcom. D, 1972,p.82).

The leading position of the problem and job stimulus being sought to raise the puzzle which generates a desire for knowledge , and function Disdaktekah as it works to provide an opportunity for the learner has the puzzle is also a developmental function allows each learner to gradually crystallizes methods actors to resolve the problem but on the teacher to pay attention to the degree of difficulty of positivism problem , it should not be the problem for N overrun by the learners (pupil) must be within the growth area of the problem And our focus on student -phase secondary as in phase age sensitive and important to the associated physiological , psychological and emotional

changes The changes of these reasons due to physical changes and sexual anxiety , fear and unrest that affect the formation of personal and deepen knowledge and different competencies and this of course is linked to the share of physical education and sports , and is and through which it is installed . Based on that pose problem as follows: What is the impact of the status of the problem to show behaviors among students during the pedagogical share physical education and sports ?

- Partial questions:

1. Does the importance of using the method and status of the problem of pupils while the share of physical education and sports have an impact on the psychological state they have to express Slokathm pedagogical ?
2. What is the status of the problem situation in the development of the confidence of the students in the decision making in different positions to make Ylockathm pedagogical ?
3. What are the difficulties and obstacles that the student received in the share of physical education and sports during the launch professor (teacher) of the status of the problem ?

Through these questions, we can suggest the following assumptions :

- General Hypothese:

The problem of the status of the effect on the psychological state of the pupils, which is reflected on the show Slokathm pedagogical share during physical education and sports.

- Partial hypotheses:

The use of the way the status of the problem of pupils while the share of physical education and sports in the importance of the impact on the psychological state they have in highlighting Slokathm pedagogical. The status of the problem situation in the confidence of the students in the decision making in various different positions to give Slokathm pedagogical development. difficulties and obstacles which the student received in the share of physical education and sports during the launch professor (teacher) of the status issue affects Slokath pedagogical.

- Research goals:

- Identify the extent of the impact of the problem position on the psychological state of the students while the share of physical education and sports.
- Learn how to recruit students for personal acquisitions in giving solutions and creativity while the status of the problem (teaching position).
- Know how they affect the status of the problem in the psychological state of students based on self-esteem and how to take the decision at the various positions of trust.
- Know the obstacles and difficulties that students receive during the launch problem.
- Identify concepts and terminology :

* Definition of Education :

The meaning of development benefit and grew , for each organism intentions and human and animal, and each of them a special breeding methods , breeding rights begin before birth does not end only with his death , which means abbreviated to create conditions conducive to personal growth to replicate the growth of all moral and mental aspects , physical , and spiritual ... etc. (Houston. W, 1998, p18). And sees the diocesan citing "John Milton": "that the full education is to make a good human to perform any work, or special-year-old was, the accuracy, the secretariat of skill in peace and war." (Nash J-B,1948, p 09).

* Definition of share physical education and sports: The share of physical education and sports an important means of educational means to achieve scorer ruler to the composition of the individual so that the physical movements made by the individual in his daily life on the educational level of the simple in the formal framework and structure, working on the development and improvement and development of this body and its components from all mental and psychological aspects and social and congenital health, to ensure the formation and development of the individual and harmony in his community and his country, and the best way to acquire these qualities and development is the practice. (Postic. M, 1986 , p. 17).

* Definition of efficiency:

Is an effective business the ability to face a common area of the situations which can be controlled thanks to the tension on the necessary knowledge and ability to employ all familiar with in a timely manner , in order to identify the real problems and solve them , adds the same researcher said that efficiency is a goal of Being it requires to achieve integration and not the accumulation of previous learning outcomes (Lamotte. V, 2005, p51).

* Definition of mental state :

Are changes in cognitive structures through two Alastaab and compatibility , where Alastaab process is a process where an individual takes external events , experience and united with the already existing regulations .The appropriate : is the opposite of Alastaab and her two construction or installation of any they make comprehension Baelloukta for any event in the possible environmental or second function they are changing the construction and installation manner that enables it to be based more easily Bastaab similar events in the future, which represents education in the broad sense or mental growth. (Mary Salim , inspiration Sha'rani , 2006, p. 152).

* Behavior: " This is the act of linguistic acts were Hykih or by the individual, in positions area ." ((Postic. M, 1986, P73).

* Pedagogical behavior: " Mjmuao educational performances that give the reading of the actions of the disciples." ((Postic. M, 1986, P79).

* Positivism problem : " a term indicating a problem that is found to be educated when hiring , capabilities and skills Knowledge Group for the performance of a specific activity ." (Malcom. D, 1972, p . 48).

It means the problem that poses in front of the student (learner) to be material to its activity and Talmath through which show his competence and habilities, consisting status of components.

-Methodological procedures for the search:

- Search method :

Use In this research, descriptive and analytical approach to suitability and the nature of the subject .

-Sample Search:

was selected sample 've unintended way for high schools and professors .

The sample of students have been selected at random , where we take the regular rate of 01 % the research community , which numbered in the 13679 inventory spread over 41 secondary , as we took 05% from the research community , consisting of 156 professor of physical education and sports spread over 41 secondary - term Algeria west- .

-Search tools:

Due to the nature of the study , use the questionnaire for both pupils and teachers , and in the analysis of the results we used adequately tested squared .

***View and analyze the results of the questionnaire addressed to the disciples :**

Axe No. (01) : How do you react when you ask a professor to the status of the problem (exercise) ? The goal of asking the question : Knowing the psychological state of the students when you ask problem.

Table (01) : represents the psychological state of the students when you ask problem.

	1st test (t)	2nd test (t+3)	S/NS
	Average	Average	
Mental state before practice	20,15±1,31	24±1,24	S à p < 0.001

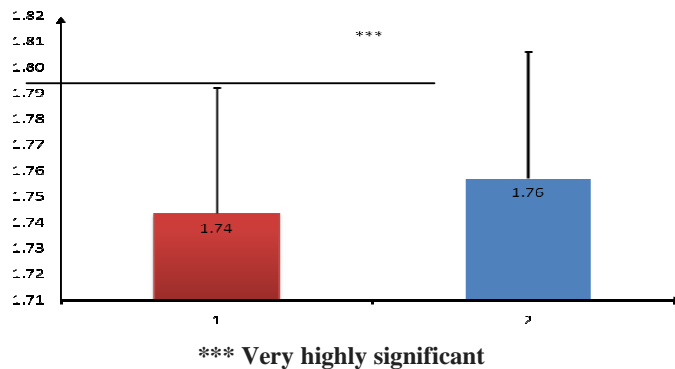
NS: non-significant difference / S: a significant difference

MentalState

After

Practice	22,19±1,56	26±1,29	S à p < 0.001
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Figure 01: Histogram of the results of Mental state among students.



Analysis and discussion:

Through Table Results (01) note that there are statistically significant differences in favor of big value at the level of 0.05 and the degree of freedom (03) as the value of Ca 2 calculated (1.76) which is greater than the value of Ca 2 scheduled and valued (1.74) This means that there is a difference between the reactions of students when you ask a professor to new pedagogical status. Where we find that a large proportion of the estimated 58.08% research sample are concerned and the proportion of 45.73% of the students feel intimidated, while the few remaining percentage is represented by 26.17% react emotion. Through the obtained results we conclude that the reaction of students when you ask a professor to new pedagogical status lies in the concern, as it considers these new positions in the important field of education to visualize the most effective solutions and the search for a balance between understanding and adjustment " Breadth of the field of imagination " and the ability to acquire new knowledge skills require greater perception of my mind " going into the stage of the use of reason ."

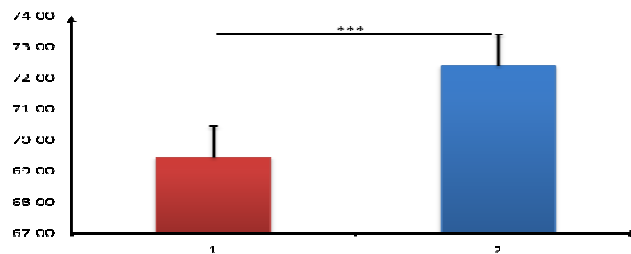
Axe No. (02) : Does Mr. B_jaek despite the lack of a good application ? The goal of asking the question : finding out if Mr. motivates the student to work and repetition of erroneous attempts.

Table (02) : shows whether the teacher motivates the student to work and repetition of erroneous attempts.

	1st test (t)	2nd test (t+3)	S/NS
	Average	Average	
Before			
practice	23,45±1,56	26±1,20	S à p < 0.001
After practice	29,15±1,31	34±1,24	S à p < 0.001

NS: non-significant difference / S: a significant difference

Figure 02: Histogram of the results of the teacher motivates the student to work and repetition of erroneous attempts.



*** Very highly significant

Analysis and discussion:

Through Table Results (02) note that there are statistically significant differences in favor of big value at the level of 0.05 and the degree of freedom (02) as the value of Ca 2 calculated (1.69), which is greater than the value of Ca 2 scheduled and valued (1.99) and the meaning of so 80.88% believe that Professor encourages pupils despite the lack of a good application, while the percentage of 55.44% see the contrary, there are a small percentage estimated 13.67% not seem to see their opinion. Through the obtained results we conclude that most of the sample believes that the promotion of a professor to students the basic element which is the ideal professor in directing

them and encourage them as playing the role of mentor and activated and directed and takes into account all of the student's memory and repetition, and thanks to these two elements up pupil what he wants from a professor at stake

Education

facility

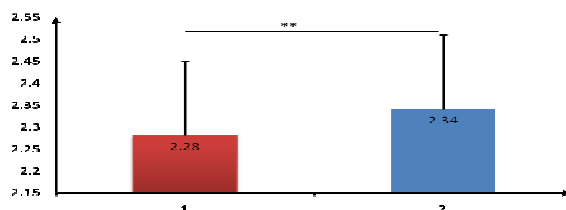
Axe No. (03) : When the failure of the student while he was in the completion of the kinetics of skill Why touch with him ? The goal of asking the question : to know the reaction of the pupil when he failed to accomplish the skill mobility.

Table (03) : Represents the reaction of the pupil when he failed to accomplish the skill mobility .

	1st test (t)	2nd test (t+3)	S/NS
	Average	Average	
Before			
practice	43,65±1,56	46±1,29	S à p < 0.001
After practice	49,15±1,61	51±1,34	S à p < 0.001

NS: non-significant difference / S: a significant difference

Figure 03: Histogram of the reaction of the pupil when he failed to accomplish the skill mobility .



Analysis and discussion:

Through Table Results (05) we note that the value of Ca 2 calculated (4.75) which is smaller than the value of Ca 2 Scheduled (5.99) at the significance level (0.05) and the degree of freedom (02) This shows that there is no statistically significant differences means that the ratio of great professors estimated 62.5% of Alostzh seeking aversion when the failure of students in the completion of the kinetics of skill, while the proportion of 37.5% believe that students seek convergence on themselves when they fail to accomplish in their kinetic skill. Through the obtained results we conclude that the failure of the disciples when they affect the completion of the kinetics of skill levels, with a difference in the difficulties and obstacles to be overcome, but it is not easy to discover a way that helps Zlk.enbga here that the student does not believe that the solution is impossible.

General Discussion:

We have assumed that the use of the way the status of the problem have an impact on the psychological state of the students while the share of physical education, and through the interview results assumptions: first, second, third and made whole, and through what we talked to him in the theoretical side that features the new curriculum (approach competencies) makes solve problems the preferred method for effective learning, as well as noted by the Platform for physical education in all phases of teaching / learning, and only gave his method of teaching only one Proof of this is what came in the Platform for Physical Education and Sports (the second year in a secondary, No. 05, 2005), where It confirms the foregoing.

And thus it becomes a way of solving problems (problem-way) teaching method, adopted for effective learning which lends itself to the learner to be in cognitive conflict, which leads him to a state of emotional imbalance, as the latter is considered a catalyst pushes the student to go beyond the predefined Aqaba.

-Conclusion:

The share of physical education and sports is one of the means by which her eloquent effect on the problems, which opposes the pupil in the educational field and mitigation as an important means of education which aims to form the student a comprehensive configuration of the physical, psychological, social, worse on the level of education is considered as in educational institutions or on a social level, it is through our study of the introduction to summarize that the share of physical education and sports play an important role in improving the psychological state of the pupils in the secondary phase through pedagogical dimensions.

Also contributes to the proposal of the status of the problem in the beginning of the process of pedagogical action learning to thrill students and sensitize them a wake-up drive and limit their perceptions during the learning act to establish the resources (concepts and theories), also lies the importance of the status of the problem in the teaching-learning process in being provoke conflict mental cognitive makes the learner in the case Allatoazin emotional, and allow development of the pupils in the heart of the learning process in the framework of individual and collective action, where the situation presented the problem of learning to formulate a number of techniques we have adopted in our country, which summarizes the technical Mkunatena to the context, Sindh and instruction. " (Malcom. D, 1972, p 121)

Through this study , we concluded that the share of physical education and sports contribute in the development of the student's personality , it is also seeking as teaching material in educational institutions to acquire motor skills and psychological and social behaviors that help the student achieve full figure under the new curriculum approach competencies

-Sources and scientific references:

- Houston. W, (1998): The Effect Of Peer Tutorson Motor Performance In Integrated Physical Education Classes.
- Malcom. D, (1972): Fundamental Of Scientific Method In Psychology, W.C.Brown,20m Ed, Dubuque.
- NASH JAY, B,(1948): Physical Education, Interpretetion And Objective, NY, AS Barnes CO.
- Postic. M, (1986) : Observer Les Situations Pédagogiques. Ed : Vigot, Paris.
- VINCENT LAMOTTE, (2005) : Lexique De L'enseignement De L'eps, Édition PUF, Paris.

A study on relationship between Calf Girth and performance of Football players

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Abstract:

Anthropometry plays a vital role in Sport selection and Sports performance. Anthropometric measurements are the measurements taken over any of the body parts revealing the ability and efficiency of related physiological functioning. In this study an attempt has been made to correlate the calf girth of selected Football players with their performance on field using some of the Soccer skill tests. Regular Football players of Anurag Group of Institutions, Hyderabad have been taken as the sample for the study. These players were active regular players with experience of at least 5 years. Measurement of Calf girth has been taken using standard flexible measuring tape over the maximum circumference of the Calf muscle. The performance of players was tested using Dribble Test (Right & Left), Arrowhead Agility Test, 20 yards Dash and Juggling Test. It was hypothesized that there may be significant correlation between calf girth and some of the performance ability but not in all performance aspects of Football players. Key Words: Anthropometry, Calf Girth, Soccer Skill Tests.

Introduction:

Anthropometry is a word derived from two Greek words *anthropos* which means "human" and *metron* which means "measure". Hence Anthropometry refers to the measurement of the human individual. It has been used for identification, for the purposes of understanding human physical variation, in paleoanthropology and in various attempts to correlate physical with racial and psychological traits. Anthropometry involves the systematic measurement of the physical properties of the human body, primarily dimensional descriptors of body size and shape. Today, anthropometry plays an important role in industrial design, clothing design, ergonomics, Sports and architecture.

The calf is the back portion of the lower leg in human anatomy. The muscles within the calf correspond to the posterior compartment of the leg. The two largest muscles within this compartment are known together as the calf muscle and attach to the heel via the Achilles tendon.

Football or Soccer is a team sport played between two teams of eleven players with a spherical ball. It is played by 250 million players in over 200 countries and dependencies, making it the world's most popular sport. Soccer is characterized as a high intensity, intermittent non-continuous exercise. Players cover approximately 10 km of ground per game, of which 8 to 18% is at the highest individual speed. In higher levels of competition there is a greater number of tackles and headings plus a greater percentage of the game is performed at maximum speed. The average aerobic energy yield during a national level game is around 80% of the individual maximum. Hence the second heart of football players is assumed to be larger.

Related Literature:

Anthropometry and Body Composition in Soccer and Volleyball Players in West Bengal, India by Amit Bandyopadhyay

50 sedentary males and 128 sportspersons (volleyball=82, soccer=46) of 20–24 years were selected from West Bengal, India, to evaluate and compare their anthropometry and body composition. Skinfolds, girth measurements, body fat percentage (%fat), and endomorphy were significantly higher among sedentary individuals, but lean body mass (LBM) and mesomorphy were significantly ($p < 0.001$) higher among the sportspersons. Soccer and volleyball players were found to be ectomorphic mesomorph, whereas sedentary subjects were endomorphic mesomorph. The soccer and volleyball players had higher %fat with lower body height and body mass than their overseas counterparts. %fat exhibited a significant correlation with body mass index (BMI).

The use of physical fitness scores and anthropometric data to predict selection in elite under 18 Australian football team by JustinKeogh

This study was conducted to determine if anthropometric and fitness testing scores can be used to discriminate between players that were selected or not selected in an elite Under 18 Australian Football side. A training squad of 40 Australian Football players was assessed on a battery of standard anthropometric and fitness tests just prior to the selection of the 30 man player roster for the upcoming season. Results showed that the selected players were significantly ($P < 0.05$) taller and had greater upper body strength than non-selected players. A discriminant analysis was performed which predicted with an accuracy of 80% whether each player was successful or unsuccessful in gaining selection. Selected Under-18 players were found to be similar to the values reported for elite to sub-elite senior players on height, sit and reach, CMJ and perhaps aerobic fitness, but considerably less than the senior players on 3RM bench press and body mass.

Sample: 30 Regular Male Football players of Anurag Group of Institutions, Hyderabad have been taken as the sample for the study. These players were active and regular with experience of at least 5 years in competitive Football.

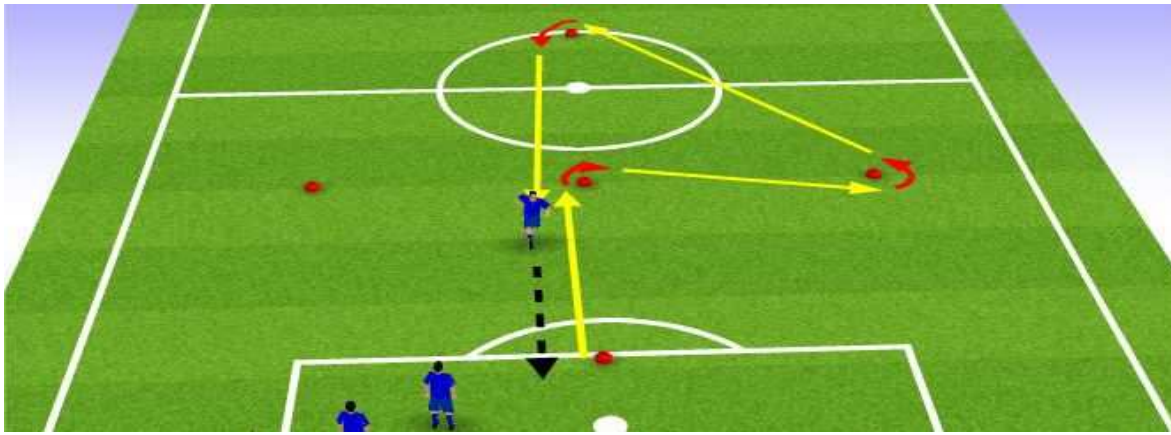
Methodology: Measurement of Calf girth was taken using standard flexible measuring tape over the maximum circumference of the Calf muscle when the subjects were standing straight on a flat surface.

The performance of players was tested using Dribble Test (Right & Left), Arrowhead Agility Test, 20 yards Dash and Juggling Test and the performance in each test was individually compared with the calf girth of players using correlation study testing dependence of Football performance is on calf girth.

Dribble Test (Right & Left): This test is to be performed one time with right foot and one time with left foot only. 2 seconds are to be added every time the subject misses a pair of cones. The distance between start line and first cone is 5 yards, between the cones is 2 yards, and from last cone to finish lines is 5 yards. Clock starts on player's movement and stops once they run through the finish line.



Arrowhead Agility Test: This test is to be performed one time to right side and one time to left side. For right test, subject starts on left side of start cone and sprints to middle cone making a right hand turn. Subject sprints to far right cone and makes a left hand turn to sprint up to the top cone. He will make another left hand turn and sprint all the way back to the beginning cone. The left test do the opposite side. The distance is 10 yards from start cone to middle cone. All other cones are 5 yards apart. Clock starts on players' first movement and stops when they reach the starting cone again.



20 yards Dash: A 20 yard runway is marked with a width of 3 yards. Clock starts on players' first movement and stops once they reach the finish line.



Juggling Test: Every subject is given 3 attempts to get as many juggles as possible using feet, thighs and head only. It is left to player's choice whether to start from hands or feet and the number of juggles made in all three attempts is taken as his score.



Collection of Data: All the subjects were first educated on the anthropometric measurements, calf girth measurement and Soccer skill tests to be administered upon them for the study. The researcher himself demonstrated the skill tests to be performed one after the other so that the subjects get a clear picture of need and

purpose of the study. Following the demonstration, the subjects performed all the four skill tests and their calf girth was measured. The data collected was tabulated as follows

Subject No.	Calf Girth (Cm)	Dribble Test Timing (Sec) (Avg of L&R)	20 Yards Dash Time (Sec)	Arrowhead Agility Test Time (Sec)	Number of Juggles (Total)
1	37	8.3	4.5	9.3	17
2	38	7.5	4.5	8.9	15
3	34	8.0	4.7	9.2	18
4	39	8.2	4.3	8.9	13
5	36	8.4	4.5	9.0	20
6	33	9.1	4.6	9.0	21
7	30	8.5	4.8	8.9	17
8	33	9.3	4.7	8.5	15
9	37	8.4	4.5	8.4	16
10	37	7.7	4.6	8.6	19
11	40	8.2	4.5	8.4	11
12	30.5	8.1	4.8	9.0	14
13	32	8.1	4.7	8.0	16
14	32.5	8.0	4.7	8.2	13
15	31	7.9	4.8	8.4	18
16	39	8.6	4.5	8.6	20
17	35	9.2	4.7	8.1	18
18	33.5	8.0	4.7	9.8	15
19	37	7.5	4.5	8.8	17
20	35	8.4	4.7	8.8	19
21	30	7.6	4.8	8.2	21
22	34	7.7	4.7	9.0	22
23	35	8.4	4.7	8.4	13
24	34	8.0	4.6	8.0	16
25	36.5	7.9	4.6	8.6	17
26	38	8.5	4.4	8.7	14
27	39	8.3	4.4	9.1	15
28	32	7.9	4.7	9.3	12
29	31.5	7.2	4.8	8.9	16
30	35	7.6	4.6	8.6	18

In Dribble Test and Arrowhead Agility Test the average of left and right trials were taken as the score of individual and in Juggling test the sum of juggles performed by the subject in three trials was taken as the individual score.

Analysis of Data:

The data collected was tabulated and analyzed using correlation. The following table shows the values of correlation obtained when Calf Girth measurement of subjects was correlated to the performance in various Soccer skill tests respectively.

Descriptive Statistics

	Mean	Std. Deviation	N
Calf Girth (Cm)	34.817	2.9080	30
Dribble Test Timing (Sec) Average of L & R	8.150	.4953	30
20 Yards Dash Time (Sec)	4.620	.1349	30
Arrowhead Agility Test Time (Sec) Average of L & R	8.720	.4213	30
Number of Juggles (Total)	16.533	2.8007	30

The following table shows the Coefficient of Correlation and Significance between Calf Girth of Football Players and their performance in Soccer Skill tests obtained through Pearson's Correlation using SPSS Version-20

		Dribble Test	20 Yards Dash	Agility Test	Juggling Test
Calf Girth	Pearson Correlation	0.096	-0.895	-0.168	0.062
	Sig. (2-tailed)	0.612	0.000	0.376	0.744

Findings and Discussion:

From the results obtained during the study it was found that the correlation value obtained between Calf Girth of the subjects and Dribble Test Performance was 0.096 which reflects that there exists no relationship between Calf Girth and Dribbling ability of Soccer players, correlation value obtained between Calf Girth of the subjects and Arrowhead Agility Test Performance was -0.168 which means there exists little significant correlation between Calf Girth and Agility of Soccer players, correlation value obtained between Calf Girth of the subjects and 20 Yards Dash Performance was -0.895 with significance as 0.000 which shows that the speed of a Soccer player has significant correlation to his Calf girth and is indirectly proportional and correlation value obtained between Calf Girth of the subjects and Juggling Test Performance was 0.062 which reflects that there exists no relationship between Calf Girth and Ball Juggling ability of Soccer players.

Conclusions:

The Present Study Concludes That There Exists No Significant Correlation Between Calf Girth Of Soccer Players And Any Of The Soccer Skill Performance Other Than The Speed Of The Players Which Was Determined Through 20 Yards Dash In This Study And Coefficient Of Correlation Was -0.895 AND LEVEL OF Significance Is 0.000 As Obtained.

References:

- Anthropometry and Body Composition in Soccer and Volleyball Players in West Bengal, India by Amit Bandyopadhyay.
- The use of physical fitness scores and anthropometric data to predict selection in elite under 18 Australian football team by JustinKeogh.
- www.topendsports.com
- <http://www.sportsessionplanner.com/s/K3BM/Technical-Skills-Tests-Performance-Tests.html>

Role Of Herbs In Enhancing Athletic And Excise Performance

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Abstract:

Herbs have been used throughout history to enhance physical performance, but scientific scrutiny with controlled clinical trials has only recently been used to study such effects. The following herbs are currently used to enhance physical performance regardless of scientific evidence of effect: Chinese, Korean, and American ginsengs; Siberian ginseng, mahuang or Chinese ephedra; ashwagandha; rhodiola; yohimbe; Cordyceps fungus, shilajit or mummio; smilax; wild oats; Muira puama; suma (ecdysterone); Tribulus terrestris; saw palmetto berries; _sitosterol and other related sterols; and wild yams (diosgenin). This article explores the scientific evidence for use of herbs and herbal extracts as ergogenic aids for humans.

Introduction:

Athletes looking to improve athletic performance, enhance immunity, or manage a health concern may be interested in trying herbs in their nutrition program. Herbs have a long history of use and it is conceivable that some herbs may be of benefit for athletes and nonactive people alike. However, quality research on herbs-both for health effects and performance-enhancement on the athletic field-is very limited; there is insufficient scientific support for the use of any herb to improve performance. Still, many studies mostly of lesser quality-on a variety of herbs have noted potential benefits, including immune enhancement, decreases in inflammation, and the potential ability to recover faster from common colds and other ailments.

Currently in the United States, herbs can be defined as drugs, foods, or dietary supplements. The Dietary Supplement Health Education Act (DSHEA) of 1994 [the final version of which was published in 1997], which amended the Food, Drug and Cosmetic Act of 1938, defines dietary supplements as certain foods intended to supplement the diet that are not represented as conventional foods. Herbs or other botanicals and their extracts or concentrates are specifically mentioned as dietary supplements.

Plants provide us with most nutrients essential for life. Other than essential nutrients, plant foods contain naturally occurring substances, referred to respectively as photochemical. Herbals, which are derived from leaves, bark, berries, roots, gums, seeds, stems or flowers of plants, also contain numerous photochemical thought to have nutritive or medicinal value. Herbs have been used as medicine throughout history. Humans consume herbs to enhance their long-term endurance performance (e.g., in running, cycling, rowing, swimming, walking, dancing, aerobics, cross-country skiing, and mountain climbing), to induce muscular hypertrophy and strength (eg, for bodybuilding, weight lifting, wrestling, strength sports, and track and field events), or to enhance performance in sport events, both skill sports and those that are recreational. Tradition, identity of ingredients, advertisements, personal endorsements, use by other athletes, and the desire to succeed represent the extent of validation for most herbs used for physical performance.

Herbs are used to improve performance (both endurance and strength), improve recovery, maintain health during intense periods of exercise, build muscle mass, and reduce body fat. Because of the paucity of research in this area, studies from obscure sources will be among those included in this article.

Material and methods:

Capsaicin.

The Capsicum species (*C. annuum*; *C. frutescens*), native to tropical America, incorporates such peppers as the cayenne, red, and chili. The medicinal properties of the capsicum species are attributable to a compound known as capsaicin. The United States Pharmacopeia has classified capsaicin as a stimulant, and based on their previous research, it is known to have physiological action to caffeine, i.e., ingestion may induce sympathetic activation of the central nervous system, increasing catecholamine secretion and enhancing lipid oxidation, sparing the use of glycogen.

Ginseng:

Ginseng is one of the most popular herbal dietary supplements worldwide. Sales in the United States have been reported to be over \$300 million annually 15. Ginseng consists of several species belonging to the plant family Araliaceae. The two major forms are Chinese, Korean or Asian ginseng which belong to the genus *Panax*, and Siberian or Russian ginseng which belongs to the genus *Eleutherococcus* 16. The biologically active constituents in *Panax ginseng* are a complex mixture of triterpene saponins known as ginsenosides. Siberian, or Russian, ginseng consists of the dried roots and rhizome of *Eleutherococcus senticosus*, and contains phenolics, polysaccharides, and eleutherosides.

Kava kava (kava) and St. Johns wort:

Kava kava, or kava, is the peeled and dried root of *Piper methysticum* G. Forster, a centuries-old South Pacific herb used as a ritual beverage for its relaxing or calming properties. Kava root contains kava lactones (kava pyrones). The neuropharmacologic effects of kava include analgesia, sedation, and skeletal muscle relaxation, but not central nervous system depression.

Mahuang (Chinese ephedra) and ephedrine alkaloids :

Another important herb commonly used to enhance exercise performance is mahuang, or Chinese ephedra (*Ephedra sinica*). *Ephedra* species have a long tradition of use (> 5000 y) for respiratory ailments (81). Unlike other herbs, the active ingredients are well characterized and consist of ephedrine and related alkaloids (mostly ephedrine, pseudoephedrine, norephedrine, and norpseudoephedrine) (81). Synthesized ephedrine alkaloids are found in hundreds of prescription and over-the-counter pharmaceutical products as antiasthmatic bronchodilators, antihistamines, decongestants, appetite suppressants, and weight-loss aids (81–83). Recently, dietary supplements labeled as containing ephedra sold outside usual channels of commerce and marketed specifically to young adults to achieve a legal high, sexual ecstasy, euphoria, or increased energy have attracted considerable media and legislative scrutiny. In reality, these products are spiked with synthetic ephedrine alkaloids (ephedrine, pseudoephedrine, and phenylpropanolamine) and combined with other stimulants such as caffeine (Bucci, unpublished observations, 1997). Such products are not comparable with either traditional Chinese herbal products or other dietary supplements that contain only ephedra herb or standardized extracts (usually with ≤ 24 mg ephedrine and related alkaloids per unit dose). Dietary supplement trade associations have issued guidelines for safe use of ephedrine containing products that are followed by most major companies.

Caffeine and the combination increased lactate, glucose, glycerol, and free fatty acid concentrations, similar to other trials (1–4, 13, 82). Oxygen consumption, carbon dioxide production, minute ventilation, and respiratory exchange ratio were unchanged by caffeine, ephedrine, or the combination. Catecholamine availability was increased after the combination, suggesting central nervous system stimulation. Thus, the combination of ephedrine with caffeine, but not either compound alone, was associated with prolonged exercise time to exhaustion. The doses used are easily 630S BUCCI In summary, individual ephedrine alkaloids at doses greater than those found in herbal extract products resulted in no enhancement of physical performance. There remains a possibility that mental functions were improved, which in effect would cause a placebo-like response in real-life settings such as sporting events or training sessions.

Ashwagandha:

Ashwagandha, (*Withania somnifera*) root is known as “Indian Ginseng.” In Ayurvedic medicine it is considered an adaptogen that facilitates learning and memory. In a 1993 clinical study in India, fifty people complaining of lethargy and fatigue for two to six months were given an adaptogenic tonic made up of eleven herbs, including 760 mg of ashwagandha, once a day. The participants had not responded to a vitamin and mineral supplement each of them had taken for at least two months, and they had no recognizable disease. After one month of taking the ashwagandha, mixture, the patients reported an average 45 percent improvement in their moods. Their blood plasma protein levels and hemoglobin, two factors used to measure overall health, also increased significantly, providing a statistical measurement of the tonic’s effect.

Coffee:

Coffee beans are the seeds of *Coffea arabica* and other forms of beans grown primarily in Africa and South America. Coffee is consumed by millions of individuals seeking an energy boost, on a daily basis. The energy boost comes from the alkaloid caffeine, which acts both on the cardiovascular and central nervous system to reduce fatigue, increase alertness and improve endurance. Although caffeine is a common ingredient in many beverages, over-the-counter medications and foods, it recently has been suggested that it cannot be called a food or a drug. Dr. Jeffrey Bland, of Health Comm, Inc., a company specializing in health and nutrition education, says it falls into a recently defined in-between category called nutraceuticals.

Licorice:

Licorice (*Glycyrrhiza glabra*) is an herbal stimulant that doesn't contain alkaloids. Its stimulating action is provided by glycyrrhizin, known best for its sweetening character, and other biochemicals (flavonoids, phenolics, and triterpene glycosides). Licorice stimulates the adrenal cortex and prolongs the action of the adrenal hormones, which play a major role in regulating metabolism.

Synephrine:

Citrus aurantium, the mature fruit of the green orange, is an important herb used in traditional Chinese medicine to improve digestion, circulation, and liver function. Its prior uses include 1,000 years as an energizer, and its effects seem to be very similar to that of ephedrine.

Green Tea:

While green tea (*Camellia sinensis*) is better known for its immune enhancing and antioxidant properties (which will be discussed later) it is also used for its stimulating effects. The lift athletes receive from green tea comes from caffeine and caffeine-like compounds such as theobromine and theophylline.

Other herbs

Several other herbals have been studied for their purported ergogenic potential. *Cordyceps sinensis* is theorized to have favorable effects on the heart and circulation to improve oxidative capacity and endurance performance. Natural *Cordyceps sinensis* is rare, but a synthetic version is available; one version is CordyMax Cs-4. Parcell and others 40 reported that 5 weeks of CordyMax Cs-4 supplementation had no effect on aerobic capacity or endurance exercise performance in endurance-trained male cyclists.

Conclusion

Many herbs found on the market today have a long history of use as traditional medicines, especially in Asia. The challenge for athletes, coaches, and health professionals working with athletes is finding reputable research and resources to support or refute the claims for herbs. Other key elements include ensuring that an herb is safe, confirming that it contains the recommended amounts of active ingredients, and determining the appropriate dosage. In today's modern age, with unparalleled stress and toxicity, it is more important than ever to fortify and protect one's body from potential harm. While diet, exercise, and rest are key components in maintaining excellent health, the use of vitality enhancing herbs is indispensable. Their ability to increase energy, immune response, mental clarity, libido, and over-all homeostasis of the body make them a truly worthwhile investment of time and money. They are safe and easy to use, without side-effects and contraindications like pharmaceutical drugs. In light of their value, they are an obvious choice for anyone wanting to go a step beyond go health and on to higher vitality.

Reference:

- Bucci LR. Dietary substances not required in human metabolism. In: Bucci LR. Nutrients as ergogenic aids for sports and exercise. Boca Raton, FL: CRC Press, 1993:83–90.
- Nehlig A, Debry G. Caffeine and sports activity: a review. *Int J Sports Med* 1994;94:215–23.
- Dodd SL, Herb RA, Powers SK. Caffeine and exercise performance. An update. *Sports Med* 1993;15:14–23.
- Graham TE, Spriet LL. Caffeine and exercise performance. In: Sports science exchange. Barrington, IL: Gatorade Sports Science Institute, 1996;9(60):1–5.
- Department of Health and Human Services. Food labeling; statement of identity, nutrition labeling and ingredient labeling of dietary supplements; compliance policy guide, revocation. *Fed Regist* 1997;62:49826–92.
- Blumenthal M. The complete German Commission E monographs. Therapeutic guide to herbal medicines. Austin, TX: American Botanical Council, 1998.
- Kleijnen J, Knipschild P. *Ginkgo biloba* for cerebral insufficiency. *Br J Clin Pharmacol* 1992;34:352–8.
- McGuffin M, Hobbs C, Upton R, Goldberg A, eds. Botanical safety handbook. Boca Raton, FL: CRC Press, 1997.
- Popov IM, Goldwag WJ. A review of the properties and clinical effects of ginseng. *Am J Chin Med* 1973;1:263–70.
- Duke JA. CRC Handbook of medicinal herbs. Boca Raton, FL: CRC Press, 1985.
- Bensky D, Barolet R. Chinese herbal medicine. Formulas and strategies. Seattle: Eastland Press, 1990.
- Hobbs C. The ginsengs. A user's guide. Santa Cruz, CA: Botanica Press, 1996.
- Carr CJ. Natural plant products that enhance performance and endurance. In: Carr CJ, Jokl E, eds. Enhancers of performance and endurance. Hillsdale, NJ: Lawrence Erlbaum Associates, 1986:138–92.
- Bahrke MS, Morgan WP. Evaluation of the ergogenic properties of ginseng. *Sports Med* 1994;18:229–48.
- Chuang WC, Wu HK, Sheu SJ, et al. A comparative study on commercial samples of ginseng radix. *Planta Med* 1995;61:459–65.

Evaluating the Effect of Economic Factors of Family and Individual Factors in Sport and Games Contribution of Visakhapatnam Citizens, Andhra Pradesh, India.

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Abstract

Public sport has been established with the purpose of growing contribution of all social groups and providing sport pluralism, athletic sport reinforcing, competitive sport, healthy recreations and recreational sport. However, public sport depends on geographical region and social-cultural conditions and includes all organized and unorganized creational sport activities and local-traditional games addressing all the social classes. Purpose of this study is to investigate about economic family factors and individual factors affecting sport participation in Visakhapatnam citizens, Andhra Pradesh. To this end, the model proposed by Wicker et al. (2012) has been used to draw a general view regarding the factors affecting sport contribution using the internal or individual factors and external factors. The collected data has been analyzed using descriptive statistics including frequency table, diagrams and central indices as well as referential statistics involving non-parametric Kruskal Wallis test, Chi-Square and one-way variance analysis using SPSS software. The obtained findings can be applied to organize and design sport activities for sportsmen.

Keywords: Contribution, sport, education, age, leisure.

1. Introduction

Hurried industrial changes and evolutions have been followed by many social and economic consequences and have left significant effects in people's leisure. For example, mechanized industries and welfare facilities providing and like that have change people's life style including minimizing the family dimensions and changing of people's relations while in the past, family relations played a significant role in people's leisure. Additionally, mechanizing vehicles, cinema emergence and TV invention have also affected individuals' leisure and it has been not only due to technology development but social needs, relations among the current social powers, social environment and economic environment have highly affected the amount of free time and the way of spending it through recreational facilities. Therefore, the obvious characteristic of today's leisure is that it has been generalized to all classes and is not limited to a certain social class anymore. Another evolution is its specific importance in individual and social life so that working time has been totally separated from free time and has found an essential value. Leisure has four functions involving sociological and psychological investigations including rest, creativity, social participation, and recreation. So, leisure is not only for recreation but it can play an important role to build individual and social life. In this regards, leisure reveals significant economic benefits since it is important in renewing mental and spirit health. There are many factors leading to spent leisure effectively. By increasing the amount of leisure as a feature of modern world, public sport should also be developed sufficiently to fill individuals' leisure. The special importance of this aspect of sport can be considered as presenting various and interesting types of public sport activities for youths. Public sport can prevent many socially and healthy dangers such as addiction, smoking, HIV and like that. Healthy and efficient work force is a key index of each society's development. Intellectual and occupational ability of individuals highly depends on their physical health. Life is the most valuable capital of human and youth period is a mixture of enthusiasm, sensibility and thought in the life. Young people are considered as the vital elements, aware conscience of nations and efficient power of states. On the other hand, physical activity is a main factor protecting individuals' health against disease. Physical activity has a reverse relation with increasing various cardiovascular diseases in adults; so that inactivity or low participation in physical activities causes to increases the risk of cardiovascular disease, high blood pressure, diabetes, obesity, coronary artery occlusion, depression, hip joints fracture, cancer, osteoporosis, and so forth.

It is a long time that sport's effects in cardiovascular problems has been recognized. But today, it has been revealed that physical activity is useful for all the body, even for brain. Physical activity increases the blood circulation across the body and brain. It seems that increasing blood circulation in the brain lead to make the loss of the brain's cellular tissues initiating in the age of 40. Researchers are not still sure that to what extent the memory needs to physical activity to be improved but it is obvious that even very little physical activity can improve the memory and it can be maximized in case of doing regular sport at least 3 times a week.

There are several theoretical models to recognize human behavior guiding researchers in studying the physical activities deterministic factors among youth. The dominant model of investigating physical activities is social recognition theory of Bandura. Social recognition theory (social learning theory) emphasizes on individual (recognition, beliefs, intentions), environmental factors (social and material), and behavioral factor (self-review, judgment, reaction). Theory of planned behavior is the other well-known model to recognize the variables affecting physical activities. Ajzen's theory about planned behavior is used for recognizing behaviors related to physical activities of children and adults.

Health promotion model (HPM) is another known model established by association between a number of variables of social recognition theory and expectancy-value theory. The model claims that recognition, action and environment affect individuals' promoting behaviors. The model considers three categories of affective factors including individual experiences and features (characteristic, biological, psychological, social, and behaviors related to the past), recognitions and individuals' specific effects (perceived benefits due to action, perceived barriers related to action, inter-personal effects due to family, peers and other providers, situational effects, related activities effects) and impulsive and accidental behaviors (responding to impulsive demands from sport competition and similar behaviors).

Social learning theory is of important views considering socializing process³ focusing on individual deterministic factors (belief, tendency and motivation) and external deterministic factors of behavior (social factors, material factors and reinforcements). Learning theory emphasizes that behavior is learnt through direct experience or observing others (modeling). Various researchers have defined sport participation in terms of socializing with a focus on other preferences in sport relating to individuals' tendencies and behaviors. Other preferences provide the necessary social supports to participate in sports. Social support is defined as the functions and tasks of facilitating an action by an individual. For example, social support can be considered as instrumental (helping to go to exercise class), informing (informing about sport programs), emotional (requesting a friend to visit sport exercises). Salesi in his study asserted that social support has different types including companionship, emotional, service, financial, informational, and advices supports. Ficher also introduced three types of social support involving advices support, companionship support and practical support. According to Bourdieu, the most important factors can describe the way of sport behaviors distributions among different social classes in a society are as follows: Economic capital included money income, other financial sources, properties and financial salary, Cultural capital includes tendencies and traditional customs resulted from socialization process and is followed by cultural values such as educational capabilities and skills. Free time. As Bourdieu asserted, sport-oriented social capital is accompanied with social framework in individual (such as age, gender, marital status, etc.) as well as family, friends, colleagues, and other intimates arousing individual's eager and interest to participate in sport. Sport-oriented economic capital refers to a financial framework providing an opportunity for individual to participate in sport such as job responsibilities, income, social class, etc. sport-oriented cultural capital is also the cultural frameworks leading to individual's tendency to sport through mass media (satellite, internet, television, etc.). According to this theory, citizens who can achieve the mentioned capitals can set a regular sport program during the day and select sport-oriented life style for themselves and their family. Crawford et al. ranked the recognized barriers to participate in sports (including cultural limitations, sever family control, lack of time, facilities, sport places, money, accompany, sense of insecurity, negative experiences, knowledge, mental or spiritual problems, etc.) and proposed the pyramid theory. He classified the barriers into inter-personal, intra-personal and structural categories. While emphasizing on education, income and occupational rank to determine economic-social base regarding the effects of economic-social base in group sport participation, Almond and Power stated that "based on most of the researches findings, citizens with higher education, higher economic status and more professional skills seek to take physical exercise more than others. In this regards, Cohen (1992) believed that the higher the social class is, the more the social participation and involvement will be. He believed that active participation in social camps, municipal associations, home and school associations, and political organizations are lower in individuals of the low class.

As Raymond Thomas stated in his study, age and marital status affect sport participation. Schanler indicated that perceptual barriers for sport including lack of enough time duration, job commitment and family loyalty, bad climate significantly distinguish people who sport and do not sport.

Also, based on the findings reported by Atkinson, Chad, Hug, and Liu, it has been revealed that ease of access to sport facilities and available public sport infrastructures affect sport participation of citizens. Cohen et al. in his study on student, asserts that the dimension of home to school distance decreases sport participation.

There are five main category of sociological study of sport including economic, social, cultural, political, and demographic. Some researchers greatly focus on the relation between economic statuses of individuals and sport. The results obtained from these researches indicate that lower class individuals of the society tend to the sports with lower costs while the higher class individuals tend to the costly sports. On the other hand, some believe that sport facilities should be provided for individuals in all social classes equally.

2. Methodology

The present study investigates macro and micro factors affecting sport participation conducted as a case study in Visakhapatnam city in 2015. Based on the last census of 2011, the population of Visakhapatnam is 2,035,922, that is considered the most populated and financial capital of Andhra Pradesh State. City of Visakhapatnam and the 14th big city of the India. It is also the 9th most populous metropolitan area with a 53, 40,000 Visakhapatnam economy ranks as the tenth-largest among Indian cities, with a GDP of \$26 Billion (USD).

Cricket is the first and most popular sport in the city. Additionally, Badminton, Tennis and Football has been highly considered and is the traditional and national sport of Visakhapatnam. There are 15 sport places in Visakhapatnam. During the research, the data related to macro and micro factors have been collected. Then, the required data has been gathered from the statistical population using designed questionnaires.

3. Statistical Population and Sample: Considering the fact that statistical population includes a group of individuals, objects, variables, concepts, or phenomena which are common in one feature at least and according to purpose of this study that is to investigate about effect of micro and macro factors in sport participation of Visakhapatnam citizens; all the people who lived in Visakhapatnam during the study time are considered the population of the study. With respect to the dependent variable (sport participation) and the need of continuous participation of individuals in the plan, all age ranges cannot be interviewed. In this regards, men and women of 15-65 years old have taken into the investigation due to avoiding the other inappropriate age ranges.

4. Sample volume estimation and Sampling method: Considering the research limitations such as lack of enough human force, time, and financial costs, it is not possible to study al the statistical population. Therefore, a small part of the population is selected from the population presenting all the population and is called sample. The sample should present the statistical population; otherwise, the results obtained from the sample cannot be generalized to the population.

$$n = \frac{Z_{\left(\frac{\alpha}{2}\right)^2} \overline{p} (1 - \overline{p})}{d^2} = \frac{Z_{\left(\frac{\alpha}{2}\right)^2} pq}{d^2} = \frac{(1.96)^2 \times (0.5) \times (0.5)}{0.05 \times 0.05}$$

$$= \frac{0.96}{0.0025} \cong 384$$

According to the above formula, d is the sampling error, z is the normal variable of unit corresponding to the confidence level of $1 - \alpha$, P is the estimation of the considered attribute proportion, and q equals with $1 - P$. in such researches, P value will be considered 0/5 if it is not determined. In the present study, P equals with 0/5, the sampling error is 5% and the sample size is approximately 384

In the present study, stratified random sampling method was used to select the sample due to heterogeneity of individuals in the population. In this method, the population individuals were classified into different categories based on their inter-group features and the sample individuals are selected from all the categories proportionally. In this paper, the population was divided into several groups based on some distinctive features such as age, gender and residential region, and then the table of the population's real distribution, the percentage proportion of each categories was estimated in the whole population and real population was determined with respect to each category's proportion. Afterwards, the number of the sample was selected from all the people of the same category using simple random sampling method (Ezati, 2008). Considering the above mentioned, the research sample was determined based on Morgan's table for determining sample size so that the minimum size of the sample is 384 people. Computing the return rate of 90%, 425 questionnaires were distributed among the Citizens who has weekly sport program and of the considered age range to achieve the desired data. The questionnaires were distributed in the considered sport places among the sample randomly.

To investigate the significant difference between sport participation in various regions as well as the significant difference between sport participation based on each index, variance analysis test (ANOVA) was used. Notably, all the analyses were done at the confidence level of 95% using SPSS software.

5. Results and Discussion

Here, descriptive statistics and the tables of the sample's features have been presented. Recognizing the sample's features is useful to investigate general characteristics of the population to be used by other researchers. Additionally, they can be used in generalizing the results to other populations.

Table-1 Frequency distribution based on gender

Variables categories	Frequency	Frequency percentage	Valid percentage	Mode
Man	223	52/5%	52/5%	1
Women	202	47/5%	47/5%	
Total	425	100%	100%	

According to table 1, 52/5% of the sample includes men and 47/5% of the sample includes women. Also, the value of mode is 1 indicating that the most frequency is for men. In other words, mode is a central index determining the most frequency in a distribution and here, male gender has the most frequency.

Table-2 Frequency distribution based on doing weekly physical activity in hour

Variables categories	Frequency	Frequency percentage	Valid percentage	Mode
Less than 1 hour	221	52%	52%	1
Between 1 to 2 hours	108	25/4%	25/4%	
Between 2 to 3 hours	51	12%	12%	
More than 3 hours	45	10/6%	10/6%	
Total	425	100%	100%	

According to table 2, 52% of the sample does physical activity less than 1 hour, 25/4% of the sample does between 1 to 2 hours, and 10/6% dose more than 3 hours in a week. The value of mode is 1 indicating that the average of weekly sport exercise in Visakhapatnam citizens is less than 1 hour.

Figure-1 the percentage of doing weekly physical activity (in hour)

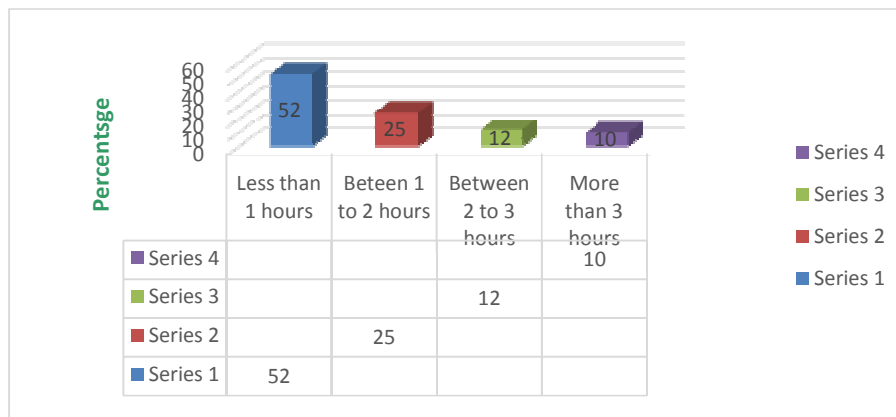
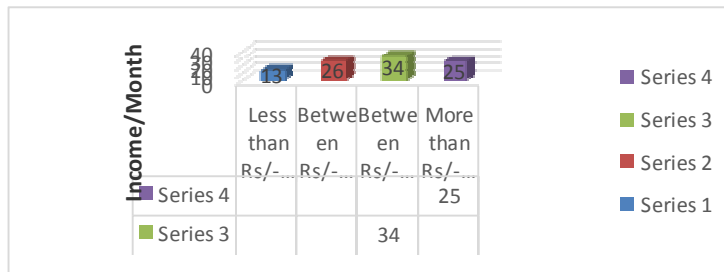


Table-3 Frequency distribution based on monthly income

Variables categories	Frequency	Frequency percentage	Valid percentage	Median
Less than Rs/- 9043	58	13/6%	13/6%	3
Between Rs/- 9043-15842	112	26/4%	26/4%	
Between Rs/- 15842-22642	146	34/4%	34/4%	
More than Rs/- 22642	109	25/6%	25/6%	
Total	425	100%	100%	

According to table 3, 13/6% of the sample has an income less than Rs/-9043, 26/4% of the sample has an income between Rs/-9043-15842, 34/4% has an income between Rs/-15842-22642, and 25/6% of the sample has an income more than Rs/-22642. Also, the value of median is 3 indicating that the average monthly income of the sample is between Rs/-15842-22642. In other words, median is a central index determining the most frequency in a distribution and here, male gender has the most frequency.

Figure-2 the percentage of monthly income of the sample



Testing hypotheses: The first hypothesis: “There is a significant relation between family income and sport participation in Visakhapatnam citizens”. H0: There is not any significant relationship between family income level and sport participation of Visakhapatnam citizens. H1: There is a significant relationship between family income level and sport participation in Visakhapatnam citizens. The first hypothesis investigates the relation between family income and sport participation in Visakhapatnam citizens using non-parametric test of Kruskal Wallis due to the variable measurement level and multi-categorical variable.

Table-4 Descriptive statistics

Variable	Number	Mean	Standard deviation
Sport participation	425	1/81	1/015
family income	425	2/72	0/995

According to table-4, the mean value of family Income level is 2/72 which is more than the mean value of sport participation (1/81).

Table-5 Values ranking

Variable		Number	Mean ranks
Sport participation	Less than Rs/-9043	58	240/99
	Between Rs/-9043-15842	112	235/20
	Between Rs/-15842-22642	146	194/06
	More than Rs/-22642	109	200/067
	Total	425	

Table-5 presents the categories of income variable in Visakhapatnam citizens based on ranked sport participation, number and mean of the ranks. As the table shows, the category of less than Rs/-9043. Has the greatest mean.

Table-6 Relation estimation

	Estimation
χ^2 computed value	13/380
Degree of freedom	3
P-Value	0/004

Considering the value of Kruskal Wallis statistic and the observed error level (P-Value >0/05), it is concluded that the relation is significant at the confidence level of 99%. In other words, there is a significant relation between family income and sport participation in Visakhapatnam citizens. So, the null hypothesis is rejected and the alternative hypothesis is accepted. The second hypothesis: “There is a significant relation between available time and sport participation in Visakhapatnam citizens”. H0: There is no significant relation between available time and sport participation in Visakhapatnam citizens. H1: There is a significant relation between available time and sport participation in Visakhapatnam citizens. The second hypothesis investigates the relation between available time and sport participation in Visakhapatnam citizens using non-parametric test of Kruskal Wallis due to the variable measurement level and multi-categorical variable.

Table-7 Descriptive statistics

Variable	Number	Mean	Standard Deviation
Sport participation	425	1/81	1/015
available time	425	2/16	0/913

According to table-7, the mean value of available time level is 2/16 which is more than the mean value of sport participation (1/81).

Table-8 Values Ranking

Variable	Number	Mean ranks
Sport Participation	Less than 1 hour	95
	Between 1 to 3 hours	216
	Between 3 to 6 hours	67
	More than 6 hours	44
	Total	425

Table-8 presents the categories of available time variable in Visakhapatnam citizens based on ranked sport participation, number and mean of the ranks. As the table shows, the category of more than 6 hours has the greatest mean.

Table-9 Relation estimation

	Estimation
χ^2 computed value	76/992
Degree of freedom	3
P-Value	0/000

Considering the value of Kruskal Wallis statistic and the observed error level (P-Value >0/05), it is concluded that the relation is significant at the confidence level of 99%. In other words, there is a significant relation between available time and sport participation in Visakhapatnam citizens. So, the null hypothesis is rejected and the alternative hypothesis is accepted.

6. Conclusion

Considering the advantages of sport mentioned, the present study attempted to investigate the effect of economic factors of family in sport participation of Visakhapatnam citizens. By testing the research hypotheses, the following results can be presented: The first hypothesis investigating the relation between family income and sport participation in Tehran citizens indicated that there is a significant relation between family income and sport participation in Visakhapatnam citizens and the alternative hypothesis was accepted. As it was reported, the average income of the sample was between Rs/-15842-22642 indicating that individuals' income has a direct relation with physical exercise activities due to the relation of financial status and sport equipment supply.

The result of testing the first hypothesis is inconsistent with the research done by Breuer. Breuer believes that income of individuals affects on their tendency for taking part in sport activities and there is a positive significant relation among them.

In fact, physical exercise costs have a direct relation with productive power and increasing income of countries and sport affects countries' economies with its unique attractiveness. Therefore, investigating consumption pattern of goods and sport services and the trend of their changes during different years can be useful to recognize productive capacities and investing for state and private sections; since sport costs of families and sport participation are related somehow. High proportions of the costs such as housing and food, the average of annual income of family relative to the expenditures, high inflation, and lack of significant participation of people in sport activities relative to other countries are of the reasons leading to low costs of sports from overall costs of family. Therefore, high income of families' income allows families to participate in sport activities in terms of supplying sport facilities and available time.

The second hypothesis of the research investigated the relation between available time and sport participation of Visakhapatnam citizens. Testing the hypothesis indicated that available time of more than 6 hours has the greatest mean of the ranks; in other words, there is a relation between time and sport participation of Visakhapatnam citizens indicating that Visakhapatnam citizens will participate in sport activities in case of having more leisure.

Safania based on his study concluded that the sporting time of Azad University students was 127 minutes in a week indicating their interest to participate in sport activities.

Jomhari investigated the way of spending leisure of boy students staying at dormitory. He revealed that sport activities are an important part of students' leisure at dormitory; the findings of the present research are consistent with these findings.

References

1. Safania A.M., Spending Leisure in girl students of Azad Universities of Iran with a focus on sport activities, movement magazine, 9, (2001)
2. Houchang J., Asian concept of public sport and its effect in Olympic movement, trans. Khabiri, M. Olympic seasonal, 2, 111-124 (1993)
3. Anderssen N., Wold B., Parental and peer influences on leisure-time physical activity in young adolescents, Research Quarterly for Exercise and Sport, 63, 341-348 (2001)
4. Kenyon G.S. and McPherson B.D., Becoming involved in physical activity and sport: A process of socialization, In Physical Activity: Human Growth and Development, ed. G. L. Rarick, 303-332, (2001)
5. Amiri Moghadam M., Investigating cultural, social and economic factors affecting sport tendency among women of 18-40 years in Kerman city, MA thesis, Islamic Azad University of Roudehen, (2008)
6. Jackson E., Crawford D. and Godbey G., Negotiation of Leisureconstraints, Leisure Sciences, 15, 1-12, (1993)
7. The Economics of Sport and Recreation: An Economic Analysis by Peter Taylor, Chris Gratton (2002).
8. Gillison F., Standage M. and Skevington S.M., Relationships among adolescents Weight perceptions, exercise goals, exercise motivation, quality of life, and leisure-time exercise behavior: A self – determination theory approach, Health Education Research, 21, 836847, and (2006)
9. Holland Judith R and Carole Oglesby, women in sport, the synthesis begins, Sage publications, (2008)
10. Roberts G., Seldon G. and Parks K., Human Resource Management: U.S. small business administration, University of Georgia Athens, (2004)
11. Hanrahan S.I. and Cerin E., Gender, level of participation, and type of sport: differences in achievement goal orientation and attribution style, Journal Science Medicine Sport, 12(4), 508-12 (2009)
12. Cocker ham and William C, Social causes of health and disease, Cambridge: polity, (2007)
13. Safania A.M., Spending Leisure in girl students of Azad Universities of Iran with a focus on sport activities, Movement magazine, 9, (2001).

The Management Model Of Regional Sport Science Center

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Abstract

The purpose of this research was to construct the management model of regional sport science center. The mixed methodology, qualitative research and quantitative research, was used in this research. The subjects in this research were 132 administrators and staff from Regional Sports Authority of Thailand, Institute of Physical Education and Sports Schools under the Ministry of Tourism and Sports. The findings revealed that the management model of regional sport science center comprised People, Resources, Innovations and Ideas, Marketing, Operations and Finance. Each aspect was conducted in four-stage management procedures containing Plan (P), Do (D), Check (C) and Action (A). This constructed model, the appropriateness and the possibility of which were examined and found at the acceptable level could be applied by sport science centers to serve their objectives, goals and happening situations for the development of athletes, people in general, communities, society and country.

Keywords: model, management, sport science center

Introduction

Nowadays, many countries around the world including Thailand pay more attention to health, physical fitness, exercise and sports. The Thai government has recognized the importance of sports which can lead to the human resource development. Consequently, the Ministry of Tourism and Sports made the national sports development plan, volume 5 (2555B.E. -2559B.E.) in order to be the framework of development in sports and health. This plan aims at promoting Thai people to exercise and play sport as their way of life, achieving good health and fitness, raising their awareness of moral and ethics, creating sporting spirits for the country's harmony and reconciliation, and arrange systematic management based on the utilization of sports science to strengthen the athletes at their full potential. Sports science plays an important role on every strategy of this plan because it can develop the athletes and the people in general to achieve best sports performance or good health and fitness (Ministry of Tourism and Sports, 2012). Moreover, the national sports development plan, volume 6 (2560B.E. – 2564B.E.) settled four missions for sports development in every dimension. Social dimension focuses on raising awareness of children, youths and people in general to pay more interest and participate in sports, exercising and recreational activities. Economic dimension emphasizes on brushing up the sports management system into the sports business to make career and add economic values. So, sport science center is an important part of success to reach these goals. Also, Sports Authority of Thailand created its strategic plan saying that discovering new knowledge in sports science is an important way of development in sports for excellence and career (Sports Science Division, Sports Authority of Thailand, 2013). With reference to the aforementioned plans, sport science center is the key-to-success organization to boost people to achieve good health and fitness, and develop sports for excellence and career. Its major missions are to offer exercise services, give physical fitness test to athletes and interested people, and do research on sports science. The athletes can use it to strengthen their physical fitness, prevent sports injuries, and rehabilitate themselves from the injuries. The people in general can use it to keep their and fitness, and solve their problems with health. The researcher is, therefore, interested in constructing the management model of regional sport science center to satisfy the need of athletes and people in general for development.

Research Objectives

This research aims to construct the management model of regional sport science center.

Research Methodology

The mixed methodology, qualitative and quantitative researches including documentary reviewing, interviewing, surveying, and doing focus group, was used in this research.

Research Instrument

The theoretical concept of PRIMO-F containing People, Resources, Innovations and Ideas, Marketing, Operations and Finance, the interview form and the questionnaire for constructing the model, and the questionnaire for focus group to examine the model appropriateness and possibility were used as the instrument of this research.

Population and Samples

132 stakeholders in regional sports science from 17 vice deans of Sports and Health Science Faculty, Institute of Physical Education, 11 vice directors of Sports Schools in Sports Development Affair, 84 heads and staffs of Sport Science Center from Institute of Physical Education and Sports Schools, and 20 heads and staffs of Sports Science Affair from Sports Authority of Thailand, Ministry of Tourism and Sports.

Data Collection

Documentary reviewing and interviewing the stakeholders in regional sports science were used first to construct the questionnaire about the opinions of the administrators and the staff on management model of regional sport science center. Then, the data analysis of the interview and the survey results were used to construct the management model of regional sport science center. Finally, with the constructed questionnaire and the focus group method the model appropriateness and the possibility were examined by a panel of seven experts comprising Director of Physical Fitness Division, Sports Science Affair, Sports Authority of Thailand, Dean of Sports and Health Science Faculty, Institute of Physical Education, Vice Dean of Sports and Health Science Faculty, Institute of Physical Education, Head of Sports Science Center, Head of Sports Science Affair, an expert in sports science and an expert in sports management.

Data Analysis

The Index of Item Objective Congruence: IOC was used for the content analysis and found between 0.67 -1.00. The qualitative analysis was used for the interview data. The quantitative analysis was used for the survey and focus group data in terms of mean and standard deviation. As a whole, the reliability of the survey was found at 0.908 and as separated aspect it was found as the following: People = 0.928, Resources = 0.902, Innovations and Ideas = 0.899, Marketing = 0.887, Operations = 0.903 and Finance = 0.927.

Research Results

1. Results on the importance regarding the theoretical concept of PRIMO-F towards regional sport science center revealed that Marketing was found at a highest level ($\bar{x} = 3.62$, S.D. = 0.44). Next were Resources ($\bar{x} = 3.61$, S.D. = 0.44), People ($\bar{x} = 3.57$, S.D. = 0.50), and Finance ($\bar{x} = 3.54$, S.D. = 0.48) respectively. The aspects found at a high level were Innovations and Ideas ($\bar{x} = 3.46$, S.D. = 0.53) and Operations ($\bar{x} = 3.20$, S.D. = 0.37).

2. Results on constructing the management model of regional sport science center

2.1 People: this aspect is designed to set vision, missions, goals, objectives, administration structure, qualifications, human resource recruitment and personnel development: Plan (P), the center should review and create the management plan, vision, missions, goals, objectives, structure, qualification, and recruitment; Do (D), the center should implement in accordance with the management plan and build the monitoring system, key performance indicators, and system and mechanism of personnel administration; Check (C), the center should evaluate the working performance of the personnel and the center and, make the evaluation report; and Action (A), the center should monitor advancement, problems, treats, success and failure of working performance, and recruit the personnel in relation to the given qualifications and objectives.

2.2 Resources: this aspect is designed to provide sufficient tools, equipment, technologies in sports and exercise, and facilities for services: Plan (P), the center should specify its tools, equipment, technologies in sports and exercise, and facilities and make its utilization plan; Do (D), the center should provide tools, equipment, technologies in sports and exercise, and facilities, and build information technology system, manual and common practices for utilization; Check (C), the center should check the condition of and evaluate the utilization need for tools, equipment, technologies in sports and exercise, and facilities.; and Action (A), the center should improve tools, equipment, technologies in sports and exercise, and facilities to meet the need and the necessity.

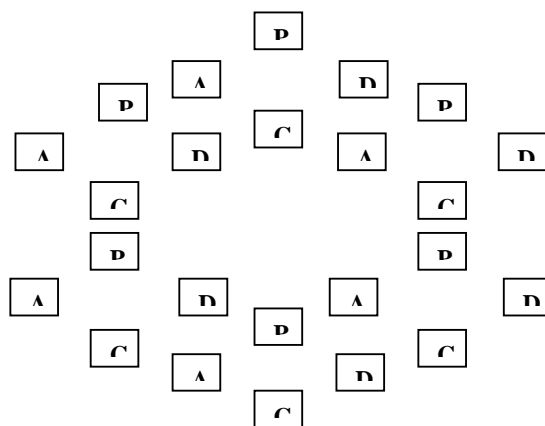
2.3 Innovations and Ideas: this aspect is designed to use information technology, innovations, software and applications in sports and exercise for working and offering services: Plan (P), the center should make the plan of using information technology, innovations, software and applications in sports and exercise for working and offering services, and enhance personnel to do research and create innovations; Do (D), the center should use information technology, innovations, software and applications in sports and exercise for working and offering services, and arrange the training for or send the personnel to be trained in order to develop their ability; Check (C), the center should check and evaluate the use of information technology, innovations, software and applications in sports and exercise for working and offering services including the construction of researches and innovations; and Action (A), the center should improve information technology, innovations, software and applications in sports and exercise.

2.4 Marketing: this aspect is designed to set the plan of public relations and marketing for the center in various ways including the service rates: Plan (P), the center should create the implementation plan of public relations and

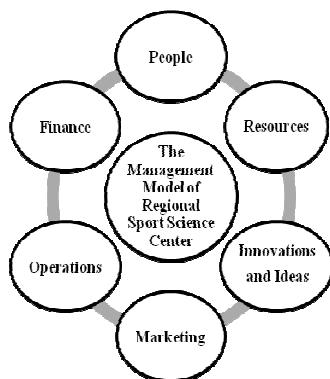
marketing for the center, and do brain storming about rates of service; Do (D), the center should implement according to the set plan, and declare the rates of service for yearly, monthly and each-time-use members; Check (C), the center should monitor and evaluate the implementation regarding the set plan, and do the survey on member's satisfaction with service; and Action (A), the center should improve the public relations and marketing to meet the member's satisfaction results.

2.5 Operations: this aspect is designed to settle the operational plan covering job specification and description, work instruction, communication system and networks: Plan (P), the center should settle the operational plan to achieve all its goals; Do (D), the center should implement according to the operational plan and build the monitoring system and key performance indicators of success ; Check (C), the center should evaluate the operations and clarify the necessity and the possibility of operational plan; and Action (A), the center should review problems, treats, successful works and disappointing results from the operations for improvement.

2.6 Finance: this aspect is designed to establish the financial and budget plan covering budget proposal, purchasing protocol, supply and property administration, finance and accounting system, report of cash of flow change or movement: Plan (P), the center should settle the financial and budget plan to achieve all its goals; Do (D), the center should implement according to the financial and budget plan and build the monitoring system and key performance indicators of success; Check (C), the center should evaluate the working performance in relation to the financial and budget plan, and make evaluation report; and Action (A), the center should review problems, treats, successful works and disappointing results for improvement.



As a result, the management model of regional sport science center is constructed and shown below:



3. Results on appropriateness and possibility of management model of regional sport science center revealed that the model appropriateness was found that Marketing was found at a highest level ($\bar{x} = 4.79$, S.D. = 0.43). Next were Resources ($\bar{x} = 4.71$, S.D. = 0.48), Operations ($\bar{x} = 4.69$, S.D. = 0.48), People ($\bar{x} = 4.64$, S.D. = 0.50), Innovations and Ideas ($\bar{x} = 4.63$, S.D. = 0.51), and Finance ($\bar{x} = 4.61$, S.D. = 0.50) respectively. The model possibility was found that People was found at a highest level ($\bar{x} = 4.52$, S.D. = 0.53). The aspects found at a high level were Resources, Marketing, and Operations ($\bar{x} = 4.50$, S.D. = 0.53), Finance ($\bar{x} = 4.49$, S.D. = 0.53) and Innovations and Ideas ($\bar{x} = 4.42$, S.D. = 0.53) respectively.

Conclusion and Discussion

The management model of regional sport science center in relation to PRIMO-F was constructed as the following PRIMO-F concept: People: the regional sport science center should set policy, goals, missions, working performance evaluation properly for professional advancement. It should also promote administrator's leadership, create the personnel management plan regarding recruitment, wages and salary, fringe benefits, facility, reinforcement, guardianship, security, and arrange the meeting between administrators and staff to build working participation and achieve sense of belonging. These meet the study of Jowett and Poczwadowski (2007) saying that coaches are the most influential personnel for athletes to be successful. If the athletes are inspired and reinforced positively by coaches, they become confident to compete in any events and achieve their goals. So, developing coaches gradually can lead to sports for excellence. Resources: the regional sport science center should provide sufficient and up-to-date tools, equipment, technologies and facilities to offer services. The center should be located in the route of convenient transportation and provide enough parking lots for the users. These meet the study of Ratchanee Khwanboonchan (2008) indicating that one of the factors to develop sports for excellence is place and facility management for services such as lockers, bathrooms, relaxing areas, information technology, materials, technologies for health and physical fitness, health promotion room, streamed and sauna room, cardiovascular room, etc. help sports development. These meet the study of Thiti Chansirintorn (2013) saying that due to insufficient budgets for supporting facilities and prizes the athletes felt unsatisfied with training to develop their ability.

Innovations and Ideas: the regional sport science center should arrange the training for personnel or send personnel to be trained for development in working performance and doing research about sports for excellence and exercise for health. Also, the center should use information technology, innovations, software and applications in sports and exercise for working and offering services including setting the utilization evaluation system via Internet and creating researches and innovations for working performance and system improvement. Marketing: the regional sport science center should design the service fees properly in relation to places, tools, equipment and facilities for the yearly, monthly and each-time use members. Various payment channels should be provided for service users; furthermore, various ways of communication and public relations such as periodicals, radio, Internet, websites, billboards, social media should be created for customers. Specialists and exercise programs serving the objectives and the need of customers should be also prepared. The administrator's and the staff's knowledge in marketing and public relations should be developed. These meet Ketsanee Chaichan (2008)'s study revealing that product factor consists of quality, sufficient and safe exercise equipment and facilities; price factor comprises special discount for customers who expand their membership or apply for in form of groups and new members; place factor contains officer's proper attire and politeness, clean areas, toilets and bathrooms, and musical seasoning service; promotion factor includes promotional coupons, giveaways such as travelling suitcases for new members, leaflets and brochures. Operations: the regional sport science center should use up-to-date and sufficient technologies to operate the center and offer services, do public relations and publication of beneficial information, set the clear work procedures and time, build the network with private and public sectors, create researches and innovations to produce new knowledge for development. These meet the study of Ratchanee Khwanboonchan (2008) saying that one of the key factors to the success of sports for excellence is to prepare the responsible organizations to link working system in order to develop sports for excellence and exercise for health.

Finance: the regional sport science center should receive the sufficient budgets covering the necessity of working performance and the need of users. It should provide accounting information to anticipate income and expenses of the center, financial plan, financial and budget evaluation, budget proposal and purchasing, administration of supply and property, declaration of sources and utilization of cash of flows to show financial liquidity and status, the regulations regarding finance and accounting. Financial plan, utilization, control and audit should be conducted to serve the system of the center. Financial support or fringe benefit plan for personnel should be well operated. Report on cash of flows along with its change or movement should be made for improvement. Also, the center should provide the officers in charge of finance and budget. These meet the study of De Bosscher (2006) indicating that one important element from the model of sports development policy leading to the success in international events is budget support.

Recommendations : Effects from the use of management model of regional sport science center should be investigated.

References

- De Bosscher, V., De Knop, P., van Bottenburg, M., & Shibli, S. 2006. A conceptual framework for analyzing sports policy factors leading to international sporting success. *European Sport Management Quarterly*, 6(2), 185-215.
- Jowett, Sophia and Poczwadowski, Artur, 2007. Understanding the Coach-Athlete Relationship. from Jowett, Sophia and Lavallee, David, *Social psychology in Sport*. pp.3-14, Champaign, Ill.: Human Kinetics.
- Ketsanee Chaichan. 2008. Service Marketing Mix Factors Affecting Fitness Center Selection of Customers in Maung District, Chiangmai Province. Master's Thesis of Business Administration, Faculty of Business Administration, Chiangmai University.
- Ministry of Tourism and Sports. 2012. Strategic Plan of Ministry of Tourism and Sports (2555B.E. – 2559B.E.). Bangkok: Agricultural Cooperatives Club of Thailand.
2012. National Sports Development Plan, Volume 5 (2555B.E. – 2559B.E.). Bangkok: Teacher Council's Business Organization.
2560. National Sports Development Plan, Volume 6 (2560B.E. – 2564B.E.). Bangkok: Teacher Council's Business Organization.
- Morris, Michaels. 1995. Market oriented pricing. Illinois: NTC Group.
- Ratchanee Khwanboonchan. 2008. Strategic Plan of Development in Sports for Career (2549B.E. – 2552B.E.). Bangkok: School of Sports Science, Chulalongkorn University.
- Sports Science Division, Sports Authority of Thailand. 2013. Common Practices for Sports Science Affair. Bangkok: Sports Authority of Thailand (mimeographed).
- Thiti Chansirintorn. 2012. Guidelines for Management Development of National Sports Development Project. Master's Thesis of Sports Science. Bangkok: Graduate School, Chulalongkorn University.

Visual Reaction Time of Youth and Senior Kabaddi Players

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Abstract

The purpose of the study was to predict the players of Kabaddi game from psychological variable like *Reaction Time* among State level Senior and Junior Group of players. A pilot study was conducted total 50 male Kabaddi players were selected in two categories were approached through coaches and managers of the teams participating in the above mentioned tournaments. Result:- T_{cal} value $> T_{table} = 1.66$ at 98 DF 0.05 Level of Significance $62.71 > 1.66$ which means that Senior kabaddi players differs in the RT compared to the Youth players and Youth players will be good in RT as compares to Senior Players. Conclusion with the help of graphical representation and statistical operations it could be concluded that Visual Reaction Time of Youth and Senior Kabaddi Players was normal but Youth kabaddi players were much more quicker than Senior Kabaddi Players in Visual Reaction Time. Key words RT reaction time DF degrees of freedom.

Introduction

Kabaddi is fundamentally an Indian route game, which necessitate equally talent and command, and unite the distinctiveness of wrestling and rugby. Kabaddi is appropriately recognized as the "GAME OF THE MASSES" In India. Owing to attractiveness, simplicity of Kabaddi, easy to understanding of rules, and public appeal it is well popularized. The game entitle for no complicated utensils what so ever, which makes it a very popular sport in the developing countries like India. Though it is fundamentally an outdoor sport played on mud court, of overdue the game is being played on synthetic surface indoors with great success. The duration of the game is 45 minutes for men & junior boys with a 5 minute break in between for the teams to change sides (20-5-20). In the case of women & sub junior boys, the duration is 35 minutes with a 5 minute break in between (15-5-15).

Kabaddi is a confrontational team game, played with absolutely no apparatus, in a rectangular court, either out doors or indoors with seven players on the ground in each side

ORIGIN

The sport has a long history dating back to pre-historic times. It was probably invented toward off group attacks by individuals and vice versa. The game was very popular in the southern part of Asia played in its different forms under different names. The Mahabharata has made an analogy of the game to surround on all sides of Abhimanyu by the enemy i.e. "Chakravyavya".

FORMS OF KABADDI:-AMAR; GEMINI; SANJEEVANI;

Statement of the Problem:- The purpose of the study was to predict the players of Kabaddi game from psychological variable like Reaction Time among State level Senior and Junior Group of players.

Hypothesis:- It was hypothesized that senior players of Kabaddi might be predicted from psychological factor like Reaction Time among State level players.

Significance of the Study

This study will help the physical education teachers and coaches to design a specific program to identify the Talents, which are closely associated with the better Kabaddi performance.

Study will reveal the influence of physiological characteristics like Reaction Time on the overall playing ability of Kabaddi players. This result might be utilized as a screening instruments in analyzing and classification the Kabaddi players.

The result of this study will help the young budding researchers to take up similar studies in other areas and disciplines.

Delimitations

The study was confined to the following aspects,

This study was confined to only male inter district Kabaddi players from Maharashtra State, India.

The subjects for the present study have been delimited to the 100 State level Kabaddi players only which include 50 seniors and 50 junior players.

The age of the subjects ranged from 17 years and onwards.

The study was delimited to the Reaction Time as independent variables.

Limitations

1. The variation in playing experience among players due to the participation in tournaments will be considered as a limitation of the study.
2. Similarly the playing ability difference due to their participation in the coaching program, if any, will also be added to the limitations.
3. Certain factors like food habits, life style, climatic condition, and other environmental factors could not be controlled which may influence the results and hence they may be considered as one of the limitations of the study.
4. The students were from different social culture and economic status which was considered as a limitation, for this study.
5. The response of the subjects to the statements in the Reaction Time test would depend upon various factors such as understanding of the test, seriousness and sincerity of the subjects.
6. No specific motivational techniques were used to encourage the subjects to attain their maximum performance during testing.

Methodology

The plates selected in two categories were approached through coaches and managers of the teams participating in the above mentioned tournaments.

Online Reaction Time Test

RED LIGHT - GREEN LIGHT Reaction Time Test. Instructions: Click the large button on the right to begin. Wait for the stoplight to turn green. When the stoplight turns green click the same large button continue the test up to five trials follow the same procedure every time. After completion of five turns the average RT will be noted. Lastly click on the large button "Done" where the test was finished.

Table I:- Visual Reaction Time of Youth and Senior Kabaddi Players

Sr	Visual Reaction TimeSenior	Youth Visual Reaction Time	T _{cal}
1	Average 0.233	0.214	62.71
3	T _{table} value ∞; N ₁ + N ₂ - 2 = 50+ 50 – 2= 98 for 98DF T _{table} = 1.66at 0.05 1.66 Level of Significance	1.66	

T_{cal} value > T_{table} = 1.66at 98DF 0.05 Level of Significance 62.71>1.66Senior kabaddi players might have the same RT as the Youth players.

i.e. M₁-M₂≤ 0

Alternative Hypothesis: (H₁):-Senior kabaddi players might differs in the RT compared to the Youth players and Youth players might be good in RT as compares to Senior Players.

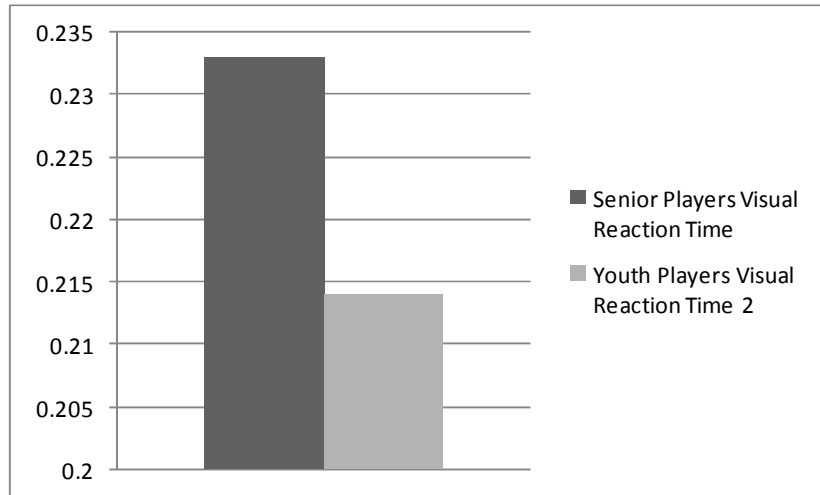
ie. M₁-M₂≠ 0 or M₁-M₂>0

T_{cal} value > T_{table} = 1.66at 98DF 0.05 Level of Significance 62.71>1.66

Null hypothesis rejected. As null hypothesis is false means alternative hypothesis accepted. T_{cal} value > T_{table} = 1.66at 98 DF 0.05 Level of Significance 62.71>1.66, Youth players might be good in RT as compares to Senior Players.

Result:- T_{cal} value > T_{table} = 1.66 at 98 DF 0.05 Level of Significance 62.71>1.66which means that Senior kabaddi players differs in the RT compared to the Youth players and Youth players will be good in RT as compares to Senior Player

Graph:- Average Visual Reaction Time of Youth and Senior kabaddi Players



Above graph clearly indicates that Visual Reaction Time of Youth and Senior Kabaddi Players. The graph shows Visual Reaction Time of Youth kabaddi players were comparatively good to their Senior Kabaddi Players. No doubt both Youth and Senior Kabaddi Players had normal Visual Reaction Time as per the norms of Visual Reaction Time. Visual Reaction Time of Youth was .0214 and Senior Kabaddi Players was 0.233, the difference between these two counterparts was found to be 0.0190 which is negligible.

Conclusion

With the help of graphical representation and statistical operations it could be concluded that Visual Reaction Time of Youth and Senior Kabaddi Players was normal but Youth kabaddi players were much more quicker than Senior Kabaddi Players in Visual Reaction Time.

Reference

Anne Marie Bird and Bemette K. Cripe (1986). Psychology and Sports Behaviors.

USA: Times Mirror/Mosby.

Aditya Jain, Ramta Bansal Avnish Kumar, and KD Singh(2015) A comparative study of visual and auditory reaction times on the basis of gender and physical activity levels of medical first year students. Int J Appl Basic Med Res.2015 May-Aug;5(2): 124 - 127

Barry L. Johnson and Jack K. Nelson (1982). Practical Measurements for Evaluation.

Delhi :Surjeet Publications, p.180-181.

Effect of, off Season Fitness Training Programs on Body Weight Characteristics of Cricketers.

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Introduction

Cricket is a game of pressure. The higher the level it is played at, the greater that pressure becomes. However, even an eight year old batter or bowler soon discovers the stresses and strains inherent in the game's one on one nature. A batter has a partner out in the middle, but when it matters he is entirely alone, facing eleven players all focused on his downfall. Knowing that he cannot afford to make a single mistake, the batter fights a battle that requires skill, concentration, insight and stamina. Like most sports, cricket has developed a mythology of toughness, full of anecdotes about individuals pushed to the limits of their endurance. Cricket was brought to India by its inventors, the Britishers, First signs of cricket in India are recorded as early as 1721, at Bombay. After M.C.C., the second oldest club in the world is Calcutta Cricket Club which was found in the year 1792

Reference source not found..

Statement of Problem

It is widely accepted fact that, cricket is most popular game in Maharashtra. As Amravati belongs to Vidarbha region under this state, Vidarbha Cricket Association is (V.C.A.) actively taking interest towards enhancing the performance of players in cricket. Hence different schemes of training programmes are implemented in the different parts of Vidarbha. Since last seven years V.C.A. has been conducting the systematic training programme at Degree College of Physical Education, Amravati and fortunately being the coach of cricket team of the college, the researcher is directly involved with this programme. It is experienced that, due to such training programmes a number of cricketers upgraded their performances at National Level. Therefore researcher was interested in investigating the study entitled as "Effect of Off Season Fitness Training Programmes on Body Weight Characteristics of Cricketers".

Significance of Study

The present study would be significant in the following ways:

The findings of this would throw light on the importance of off season training for the cricketers.

The result of the study would help the Trainers and Coaches in planning their fitness training program for their concerned games.

The findings of this study might be helpful in recommending special fitness training and conditioning programme for the cricket players during off season.

Purpose of the Study

Following were the purposes of the study –

To determine the effect of off season fitness training programme on anthropometric characteristics such as Body Weight, Stature height, Various Skeletal Circumferences and Skin fold Measurements.

To find out the effect of off season training on various Fitness Components such as Aerobic Capacity, Anaerobic Capacity, Muscular Strength, Muscular Endurance, Muscular Power, Flexibility, Speed and Agility.

To motivate the other researcher to undertake further investigation in this field.

Hypotheses

On the basis of literature reviewed and discussion with the coaches and experts the following hypotheses were formulated. It was hypothesized that the Off Season Fitness Training Programs would be significant to improve the selected Anthropometric Characteristics of Cricketers. It was further hypothesized that the off season fitness training programmes would significantly improve the selected Fitness Components of Cricketers.

It was also hypothesized that there would be significant difference between the improvement in the selected variables due to 60 days and 90 days of off season fitness Training Programmes.

Delimitations

The present study was delimited to the following aspects –

Cricket Players of Amravati District Amateur Cricket Association, Amravati were selected as the subject of this study. Only male cricketers were chosen for this study.

The age of subjects selected for the present study was ranging between 17-25 years.

Total 75 Cricket players were selected for the present study.

All the selected subjects were divided in to three groups in equal numbers i. e. each group consisted of 25 cricketers. Group - A and Group – B were given experimental treatments whereas Group – C acted as Control group.

The fitness training programme was conducted during off-season.

The Experimental Groups A underwent fitness training programme for the period of total 60 days during off-season. The Experimental Groups B underwent fitness training programme for the period of total 90 days during off-season period.

The Control Group did not undergo any type of training programme during off-season period.

Experimental training and tests were conducted within the campus of Shree Hanuman Vyayam Prasarak Mandal, Amravati.

The minimum level of participation of the cricketers was inter-school and inter-collegiate tournaments.

Limitations

Following were the limitations of the present study –

The researcher had no control over the leisure-time activities of the subjects.

Interest towards the training programme of the selected subjects was unknown.

Dietary habits and caloric values of the subjects were not known to the researcher.

No special motivational techniques were employed during collection of the data.

Sources of Data Total 75 male Cricketers of Amravati District Amateur Cricket Association, who represented interschool or intercollegiate tournaments, were selected as subjects. The age of the selected subjects ranged between 17-25 years. Hence all these selected subjects were the source of data.

Selection and Grouping of Subjects

For the purpose of this study, total 75 Cricketers were selected by adopting Simple Random Sampling Method from the available Cricketers of Amravati District Amateur Cricket Association, Amravati.

All the selected subjects were randomly distributed into three groups in equal numbers.

S. No	Group	No. of Subjects	Experimental Treatment
1	Experimental - A	25	Fitness Training for 60 Days
2	Experimental - B	25	Fitness Training for 90 Days
3	Control - C	25	No Fitness Training

Selection of Variables

The selected variables that influence the performance of any game as revealed from the review of professional literature and consultation with experts of this game were taken into consideration.

Keeping the above criteria the following variables were selected as they are directly related to the performance of cricketers in competitive situation.

Anthropometric Characteristics i.e. Body weight.

Description of Tests

1) Body Weight

Purpose: It is the weight of nude human body with empty bowels.

Equipment: Weighing machine

Procedure: Except brief garments the subject was asked to remove his shoes and cloths. The subject was asked to stand erect on the platform of the portable weighing machine with equal weight on both feet and body weight was recorded from the needle of the dial.

Scoring: The weight was recorded in kilogram.

Mean, Standard Deviation and t-Ratio for the Post Tests of Experimental A, Experimental B and Control C Group in Body Weight

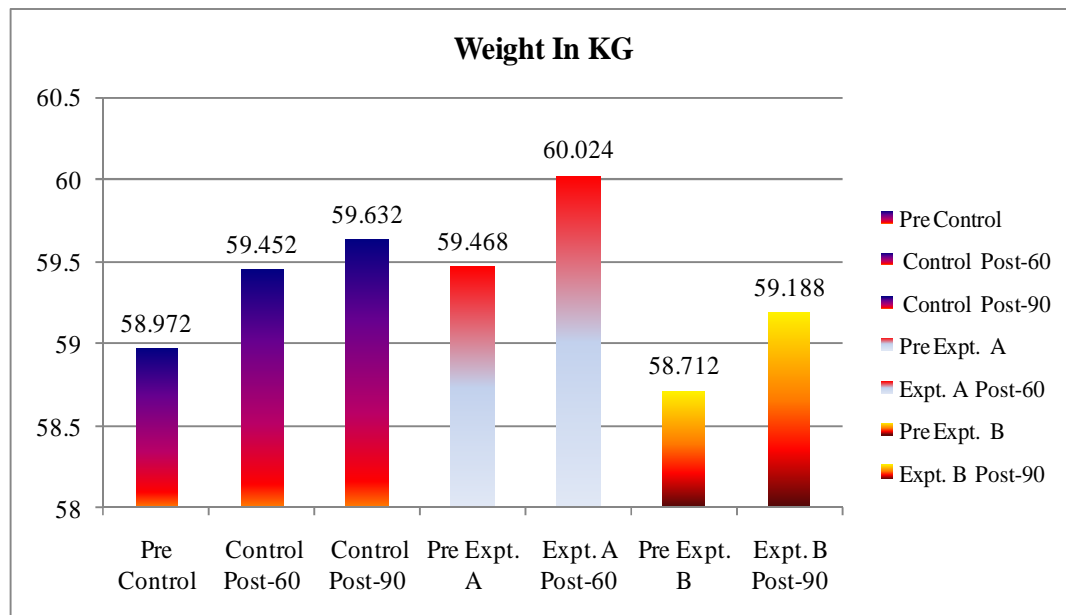
Group	Mean	Standard Deviation	Mean Difference	Standard Error	t-Calculated
Experimental A	60.02	1.9533	0.57	0.5250	1.090@
Control C (After 60 days)	59.45	1.7536			
Experimental B	59.19	1.8045	0.44	0.5020	0.884@
Control C (After 90 days)	59.63	1.7449			
Experimental A	60.02	1.9533	0.84	0.5318	1.572@
Experimental B	59.19	1.8045			

@ Not significant at 0.05 level

Tabulated t 0.05(48) = 2.00

The findings of Table show that there is no significant difference between the Post test means of Experimental A & Control C (After 60 days), Experimental B & Control C (After 90 days) and Experimental A & Experimental B groups in Body Weight, as the calculated t-value of 1.090, 0.884 and 1.572 respectively are less than the tabulated t-value of 2.000 at 0.05 level of confidence for 48 degrees of freedom.

From the above findings it is inferred that the total body weight of the selected subjects of Experimental A, Experimental B and Control C groups does not increase or decrease significantly due to sixty and ninety days systematic training programmes.



References

- Barrow Harold M. and Mcgee Rosemary, A Practical Approach to Measurement in Physical Education, (Lee and Febiger, Philadelphia, 1979).
- Clarke H.H., Application of Measurement to Health and Physical Education, (Englewood Cliffs, Prentice Hall Inc., 1976).
- Creek F.N.S., Cricket, (W. L. St. Pauls House, London, 1973).
- Ferreira, L.G. "Effects of a Program Circuit Training on Anthropometric Variable and Composition Body in Military Police," Dissertation Abstract International Anatomy and Physiology, Vol. 3, (2013), p. 125.
- Narottam Puri, Cricket Quiz, (Vikas Publishing House, New Delhi, 1977), p. 7.

A Study On Mental Imagery Among The Players Of Different Selected Sports

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Abstract:

The present study was focused to assess the level of Mental Imagery Skills in Baseball, Softball and Cricket Players. For this purpose, the investigator had selected a total of 90 male inter collegiate players age ranging from 18 to 25 years. The purposive sampling technique was used to select the subjects. The selected variable is tested by self made mental imagery questionnaire. Based on the findings of this study, the following conclusions were drawn: The result of the study shows that Baseball, Softball and Cricket players were performed and applied mental imagery techniques very well. Data suggests that, mental imagery could have a significant impact on player performance and mental imagery can be an effective way to help improve other areas of sport such as self-confidence. Keywords: Mental Imagery Skill, Baseball, Softball and Cricket.

Introduction:-

All sportsmen who participate in competitive sports aspire to achieve the highest performance at international level competitions. They work hard for many hours a day, for many years to achieve the distinction. It is not only the physical training but also the mental training which enables them to win at different level competitions. Imagery has many uses not just in sport, but pretty much any occupation where motor skills need to be performed to a high standard. Within sport it can be used for many different tasks from mental rehearsal to past performance accomplishments, to correcting mistakes, to 'downloading' what you have learnt in training that day. It is one of the most powerful and effective tools available to athletes and sport psychologists. Mental imagery helps the athletes to mould their emotional state and the way they approach the physical efforts. Such activity enables the athlete to improve the execution and precision of the given skill or task by thinking and imagining about it. Mental imagery of critical competitive situations is essential to boost the fighting spirit to help an athlete to organize himself in a better way. Mental rehearsal of competitive situations certainly helps in improving athlete's emotional state as well as his physical performance. It also helps in the smooth flow of energy as and when required. The uses of imagery are probably limited only by the imaginations of athletes, coaches and sport psychologist. Imagery can also be used to examine a skill, to detect a problem and then to correct it is readiness for the next physical practice session or competitive performance. The study was taken to tell about the use of mental imagery by players to sports such as Baseball, Softball and Cricket and how it helps to identify the effective use of mental imagery for different sports.

Objectives of the study:-

To assess the mental imagery among the players of different selected sports.

Selection of subjects: To achieve the purpose of the study, a total of 90 male inter collegiate players were selected as subjects from Akola city. (i.e., Baseball N1=30, Softball N2=30, and Cricket N3=30). The age of the subjects were ranged from 18 to 25 years.

Significance of the study :-

The study may help the coaches, physical education teachers to understand the level of mental status among the players of different selected sports. The study may highlight the mental imagery of the players of different selected sports. The study may helpful for sportsmen for developing their mental imagery.

Collection of Data:-

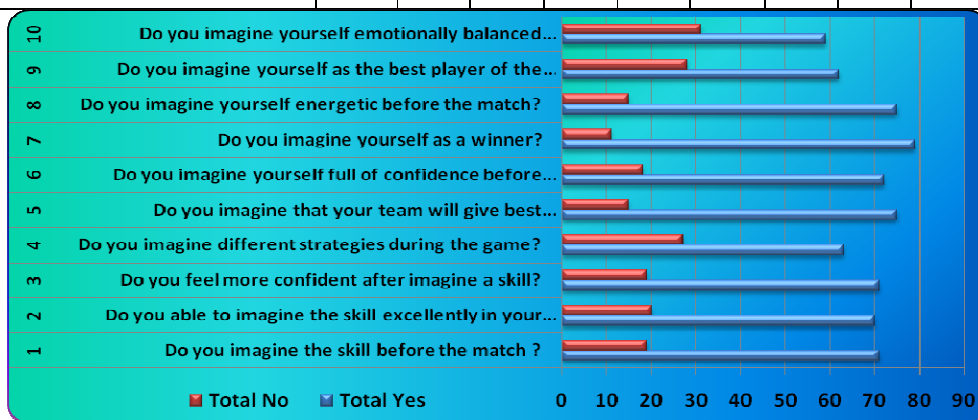
The data were collected on 90 male intercollegiate players by administrating self made mental imageryquestionnaire

Data Interpretation:-

The result of the study is presented in the following Table.

Table-1
Analysis of the responses for different questions in the questionnaire

Sr. No.	Questions	Baseball		Softball		Cricket		Total		Total %	
		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
1	Do you imagine the skill before the match ?	25	5	24	6	22	8	71	19	78.89	21.11
2	Do you able to imagine the skill excellently in your mind?	23	7	22	8	25	5	70	20	77.78	22.22
3	Do you feel more confident after imagine a skill?	25	5	24	6	22	8	71	19	78.89	21.11
4	Do you imagine different strategies during the game?	20	10	21	9	22	8	63	27	70.00	30.00
5	Do you imagine that your team will give best performance in the match?	26	4	25	5	24	6	75	15	83.33	16.67
6	Do you imagine yourself full of confidence before your opponents?	24	6	23	7	25	5	72	18	80.00	20.00
7	Do you imagine yourself as a winner?	28	2	26	4	25	5	79	11	87.78	12.22
8	Do you imagine yourself energetic before the match?	25	5	24	6	26	4	75	15	83.33	16.67
9	Do you imagine yourself as the best player of the match?	20	10	18	12	24	6	62	28	68.89	31.11
10	Do you imagine yourself emotionally balanced during the match?	18	12	19	11	22	8	59	31	65.56	34.44



Graph-1

Illustration Showing Analysis of the responses for different questions in the questionnaire

Result & Discussion :-

Table-1 shows that total 78.89 % players responded that they imagine the skill before the match, total 77.78 % players responded that they are able to imagine the skill excellently in their mind, total 78.89 % players responded that they feel more confident after imagine a skill, total 70.00 % players responded that they imagine different strategies during the game, total 83.33 % players responded that they imagine that their team will give best performance in the match, total 80.00 % players responded that they imagine themselves full of confidence before their opponents, total 87.78 % players responded that they imagine themselves as a winner, total 83.33 % players responded that they imagine themselves energetic before the match, total 68.89 % players responded that they imagine themselves as the best player of the match, total 65.56 % players responded that they imagine themselves emotionally balanced during the match.

Conclusion:-

- Most of the Players imagine the skill before the match.
- Most of the Players imagine the skill excellently in their mind.
- Most of the Players feel more confident after imagine a skill.
- Most of the Players imagine different strategies during the game.
- Most of the Players imagine that their team will give best performance in the match.
- Most of the Players imagine themselves full of confidence before their opponents.
- Most of the Players imagine others applauding their performance during the competition.
- Most of the Players imagine themselves as a winner.
- Most of the Players imagine themselves energetic before the match.
- Most of the Players imagine themselves as the best player of the match.
- Most of the Players are imagine themselves emotionally balanced during the match.

References:-

- Barracough, J. (2017). *The importance of imagery in sport* · *The UK's leading Sports Psychology Website*. [online] Believeperform.com. Available at: <http://believeperform.com/performance/the-importance-of-imagery-in-sport>.
- Ganai, Z. (2013). *Comparison Of Mental Imagery Among The Players Of Different Selected Sports*. Unpublished dissertation. Bharati Vidyapeeth Deemed University's, Pune.
- Hall, C. (2001). Imagery in sport and exercise. *In Handbook of Sport Psychology*. New York: Wiley, 529-549.
- Howe B.L. (1991). Imagery and sport performance. *Sports Medicine*, 11:1-5.
- Mackenzie, B. (2017). *Mental Imagery in Sport*. [online] Brianmac.co.uk. Available at: <https://www.brianmac.co.uk/mental.html>.
- Malik S., Yadav M. (2015). A comparative study of imagery usage among sportspersons belonging to different Sports. *International Journal of Physical Education, Sports and Health*, 2(1): 217-219
- Rushall, B. S., & Lippman, L. G. (1997). The role of imagery in physical performance. *International Journal for Sport Psychology*, 29, 57-72.
- Sethu S. (2014). Analysis Of Mental Imagery Among Basketball, Kabaddi, Khokho And Volleyball Players. *IJERSS*, Volume 1.

A Study on Occupational Stress, Organization Climate and Work Motivation among Physical Education Teachers Working in Different Management Schools of Bellary District

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ABSTRACT

The purpose of this study was to assess and compare the organizational climate, occupational stress and work motivation of physical education teachers working in different management of schools in Bellary district. To achieve the purpose of the study 93 physical education teachers aged 25 to 50 years with at least two years experience in same school were selected randomly with 31 subjects each from government, govt. aided and unaided schools out 363 schools (approximately). The following criterion measures of the study are organizational climate is measured by organizational climate scale by S.Pethe., S. Chaudhari and U. Dhar, Occupational stress is measured by occupational stress index by Dr. A.K. Srivastava and Dr. A.P. Singh, Work motivation is measured by work motivation questionnaire by P.K.G. Agarwal. The data is collected through mail as well as direct contact with the respondents. It is concluded that significant difference obtained in occupational stress of physical education teachers working in different management of schools in Bellary district. Significant differences found in occupational stress of physical education teachers working in unaided and government schools. Aided and government school teachers have better organizational climate than the Un-aided schools. Un-aided schools teachers have higher occupational stress in comparison to the aided and government school. The government school teachers have better work motivation than the aided and unaided schools. The results of this study are able to provide some insights that can be considered as intervening elements of organizational climate, occupational stress and work motivation of higher secondary level school Physical Education teachers of India. It is also concluded that it is higher authorities (management) who are concern and policy maker think of streamlining services conditions in terms of pay, benefits, duty hours and facilities etc.

INTRODUCTION:

Today's life is full of challenges. In everyday life we come across many situations. The work of a physical education teacher is a physically and mentally challenging. A physical education teacher needs to use a lot of energy in his daily chores in the classroom coupled with his personal and family commitments. This trend which is a routine for a physical education teacher forwards a lot of stress to the teacher. More than ever before work is not seen as the root of infinite satisfaction and fulfilment, but rather a source of stress, discontentment and humiliation. As the society became more and more complex leading towards the modern age, physical activity came to be recognized as an organized supervised form of education and was termed as Physical Education. Physical Education is a comprehensive concept and its scope is very wide. In the 21st century, Physical Education is not physical training itself or simply body building or mass drill or pertaining to physical fitness alone. It has emerged as a multi-dimensional discipline.

Physical Education has a special significance unique role and has made unlimited contribution in the modern age as it caters to the biological, sociological and psychological necessities of the man. In current scenario, Physical Education Teachers (PET) are playing a very vital role and their work can be divided into different categories of duties namely teaching, coaching, planning, evaluative, administrative, counseling and various unclassified ones. A PET requires a greater variety of talents than the teacher of other discipline and his responsibilities are diverse and the society looks up to him as a leader who can create and maintain general fitness of the sedentary people in the machine age. PETs feel their workload heavier, strenuous and difficult too. They face a lot of problems due to longer working hours, inadequate facilities/materials, clerical work and non congenial working conditions. In proportion to the expectations of the society, the PETs are not given due place and recognition. This leads to stress and dissatisfaction and in order to improve the whole prevailing situation it is very important to assess the organizational climate, occupational stress and work motivation of the Physical Education Teachers, so that these professionals are able to contribute maximum to improve the academic system of the schools where they are working. Based above facts the present investigation is taken into consideration for the need of hour.

Organizations are unique. Each one has its own culture, tradition and method of action. Educational institutions are no exception. Each institution has its own personality, which can be noticed by closely observing them. For instance, in one such educational institution, the teachers and the principal are zestful and show confidence in what they are doing. They find pleasure in working with one another and this pleasure is transmitted to the students who thus are given a fighting chance to discover that the institution can be a happy experience. Every institution has something specific that differentiates it from the other. It is this something that is called the "Personality" of the institution, which in turn, is termed as the organizational climate of the institution. Analogously, personality is too individual what organizational climate is to organization.

Organizational climate reflects the history of internal and external struggle, the types of people the organization attracts its work process, the modes of communication and the exercise of authority within the system. Just as society has cultural heritage, likewise the social organization possesses a distinctive pattern of collective feelings. In organizational climate, the focus is generally on the interpersonal relationship, between members and the organization.

Stress is inevitable to the life of an employee. It has positive functional and negative dysfunctional effects on the mark of life and job behavior of an employee. It has significant implication on the health and effectiveness of an employee in the job. Hence, it is necessary to examine some of the dimensions of stress and health on effective job commence. This is the positive effect of stress and mental health on the job performance of employee.

Today management pays more attention towards motivation of employee. The main task of management is to the working force in such a way so that their collective achieve efforts objectives of the enterprise. This is only able when the workers take interest in their work and have the desire to do good work. This depends on the fact that worker is how much motivated. There is basic difference between the capability to work and desire to work.

According to Margolis and Kores (1974) "Occupational stress is a condition worth interacting with worker characteristics is to disrupted psychological and physiological homeostasis. The causal situation conditions are job stressors and the disrupted homeostasis is job related stress." Occupational Stress Occupational Stress is stress at work. Stress is defined in terms of its physical and physiological effects on a person (or thing). Stress is mental, physical or emotional strain or tension or it is a situation or factor that can cause this. Occupational stress occurs when there is a discrepancy between the demands of the environment/workplace and an individual's ability to carry out and complete these demand. Often a stressor can lead the body to have a physiological which in turn will result on a strain on a person physically as well as mentally.

Today every school management pays more attention towards motivation of their teachers. The main task of management is to direct the working force in such a way so that their collectives achieve efforts objectives of the school and management. This is only possible when the workers take interest in their work and have the desire to do good work. This depends on the fact that the worker is how much motivated. There is basic difference between the capability to work and desire to work.

Purpose of the Study:

The purpose of the study is to assess and compare the organizational climate, occupational stress and work motivation among physical education teachers working in different management schools of Bellary district.

Objectives of the Study:

1. To find out the organizational climate, occupational stress and work motivation among physical education teachers working in different management of schools in Bellary district.
2. To find out the differences in organizational climate, occupational stress and work motivation among physical education teachers working in different management of schools in Bellary district.
3. To provide the guideline to the future research investigation in educational psychology and physical education to conduct further research in this field.
4. To provide some insights that can be considered as intervening elements of organizational climate, occupational stress and work motivation of higher secondary level school Physical Education teachers of India.
5. To provide adequate information to the authorities (management) who are concern and policy maker think of streamlining services conditions in terms of pay, benefits, duty hours and facilities etc for physical education teachers.

MATERIAL AND METHODS:**Selection of Subjects:**

The subjects are physical education teachers both male and female worked at least two years in different management of schools like government, government aided and unaided schools were selected randomly from the whole population of physical education teachers of various regions of the Bellary District. Thirty one physical education teachers (31) each from government, government aided and unaided schools totaling 93 subjects ranging from 25-50 years were selected.

Criterion Measures:

1. Organizational climate is measure by organizational climate scale prepared by Sanjoy Pethe, Sushma Chaudhari and Upinder Dhar.
2. Occupational stress is measured by occupational stress index prepared by Dr. A.K. Srinivastava and Dr. A.P. Singh.
3. Work motivation is measured by work motivation questionnaire prepared by P.K.G. Agarwal.

Administration of Questionnaire:

For this purpose, the investigator approached Bellary District Physical Education Officer and Zonal Physical Education Officers and obtained their permission. The research scholar administered the questionnaires through direct contact with the respondents during their zonal meetings and requested the physical education teachers of government, government aided and aided schools for their help and cooperation in this study. Firstly the investigator took 10 minutes of orientation regarding how to give their responses to questionnaire and explained them in detail. The physical education teachers were requested to answer the each statement of three questionnaires. A total of 93 subjects (31 physical education teachers from each group i.e., government, government aided and unaided schools of Bellary district were responded to the questionnaires.

Statistical Technique:

To compare the difference in the organizational climate, occupational stress and work motivation of physical education teachers working in different management schools of Bellary district were analyzed using the Analysis of Variance (F ratio test). To test the hypothesis at 0.05 level of significance is chosen based on the nature of the study.

Results And Discussions:

The mean scores of the organizational climate, occupational stress and work motivation of physical education teachers working in different management schools of Bellary district is given in table-1.

Table 1: Mean Scores of the organizational climate, occupational stress and work motivation of physical education teachers working in different management schools of Bellary district

S.N	Variables	Govt.	Govt. aided	Un- aided
1.	Organizational Climate	98.12	94.04	86.23
2.	Occupational Stress	116.45	118.01	121.56
3.	Work Motivation	103.9	96.2	91.65

According to table 1 there is a difference in the mean scores of physical education teachers working in different government schools, government aided schools and unaided schools of Bellary district on organizational climate, occupational stress and work motivation variables. Findings on analysis of variance of organizational climate, occupational stress and work motivation of physical education teachers working in different government schools, government aided schools and unaided schools of Bellary district are presented below.

Table 2: Analysis of variance for organization climate of physical education teachers working in different management schools of Bellary district

Scores of Variance	Df	SS	MSS	'F' Ratio
Between groups	2	27.68	16.34	7.14
Within group	30	83465.3	266.12	

Level of Significance .05 level, $F_{.05}(2,207) = 3.04$

Table 2 reveals that there is a significant difference in organizational climate of physical education teachers working in different management schools of Bellary district as the obtained 'F' ratio 7.14 is higher than the tabular values or 3.04 required for the 'F' ratio to be significant at .05 level with (2,207) degree of freedom. As the 'F' ratio of organizational climate is found to be significant, the post hoc test (Least significance difference test) is applied to test the significance of difference between the paired means for different management schools of Bellary district. The ordered paired means and the difference between the means is presented in the table 3

Table 3 Post hoc test for organization climate of physical education teachers working in different management schools of Bellary district

Govt.	Govt. aided	Un-aided	Difference Between Means (DM)
98.12	94.04		4.08*
	94.04	86.23	7.81*
98.12		86.23	11.89*

Level of Significance .05 level

Table 3 reveals that the mean difference of organizational climate for different management schools of Bellary district. There are significant differences between Government and Govt. aided schools, Govt. aided and Un-aided schools, Government and Un-aided schools, where the mean differences are 4.08, 7.81 and 11.89 respectively.

'F' ratio test computed with regard to the occupational stress of physical education teachers working in different management schools of Bellary district is presented in Table 4.

Table 4: Analysis of variance for occupational stress of physical education teachers working in different management schools of Bellary district

Scores of Variance	Df	SS	MSS	'F' Ratio
Between groups	2	197.56	962.42	6.71
Within group	30	67854.05	291.16	

Level of Significance .05 level, $F_{.05}(2,207) = 3.04$

Table 4 reveals that there were significant difference in occupational stress of physical education teachers working in different management schools of Bellary district as the obtained 'F' ratio 6.71 is higher than the tabular value of 3.04 required for the 'F' ratio significant at .05 level with (2,207) degree of freedom. As the 'F' ratio of occupational stress is found to be significant, the post hoc test (Least significance difference test) is applied to test the significance of difference between the paired means for different management schools of Bellary district. The ordered paired means and the difference between the means is presented in the table 5.

Table 5: Post hoc test for occupational stress of physical education teachers working in different management schools of Bellary district

Govt.	Govt. aided	Un-aided	Difference Between Means (DM)
116.45	118.01		1.56*
	118.01	121.56	3.55*
116.45		121.56	5.11*

Level of Significance .05 level

Table 5 reveals that the mean difference of occupational stress for different management schools of Bellary district. There are significant differences between Government and Govt. aided schools, Govt. aided and Un-aided schools, Government and Un-aided schools, where the mean differences are 1.56, 3.55 and 5.11 respectively 'F' ratio test computed with regard to the work motivation of physical education teacher working in different management schools of Bellary district is presented in table 6.

Table 6 Analysis of variance for work motivation of physical education teachers working in different management schools of Bellary district

Scores of Variance	Df	SS	MSS	'F' Ratio
Between groups	2	1224.31	634.52	5.21
Within group	30	57243.22	267.16	

Level of Significance .05 level

Table 6 shows that there is a significant difference in work motivation of physical education teachers working in different management schools of Bellary district as the obtained 'F' ratio 5.21 is higher than the tabular value of 3.04 required for the 'F' ratio significant at .05 level with (2,207) degree of freedom.

As the 'F' ratio of work motivation is found to be significant, the post hoc test (Least significance difference test) is applied to test the significance of difference between the paired means for different management schools of Bellary district. The ordered paired means and the difference between the means is presented in the table 7.

Table 7 Post hoc test for work motivation of physical education teachers working in different management schools of Bellary district

Govt.	Govt. aided	Un-aided	Difference Between Means (DM)
103.9	96.2		7.7*
	96.2	91.65	4.55*
103.9		91.65	12.25*

Level of Significance .05 level

Table 7 reveals that the mean difference of occupational stress for different management schools of Bellary district. There are significant differences between Government and Govt. aided schools, Govt. aided and Un-aided schools, Government and Un-aided schools, where the mean differences are 7.7, 4.55 and 12.25 respectively.

Conclusions:

There is a significant difference in occupational stress, organizational climate and work motivation of physical education teachers working in different management schools of Bellary district.

There is a significant difference in occupational stress of physical education teachers working in unaided and government schools.

Aided and government school teachers have better organizational climate than the Un-aided schools.

Un-aided schools teachers have higher occupational stress in comparison to the aided and government school.

The government school teachers have better work motivation than the aided and unaided schools.

The results of this study are provided some insights that can be considered as intervening elements of organizational climate, occupational stress and work motivation of higher secondary level school Physical Education teachers of India.

The results of this study provided adequate information to the authorities (management) who are concern and policy maker think of streamlining services conditions in terms of pay, benefits, duty hours and facilities etc for physical education teachers.

References:

Barton, N (1985) A Study on leadership behavior and organizational climate as related to the effectiveness of elementary schools principals and teachers. A review of the Literature, (Vol. 36) No. 2 Retrieved Feb. 08, 2006.

Ben-Ari, R., Krole, R., & Har-Even, D. (2003). Differential Effects of Simple Frontal Versus Complex Teaching Strategy on Teachers' Stress, Burnout, and Satisfaction, *International Journal of Stress Management*, v. 10, n. 2, pp. 173-195.

Btzioni, M. (1964) Cited in *Human behavior at Work: Organization Behavior*, In K. Davis and J.W. Newstrom, VII Ed. Mc. Graw-Hill book company Singapore.

Butts, M.; DeJoy, D.; Schaffer, B.; Wilson, M. & Vandenberg, R. (2009) Individual Reactions to High Involvement Work Processes: Investigating the Role of Empowerment and Perceived Organizational Support. *Journal of Occupational Health Psychology*, 14(2), 122-136,

Caplan, R.D., cob, S., Frengh, J.R.P., Van Harrison, R and Pinneau, S.R. (1975) Job demands and worker health: Main effects and occupational differences. NIOSH Research Report.

Cooper, C., Dewe, P. & Michael P. (2001) *Organizational Communication: A Review and Critique*. SAGE

Cramer, Stanley John, (2000) Effective of classroom motivational climate on student goal orientation, attitude towards physical education, cardiovascular fitness and basketball shooting skill. Ph.D. Temple

University Retrieved Feb. 08, 2006 from Pubmed Database.

Dov Zohar. (1999) When Things Go Wrong: The Effect of Daily Work Hassles on Effort, Exertion and Negative Mood. *Journal of Occupational and Organizational Psychology*, 72(3), 265-283.

Ishikawa, S; Kario, K; Kayaba, K & Tsutsumi, A. Akizumi (2009) Prospective Study on Occupational Stress and Risk of Stroke. *Archives of Internal Medicine*, 169(1), 56. Retrieved May 6, 2009, from American Medical Association database.

Jonge, J; Landsbergis, P & Vegchel N, (2005) Occupational Stress in (inter)action: The Interplay between Job Demands and Job Resources. *Journal of Organizational Behavior*, 26(5), 535-560. Retrieved May 6, 2009, from ABI/INFORM Global database.

Basket Ball Game: Injuries And Preventions

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Introduction :

Every Sport has injury problems. In Basket ball game, knee, lower back and ankle sprains have increased because people are jumping higher and more often in dunk and attacking and allowing the jumpers to land on or over the center line has increased these injuries even more. Over fifty percent of all injuries are due to jumping or landing.

When Injures Occur:Scientific studies of injuries do not report a consistent incidence of problems because some studies are done with the elite players in tournaments, while others are done in physical education classes. But we can surmise from the studies that there are more injuries at the beginning of a season than later - due to poor condition and poor skills; and that there are more injuries as the intensity of the game increases, such as in tournaments. There is a higher rate of injuries during game increases, such as in tournaments. There is a higher rate of injuries during games than during practice time. Generally speaking, the volley ball is a very safe game, but as spiking, blocking, and diving for digs have become more commonplace, injury rates have risen over the years due to this more aggressive play.

Types of Basket ball Injuries



Jumper's Knee.



Sprained ankles.



Lower Back injury



Fingers injury

The injuries in Basket ball game is increased in the following conditions :

- Poor jumping and landing technique results in an increased risk of injury.
- For young players, the highest level of injury is during their growth spurt.
- If the Player has had injuries earlier from Basket ball or another sport, there is a risk of re-injury.
- Injuries can occur if there is an imbalance of muscle strength.
- If the level of competition is higher; the pressure can result in injuries.
- It is more dangerous to play on concrete than on wood or synthetic floors.
- Playing on different surfaces increase the injury risk over playing on just one surface regularly.

Basket ball Injures Preventions and Safety Measures:

The following safety precautions are recommended to prevent basketball injury:

- Warm up thoroughly prior to playing a game or training.
- Ensure you have an excellent core control, speed, strength, endurance, agility and plyometric skills.
- Wear supportive basketball shoes with skid-resistant soles.
- Wear pads to protect your knees or elbows if they are in danger of injuries from the position you play.
- Wear ankle braces to prevent ankle sprains.
- During the practices of basket ball game, do leg exercises for better condition of the leg muscles.
- Use ankle stabilizers to reduce ankle sprains.
- Use knee pads to reduce knee injuries from hitting the floor.
- Injuries can often be prevented by using proper techniques and by effective strengthening of the muscles.
- Protective pads, orthotics and braces, particularly ankle stabilizers, can greatly reduce the risk of injury.
- General strength programme for fitness and specific programme for Basket ball exercise.
- Weekly three times of practice for the weight training.
- Protective knee and elbow pads will protect you from bruises and abrasions.
- Use a mouth guard to protect your teeth and mouth.
- If you wear glasses, use safety glasses or glass guards to protect your eyes.
- Do not wear jewelry or chew gum during practice or games.
- Coaches should be knowledgeable about first aid and be able to administer it for minor injuries, such as facial cuts, bruises, or minor strains and sprains.
 - Be prepared for emergencies. All coaches should have a plan to reach medical personnel for help with more significant injuries such as concussions, dislocations, contusions, sprains, abrasions, and fractures.

To keep your back healthy and strong:

- Regular low-impact aerobic activities can increase strength and endurance in your back and allow your muscles to function better. Walking and swimming are good choices. Talk with your doctor about which activities are best for you.
 - Build muscle strength and flexibility through abdominal and back muscle exercises.

- Maintain a healthy weight: If your overweight, trimming down can prevent back pain.

Prevention of Finger Injury:

- Reduce the speed and force of repetitive movements in activities such as hammering, typing, knitting, quilting, sweeping, raking, playing racquet sports, or rowing.
- Change positions when you hold objects, such as a book or playing cards.
- Use your whole hand to grasp an object. Gripping with only your thumb and index finger can stress your wrist.
- Consider wearing gloves that support the wrist and have vibration-absorbing padding when working with tools that vibrate.

Ensure a Safe Environment:

- Outdoor courts should be free of rocks, holes, and other hazards.
- When playing outside, environmental conditions must be considered.
- Players should avoid playing in extreme weather or on courts that are not properly lighted in the evening.
- Inside courts should be clean, free of debris, and have good traction.
- Baskets and boundary lines should not be too close to walls, bleachers, water fountains, or other structures.

References:

- Smartplay Victoria (2007), Preventing basketball injuries – facts and safety tips for basketballers, Sports Medicine Australia – Victoria.
- The most common injuries in basketball Aug 10, 2016. physioworks.com.au.
- Smartplay Victoria (2005), Drink up, beat the heat, Sports Medicine Australia – Victoria.
- Apr 27, 2015 - Top 10 Common Sport Injuries: Prevention and Treatment such as in basketball. www.medcareurgentcare.com.
- Low back pain. American Academy of Orthopaedic Surgeons. <http://orthoinfo.aaos.org/topic.cfm?topic=a00311>. Accessed May 29, 2015.
- William H. Bland, Jr., MD, FACEP - Finger, Hand, and Wrist Injuries. November 14, 2014.

Comparative Study Of Physical Fitness Among Female Basketball And Volleyball Players

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Abstract

The Study Was Conducted To Compare The Physical Fitness Variables Of Female Basketball And Volleyball Players. A Total Of 40 State Level Female Subjects Age Ranged Between 17-20 Years Were Selected For This Study From Guru Gobind Singh College For Women Sec-26, Chandigarh. 20 Female Basketball And 20 Female Volleyball Players Were Selected. The Purposive Sampling Method Was Used To Obtain The Objective 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. Physical Fitness Variables Were Speed, Strength, Endurance, Flexibility And Agility. The Tests Taken To Measure These Were 50 M Dash, Sit Ups, 600 Meter Run, Sit And Reach Test And Shuttle Run. Data Was Analysed By Using T-Test At 0.05significance. Analysed Data Showed That There Was No Significant Difference In Speed, Strength, Endurance. But Significant Difference Found Between Flexibility And Agility.

Keywords: Basketball, Female, Volleyball Players, Speed, Strength, Endurance, Flexibility. Agility,

Introduction

There Are Different Kinds Of Sports And Games Which Are Performed All Over World Some Are Related To Each Other But Some Are Entirely Different. So To Perform There Different Kind Of Sports Event Physical Fitness Is An Essential Component Which Should Be Possessed By A Player Or Individual. To Improve Physical Fitness Of An Player Training Plays A Very Important Role, As The Techniques Which Are Given In Training To A Player Improves The Players Performance Give Positive Effects To His Performance In Events. For A High Level Of Efficiency In Techniques And Tactics In Most Sports, A High Level Of Physical Fitness Is Most Important. So For Making Selection In Sports Physical Fitness Is The Most Important Factor And Its Cannot Be Neglected. So In The Game Of Basketball And Volleyball A High Level Of Physical Fitness Required For Better Performance.

Methodology

The study was based on physical fitness comparison between two groups, 20 female basketball and 20 female volleyball players were selected and following tests were performed to measure the physical fitness variables: 50m Dash test - To measure speed, Sit ups - To measure abdominal strength, 600m run test - To measure endurance, sit and reach test to measure flexibility, Shuttle run (4 x 10m) test -To measure agility.

Results

Table: 1 Mean, Standard Deviation, Standard Error of the Mean, t- value and p- value of female Basket Ball and Volley ball Players

Variables	Mean		SD		SEM		t- Value	P- value
	Basketball Players	volleyball players	Basket ball Players	volleyball players	Basket ball Players	volleyball players		
SPEED	6.96	6.86	.551	.223	.123	.050	0.79	0.00
STRENGTH	38.8	38.75	5.55	2.51	1.24	.561	0.037	.016
ENDURANCE	1.54	1.55	.190	.024	.042	.005	- 0.222	.010
FELEXIBILITY	14.88	16.46	1.839	1.474	.411	.330	- 2.998	.297
AGILITY	9.68	10.04	.395	.327	.088	.073	- 3.054	.833

SPEED

Table no. 1 the descriptive statistics shows the mean and SD value of basketball players on the variable of speed as 6.96 and .551 respectively. However, Volleyball players had mean and SD values as 6.86 and .223 respectively. The 't' - value 0.79. (P<0.05)

STRENGTH

The descriptive statistics shows the mean and SD value of basketball players on the variable of strength as 38.8 and 5.55 respectively. However, Volleyball players had mean and SD values as 38.75 and 2.51 respectively. The 't' - value 0.037. (P<0.05)

ENDURANCE

The descriptive statistics shows the mean and SD value of basketball players on the variable of endurance as 1.54 and .190 respectively. However, Volleyball players had mean and SD values as 1.55 and .024 respectively. The 't' - value -0.222. (P<0.05)

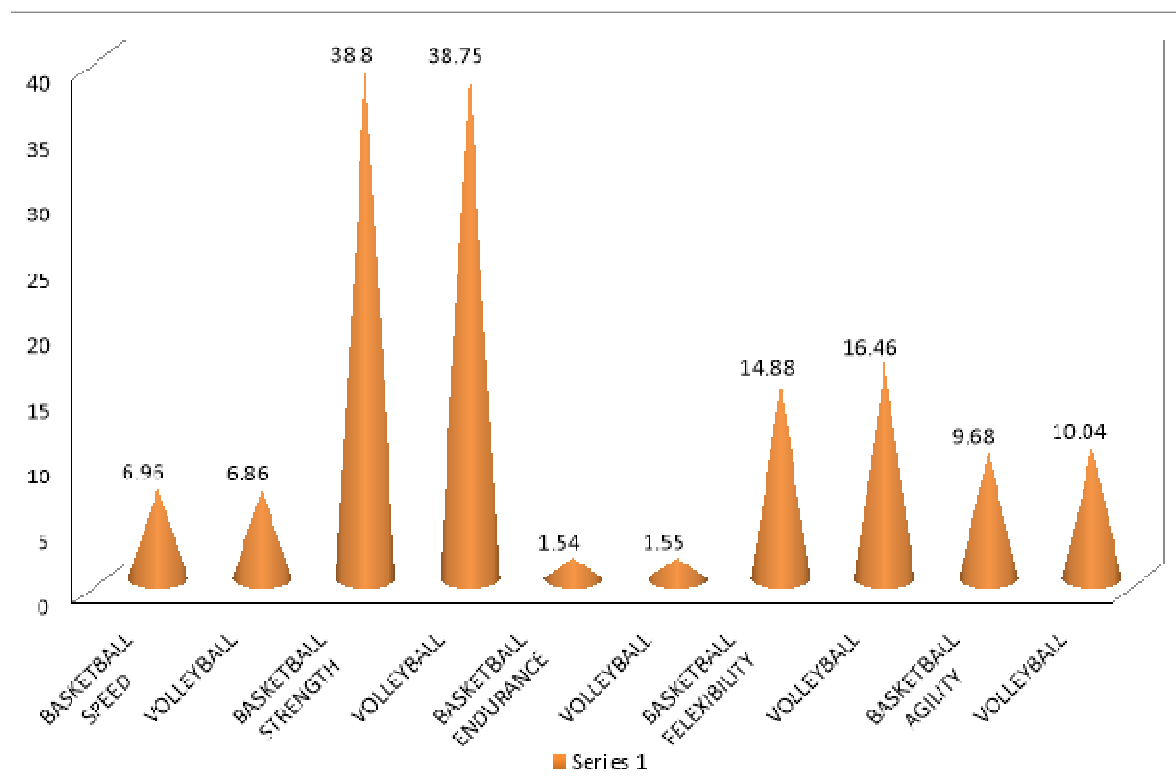
FELEXIBILITY

The descriptive statistics shows the mean and SD value of basketball players on the variable of flexibility as 14.88 and 1.83 respectively. However, Volleyball players had mean and SD values as 16.46 and 1.47 respectively. The 't' - value -2.998. (P>0.05)

AGILITY

The descriptive statistics shows the mean and SD value of basketball players on the variable of Cardiovascular endurance as 9.68 and .395 respectively. However, Volleyball players had mean and SD values as 10.04 and .327 respectively. The 't' - value -3.054. (P>0.05)

The comparison of mean scores of both the groups has been presented graphically in figure 1



Figure

1Graphical representation of mean scores of female Basketball and female volleyball players

on the variables i.e. Speed, strength, endurance, flexibility, agility.

Discussion And Conclusion

It is concluded from the above findings that the insignificant difference were found in the selected physical fitness variables i.e. speed, strength, endurance, and significant difference found in flexibility and agility between female Basketball and female volleyball players.

References

- AAHPER, (1975). Youth Fitness Test Manual, Revise Edition (Washington: Research Council AAHPER.
 Clarke H. H. (1987). of measurement to Physical Education, 370.
 Dutt, S. A (2002) Study of Health Related Physical and Motor Fitness in Boys aged 8-18 years, 170, 23-30
 Suresh, N.B. and Prakash, S.M. (2011). Comparison of physical fitness variables of 18-25 years old Volley ball players belonging to different districts of University of Mysore, *Journal of Arts and Culture*, 2(2), 34-36.
 Uppal, A.K.(2004) Physical Fitness and Wellness, Friends Publications (India), 134
Internet Sources
www.shodhganga.infinet.in
www.en.wikipedia.org/wiki/basketball
www.en.wikipedia.org/wiki/VOLLEYBALL

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A Study On Status For Women In Sports In Colleges Of Karnataka State

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Abstract:

The participation of women and girls in sport challenges gender stereotypes and discrimination, and can therefore be a vehicle to promote gender equality and the empowerment of women and girls. In particular, women in sport leadership can shape attitudes towards women's capabilities as leaders and decision-makers, especially in traditional male domains. Women's involvement in sport can make a significant contribution to public life and community development. Hypothesis: 1) there is dearth of sports facilities for women in the colleges. 2) The encouragement of teaching faculty towards sports participation is not encouraging. Methodology: In order to collect the necessary data the researcher adopted Interview and Questionnaire techniques. The data would be further strengthened by personal observations, formed and informed interviews etc. Result: 1) the study reveals that nearly 50 percent of the family do not encourage or allow their female children to participate in any form of sports, because of their first priority towards education and their perception that sports deteriorate children's studies. 2) It is evident from the study that Girls are allowed by their parents only to participate within the college level or utmost intercollegiate level, based on the feeling that when girls are allowed to play out of the college level they are exposed to an environment which is not safe and misguiding their children. Conclusion: Indian women are still shy and conservative in nature. This is, however, due to the uncompromising attitude of Parents and men for not allowing their women to be exposed to public gaze. Women are underrepresented at all levels of sports, including coaching and administration opportunities. Because opportunities in sports at a higher level are more prevalent for males than for females, it was believed that the more serious aspects of sports, such as competition, scholarship potential and challenges would be more important to the male athletes than the female and the more social aspects like experience, building friendships, fun and physical fitness would score higher on the female responses.

Key Words: Status, Sports women, Colleges

Introduction

Physical education and sports which encompasses wide range of activities bestows a number of benefits to its systematic pursuers. By far a prominent benefit is harmonious growth and development in resonance with age and sex of participants. Understanding the qualitative effects of the growth on the child's physical and motor

development, along with others like emotional, interpersonal and cognitive development helps the professionals in physical education to identify, and to train the young growing people and also determine the strength and weakness of population, formulations and implementations of Physical education programs.

Women Sports: A marked modern feature is women's increasing participation in athletic sports. Economy of modern feminine apparel permits greater activity. Therefore greater skill in such sports as Tennis, Basket Ball and Swimming although women seldom can equal the performance of male champions, they do well at a number of sports, of which the "aesthetic" ones of diving and figure skating are perhaps most noted. The major games for female teams are soft ball, field hockey and basket ball.

Women also have achieved fame for all-round athletic ability. Women once forbidden even to watch the ancient Olympic Games, now participate in the modern Olympics in track and field, swimming fencing, skiing and figure skating. Foot ball and basket ball draw many female spectators, as does base ball, notably "ladies day" when they are admitted free. Even boxing, once considered hardly respectable even for male spectators now is witnessed by many women.

Women's Participation in India: While the women in the western countries take a keen interest in games and sports, Indian women are still shy and conservative in this regard. This is, however, due largely to the uncompromising attitude of men of not allowing their women to be exposed to public gaze. We are yet to come across a husband who encourages his wife to take interest in games and sports. While women in India are to some extent coming out freely and we hear occasional reports of women's participation in sports, much headway has to be made in this regard. What is needed is to educate both men and women on the need of exercise to women both for health and diversion.

Physical Education in India: Ever since independence, physical training in schools has been receiving the attention of the authorities and efforts are being made to train the students in games and sports and inculcated in them a desire to give to their body what exercise it needs. But a lot of time had been taken in experimentation; a number of schemes were tried and what has been achieved so far, though falls short of what should have been achieved, indicated a genuine interest the authorities are taking in the matter.

UNESCO (2006): Sport as a platform to advance women's leadership in all spheres: UNESCO and the Sony Ericsson Women's Tennis Association Tour announced a landmark global partnership in 2006, which marked a new level of commitment to raise awareness of gender equality issues and advance opportunities for women's leadership in all spheres of society. Activities planned included a fund for women's leadership; appointment of global "Promoters of Gender Equality"; mentoring, scholarship and fellowship programmes; and the use of UNESCO and Sony Ericsson WTA Tour events as awareness and fund-raising platforms. Tennis star Venus Williams, the first global Promoter of Gender Equality, noted that "our goal is to let women and girls throughout the world know that there are no glass ceilings, and to do our part to support programs that provide real opportunities for women to succeed in whatever they set their minds to."

Hypothesis:

It is hypothesized that,

There is dearth of sports facilities for women in the colleges. The encouragement of teaching faculty towards sports participation is not encouraging. The concept of women sports participation as a whole is not understood and the awareness about the same is lacking.

Delimitations

The present study is delimited to college students of five districts from different parts of Karnataka State.

The study is delimited to women students of the colleges.

Limitations

The researcher will depend on the responses of the students which may be biased due to different factors.

The records in the colleges may contain misleading information.

The tools will be administered to the selected subjects in their respective colleges. The moods and the emotional status of the subjects may have influenced their responses to various items or questionnaires administered to them. This in turn might have influenced the data gathered.

Methodology:

A total sample size of 1292 students representing from 37 colleges is selected randomly across eight districts namely Bangalore, Hassan, Bellary Mangalore Mysore, Shivamogga of Karnataka. Among the selected colleges, 25 colleges are run by the government while 12 colleges are private aided institutions. The highest representation is from Hassan district (10 colleges) followed by Mysore (6 colleges) and Shivamogga (5 colleges). In order to collect the necessary data the researcher adopted Interview and Questionnaire techniques. Great care was taken to include all the items that may directly and indirectly have bearing on of the subject, while framing the questions in the questionnaire. Questionnaire was framed with a view to make a comprehensive study of the subject. Self constructed questionnaire after being assessed and validated by experts in physical education will be used to elicit information. The questionnaire administered to the subject consisted of questions regarding following

Questionnaire to the college and Physical education director

Profile of the institution and physical education director, Managerial aspects connected with physical education

Sports facilities and infrastructure, Sports policies and budgeting

Questionnaire to the students

Profile of the students, Social and economical background of the students Sports background of the students

Opinion regarding the sports polices, facilities, encouragement of the college etc...

The data would be further strengthened by personal observations, formed and informed interviews etc.

Result:

The study reveals that nearly 50 percent of the family do not encourage or allow their female children to participate in any form of sports, because of their first priority towards education and their perception that sports deteriorate children's studies. Lack of knowledge towards physical and psychological benefits of sports make parents to discourage their girl children. It is evident from the study that Girls are allowed by their parents only to participate within the college level or utmost intercollegiate level, based on the feeling that when girls are allowed to play out of the college level they are exposed to an environment which is not safe and misguiding their children.

Parents at the semi urban area are unaware of the availability of sports quotas for their girl child for higher education as well as for employment.

Women Participation in Sports

While examining the details of achievement and participation in sports by the women respondents it was found that most of them play Kho-Kho which stands first in the list followed by Athletics, Shuttle badminton, Kabaddi, Ball badminton, Fitness and health activities, Basketball, Hockey, Cricket, and Football.

Kho-Kho is a traditional sport played by women from ancient times and most of the awards are also given in the name of patriotic leaders like Jhansi Rani Lakshmi Bai and Onake Obavva to encourage women participate more in this game. Kho-Kho can be played without any equipment hence we can see playing kho-kho in villages by small girl children also.

Athletics is simple and inexpensive sport. Though it demands physical fitness, strength, speed and stamina it is played for individual performance and development. Hence many respondents have selected more Athletics according to the study.

We can find women showing more interest for Shuttle badminton and ball badminton sports, as it is an Indoor game and do not demand huge strength when compared to other games like Kabbadi and Football. As today's women give much importance to their figure and keen in loosing excess weight, they play more Shuttle badminton and ball badminton sports.

Sports like Football, Hockey and Cricket playing girls per cent are less (below 20 percent) because it is a Risk bearing game and it requires fitness, great stamina and endurance. Hardly can we see women playing these games from ancient days. These games are not popular in women sports as there is more possibility of injuries and hence parents do not encourage their girl child to play these games.

Conclusion: Indian women are still shy and conservative in nature. This is, however, due to the uncompromising attitude of Parents and men for not allowing their women to be exposed to public gaze. Women are underrepresented at all levels of sports, including coaching and administration opportunities. Because opportunities in sports at a higher level are more prevalent for males than for females, it was believed that the more serious aspects of sports, such as competition, scholarship potential and challenges would be more important to the male athletes than the female and the more social aspects like experience, building friendships, fun and physical fitness would score higher on the female responses. What is needed is to educate at the core level, parents and men with women on the need of exercise to women both for health and diversion. There is a strong correlation between physical activity and self-esteem. Girls should be made to feel more positive about themselves and their abilities to take part in sport up to the highest level. In this regard this study has been made to understand the fact prevailing in different colleges of Karnataka state regarding encouragement and development sports among girls. The situation is not different to that of any other states of India, where girls are hardly encouraged to participate in sports. Female athletes are given a lower priority in their lives and have lower expectations of their future in sports. The policy makers have to think seriously to prohibit gender discrimination in sports and bring a separate law which brings equality in organizing sports programmes to men and women and provide financial assistance for the development of women's sports.

Reference

Bogert, Jean, Nutrition and physical fitness. Philadelphia: W.B. Saunders and CO, 1960

Vertinsky, Patricia (1994). 'Gender Relations, Women's History and Sport History: A Decade of Changing Enquiry, 1983-1993'. *Journal of Sport History* 21:1 Pp. 1-24 .

Pederson, S. & Seidman, E. (2004). Team sports achievement and self-esteem development among urban adolescent girls. *Psychology of Women Quarterly*, 28: 4, pp. 412-22.

Bandya, S. J., Gorib, G. & Jinxiac, D. (2012): From Women and Sport to Gender and Sport: Transnational, Transdisciplinary, and Intersectional Perspectives, *The International Journal of the History of Sport*, 29:5, pp.667

Gertrud Pfister (2010): Women in sport – gender relations and future perspectives, *Sport in Society: Cultures, Commerce, Media, Politics*, 13:2, pp. 234-248.

Klausen, K. K. (1996). Women and Sport in Scandinavia: Policy, Participation and Representation, *Scandinavian Political Studies*, Vol. 19 - No. 2, ISSN 008(M757), pp. 111-31.

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Latest Trends in Fitness and Sports

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Introduction:

Fitness means being in good physical condition or being healthy. Fitness also means having more energy and better sleep patterns. A person who is fit is also able to carry out daily tasks more easily. Fitness is not only meant for sports personnel, it is also essential for every individual to lead healthy life. Fitness may help in preventing certain diseases such as high blood pressure, diabetes, stroke, cancer, and heart disease hence it becomes all the more important to stay fit.

Fitness Trends:

Fitness is extremely important in one's life and with changing life style and diet habits, lot of new trends have evolved. I have covered a few of them in the below section. High-intensity interval training (**HIIT**) describes any workout that alternates between intense bursts of activity and fixed periods of less-intense activity or even complete rest (Fortleg). It is a form of cardio exercise and these sessions range from 4 to 30 minutes.

Online training-With digitization and having information on finger tips, we observe a growing trend in online training where one can go through online tutorials for various fitness trainings. This is a platform where depending on one's fitness need, a training program can be defined. The trainee has to follow the schedule given to him/her and submit the results on a weekly/fortnightly basis so that trainer can review the status and make any course corrections in the training program. This will also offer lot of video based trainings where one can refer to loads of material online and practice. For eg: Crunch Gym, the first international fitness chain to offer their group fitness program online

Express Workouts- This is observed as a new trend where in people are looking for express workouts for a specific goal. These trainings range from 30mins or less. It is also recommended that these trainings to be carried out three days a week so that sufficient gap is given for proper recovery. Using certain techniques athlete will be given specific set of exercises to easily achieve the goal

Yoga- Now a days Yoga has become famous worldwide as it offers health benefits, fitness and emotional control on oneself. We have seen increasing trend in yoga across the world. There are multiple types of Yoga and all it needs is concentration.

Cognition - building challenges and specific movement patterns to improve brain function.

Small group session- This is an upcoming trend where people with common goal come together and practice their workouts. This trend will boost the interest in attending fitness training regularly and will also help them in assessing the results. The outcome from these groups are encouraging as they tend to help each other in attaining the common goal.

Wellness-focused profession has seen steady growth in the industry for years, but experts are forecasting an even greater shift from traditional body-only training to all-encompassing wellness coaching this year. Wellness coaches are experts in facilitating the process of change (both physical and mental) over time and they work with clients to accomplish more than they ever thought possible. We have observed demand in this space where individuals are looking for overall fitness (Body and Mind)

Altitude- As we are aware that people who practice at higher altitudes can perform better in lower altitudes. We have seen a strong trend towards conducting the fitness trainings at higher altitude for better results.

Technology Trends In Fitness:

Technology is now helping us in our day to day activities. Likewise, it's also helping us in gauging the fitness activities. There are lot of devices available in the market which will help us analyzing the workout patterns and also will help us in letting us know the outcome of exercise. The devices range from wrist bands, watches, head bands etc which will calculate the number of calories burnt, heart rate, blood pressure and also measure the time taken to complete specific distance.

The devices are also connected to popular operating systems such as Android and Windows there by tracking fitness in a computer or tablet. Using these applications, we can infer lot of trends in our fitness pattern. Tread Mill machines are also latest Technology for developing the fitness.

Discussion:

Mindset is important because it's the only thing you truly have control over. You have zero control over what happens once the food enters your mouth or how your body will respond when you decide to start a training program. Trainees "mindset" is crucial when it comes to achieving fitness goal. One has to start with positive mindset which will yield right set of results. Trainees often get off tracked with external influences and counseling helps in bringing them back on track. Lot of case studies available online which one can refer to. With changing mindsets, the demand for counselors is increasing. Counselors are available at the fitness center and also at famous medical institutions. We have also observed a trend in seeking counselors help over the phone. Frequently people get so excited and motivated after hearing a good motivational talk or seminar. They are ready to make lifestyle changes; they set their goals and make the decision right there and then to change their lifestyle or to lose weight.

Nutrition In Current Fitness Trends:

Nutrition-based offerings like food and diet coaching in 2014 - Empowering people to break the chain of crazy fad dieting by educating them to eat sensibly is an immeasurable benefit. If you can teach a person how to eat well and stop putting unnecessary additives and chemicals into the body, their system will breathe a sigh of relief and start metabolizing the way it's meant to. More Liquid -The Institute of Medicine determined that an adequate intake (AI) for men is roughly about 13 cups (3 liters) of total beverages a day. The AI for women is about 9 cups (2.2 liters) of total beverages a day. This will help an athlete not get dehydrated. This will also help in improving metabolism.

Conclusion:

With upcoming fitness trends, we are able to cater fitness to larger population. There are various fitness trends available in the market which can be tailor made based on one's requirement. With the help of fitness gadgets, one will be able to gauge their performance and set higher goals. All these are not possible without proper nutrition hence one has to be cautious about their diet. It is essential that we keep ourselves up to date with current trends in fitness to get proper benefit

Recommendation:

While there are lot of fitness trends coming up, we should not forget the fact that there is an objective for fitness and it varies from individual to individual. One has to be extremely focused on defining their goals (short term and long term) there by define a training plan. They should try and adopt the new trends wherever it helps in achieving these goals. One has to be extremely careful about food habits as this is directly linked to energy. Adopting new practices in fitness, nutrition and technology has to be in consultation with fitness trainer/expert else it would have adverse effects.

References:

www.shape.com
www.healthline.com
<http://laetuslifestyle.com>
<http://en.wikipedia.org/wiki>
www.mensfitness.com

Comparative Analysis On Aerobic Fitness Among Soft Ball And Base Ball Players Of Osmania University

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Introduction:

Softball is a variant of baseball played with a larger ball on a smaller field. It was invented in 1887 in Chicago, Illinois, United States as an indoor game. It was at various times called indoor baseball, mush ball, playground, softball, kitten ball, and because it was also played by women, ladies' baseball. The name *softball* was given to the game in 1926, because the ball used to be soft.



First Photo of Soft Ball Chicago Team in 1897

Baseball is a bat-and-ball game played between two teams of nine players each, who take turns batting and fielding. The batting team attempts to score runs by hitting a ball that is thrown by the opposing team's pitcher with a bat swung by the batter, then running counter-clockwise around a series of four bases: first, second, third, and home plate. A run is scored when a player advances around the bases and returns to home plate.

Objective of the study:

The objective of the study is to determine the significant difference of aerobic fitness among Soft Ball and Base ball Players of Osmania University.

Hypothesis:

There may will be significant difference of aerobic fitness among Soft Ball and Base ball Players of Osmania University.

Methods and Materials:

The subjects selected for the study were 20 Male Soft Ball and 20 Male Base Ball Players of Osmania University during the Camp for the year 2016-2017 between the age group of 18-20 Years.

Tools Used:

12 Min cooper Test Is used for the study. The Cooper 12 minute run is a popular maximal running test of aerobic fitness, in which participants try and cover as much distance as they can in 12 minutes.

purpose: to test aerobic fitness (the ability of the body to use oxygen to power it while running)

equipment required: flat oval or running track, marker cones, recording sheets, stop watch. **procedure:** Place markers at set intervals around the track to aid in measuring the completed distance. Participants run for 12 minutes, and the total distance covered is recorded. Walking is allowed, though the participants must be encouraged to push themselves as hard as they can to maximize the distance covered.

Results and Discussion:

The Table Showing significant difference of Aerobic Fitness among Soft Ball Players and Base Ball Player

Variable	Base Ball		Soft Ball		SEd.	t-ratio
	Mean	S.D.	Mean	S.D.		
Endurance	2634.01	270.38	2246.5	150.09	50.31	7.95

The mean score (2634) of the endurance component of physical fitness of Base Ball players is high than the mean score (2246.5) of Soft Ball Players of Osmania University.. the t-ratio is 7.95 which is significant at 0.05 levels. High score better Endurance.

Conclusion:

Physical fitness is now considered a measure of the body's ability to function efficiently and effectively in work and leisure activities, to be healthy, to resist hypo kinetic diseases, and to meet emergency situations. Fitness is defined as the quality or state of being fit. A well rounded fitness program will improve a person in all aspects of fitness, rather than one, such as only cardio/respiratory endurance or only weight training. Hence it is concluded that the physical fitness plays a vital role on the performance of the players. Physical activity can act as an antidote to some kinds of fatigue; youngsters will be harmed through sustained exercise – if they are fit, their physical endurance is great, and the exercise will be conducive to good health.

References

Wikipedia, Soft Ball and Base Ball
 Jammu & Kashmir “, (Unpublished Doctoral Thesis, Jiwaji University, Gwalior, 1988.
 Singh RM. Physical Fitness norms of Punjab High School Boys”. Unpublished Doctoral Thesis, Punjab University, Chandigarh, 1986.
 Rudi M, Robert N et al. Physical Fitness Qualities of Professional Rugby League Football Players: Determination of Positional Differences. The Journal of Strength and Conditioning Research Article 2001; 15(4):450–458.
 Tyagi S. Physical Fitness norms for boys and girls nine through twelve of Delhi State. Unpublished Ph.D. Thesis, Jiwaji University, Gwalior, 1993. Shukla NB, Sharma SS, Banerjee, Sarojini. Comparison of Physical Fitness of Individual and Team sports. International conference on Health, Sports and Physical Fitness-need for an Integrated Approach CCS, Haryana Agricultural University, Hisar, 1995, 44.
 Singh S. Normalative study of Moto Fotness Component of Class Nine and Te boys, Unpublished Ph.D. Thesis Jiwaji University, Gwalior, 1962, 3-4

- Gabbett T et al. The use of physiological, anthropometric, and skill data to predict selection in a talent-identified junior volleyball squad. Journal of Sports Sciences 2007; 25(12):1337 – 1344.

- Jackson WA, Baker AA. "The Relationship of the Sit and Reach test to criterion measures of Hamstrung and Back flexibility in young female". Research Quarterly for Exercise and Sports 1986; 3.

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Effect of Physical Activity Programme on Academic Competence of Students with Intellectual Disability

Lipsy John L¹ & Dr. G. Vasanthi²

Abstract

Researchers suggest that regular physical activity can positively influence on academic competence. In Indian context, very few studies have been published on the impact of physical activity on academic competence of students with intellectual disabilities. So an attempt was made by the investigator to explore the role of physical activity on academic competence of students with intellectual disabilities. Sample including 20 children with mild mental Retardation were selected randomly from Central Institute on Mental retardation, Trivandrum, Kerala. The participants were randomly assigned to experimental and control group, physical activity programme was given on weekly basis to the experimental group. Whereas the control group did not involve in the training programme other than their regular activity. Academic competence was measured before and after the training of both experimental and control group. The pre and post test data collected was statistically analysed using ANCOVA and the result relieved that the experimental group was found to be significantly better in Academic Competency when compared to control group. The study includes some practical implications and recommendations for future research.

Key words: Physical activity, Academic competence, Intellectual disability, Training

Introduction

Regular physical activity is vital for adult individuals with intellectual disabilities. Students with intellectual disabilities have been in schools for many years and will be for years to come. Extensive research has been done on these students and how to better educate them specifically in the public schooling system, however little has been done around physical activity with this population. The role of physical activity not only benefits school aged children in regular classrooms, but has been found to play a vital role in improving the health in children with intellectual disabilities (Horvat & Franklin, 2001; Winninck 2011). Although research on physical activity of children with intellectual disabilities is scarce, findings by recent research (Faison-Hodge, & Poretta, 2004; Longmiour & Bar-Or, 2000; Pittittie, Beets & Combs, (2009) revealed that children in their study engaged in more than the recommended amounts of physical activity for general population. The current recommendation for school-aged children is for them to accumulate at least 60 minutes of moderate to vigorous physical activity (MVPA) each day (Strong, et al., 2005; Pate, Yancey, & Kraus, 2010). Because of the need to provide opportunities for school-aged children with disabilities to engage in appropriate amounts and types of physical activity, structured adapted physical education classes have been recommended to provide this opportunity (Pitetti, Beets, & Combs, 2009). It is possible that the provision of regular amounts of structured physical activity may also help students with developmental disabilities progress academically as well. This possibility is most likely due to a variety of factors, including the environment, brain function, and other physiologically related factors.

Taking the support for regular physical activity and physical education to improve brain function and focus with recent evidence in the regular classroom that physical activity during school improves academic performance in students without disabilities (CDCP, 2010; Castelli, Hillman, Buck, & Erwin, 2007; Chomitz, Slining, McGowan, Mitchell, Dawson, & Hacker, 2009; Dwyer, Sallis, Blizzard, Lazarus, & Dean, 2001; Grissom, 2005; Hillman, Castelli, & Buck, 2005; Martin, & Chalmers, 2007; Shephard, 1997; Tremblay, Inman, & Williams, 2000; Wittberg, Cottrell & Northrup, 2009), it is possible that school-aged children with disabilities may also improve academic performance if they are engaged in regularly structured physical activity prior to academic work.

Method

The study was designed to find out the effect of Physical Activity Programme on Academic Competence of children with Intellectual disability.

Sample

The sample includes 20 subjects with mild intellectual disability. All the subjects were males with in an age group of 12 to 14 years from Central Institute on Mental Retardation, Tivandrum, Kerala, India.

Tool

Academic Competence was measured by using Social Skill Rating System (SSRS) developed by Gresham and Elliot (1990). It is a norm-referenced assessment tool that focuses on Social Behavior in pre-school, elementary, and secondary students. The SSRS focuses on three measurement areas, namely Social Skills, Problem Behaviours and Academic Competence. The present study has taken only Academic Competence dimension. The reliability of the Academic competence scale is 0 .95.

Procedure

Prior permission was obtained from the authorities of Central Institute on Mental Retardation, Trivandrum, Kerala, before conducting the study. A total of 20 Participants were randomly selected for the study and are randomly assigned to control and experimental groups with 10 members in each group. Academic competence was measured for both the control and experimental group participants by using Social Skills Rating System. Twelve week Physical activity training programme which includes 60 minutes training per day for four days in a week were given to the experimental group and no training was given to the control group. The Academic competence was measured for both the control and experimental group before and after the training programme by means of questionnaire.

Result and Discussion

The pre-test mean scores of control group on academic competence is 19.40 (SD= 7.36) and for experimental group is 19.40 (SD=7.36). The significant level is 1.00, which indicates that there is no significant difference between control group and experimental group on academic competence on pre-test scores. Although post-test mean scores of control group on academic competence is 18.70 (SD=4.78) and for experimental group is 24.00 (SD=v6.09). The significant level is 0.04 which indicates that there exists significant difference between control and experimental group on post-test academic competence scores. Experimental group exhibited more academic competence than control group. Similarly adjusted post-test also shows significant differences between experimental (mean = 24.00) and control groups (18.70).Figure 1 is the graphical representation of pre, post and adjusted post test scores of control and experimental groups on academic competence.

This study contributes to the literature by showing that there may need to be more exercise, communication about the priority of the exercise and education about the benefits of exercise to students with intellectual disabilities. Future research should be conducted on finding the optimal combination of the type of exercise and duration of exercise to help students with intellectual disabilities improve academically and behaviorally in the classroom. It is suggested that schools may try to find more time for structured physical activity for these students.

Table 1 Pre, Post and Adjusted Post test Scores of Academic Competence in Experimental and Control Groups

	Experimen- tal Group	Control Group	S O V	Sum of Squares	d. f.	Mean Squares	'F' ratio	Sig.
Pre test Mean	19.40	19.40	B	0.00	1	0.00	0.000	1.000
SD	7.36	7.36	W	674.80	18	37.48		
Post test Mean	24.00	18.70	B	140.45	1	140.45	4.68*	0.044

SD	6.09	4.78	W	540.10	18	30.00		
Adjusted Mean	24.00	18.70	B	140.45	1	140.45		
			W	358.35	17	21.08	6.66*	0.019

*Significant at (P<0.05)

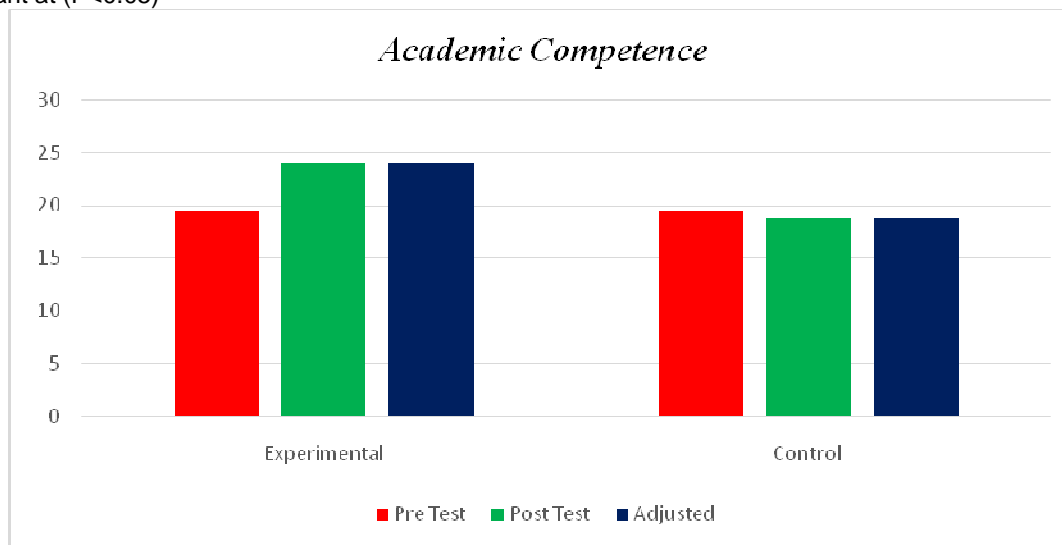


Figure 1: Pre-test, Post-test and adjusted Post-test academic competence scores of experimental and control group

Conclusion and Recommendations:

On the basis of findings and within the limitations of the study the researcher came into the conclusion that the academic competence for the experimental group has increased due to physical activity training programme. Various studies show that the physical activity training programme will help the intellectual disability students to achieve the academic competence. It is recommend to inculcate more physical activity programmes in special schools as well as in normal school to enhance the academic competence of the students.

Reference

Castelli, D.M., Hillman, C.H., Buck, S.M., & Erwin, H.E. (2007). Physical education and academic achievement in third -and fifth-grade students. *Journal of Sport and Exercise Psychology*, 29, 239-252.

Centers for Disease Control Prevention. (2010). The association between school-based physical activity, including physical education, and academic performance. Atlanta, GA: U.S. Department of Health and Human Services.

Chomitz, V.R., Slining, M.M., McGowan, R.1., Mitchell, S.E., Dawson, G.E., & Hacker, K.A. (2009). Is there a relationship between physical fitness and academic achievement? Positive results from public school children in the north-eastern United States. *Journal of School Health*, 79, 30-37.

Gresham, F. M., & Elliot, S. N. (1990). *Manual for the social skills rating system*. Circle Pines, MN: American Guidance Service.

Hillman, C.H., Erikson, K. I., & Kramer, A.F. (2008). Be smart, exercise your heart: Exercise effects on brain cognition. *Nature Reviews Neuroscience*, 9, 58-65.

Martin, L.T., & Chalmers, G.R. (2007). The relationship between academic achievement and physical fitness. *Physical Educator*, 64, 214-221.

Pitletli, K.H., Beets, M.W., & Combs, C. (2009). Physical activity levels of children with intellectual disabilities during school. *Medicine and Science in Sports and Exercise*, 41, 1580-1585. doi:10.1249/MSS.0b013e31819d4438.

Schunck, D.H. (2008). Metacognition, self-regulation and self-regulated learning: Research recommendations. *Educational Psychology Review*, 20, 463-467, doi: 10.1007/s10648-008-908~3.

Tremblay, M.S., Inman, I.W., & Willms, I.D. (2000). The relationship between physical activity, self-esteem, and academic achievement in 12-year-old children. *Pediatric Exercise Science*, 12, 312-323.

The Attitude of Out-of-State Students Studying in Physical Education Colleges of Maharashtra State Towards Physical Education

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Abstract :

The main purpose of this study was to measure the attitude of students towards Physical Education belonging to different states of India, studying in Aided and Non-aided physical education colleges of Maharashtra state. A sample of 600 students of both sexes was elected randomly from eight Aided and twenty-two Non-aided Physical Education Colleges of Maharashtra State. An Attitude Scale based on 'Likert five point scale' was used for data collection. Mean and Chi-square were the main statistical measures that was used by the researcher for analysis and interpretations of data. The findings of the study led to the following conclusion that 1) students belonging to Bihar states showed highly favourable attitude towards physical education in respect to other state's students, while students belonging to M.P. showed unfavourable attitude towards physical education. 2) Students belonging to different states of India differed significantly in respect to their attitude towards physical education. 3) Aided and Non-Aided colleges students differed significantly in respect to their attitude towards physical education.

Key words : Students, Attitude, Colleges, Physical Education.

Introduction :

Physical education is vital to all aspects of the normal growth and development of children and youth, - not only physical but social and emotional growth as well. Enhanced learning, better concentration, improved self-control and self-confidence as well as promotion of healthy, positive and lifelong attitudes towards physical activity are well documented benefits of quality physical education in schools. In addition, school physical education establishes the foundation of skills for a lifetime of participation while at the same time building a natural immunizing effect against many sedentary lifestyle diseases. An investigative world-wide survey of the state and status of physical education in schools by **Marshall and Hardman, (1998)** reveals that school physical education is in a perilous position in all continental regions of the world. Specifically, the article addresses issues of legal status and actual implementation, restricted or decreasing curriculum time allocation, subject status and attitudes of head teachers, other teachers and parents, inadequacies in financial, material and human resources and teacher preparation, curriculum trends, as well as skepticism about the subject's future. Concluding comments allude to the main sources of concern and international efforts to sustain physical education in schools in the next millennium.

Penney (2000) explores the relationship between excellence in the context of physical education (and the National Curriculum for Physical Education (NCPE) in England and argued that discourses of performance in sport strongly 'frame' these definitions, while the notion of *educational* excellence remains apparently underdeveloped in the context of physical education. The processes of policy development, the structure of curricula and the histories (personal and collective) of the subject and profession are identified as critical influences (and origins of strong discursive frames) that collectively reinforce a direct association between excellence in physical education and excellence in sport. Parallel texts, associated with another subject (music), are examined to highlight possibilities for the development of alternative understandings and definitions of achievement and excellence in physical education, informed by and privileging educational discourses. **Langford (2004)** found that differences in student-teacher ratios may also contribute to attitude differences between the two countries. In the Czech Republic, the maximum physical education class size in high schools is 24 students, but rarely does actual class size at any grade level exceed 20 students. By contrast, National Association for Sport and Physical Education (2001) data show that only 25.5% of states have a policy on the maximum allowable student-to-teacher ratio for physical education for senior high schools. For states that do, the average maximum allowable ratio is 34:1. Among those that do not cap class size such as Georgia, Texas, and Utah, high schools classes often have 40 or more students on one physical education teacher. The importance attached to physical education by teachers and administrators in the two countries is also a likely determinant of how students perceive the subject. Traditionally the careers in physical education and sports have focused on teaching and coaching in schools and colleges or universities. Recently, the Govt. of Maharashtra has Centralized its Admission process for the Physical Education Courses i.e. B.P.Ed. & M.P.Ed. The initiatives like this playing a great role in upgrading the standard of Physical Education in Maharashtra and also playing a vital role in forming the favourable attitude among the students towards physical education.

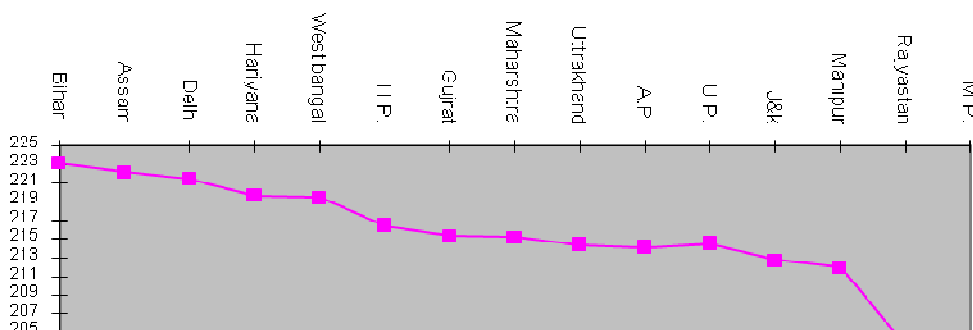
Objectives of the Study :

- To find out the attitude of students belonging to different parts of India towards Physical Education.
- To compare the attitude of aided and unaided college students towards PE.
- To compare State wise attitude of students towards Physical Education.

Material and Method :

The sample comprised of 15 students each from 28 unaided/private colleges, while 20 students each from 8 aided/granted colleges. Thus total 600 students selected on random basis in sample from 36 physical education colleges located in different parts of Maharashtra State Viz. Marathwada, Vidarbha, Kolan and Khandsh. The researchers used 65 items self made attitude scale based on 'Likert five-point scale (1932)', in which 33 statements were favorable and 32 statements were unfavorable. The reliability of the Scale was calculated with the help of test-retest method and it was found 0.81 (N=150). The Serial order of mean value of out-state-students studying in Maharashtra has been arranged graphically as below in Graph -1

graph : 1, showing the mean attitude score of total sample towards Physical Education



The graph clearly shows that students of Bihar state had more favorable attitude towards physical education in respect to other states, while M.P. state students showed the most unfavourable attitudes. Moreover, the students belonged to Delhi, Hariyana, West bangal, Assam, H.P., Gujrat Maharashtra Uttarakhand, A.P. and

U.P. showed highly favourable attitude towards physical education. Whereas similarity in responses has been seen in students of J&K and Manipur as the mean difference is very less among them.

Table no. 1 showing the significant of difference between mean attitude scores of Aided and Unaided students towards physical education

Respondents	N	Mean	SD	d.f.	't' value
Aided College's students	160	222	28.7	598	* 3.45
Unaided College's student	440	212.75	29.81		

$t_{tab} = 1.96$ at 0.05 level of significance

*significant

Table No. - 1 shows that the calculated value 3.45 is found much higher than the tabulated 't' value at 0.05 level of significance. It means that the students of aided and unaided colleges differed significantly in respect to their attitude toward physical education. It can also be inferred that aided college's students have the better attitude than the unaided/private college's students. This difference may be due to the availability of poor facilities, more fees, and lack of qualified teachers in unaided/private institution.

The Chi Square test is also used to observe the relationship in between attitude of different state students towards physical education. In this regard, the calculated X^2 value 313.75 is recorded much higher than the tabulated value of X^2 at 238 df for 0.05 level of significance i.e. 270.77 Which meant that the difference is significant. Hence, it can be concluded that the out-of-state students in Maharashtra differed significantly in respect to their attitude towards physical education. In India, Every state has its own separate policies and programme for the development of physical education. In many states, the physical education curriculum is compulsory at school level with separate qualified physical education personal, while part time and unqualified teachers are looking the physical education in some states. Similarly, imparity in employment policies for sports persons, sports scholarships, awards, sports facilities and culture of the States lead to create different modes of attitude among students.

The findings of the study lead to following

Conclusions:

Students belonging to Bihar states showed highly favorable attitude towards physical education in respect to other state's students, while students belonging to M.P. showed unfavorable attitude towards physical education.

Students belonging to different parts of India differed significantly in respect to their attitude towards physical education. Aided and unaided/private colleges students differed significantly in respect to their attitude towards physical education.

References :

George Langford, (2004) " Attitudes toward physical education: a study of high school students from four countries--Austria, Czech Republic, England, and USA.", College Student Journal, <http://www.encyclopedia.com/doc/1G1-119741923.html>

Marshall Joe and Hardman Ken, (2000) "The State and Status of Physical Education in Schools in International Context" European Physical Education Review, Vol. 6, No. 3,

National Association for Sport and Physical Education, an association of the American Alliance for Health, Physical Education, Recreation and Dance. (2001) Shape of the Nation Report: Status of Physical Education in the USA. Reston.

National Sports Policy (2001), Ministry of Youth Affairs and Sports, Govt. of India.

Penney Dawn, (2000)" Physical Education, Sporting Excellence and Educational Excellence ",European Physical Education Review, Vol. 6, No. 2, 135-150

Singer Robert N., (1976) Physical Education Foundations, Halt Rineheart Winston,

Singh Ajmer et al. (2000) Modern Textbook of Physical Education, Health Education and Sports, Jalandhar : Kalyani Publishers,

Physical Fitness Among Hockey And Football Players

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Abstract :

Since from the evolution of man "Physical fitness" is playing a very critical role in the all round development of man and mankind. Inspective of the time be it ancient times, medieval times, or modern times, physical fitness is a very crucial and important components of human life. The importance of physical fitness was well known our anestors. In 360 H.C. plato amply described the importance of physical fitness in the following words 'Lack of activity destroyed the good condition of every human being while movement and methodical physical exercise save it and preserve it'.

Introduction :

Motor fitness is generally joined by the performance and this performance is based on composite of many factors, the following factors competence of motor fitness. Higher level of physical fitness and motor fitness is fundamental of success in all types of frames and sports. To become a top level performance in any games or sports. It is essential that he should have a sound and fit body. It is considered as a matter of fact that when all other contributing factors one considered the level of physical or motor fitness shall definitely lead to improvement in the performance level if the sportsman participating in a variety of games and sports. The activities such as running, jumping leaping are considered as fundamental human movements but at the same time are considered basis to all types of games and sports.

Methodology :

The study hockey and football players of 30 boys they are practicing every day in Gulbarga District Chandrashekhar Patil Stadium. Most of the subject who have selected for the present study belongs to some socio economic groups and were found physically fit for the type of programme for which they are to be subjected. All the subject were divided into two groups i.e., hockey and football. All the subjects of the present study are under the age range 15 years. All of the subject is taking active past in routine hockey and football coaching programme as per the schedule of the coach.

Analysis of Data :

The statistical analysis of data related to performance on motor fitness variables (speed, agility, vertical jump and endurance) and playing ability data (zig zag run with a ball, 50 mtrs. Dash with the ball and scooping or kicking the ball) collected on football and hockey players of Gulbarga District at Chandrashekhar Patil Stadium.

Table – 1: An analysis of co-efficient of inter-correlation between playing ability of hockey and motor fitness variables

Tests	Zig zag	Dash	Scooping
Speed	0.140	0.043	0.339
Agility	0.531	0.061	0.435
Vertical jump	0.216	0.210	0.127
Endurance	0.128	0.706	0.280

Significance at 0.05 level of confidence with 0.412 value.

Table – 2: An analysis of co-efficient of inter-correlation between playing ability of football and motor fitness variables

Tests	Zig zag	Dash	Scooping
Speed	0.105	0.573	0.521
Agility	0.449	0.352	0.583
Vertical jump	0.144	0.251	0.098
Endurance	0.493	0.028	0.036

Significance at 0.05 level

Conclusion :

In multiple correlation of co-efficient football playing ability test that is kicking the ball test score and motor fitness variables score shown significant correlation.

In multiple correlation of co-efficient between hockey players playing ability test that a scooping the ball test score and motor fitness variables shown significant correlation.

Among the hockey payers there was no significant. Correlation was found between the 50 mts dash with the ball and motor fitness variables score, zig zag run with ball and motor fitness variables scores.

Among the football players there is significant profit relationship between the ability and zig zag and strikes as the values are significant. The ball striking and the values are significant.

Among the football players endurance is found to by strongly correlated in the zig zag skill.

For hockey players there was no significant correlation with zig zag run with ball 50 mts, dash with ball and scooping the ball.

References :

Baiju. A. (1991) Comparison of agility and coordination between inter collegiate football, basketball and handball players. Unpublished masters degree thesis Aligappa University.

Abraham T.F. (1991) Comparison of agility between volleyball and football players. Unpublished master degree thesis. Aligappa University.

Bushy, Suyenoc R. (Oct. 1996) "Relationship of Modern Dance performance agility balance, flexibility, power and strength. The research quarterly, 37-3.

Lenog G.s. (amy 1951): Agility performance and physical growth. The research quarterly, 22:2

Johnson, Barry L and Jack K. Nelson (1987): Physical measurement of evaluation in physical education (3rd Edn.) Delhi Surest Publication.

Anthropometric Measures On Volleyball Playing Ability

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Kinnu Jadhav, Research Scholar, Dept. of Physical Education, Gulbarga University

Introduction :

This game provides a wide opportunity for the development of strength, speed endurance, agility, neuromuscular skill and co-ordination of all parts of the body by the various actions involved in it. Such as running, jumping, bending, stretching and other movement which call for balance and poise. As a sport volleyball has immense recreational and carry over values and thus it meets all the requirements of an excellent form of physical activity.

Methodology :

30 female players of Gulbarga district were selected as subject for the purpose of this study. This selection was base don't he district level playing ability in volleyball for which the criteria was that only those subjects was considered who had participated in the volleyball district level competition at one time or other. Thus the group consisted of a purposive sample.

Analysis of Data :

Table – 1: Coefficients of reliability of test–retest score

Test items	Coefficient of correlation 'r'
Standing height	0.99*
Sitting height	0.94*
Weight	0.94*
Arm length	0.98*
Upper arm and fore arm ratio	0.97*
Palm length	0.96*
Leg length	0.98*

* Significant at 0.05 level of confidence

Table – 2 Coefficients of correlation between independent variables (Anthropometric) and dependent variables (playing ability)

Independent variables	Coefficient of correlation 'r'
Arm length	0.431*
Upper arm and fore arm ratio	0.159
Palm length	0.372
Leg length	0.391*
Sitting height	0.362*

Standing height	0.491*
Weight	0.295

* Significant 0.05 level of confidence.

Conclusion :

There is significant relationship between anthropometric measures and volleyball playing ability. The anthropometric measures like standing height, arm length, palm length, leg strength and sitting height have significant relationship towards the volleyball playing ability. Whereas the anthropometric measures weight and upper arm fore arm ratio were also do not have significant relationship with volleyball playing ability.

References :

Clarke, H. Harison, Application of Measurement to Health and Physical Education, Englewood Cliff, N.J. Prentice Hall, Inc., 1967.
Gary Dc. Et.al Genetic and Anthropological studies of Olympic athletes, New York : Academic Press, 1974.
Sandhu, G.S. Volleyball Basic and Advanced, Chandigarh : The Sports People, 3321 Sector 15D, 1982.
National Institute of Sport Volleyball Coaches Manual Bangalore, Mimcographed.

Physical Fitness for Women

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Introduction:

Physical activity is important for every body, including all teenagers, but especially for girls who are generally less active than boys the same age. The American College of Sports Medicine and the U.S. Centers for Disease Control and Prevention recommend that a teenager spend at least 30 minutes doing some type of physical activity each day. Unfortunately, physical activity seems to diminish for many when they reach the teenage years. correct nutrition, exercise, hygiene and rest.

Physical fitness is a measure of the body's ability to function efficiently and effectively in work and leisure activities, resist hypo kinetic diseases (diseases from sedentary lifestyles), and to meet emergency situations.

Physical fitness comprises two related concepts: general fitness (a state of health and well-being), and specific fitness (a task-oriented definition based on the ability to perform specific aspects of sports or occupations). Physical fitness is generally achieved through fitness is defined as the state of general well being, physically sound and healthy, along with mental stability. Physical fitness is important as it keeps our body free from illness. It enables the organs like heart, lungs and muscles to function efficiently.

The five important components of physical fitness

1. Cardiovascular Fitness - Cardiovascular fitness (also known as cardio respiratory fitness) is the ability of the heart, lungs and vascular system to deliver oxygen-rich blood to working muscles during sustained physical activity
2. Muscular Strength - Muscular strength is the amount of force a muscle or muscle group can exert against a heavy resistance.
3. Muscular Endurance - Muscular endurance is the ability of a muscle or muscle group to repeat a movement many times or to hold a particular position for an extended period of time.
4. Flexibility - Flexibility is the degree to which an individual muscle will lengthen.
5. Body Composition - Body composition is the amount of fat in the body compared to the amount of lean mass muscle, bones etc.

Discussion:

Physical Exercises for Women

1) Cardiovascular Exercises

Cardiovascular exercise is any type of exercise that increases the work of the heart and lungs. Typical forms of cardiovascular activities include walking, jogging, step aerobics, swimming, and biking. Cardio activity improves your heart/lung function and muscle mass; it's a lot about endurance and is often called cardiovascular endurance.

2) Resistance Exercises

Resistance exercises cause your muscles to contract against an external resistance such as weights, rubber bands, your own body weight, bottles of water, or any other object that causes the muscles to contract. Resistance exercises focus on your muscles and may include weight lifting, certain yoga postures and floor exercises.

3) Flexibility Exercises

Flexibility is about your range of motion and is required in your daily activities such as walking, bending, lifting, driving, etc. Stretching and yoga help achieve greater flexibility; stretching also helps with good posture and can reduce the risk of injury.

4) Balance Exercises

Balance training focuses on the communication between your mind and your muscles that allows the body to remain stable; it's a lot about coordination. Balance helps prevent injuries, allows us to perform daily activities, and provides the foundation for cardio, resistance, and flexibility training. Balance should not be taken for granted. Balance training may include yoga, Tai Chi, outdoor biking and hiking, and specific exercises like standing on one foot.

Benefits of Physical fitness for Women

- 1.Increased Strength, Stamina and flexibility.
- 2.Helps maintain a healthy body weight.
- 3.Improves fitness and heart health.
- 4.Decreased incidence of stress and depression
- 5.Increased self esteem
- 6.Positive body Image
7. Mental and Emotional Development.
8. Physiological and Psychological development

Common Barriers:

- 1.Copying the behavior of their physically in active parents.
2. Lack of energy due to poor physical fitness.
3. Myth of girls cannot do exercise and play sports.
4. Peer Pressure
5. Lack of facilities and coaches for girls.
6. Fear of being teased.
7. Embarrassment to do physical exercises on sports dress.

Tips for Parents:

- 1.Importance of Physical Exercise
- 2.Be a Role Model.
3. Watch Women Sports, Have fun
4. Keep it simple
5. Build Exercise and discover the Interest among child to do physical Exercises.

Conclusions and Recommendations:

Physical exercise are essential in promoting the stay fit and good health along with physical,mental, emotional and social development.

References:

www.better health Channel
www.Live strong.com

A Comparative Study of Achievement Motivation among Athletes and Non Athletes of Gulbarga University

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Introduction:

Achievement Motivation defined as the need to perform well or the striving the success as the need to perform well or the striving for success and evidenced by persistence and effort to achieve high performance in sports. Motivation is based on your emotions and achievement related goals. Achievement Motivation is the desire to excel at task.

Sport Psychology is the scientific study of people and their behaviors in sport. The role of a sport psychologist is to recognize how participation in sport exercise and physical activity enhances a persons development. Beginning, in the 1970, Sport psychology became a part of the curriculum on university campuses. Today, sport and exercise psychologists have begun to research and provide information in the ways that psychological well being and vigorous physical activity are related. Modern day sports are very demanding . It requires for the sportsmen and athletes a like to perform to the very best of their abilities and beyond. Individual sport activities such as wrestling and gymnastics, have shown to elicit higher anxiety levels than competitive team sport activities such as soft ball and basket ball.

Achievement Motivation defined as the need to perform well or the striving for success and evidenced by persistence and effort in the face of difficulties. Achievement Motivation is regarded as central human motivation. Achievement Motivation form to be the basic for good life. People who are oriented towards achievement in general, enjoy life and feel in control, being motivated keeps people dynamic and gives them self respect. They set moderally difficult but easily achievable targets, which help them, achieve their objectives. They do not set up extremely difficult or extreme easy targets by motivated people prefer to work on a problem rather than leaving the outcome to chance. It is also seen that achievement motivated sports persons seem to be more concerned with their personal achievement rather the rewards of success.

Method:

The purpose of the study is to find out the level of achievement motivation among Athletes and Non Athletes of Gulbarga University. The sample for the study consists of 50 Athletes and 50 Non Athletes those who have participated in the Inter College Tournaments of Gulbarga University during the year 2017-18. The Standardized Dr.B.N.M. Achievement Motivation scale were used for the study.

Result:

The Questionnaire were administered in small groups during the Gulbarga University Inter College Sports and Games for the year 2017-2018.

Table No.1 showing the Mean values of Athletes and Non Athletes

Sports Persons	Mean	S.D.	N	DF	't'
Non Athletes	32.15	5.92	50		
Athletes	39.29	7.90	50	98	8.14**

The results in Table No.1 Shows that Athletes are having more achievement motivation compare to non Athletes . The Decision must be made by Athletes is final for his performance. Whereas in Non Athletes there will be group effort among all players and their achievement motivation differs from each sports persons to sports persons

Conclusion:

It is concluded that Individual Sports persons like Athletes set goals and aims to give level best performance to win the Competition, where as the Non Athletes depend upon their group to give the high level of performance.

It is recommended that achievement motivation is compulsory for all sports persons to achieve high excellence in sports. The Coaches must prepare all the sports persons with high level of motivation to excel in sports and games.

It is concluded that Individual Sports persons are having more Achievement Motivation because they set goals and aims to give level best performance to win the Competition, where as the Team Game sports persons depend upon their group to give the high level of performance.

It is recommended that achievement motivation is compulsory for all sports persons to achieve high excellence in sports.

The Coaches must prepare all the sports persons with high level of motivation to excel in sports and games.

References:

Herman H."A Questionnaire measure of achievement motivation" Journal of Applied Psychology Vol.54,(1970) 252-256

Kinikema, K. and Harris,J.(1992) sport and the mass media,Exercise and Sport Science reviews 20,127-159.

McEvoy A. and Erikson E.(1981) Heroes and villains: A Conceptual strategy for assessing their influence.sociological factors, 14,111-122