



ISSN 2231-3265
(Online and Print)

Volume - 15 No. 2
Quarterly
July 2014 to September 2014

International Journal of Health, Physical Education & Computer Science in Sports

Journal Impact Factor 0.624
Index Journal of Directory of Research Journal Indexing

Published by :
Indian Federation of Computer Science in Sports
www.ijhpecss.org & www.ifcss.in
Under the Auspices
International Association of Computer Science in Sports



<p>Publisher:</p> <p>Indian Federation of Computer Science in sports</p> <p>www.ijhpecss.org and www.ifcss.in</p> <p>under the auspices of</p> <p>International Association of Computer Science in sports</p> <p>Email:rajesh2sports@yahoo.co.in</p>	<p>International Journal of Health, Physical Education and Computer Science in sports ISSN 2231-3265 (On-line and Print) Journal Impact factor is 0.624. Journal published Quarterly for the months of March, June, September and December. IJHPECSS is refereed Journal.</p> <p>Index Journal of Directory of Research Journal Indexing.</p>
---	---

<p>Editorial Board</p> <p>Chief Editor:</p> <p>Prof. Rajesh Kumar, India</p> <p>Editors:</p> <p>Prof.Syed Ibrahim, Saudi Arabia</p> <p>Prof.L.B.Laxmikanth Rathod, India</p> <p>Associate Editors:</p> <p>Prof. P.Venkat Reddy, India</p> <p>Prof. J.Prabhakar Rao, India</p> <p>Dr.Kaukab Azeem, Saudi Arabia</p> <p>Dr.Quadri Syed Javeed, India</p> <p>Members:</p> <p>Prof.Henry C.Daut, Philippines</p> <p>Prof.Ma. Rosita Ampoyas-Hernani, Philippines</p> <p>Dr. Vangie Boto-Montillano, Philippines</p> <p>Dr. Lila Sabbaghian Rad, Iran</p> <p>Prof. Chenlei, China</p> <p>Prof.G.L.Khanna, India</p> <p>Prof.C.V.Prasad Babu, India</p> <p>Prof.Y.Kishore, India</p> <p>Prof. M.Shyam Babu, India</p> <p>Dr.K.P. Manilal, India</p> <p>Dr.Y.S.Laxmeesha, India</p> <p>Y.Emmanuel Shashi Kumar, India</p>	<p>International Journal of Health, Physical Education and Computer Science in Sports is multidisciplinary peer reviewed journal, mainly publishes original research articles on Health, Physical Education and Computer Science in Sports, including applied papers on sports sciences and sports engineering, computer and information, health managements, sports medicine etc. The International Journal of Health, Physical Education and Computer Science in sports is an open access and print international journal devoted to the promotion of health, fitness, physical Education and computer sciences involved in sports. It also provides an International forum for the communication and evaluation of data, methods and findings in health, physical education and computer science in sports. The Journal publishes original research papers and all manuscripts are peer review. . Index Journal of Directory of Research Journal Indexing.The Indian Federation of Computer Science in Sports has been set up the objectives of Dissemination of scientific knowledge concerning computer science in sport and Physical Education.Providing a forum for the exchange of ideas among the Physical Educationists,Coaches,Sports Experts Etc. It is a Peer Reviewed Journal.</p>
---	--

CONTENTS

S.No	Names Of The Articles	Page.No
1	Individual and dual exercises for Decreasing Bilateral weakness of the Lower limb and its effect on performance of scoring in handball- Dr.Qais Saeed Alfoaady	1
2	Coaching Behavior in Relation to Sports Performance and Athletes' Satisfaction among College Varsity Athletes. Samong, Nenita P.	4
3	Establishing Reliability Of Anxiety (Csai-2d) On Indian AthletesJain Shilpi,Dr. Kumar Pardeep, Phogat Wazir Singh	8
4	Effect Of Foot Arch Index On Speed And Power Performance Among College Students-Dr. P. Prasad Reddy, Dr. M. Sivasankar Reddy,Dr. B. Suman	12
5	Interactive Relationship Between Direction And Intensity Interpretation Of Anxiety During Competition On Indian Athlete-Jain Shilpi, Phogat Wazir Singh, Dr. Pardeep Kumar, Jain Nidhi	15
6	“Credit Risk Assessment of Bank of Baroda”-Ahmad Abdollahnezhad Bildashi	19
7	Effects Of Weight Training And Circuit Weight Training On Selected Strength And Physiological Variables-Mr. A. Ramakrishnan Dr. R. Gopinath	22
8	Analysis Of Selected Psychological Skills Of Male And Female Participants In Different Sport Domains -K.Ravi Kumar, Dr.P. Johnson, N.Veerendra, N.Avulaiah	26
9	A Study Of Scoio-Psychological Characteristics Of Students Kabaddi Players-M.S.Rathod, Dr.M.M.Rathod, Vishal K.Dube	30
10	Influence Of Extracurricular Activities On Academic Achievement Of Secondary School StudentsDr. D. Ram Babu	33
11	Biomechanical Analysis Of Velocity Of Com During Takeoff Phase In Fosbury Flop High Jump Of National Level Participants-Ch. Raja Rao. Prof. Y. Kishore, Dr.J.Ramamohan Rao,	36
12	Effects of 14-week Aerobic Training on Abdominal Adiposity Cardiovascular Endurance and Flexibility of Overweight School Children of West Bengal-Dr. Sandip Sankar Ghosh ,Mr. Jayanta Kumar Medya	39
13	A Philosophical Perspective On Sports Education-Janaiah Chimata	45

14	Youth Unemployment, Factors And Consequences-(A Study of Kohgiluyeh and Boyer Ahmad Province, Iran) TalebHassanpourChenarestan Sofla' C. Ganesh	49
15	Divorce, Factors And Consequences(A Study Of Kohgiluyeh And Boyer Ahmad Province, Iran) TalebHassanpourChenarestan Sofla, C. Ganesh	53
16	Sociological investigation of cultural historical relations of Iran and India-AzarEskandaricharati ,TalebHassanpour Chenarestansofla	58
17	Comparison Of Serum Creatinine Values Of Elite Athletes With Their Aerobic & Anaerobic Power-Ravi Prakash Singh,Dr. Syed Tariq Murtaza,Dr. Archana Chahal,Shamshad Ahmad,SakshiSingh	61
18	Vegetarian and Non vegetarian diets are associated with healthy mood states in students 13,14years Gover, Hyderabad 2013.-Azizollah pourmahmoudi,Zobaida Azeem, Mohamad Malekzadeh,Abdollah Poursamad	64
19	Comparative Study On Vital Capacity Of Selected District High School Kabaddi Players Of Karnataka State-Mr. Chidanand Prabhuling Dr. N.G. Kannur	67
20	Sports Medicine - Influence On The Performance Of Indian Sports Mirza Raza Ali,Prof.V.Satyanarayana	72
21	Effects Of Yoga Circuit Training And Combined Training On Albumin, Sodium, And Potassium Among Mild I.C People-Dr.R.Venkatesan	73
22	Effects Of Two Packages Of Complex Training On Kicking Ability Of Inter-Collegiate Soccer Players-Akhilesh Edathodi,Atul Meethal,Sumesh. D,Dr.A.M.Najeeb	77
23	History of Action Sports in India: A study-Dr. Ch. Saidulu	82
24	Life Within Nonliving Objects in Strange World: A Qualitative Inquiry into Digital Artworks, Visualisationand Story Telling-Dr.Tripti Singh	88
25	A Comparative Study of Agility between Basketball Players and Football Players of Senior Secondary School-Priyanka Singh	91
26	Self-Efficacy and Job Satisfaction of Physical Education Teachers-Dr. Ravindranath K. Murthy	94
27	The Study Of Mental Health On The Performance Of Kabaddi Players- Dr. Hanumanthayya pujari	98
28	Sports Journalism A Challenging Approach In Telangana – A Review Dr.Jagan Mohan Sidda	100
29	Effects Of Different Modes Of Yoga Practice On Selected Physiological And Biochemical Variables-Mr. S. Ananth,Dr. S. Chidambara Raja	102

30	A Comparative Study On Physical Fitness Components Between Fencing Players And Kabaddi Players Of Medak District-Alli Naresh	106
31	Analysis On The Effect Of Moderate Intensity Of Aerobic, Resistance And Interval Training Program On Ldl-C In Young MenR.Sudhakar, Dr.D.KrishnaMurthy, Dr. Y Kalyan Kumar, Dr.A.Kaleemulla,	108
32	A Comparative Study of Hostile Aggression between Tribal and Non Tribal Sportspersons-C.D. Agashe,Karmishtha Shambharkar	112
33	Relationship Between Leg Explosive Strength And Maximum Speed On State Level Athletes-Adityanarayan Adak	114
34	Bio-Magnetism Of Life Force In Physical Body-Mr. Nagarjuna Sangem,Dr. K. Savithri	117
35	Does Moderate Exercise Effect on Interferon-Gamma Serum Level? Ali Heidarianpour, Majid Vahidian Rezazadeh, Alireza Zamani	120
36	The Scenario of Basketball Game in West Bengal - A review Sundar Biswas	124
37	Practice of Physiotherapy in Neonatal and Paediatric Intensive Care Units in Punjab-Ashok Kumar, Navkaran Shergill & Jairaman	127
38	The Need For Indigenous Activities In The Present Day ContextSri.Srinivasa	132
39	Relationship of Lower Limb Length to the Agility of Athletes-M.Srinivas Reddy,Joji ReddyProf.Y.Gopi Krishna	134
40	Benefits Of Physical Training-Miss KAVITHA.M,Dr. R.L.V.N Ratnakara RaoProf.M.Syam Babu	138
41	Infrastructure for Sport and Physical Education in Universities- Prof.Rajesh Kumar,Prof.J.Prabhakar Rao,Prof.L.B.Laxmikanth Rathod,Dr.K.Deepa,Dr.B.Sunil Kumar	140
42	The Sociology of Sports in India: A beginning and Future Challenges-Sanjay Tewari,Dr. BN Mishra	143
43	A Comparative Study On The Personality Traits Among The Coaches Of Individual Games”Mayank Aggarwal Madhavi Patha,Rekha Aithani	148
44	Yoga Therapy For Peak Athletic Performance-Dr.K.G.Eswar Naik	154
45	Impact of the Use of certain devices and tools to assist in the development of physical abilities special skill accuracy correction of high jumping for hand ball – Prof. Abdul Wahab Ghazi Hamoudi, Amin Thanon Ahmad, Hadeel Taleb Mohammed	156
46	A Comparative Study of Speed among Foot Ball Players and Hockey Players of Rayalaseema University -M.Venkateshwarlu	160

Individual and dual exercises for Decreasing Bilateral weakness of the Lower limb and its effect on performance of scoring in handball

**Assist Prof /Dr.Qais Saeed Alfoaady
University of Al Qadisiyah / Physical Education College**

Abstract :

This study aims to Identifying Bilateral weakness of the Lower limb of female players in handball also Identifying the preference of using exercises with single or double leg to developing muscle strength of the lower limb .Most of exercises that we used like in weightlifting or plyometric are exercises performed with two legs so the force and lodes that pushed on both legs that will ease work and contribute effect on both legs , the same load will be difficult in case use one leg . The sample consisted by female students of Physical Education College, Qadisiyah University , age 20-21 years,(18) players has divided into two groups (A) (9 player) single exercises to each leg(single leg) (B) (9 player) exercises of double leg (together leg) , Before start exercises , samples were tested (pre test), exercises were used by two groups 3 days weekly for (8) weeks .Exercises like (weightlifting , plyometric , skills performance) used for all players .After that post test was used to identify the development that achieved in muscle strength of lower limb for two groups (A) and (B). The test data managed by suitable statistical means in Spss.

Introduction

Most of exercises that we used like in weightlifting or plyometric are exercises performed with two legs so the force and lodes that pushed on both legs that will ease work and contribute effect on both legs , the same load will be difficult in case use one leg

Purpose of study :

This study aims to identify the bilateral weakness of lower limb of female hand ball players and increasing muscle strength throw identify favorite way to use exercises with on leg or double to decreasing bilateral weakness of lower limb.

Methodology :

This study is experimental study on sample of female players of physical education college –Qadisiyah University aged 20-21 years of (18) players , divided into two groups randomly
Group (A) 9 female players use exercises of one leg
Group (B) 9 female players use exercises of double legs .
Before start exercises , samples were tested (pre test)
Exercises were used by two groups 3 days weekly for (8) weeks .
Exercises like (weightlifting , plyometric , skills performance) used for all players .
After that post test was used to identify the development that achieved in muscle strength of lower limb for two groups (A) and (B)

Test that used in study :

- 1- skills performance with using EMG test
(Thigh/Vastus lateralis-medialis muscle) and Galve /Gastrocnemius muscle) (mv)
- 2- Sergeant test. 3- standing long jump (Broad jump) .

Discussion :

Table (1): Mean , SD and t.test of group (A) and (B) in pre and post test

Test		Group A (n.9)		Group B (n.9)	
		Pre test	post test	Pre test	post test
sargent (Watts)	Mean (±SD)	2201 (±135.7)	2958** (±111.3)	2265(±129.4)	2277 ** (±143)
	t.test	11.128		7.338	
	sig	0.000		0.001	
EMG (Thigh/Vastus lateralis-medialis muscle)(mv)	Mean (±SD)	1253 (±205)	1552** (±198)	1363(±201)	1485* (±223)
	t.test	8.54		3.99	
	sig	0.000		0.02	
EMG (Galve /Gastrocnemius muscle) (mv)	Mean (±SD)	305.1 (±33.7)	320.7** (±45.3)	294.6 (±43)	301.9 *(±51.1)
	t.test	4.760		5.340	
	Sig	0.004		0.03	
perform (degree)	Mean (±SD)	5.67 (±1.02)	7.24* (±1.9)	5.91 (±1.4)	6.62 *(±1.6)
	t.test	3.31		4.07	
	Sig	0.04		0.03	
standing long jump (m)	Mean (±SD)	1.98 (±0.13)	2.32* (±0.21)	1.87 (±0.11)	2.03 ** (±0.19)
	t.test	4.55		3.81	
	Sig	0.02		0.01	

significant at (* 0.05 -** 0.01) level

Through the statistical treatment of table (1) and (2) that show there is a differences between pre test and post test of both groups (A) and (B) for benefit post test that proves the exercises with one and two legs effect positively in developing muscle strength for both groups , also proves there is bilateral weakness in legs of lower limb of female players .

Table (2): Mean , SD and Independent Samples Test between group (A) and (B) in post test

Test	post training		
	Group	A (n.9)	B (n.9)
sargent (Watts)	Mean (\pm SD)	2958** (\pm 111.3)	2277 (\pm 143)
	t.test	8.451	
	Sig	0.001	
EMG (Thigh/Vastus lateralis-medialis muscle) (mv)	Mean (\pm SD)	1552* (\pm 198)	1485(\pm 223)
	t.test	3.124	
	Sig	0.03	
EMG (Galve /Gastrocnemius muscle) (mv)	Mean (\pm SD)	320.7** (\pm 45.3)	301.9 (\pm 51.1)
	t.test	11.873	
	Sig	0.000	
perform (degree)	Mean (\pm SD)	7.24* (\pm 1.9)	6.62 (\pm 1.6)
	t.test	6.485	
	Sig	0.02	
standing long jump (m)	Mean (\pm SD)	2.32** (\pm 0.21)	2.03 (\pm 0.19)
	t.test	9.465	
	Sig	0.000	

significant at (*0.05 -** 0.01)

Table (2) shows there is a differences in median between groups (A) and (B) in post test and benefit of (A) group that exercises of one leg at Sig, (0.03) for EMG (Thigh) test,(0.000) EMG (Gavle) test, (0.001) for sargent test and (0.000) for standing long jump test that effected by exercises that used in study like (weightlifting , plyometric, skills performance) that differs from group A that use one leg and B group that use two legs

Conclusions :

There is increasing in muscle strength of lower limb that decreasing bilateral weakness through exercise like weightlifting , plyometric , exercises by one leg most effective than two legs .

References :

FOX,EL .MATHEWS ,D.K. (1974) The interval training: conditioning for sports and general fitness .Philadelphia PA:saunders.

Sayers, S.et al.(1999) Vross-validation of three jump power equations . Med Sci Sports Exerc,31,p572.
en.m.wikipedia.org/wiki/Muscle

Coaching Behavior in Relation to Sports Performance and Athletes' Satisfaction among College Varsity Athletes.

Samong, Nenita P.

**Graduate Thesis, Master of Science in Physical Education (MSPE), College of Sports
Physical Education and Recreation, Mindanao State University, Marawi City, March 2014.
Adviser: Prof. Hendely A. Adlawan**

Abstract: This study ascertained a significant relationship between coaching behavior, and sports performance and athletes' satisfaction among 188 varsity athletes and 20 coaches in various institutions in Cagayan de Oro City. Also, it tried to investigate whether the athletes' and coaches' age, gender, years of playing/coaching experience, type of sports played/coached, highest level of competition participated, coach trainings attended, and coach educational attainment impinged the relationship of the main variables. A total sampling technique was employed in this study. Tools used are purely questionnaires that measure the respondents' profile, coaching behavior, sports performance, and athletes' satisfaction. Results revealed a highly significant correlation between coaching behavior and athletes' satisfaction. This connotes that good coaching behavior will result to a highly satisfaction of athletes. Probably the over-all support from their respective coaches, institutions, teammates and parents may contribute also. Besides, type of coaching behavior and sports played showed a significant relationship. Meaning, coaches in team sports have better coaching performance than individual and dual events. Likewise, gender had a significant correlation with sports performance and athletes' satisfaction which signify that male perform better and are satisfied than female athletes. Also, years of playing experience and sports performance had a significant correlation which means athletes played longer years perform better than less experience players. Finally, those athletes competed nationally were highly satisfied.

Introduction

The success and failure in a certain performance be in competition or in training relies much on the coach ability to handle an athlete or group of athletes. His motivations, clear instructions, proper guidance, his ability to discipline a player or team members are the few key factors in reaping good performance. Besides, a coach who posses fully competent is fully committed to attain success in every endeavor he does.

A coach is somebody who trains sports players and athletes. He is also considered as a trainer, teacher, instructor or tutor. The coach become more as a profession working with a sports team (Duxbury, 2004). Likewise, a coach is also known to be a person shouting out instructions from his bench, calling the attention of his players through his body language, or merely setting down and trying to observe the performance of his athlete.

Moreover, the coach is the most important person in determining the quality and success of an athlete's sport experience. He/she is considered as a vehicle of athlete's successful performance. A coach evaluates the climate of the individual performance at the highest peak of the game or even during performance training, thus a coach influences the performance and its satisfaction level and should possess good coaching behaviors (Williams, et. al, 2003).

On the other hand, team performance upliftment is the usual gauge of a good coach. Winning is the most evaluative tool to measure success and failure of a coach achievements which is the most dreamed of a coach or perhaps to the team itself. It always brings honor and prestige to a coach whenever the team wins in a competition. This study aimed to find out if coaching behavior influence team performance and athletes satisfaction among selected college varsity athletes in Cagayan de Oro City, Mindanao Philippines for this second semester, academic year 2013-2014. Coaches play an important role to its success so in this context athletes' perception of their coaches' leadership style and behavior were measured through its team performance. The interest of this study was to determine if coaches' behavior could be linked to both team performance and athletes' satisfaction.

METHODOLOGY

Research Design

In determining the relationships between coaching behavior, sport performance and athletes' satisfaction among varsity athletes of colleges and universities in Cagayan de Oro City, a descriptive-correlational type of research was used. In this study, the independent variable was coaching behavior; the dependent variables were sports performance and athletes' satisfaction. The study attempted to determine the influence of extraneous variables of the athletes' and coaches' age, gender, years of playing experience/coaching experience, type of sports played/coached, highest level of competition attended, coaches' trainings attended, and coaches' educational attainment would affect the other variables.

Population

The population of this study are the athletes and coaches of different colleges and universities participating in the 2013-2014 COSAA meet in Cagayan de Oro City. It consisted of male and female coaches as well as athletes who participated in the different events during the athletic meet.

Samples and Sampling Procedures

The samples for this study were the male and female athletes and coaches who participated in the 2013-2014 COSAA Meet in Cagayan de Oro City with a total of 118 athletes and 20 coaches. Total sampling technique was used.

Instrumentation

To measure athletes' satisfaction, a self-made questionnaire was used. It comprised of fifteen (15) statements where the scores for all statements were added and the total score was classified into three (3) levels of satisfaction, namely: Highly satisfied, Slightly satisfied, and Dissatisfied. High score signified high level of satisfaction, and the low scores connoted dissatisfaction. The construction of the self-made questionnaire was based on readings, experience, interviews, and observations. To check the validity and reliability, it was pilot-tested among eighty-three (83) Varsity Athletes of the Mindanao State University, Marawi City during academic year 2013-2014 who participated in the Mindanao State University System Athletic Association Meet last December, 2013. In gathering the data for the sport performance of the respondents, the coaches were asked to answer the over-all rank of his or her team during the 2013-2014 COSAA meet. Said coaches were asked to complete the questionnaire on the personal profile that included the following: coaches' age; gender; years of coaching experience; type of sports being coached by the respective coaches; highest level of competition attended; trainings attended; educational attainment and over-all rank of the team. Coaching Behavior Questionnaire developed by Williams et al. (2003) was used to determine the coaches' behavior. It comprises of 20 items with positive and negative statements having choices of always, often, seldom, and never. To score, point value of 4 for always, 3 for often, 2 for seldom, 1 for never for positive statements, while 1 point for always, 2 for often, 3 for seldom, and 4 for never for negative statements. Results obtained from the questionnaire would classify the coaches' behavior into the following categories: Very Good, Good, Satisfactory, Poor and Very Poor. The athletes were asked to answer the questionnaire on the demographic profile that included the following: age, gender, years of playing experience, type of sports, and highest level of competition.

Statistical Treatment

IBM SPSS Statistics 20 was used in analyzing the data for this study. The descriptive statistics in the form of frequency and percentage distribution was used to assess the demographic profile of the respondents. To assess the significant relationship between the variables, Pearson Product Moment Correlation of Coefficient or Pearson r and Chi-Square were employed.

Summary, Findings, Conclusions And Recommendations

Summary This study ascertained a significant relationship between coaching behavior, and sports performance and athletes' satisfaction among 188 varsity athletes and 20 coaches in various institutions in Cagayan de Oro City. Also, it tried to investigate whether the athletes' and coaches' age, gender, years of playing/coaching experience, type of sports played/coached, highest level of competition attended, coach trainings attended, and coach educational attainment impinged the relationship of the main variables. A total sampling technique was employed in this study. Tools used are purely questionnaires that measure the respondents' profile, coaching behavior, sports performance, and athletes' satisfaction. And for the statistical descriptive statistics in the form of mean, frequency and percentage distribution was used, and for the correlation, Chi-square and Pearson Product Moment Correlation of Coefficient or Pearson r were utilized.

Findings

Based on the study, the following are the findings revealed that among athletes' respondents most are belonged to 18 years old (19.5%), majority were males (77.1%), had 5 years of playing experience (46.6%), majority played team events (92.4), and played local competition (82.2) as the highest game attended. Among coach respondents, most of them belonged to ages 25, 26, 33, and 45 years old, majority were male coaches (85.0%), had two (2) years of coaching experience (20.0%), coached team events (55.0%), considered both local and national coach (45.0%), attended camp and clinics in various events, and majority were coaches with masters degree holder (60.0%).

Also, results revealed a highly significant correlation between coaching behavior and athletes' satisfaction ($p=0.000$). This connotes that good coaching behavior will result to a highly satisfaction of athletes. Probably the over-all support from their respective coaches, institutions, teammates and parents may contribute also. Besides, coaching behavior and type of sports played ($p=0.023$) showed a significant relationship. Meaning, coaches in team sports have better coaching performance than individual and dual events. Likewise, gender had a significant correlation with sports performance ($p=0.000$) and athletes' satisfaction ($p=0.027$) which signify that male performs better and are satisfied than female athletes. Also, years of playing experience ($p=0.024$) and sports performance had a significant correlation which means athletes played longer years perform better than less experience players. Finally, those athletes competed nationally ($p=0.043$) were highly satisfied.

Conclusions

With the given findings, the following conclusions are drawn: that the moderating variable of type of sports had a significant correlation with coaching; that gender and years of playing experience showed a significant relationship with sports performance; that gender and highest level of competition attended and athletes' satisfaction revealed a significant correlation; that coaching behavior and athletes' satisfaction confirmed a highly significant relationship, thus reject null hypotheses postulated regarding the aforementioned variables correlated, but accept the null hypotheses for other variables having no correlation. Findings to those variables correlated having significant relationships imply that good coaching behavior highly satisfies athletes, male athletes who played longer years show good performance, and those who played higher level of competition are highly satisfied with the supports given to the athletes.

Recommendations

Based on the findings and conclusions of the study the following recommendations are drawn: There is a need to encourage more women to coach and ensure equal opportunity for women coaches. Likewise, there is a need to have women coaches to coach women teams. There is much need for women coaches not just in the region but for the country as a whole. Establish standards for coaching so that it will emphasize positive and appropriate coaching behavior to ensure positive development of athletes and enhanced performance. Regular monitoring evaluation of coaches and their coaching behaviors are necessary to ensure that athletes are handled by coaches whose behaviors on and off the court are worthy of role models for the athletes. Encourage coaches to possess good coaching behavior toward their athletes either individual/dual or team events in order that athletes be satisfied with their coaching style or ways and other support rendered to athletes, and in return athletes may show also good-quality performance in their upcoming competitions. Sports administrators should provided varsity programs such as trainings among athletes, coaches or trainers to enhance team events but motivate also dual and individual events so as to develop coaches' behavior. Both male and female athletes and other sports enthusiasts are encourage to sincerely do good in trainings and unceasingly join various sports competitions either local, national or international competitions in order to have good performance. Also institutions should fully support the needs of every athlete.

Further studies should be conducted using bigger and wide in scope, and with varied population.

The College of SPEAR should offer courses or training program for coaches that will enhance or develop their coaching ability. Develop a continuing coaching education program that will enhance not only knowledge and competencies of coaches to ensure skills and performance of athletes but also right attitude in helping young athletes become champions in sport and in life.

Bibliography

Books

Apruebo, Roxel A. (2005). *Sports Psychology*. Manila: UST Publishing House

Bird, Anne Marie and Bernette K. Cripe (1986). *Psychology and Sport Behavior*. St. Louis: TimesMirror. Mosby College Publishing.

Cox, Richard H. (2002). *Spot Psychology. Concepts and Applications*. 5th ed. Boston: McGraw-Hill Higher Education.

Mack, Gay and David Casstevens (2001). *Mind Gym: An Athlete's Guide to Inne Excellence*. Chicago: McGraw-hill Companies.

Schmidt (1988). "Contemporary Issues in Special Education" New York: McGraw Hill

Williams, J.M., L.J. Kenow, G.J. Jerome, T. Rogers, T.A. Sartian, & G. Darland (2003). "Factor Structure of the Coaching Behavior Questionnaire and Its Relationship to Athlete Variables" *The Spot Psychologist*, 2003, 17, 16-34, Illinois, Human Kinetics Publishers, Inc

Webster Comprehensive Dictionary . Encyclopedic Edition. USA: Funk & Wagnalls Publishing Company, Inc., 1996.

Microsoft® Encarta® 2009. © 1993-2008 Microsoft Corporation. All rights reserved http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6W6K-4B7Y16M-2&_user=10&_

Nazarudin et al. (2009). "Coaching Leadership Styles and Athletes Satisfaction Among Malaysian University

Basketball Team". www.eurojournals.com/rjis_9%PDF Retrieved: Samong Residence, May 23, 2013.

Chelladurai, Packianathan and Catherine C. Quatman (2005). "Leadership and Motivation in Sports, <http://coaching.usolympic/team.com/coaching.kpub.nsf/v/3March05>.

Curtner-Smith, M., S. Wallace, & M.Q. Wang, 1999. "Relationship of Coach and Player Behavior during Practice to team Performance in High School Girls' Basketball". *Journal of Sport Behavior*, Vol 22, 1999.

<http://www.questia.com/googleScholar.qst;jsessionid=LL4J1J11QYDSXW3crcC9ZL9144CZxDjPyV7MWpvY0hNV16Cy7tMQ!786634028!921627548?docId=5002319189>.

Stewart, Michael J., and Donald J. Bengier (2001). "An Analysis of Volleyball Coaches' Coaching Behavior in a Summer Volleyball Team Camp". *Physical Educator Article*, March 22, 2001. <http://www.highbeam.com/doc/1G1-76547963.html>

More, K.G., T. McGarry, T. Patrick, D. & Franks, D. (1996). "A Computer-assisted Analysis of Verbal Coaching Behavior in Soccer". *Journal of Sport Behavior*, December 1, 1996.

Millard, L. (1996). "Differences in Coaching Behaviors of Male and Female High School Soccer Coaches". *Journal of Sport Behavior*, vol 19, Issue 1, January 1996.

<http://web.ebscohost.com/ehost/delivery?vid=10&hid=14&sid=79c6>.

Boardley, I.D., M. Kavussanu & C. Ring (2008). "Athletes' Perceptions of coaching Effectiveness and Athlete-Related Outcomes in Rugby Union: An Investigation Based on the Coaching efficacy Model". *The Spot Psychologist*, 2008, 22, 269- 287, copyright 2008 Human Kinetics.

Cohen, Ledford, & Spreitzer (1996). "Coaching Behaviors and Team Performance".

"Dynamics of Coaching" . rjm@dynamicfoundations.com

Wieder, Marcia. "Definition of Coaching" Duxbury, Paul. "The Power of Coaching"

Chelladurai, 1978 "Coaching Preferences of Athletes"

http://www.google.com.ph/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0CGAQFjAJ&url=http%3A%2F%2Fwww.researchgate.net%2Fpublication%2F235925552_Coaching_preferences_of_athletes%2Ffile%2F60b7d524de0ea5bd81.pdf&ei=BJmtUum0McPDrAenzlCIDQ&usq=AFQjCNGiAK27yM7sVcKdqCQJxuBDQlrzQw&sig2=Y-jwiDWELzsdE1EmSl667g&bvm=bv.57967247,d.bmk

Smith, Smoll and Curtis, 1978 "Effective Coaching For Positive Youth Development"

[http://www3.spfldcol.edu/homepage/dept.nsf/b2441d1da59344e385256fdc0055fcbf/\\$FILE/Linda%20Petlichkoff.pdf](http://www3.spfldcol.edu/homepage/dept.nsf/b2441d1da59344e385256fdc0055fcbf/$FILE/Linda%20Petlichkoff.pdf)

Black and Weiss, 1992 "Intrinsic Motivation: Relationships with Collegiate Athletes' Gender, Scholarship Status, and Perception of their Coaches' Behavior" http://groups.jyu.fi/sporticus/lahteet/LAHDE_1.pdf

www.thefreedictionary.com, Retrieved in Iligan City, Orchid Homes Subdivision, 2013

Chelladurai and Riemer, 1998 "College Athletes' Perception of Effective Coaching Behaviors and How Perceptions Influence"

http://digitalcommons.olivet.edu/cgi/viewcontent.cgi?article=1006&context=edd_diss

Smith and Smoll 1997 "Coach Parents Relationship Enhancing the Quality of the Athletes' Sports Experience"

Myers, Vargas – Tonsing and Feltz, 2003 "Performance Related Emotional States in Sport: A Qualitative Analysis"

<https://www.google.com.ph/#q=Myers%2C+Vargas-Tonsing%2C+and+Feltz+2003>

Journal

Feltz, 1999 "The effect of Mental Practice on Motor Skills Learning and Performance: A Meta-analysis, Journal of Sports Psychology

ISSN 2231-3265

International Journal of Health, Physical Education and Computer Science in Sports

Volume No.15, No.2,pp8-11

Journal Impact Factor 0.624

Establishing Reliability Of Anxiety (Csai-2d) On Indian Athletes

Jain Shilpi, Ph.D. Scholar, Dept. of Physical Education & Sports Sciences, Univ. of Delhi.

john.shilpy1947@gmail.com

Dr. Kumar Pardeep, Associate Professor, University of Delhi.

pardeepjonti@yahoo.com

Phogat Wazir Singh, National Coach, Sports Authority of India.

runwazir@gmail.com

Abstract

The purpose of the study was to establish the reliability of Anxiety (CSAI-2D) during competition with the help of the thirty eight (38) athletes'. The competitive state anxiety examined on International and National Level Indian athletes from National Athletics Coaching camp at the gap of one week. The relationship between 3x2 variables at intensity and directional interpretation of anxiety proves that the anxiety can be facilitative and debilitating the performance of athletes. The responses on Competitive state anxiety questionnaire in bilingual (Hindi and English) responded by athletes, which assess sub-scales (Cognitive Anxiety, Somatic Anxiety and Self-confidence). The statistical analysis defines the Reliability of **Competitive State Anxiety Inventory-2D (modified version)** on Indian population. The Pearson's Product Moment Correlation method was used to measure the significant relationship between variables of anxiety during competition which reflects low and high anxiety at intensity interpretation of athletes and the Perception of these anxiety symptoms reflects facilitative and debilitating responses of anxiety on the performance of athletes. These competitive state anxiety measures with Cognitive state anxiety, Somatic state anxiety and Self-confidence.

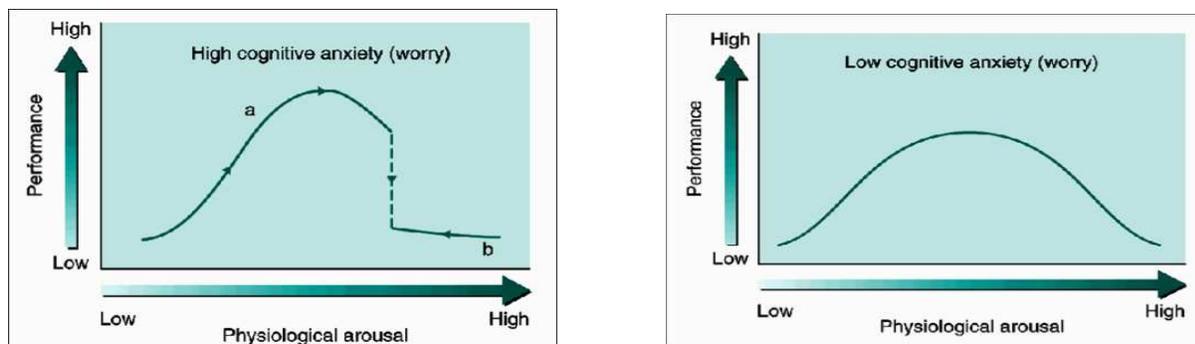
Key words: Modified CSAI -2 Scale, Athletics, Indian Athletes, National and International Level

Introduction

Sport competition has become important in today's society and extremely high expectations are placed on competing athletes regardless of competitor's capacities, reasons for participation and skill levels. An inherent aspect of competitive athletics is the need for players to meet the demands of competition and to perform well under pressure (Craft, L.L., et. al.; 2003).

Anxiety is not directed or construed correctly, athletes lose control and performance levels when increase in performance has been the foundation need of athletes in their respective sports. Anxiety or arousal increases from drowsiness to alertness, there is a progressive increase in performance levels. When anxiety is not managed or explained correctly, athletes lose control and their performance level decreases (Weinberg, et. al.; 2010 - Raglin, J.S., et. al.; 2000). Athletes train hard to help their skills and faculty's regardless of the time they take to fulfil their expectations (Parnabas, V.A., et. al.; 2009). Anxiety has a negative influence on balance parameters and these parameters can be measured with catastrophe theory of Hardy. Catastrophe theory (Hardy, 1990), significantly influence the level of cognitive anxiety and interfere with the performance outcome. This theory states that performance is influenced by physiological arousal and cognitive anxiety. In a state of low cognitive anxiety, the relationship between physiological arousal and performance will be an inverted U. In a state of high cognitive anxiety, on the other hand, the relationship will be a catastrophe. This means that after reaching the optimal level of physiological arousal, performance will decrease dramatically (catastrophe). As a consequence, it is cognitive anxiety that prescribes the influence of physiological arousal on athletic performance. In other words it stated that

physiological arousal should only be negatively related to performance when the level of cognitive anxiety is high. In this theory, it is clear that the relationship between anxiety and performance is dynamic and may change within a few seconds. To capture these temporal dynamics of competitive anxiety, continuous measurement of anxiety during performance is necessary.



Competitive state anxiety has been one of the most important in sports. Athletes deal with anxiety which are goal-setting, breath control, imagery, positive self-talk, focus on the present, progressive relaxation, biofeedback, etc. with the help of coping strategies. These are the environmental demands which are causing of imbalanced situations of arousal or stress and these abilities are required to fulfil the expectations of competition demands. Competitive State Anxiety Inventory-2D scale of John & Swain which is modified in 1995, assessed firstly, the anxiety of athletes during competition with intensity level of scale and secondly assessed the perception of these anxieties of athlete with directional level of scale. The influence of competitive anxiety upon performance has received considerable attention. It is often assumed that anxiety during competition that is, a negative emotional state characterized by feelings of nervousness, worry, apprehension and bodily arousal – has beneficial or detrimental effects upon sport performance (Weinberg & Gould, 1995).

Objective: To establish the Reliability of the CSAI-2D (Modified version) subscales on Indian Population.

Hypothesis: A high reliability of CSAI-2D (Modified version) was found on Hindi language which translated with 3x2 variables. It was further concluded that significant correlation was found among the selected 3 subscales of Competitive state Anxiety with Intensity level and directional level interpretation with the help of English and Hindi language on the Indian athletes.

Procedure and Methods

Participants:

The Indian elite level athletes (N=38) of age from 17 years to 26 years were selected for the present study. At the time of collection of the data the subjects were attending Junior National Athletics coaching camp at Sports Authority of India North centre Sonipat, Haryana, India and coaching camp of the Indian Athletics team in preparation of IIIrd Lusofonia Games 2014 at Goa, India. The data was collected with the help of Mr. Wazir Singh Athletics coach of the Indian team.

Instrument: A standardized questionnaire **CSAI-2D (Modified version of CSAI-2) developed by John and Swain in 1995** was used to evaluate the extent of selected state anxiety of athletes. The CSAI-2D was translated in Hindi language with help of the expert and again rechecked by the other two experts. The questionnaire examined competitive state anxiety in 6 sub-scales (3x2 sub-scales): Cognitive State Anxiety, Somatic State Anxiety and Self-Confidence at both intensity and directional level.

Statistical Method:

As per the objective of the study selected statistical techniques use in this study were descriptive statistics, and Pearson's Product Moment Correlation to measured relationship between competitive anxiety variables to assessed the effect of anxiety on sports performance of Indian athletes and establish the Reliability of the CSAI-2D (modified version) on Indian athletes.

Results

Pearson's Product Moment Correlation and descriptive statistical analysis was used to measure the results which shows most of the athletes used mental skills strategies to cope with anxiety symptoms during competition. There was found the significant relationship between competitive state anxiety sub-scales with the help of test-retest.

Table No.-1: Descriptive Results in Relation to Competitive State Anxiety (3x2 Variables)

S. No.	Variable	N	Test		Re-test	
			Mean	SD	Mean	SD
1.	Cognitive State Anxiety_Intensity	38	18.26	5.44	19.71	5.73
2.	Somatic State Anxiety_Intensity	38	14.92	3.99	16.84	4.78
3.	Self-Confidence_Intensity	38	28.05	3.78	27.26	4.90
4.	Cognitive State Anxiety_Direction	38	-.63	11.12	1.58	11.65
5.	Somatic State Anxiety_Direction	38	-5.45	9.57	-2.92	8.93
6.	Self-Confidence_Direction	38	14.29	5.48	14.53	5.69

As depicted and evident in the table 1, the descriptive result of competitive state anxiety of athletes performance, The descriptive values (Mean \pm SD) of anxiety were measured on intensity and directional level interpretation on Cognitive State Anxiety, Somatic State Anxiety and Self-Confidence of athletes. Mean and SD of athletes at Intensity level were 18.26 \pm 5.44 (test) & 19.71 \pm 5.73 (Retest) of cognitive state anxiety, 14.92 \pm 3.99 (test) & 16.84 \pm 4.78 (Retest) of somatic state anxiety, 28.05 \pm 3.78 (test) & 27.26 \pm 4.90 (Retest) of self-confidence, and at Directional level Mean and SD value are -.63 \pm 11.12 (test) & 1.58 \pm 11.65 (Retest) of cognitive state anxiety, -5.45 \pm 9.57 (test) & -2.92 \pm 8.93 (Retest) of somatic state anxiety, 14.29 \pm 5.48 (test) & 14.53 \pm 5.69 (Retest) of self-confidence.

Table 2: Correlation between Test & Retest of Competitive State Anxiety (3x2 Variables)

S. No.	Variables	'r'	p-value
1.	Cognitive State Anxiety_Intensity	.635**	.000
2.	Somatic State Anxiety_Intensity	.607**	.000
3.	Self-Confidence_Intensity	.553**	.000
4.	Cognitive State Anxiety_Direction	.458**	.004
5.	Somatic State Anxiety_Direction	.584**	.000
6.	Self-Confidence_Direction	.337*	.038

** Correlation significant at 0.01 levels (2-tailed)

* Correlation significant at 0.05 levels (2-tailed)

Table no.2 states the results of test-retest of all variables of competitive anxiety are significantly correlated at 0.01 levels and 0.05 levels. Self-Confidence at directional interpretation of athletes' anxiety is significantly correlated at 0.05 levels and in case of Cognitive State Anxiety, Somatic State Anxiety & Self-Confidence at intensity interpretation of anxiety and Somatic State Anxiety and Self-Confidence at directional interpretation of anxiety are significantly correlated at 0.01 level.

Discussion and Conclusion The purpose of the present study was to establishing reliability of 3x2 variables of competitive state anxiety at Intensity and directional Interpretation on Indian Population developed by John & Swain, 1995. Through this study, we found that the significant relationship between the Competitive State Anxiety variables on Indian Population, which are helpful in developing facilitative approaches of anxiety on athletes' performance during competition. With the help of Pearson's Product Moment Correlation researcher found that CSAI-2D (Modified version) scale is Reliable on Indian Population in relation to their performance.

CSAI-2D scale assessed the intensity of cognitive anxiety, somatic anxiety and self-confidence which represents the affect of state anxiety on performance and in other hand directional interpretation represents the affects of these anxiety symptoms which perceived as being facilitative or debilitating to performance.

As per the previous researches on CSAI-2D the result of competitive anxiety scales is significantly effective to find the effects of anxiety on competition and training performance that means anxiety facilitative and debilitating the athlete performance through cognitive and somatic state anxiety and self-confidence.

Competitive state anxiety inventory 2D scale is helpful to find out the influence of anxiety on athletes performance and shows the positive score responses which facilitates the performance and negative score responses debilitating the performance of athlete. Further, researcher found with study materials that anxiety affects on the performance of individual. Facilitative and debilitating response of anxiety reflects individual or team performance, but in some cases Intensity interpretation of anxiety reflects high anxiety which means decreasing in the performance but the directional interpretation shows that the performance of athletes is facilitative. It means the anxiety uncertainty regarding goal attainment and coping with the situation with experienced by the athlete's during competition performance.

To measure the parameters of anxiety we uses catastrophe theory model which reflect the influence of anxiety on athletes performance. This theory states that performance is influenced by physiological arousal and cognitive anxiety. In a state of *low cognitive anxiety*, the relationship between physiological arousal and performance will be an inverted U. In the other hand state of *high cognitive anxiety*, the relationship will be a catastrophe. This means after reaching the optimal level of physiological arousal, performance will decrease dramatically (catastrophe) and in other hand physiological arousal should only be negatively related to performance when the level of cognitive anxiety is high and dynamic changes occurs within a few seconds.

Suggestions

Anxiety experiences develop directly from "autonomic arousal" these are such a problematic for athlete performance which increases the physiological arousal may accompany other emotions, such as excitement or anger. These problematic physiological arousals in athlete performance can be controlled and cope with anxiety, and achieve their desired goals with the help of mental skills training. Mental Skills Training program plays an important role to facilitative performance of athletes which are requirement for best performance during sports competition.

According to this study it was found that an athlete's without any mental skills training in their training session use to face many physiological and psychological arousal which creates negative expectancies, self-doubt, increases in heart rate and muscular tension. Changes in physiological and psychological arousal of athletes performance can be controlled with the uses of mental skills training (MST) program in their training session as it had a high correlation in terms of performance in competition.

References

- Craft, L.L., T.M. Magyar, B.J. Becker and D.L. Feltz, Others. (2003). "The relationship between the Competitive State Anxiety Inventory-2 and sport performance: A meta-analysis". *Journal of Sport and Exercise Psychology*. 25(1): 44-65.
- Hardy, L. (1990). A catastrophe model of anxiety and performance. In G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 81 – 106). Chichester: Wiley.
- Parnabas, V.A., Y. Mahmood and K. Ampofo-Boateng, (2009). "Cognitive, Somatic and Negative Coping Strategies Among Malaysian Athletes". *European Journal of Social Sciences*. 9: 3.
- Raglin, J.S. and Y.L. Hanin, (2000). "Competitive anxiety". *Emotions in Sport*. pp: 93-111.
- Weinberg, R. S., & Gould, D. (1995). Arousal, stress, and anxiety. In R. S. Weinberg & D. Gould (Eds.), *Foundations of sport and exercise psychology* (pp. 91 – 113). Champaign, IL: Human Kinetics.
- Weinberg, R.S. and D. Gould, (2010). "Foundations of sport and exercise psychology [Internet]". Human Kinetics Publishers.

Effect Of Foot Arch Index On Speed And Power Performance Among College Students

*Dr. P. PRASAD REDDY, Lecturer in Physical Education, J.B College, Kavali, SPSR Nellore

**DR. M. SIVASANKAR REDDY, Deputy Director, D.P.E, S.V. University, Tirupathi.

***Dr. B. SUMAN, Dept of Physical Education, S.V. University, Tirupathi.

Abstract

The study is designed to analyze the effect of foot arch index on speed and power performance of college boys and girls of age ranged between sixteen to twenty years. For this purpose the researcher selected 2000 boys and girls in total at random from different institutions of Vikrama Simhapuri University area, of Sri Potti SreeRamulu Nellore district, Andhra Pradesh. Out of them data of 300 boys and 300 girls with high foot arch -100 students, medium foot arch -100 students, low foot arch -100 students were taken for the study. It was hypothesized that boys may be better than the girls in speed and power performance. High foot arch students may be better than the medium and low foot arch students in the speed performance. Medium foot arch students may perform better than low foot arch students in the speed and power performance. To find out the speed and power of the subjects long jump test was administered. ANOVA statistical technique was used to find out the results of the study. The results show that boys have better than the girls in speed and power performance. High foot arch students have better than the medium and low foot arch students in the speed and power performance. Medium foot arch students have perform better than low foot arch students in the speed and power performance.

Key words;- Foot arch, Speed, Power, Long Jump, ANOVA.

Introduction

Foot is the main organ for the all Physical fitness activities of the body. Speed and power of any athlete depends on their foot structure. All the physical education professionals generally select the students to which the game/event based on their physical structure (body type) only. As a result many of the students are not perfectly performing in their respective game/events. If we categorize the subjects not only depending on their physical structure (body type) but also on the anatomical structure of the foot and its arch one can expect good results. The human foot is at once the most functional, the most intricate part of the anatomy. The intricate skeletal structure of the foot is capable of propelling the body in any direction at high speed. As the structure that supports the body in every aspect of upright movement, the foot is exposed to constant physical stresses.

SPEED: Speed is the ability to make rapid movement of the same type in the shortest possible time. Speed is a combination of reaction time and movement time.

POWER: The ability to perform a movement with strength at speed. Power is the combination of speed and strength but needs to be trained regularly to get the best coordination between these two attributes. It is the quality of a muscle to contract forcefully in the quickest possible time.

HYPOTHESIS: It was hypothesized that boys may be better than the girls in selected variables. High foot arch students may be better than the medium and low foot arch students in the selected variables. Medium foot arch students may perform better than low foot arch students in the selected variables.

METHODOLOGY:

The purpose of this investigation is to analyze the effect of foot arch index on Power and Speed of college boys and girls of age ranged between sixteen to twenty years. The study is designed to analyse the effect of foot arch on power and speed of college boys and girls of age ranged between sixteen to twenty years. The scholar selected 2000 boys and girls in total at random from different institutions of VikramaSimhapuri

University area, of Sri Potti SreeRamulu Nellore district, Andhra Pradesh. Out of them data of 300 boys and 300 girls with high foot arch -100 students, medium foot arch -100 students, low foot arch -100 students were taken for the statistical analysis.

FOOT ARCH INDEX: Foot arch angle is measured using the method described by Cavanaugh and Rodgers (1987). This has been considered to be an easy and reliable method to calculate the foot arch index. The foot arch index has also been taken to be a valid predictor of arch height by MC. Crory *et al.*(1995)

Speed and power of the subjects were measured by using long jump test.

LONG JUMP TEST

TABLE – I

Means & S.D 's of scores on Long Jump

Foot type	Type	Boys	Girls	Average Boys & Girls Means)
HFA	mean	4.373	3.192	3.783
	S D	0.700	0.374	
MFA	mean	4.296	3.180	3.744
	S D	0.506	0.371	
LFA	mean	3.913	3.158	3.536
	S D	0.296	0.333	
Grand Means(HFA,MFA,LFA)		4.194	3.181	

The above table shows that the long jump performance of the subjects with high foot arch could jump maximum distance (M=3.783 m) followed by the subjects with medium foot arch (M=3.744 m) whereas subjects with low foot arch could jump least distance (M=3.536 m) only. And also table clearly shows that girl subjects shows poor performance when compare with boys in all three foot arches.

TABLE – II

Summary of ANOVA of scores on Long Jump

Source	Type III Sum of Squares	Df	Mean Square	F Significant
FA	7.084	2	3.542	17.366* 0.000
GENDER	153.986	1	153.986	754.995* 0.000
FA *Gender	5.150	2	2.575	12.625* 0.000
Error	121.150	594	0.204	
Corrected Total	287.370	599		
a R squared=.578 (Adjusted R Squared=.575)				

***Significant at 0.01 level**

The 'F' value of 17.366 for the variable foot arch is significant beyond 0.01 level, clearly indicating that there are significant differences among the 3 groups of students with different foot arch types in their long jump event . The shape of the Foot Arch has significant effect on long jump event. Among the 3 groups of subjects with different shapes of foot arch students with high foot arch covered a longer distance of 3.783 m and the medium foot arch students mean=3.744 and subjects with low foot arch, whose performance is very poor covered a distance of 3.536 m

Discussion:

The first hypothesis states that boys and girls differ significantly in their power and speed 754.99 for long jump event are significant beyond 0.01 level of significance it indicating that there is significant difference between boys and girls in their power and speed performance. In long jump event boys perform better (M=4.194 m) when compared to girls (M=3.181m) and it was also found that high foot arch boys and girls were significantly better than that of medium foot arched and low foot arch. The second hypothesis stated that there would be significant differences among the subjects with the different types of foot arch in

their long jump performance. The F value of 17.366 for long jump event is significant beyond 0.01 level suggesting that subject with high foot arch index have better performance than the medium and low foot arch index in both gender.

The third hypothesis stated that the medium foot arch index boys (M= 4.296) and girls (M= 3.180) shows that better performance than the low foot arch index boys (M=3.913) and girls (M=3.158).

Conclusions

Based on the results of the data the following conclusions are made,

- Boys performed better than girls in power and speed activity in long jump.
- Subjects with high foot arch performed better than subjects with medium foot arch and low foot arch respectively on power and speed activity in long jump.
- There is a significant interaction between gender and foot arch type with regard to power and speed activity in long jump.
- Subjects with high foot arch can execute any movement coordinately and efficiently than others.

References

1. Agnew, P. and Y Raducanu. (2000). "An algorithmic approach to evaluation of the flatfoot." Clinics in Podiatric Medicine and Surgery 17(3): 383 - 396.
2. Alexander. R. Men *et al.* The spring in the arch of the human foot. Nature, Volume 325, Issue 6100, pp. 147-149 (1987).
3. Bateman and Trott (1980). The Foot and Ankle, Brian C. Decker.
4. Caillet, R. (1983). Foot and Ankle Pain - Pain Series. Philadelphia, F.A.Davis Company.
5. Cavanagh, P. and M. Rodgers (1987). "The Arch Index: A useful measure from footprints." Journal of Biomechanics 20: 547 - 550.
6. Cowan, D., B. Jones, *et al.* (1993). "Foot morphologic characteristics and risk of exercised related injury." Archive of Family Medicine.
7. Drennan, J. C. (1992). The child's foot and ankle. New York, Raven Press.
8. Emmerich, J., N. Wulker, *et al.* (2003). "Influence of the posterior tibial tendon on the medial arch of the foot: an *in vitro* kinetic and kinematic study." Biomedizinische Technik 48(4): 97 - 105.
9. Fascione, J., D. Michel, *et al.* (2005). "The association of foot arch height and running performance." Medicine & Science in Sports and Exercise 37(5): 153.
10. Hamill, J., B. Bates, *et al.* (1989). "Relationship between selected static and dynamic lower extremity measures." Clinical Biomechanics 4: 217
11. Gordon, G. M. and M. M. Cuttic (1994). "Exercise and the aging foot." Southern Medical Journal 87(5): 36 - 41.

Interactive Relationship Between Direction And Intensity Interpretation Of Anxiety During Competition On Indian Athlete

**Jain Shilpi, Ph.D. Research Scholar,
Dept. of Physical Education & Sports Sciences, Univ. of Delhi
Email: john.shilpy1947@gmail.com
Phogat Wazir Singh, National Coach, Sports Authority of India
Email: runwazir@gmail.com
Dr. Pardeep Kumar, Associate Professor, University of Delhi.
Email: pardeepjonti@yahoo.com
Jain Nidhi , M.P.Ed, University of Delhi**

Abstract

The purpose of the study was to assess and found interactive relationship between directional interpretation and intensity interpretation during the competition anxiety. The total thirty eight (38) athletes were selected to measure the correlation between Intensity and direction of Competitive State Anxiety Inventory-2D (Modified version) with the help of Pearson's Product Moment Correlation. The responses of the athletes had given on Competitive anxiety questionnaire in Hindi and English language. According to responses researcher assessed the interactive relationship between sub-scales Intensity and Directional interpretation on Cognitive Anxiety, Somatic Anxiety and Self-confidence. This study revealed that Anxiety is required to measure the performance during competition. The competitive state anxiety assessed on International and National Level 38 Indian athletes from Athletics discipline, whose prove that the anxiety can be facilitate and debilitate the performance of athletes'. With the help of statistical techniques Descriptive and Pearson's Correlation statistical analysis use to define the Interactive relationship between the Direction and Intensity interpretation of Competitive State Anxiety Inventory-2D on Indian population. The Pearson's Correlation method used to measures significant relationship between direction and intensity variables of state anxiety scales during competition. To find the effects of Intensity of anxiety and Perception of these anxiety symptoms on performance State anxiety had been measured with Cognitive state anxiety, Somatic state anxiety and Self-confidence sub-scales. According to the results and finding of the present research study, it is recommended that coaches must use mental skills program to learn the strategies for coping with anxiety during training and competition and to create facilitative approaches in relations of anxiety and higher performance.

Key words: Modified CSAI -2 Scale, Athletics, Indian Athletes, National and International Level

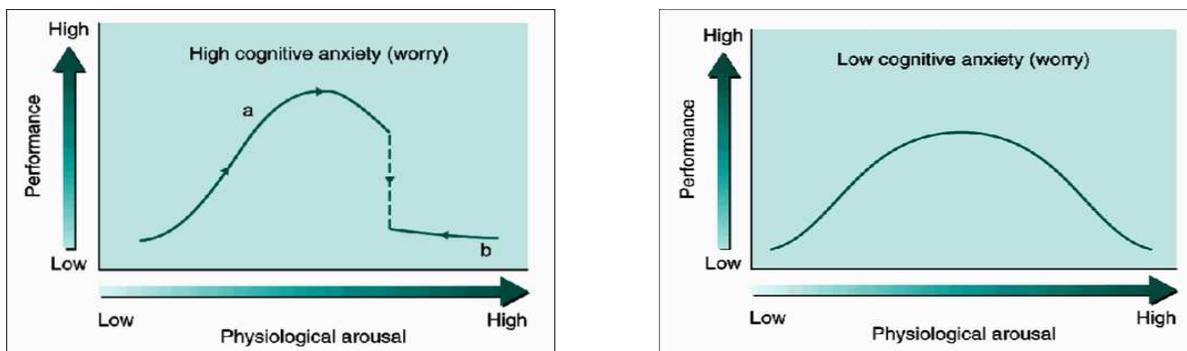
Introduction

"Winning means doing your best and the key to doing your best is correctly understand your goals, strengths and weakness. You can have two athletes of equal skill and physical make up but the one with the stronger mind will usually be the one who will come out on top" (Dr. Andrew Jacobs, 1991). Sport competition has become important in today's society and placed extremely high expectations on competing athletes regardless of competitors' capacities, reasons for participation and skill levels. An inherent aspect of competitive athletics is the need for players to meet the demands of competition and to perform well under pressure (Craft, L.L., et. al.; 2003).

Anxiety or arousal increases from drowsiness to alertness, there is a progressive increase in the performance levels. On the other hand, when arousal continues to increase beyond alertness to over-excitement, the performance levels decrease significantly.

Anxiety is not directed or construed correctly, athletes lose control and performance levels when increase in performance has been the foundation need of what dreamed by all athletes to stand out in their respective sports. Athletes train hard to help their skills and faculty's regardless of the time they take to fulfill this (Parnabas, V.A., et. al.; 2009). When anxiety is not managed or explained correctly, athletes lose control and their performance levels decrease (Weinberg, et. al.; 2010 - Raglin, J.S., et. al.; 2000). It is not possible that fatigue and anxiety are synonym with sport across different cultures with the kind of stress present in each society.

Anxiety has a negative influence on balance parameters and these parameters can be measured with catastrophe theory of Hardy. Catastrophe theory (Hardy, 1990), significantly influence the level of cognitive anxiety and interfere with the performance outcome. This theory states that performance is influenced by physiological arousal and cognitive anxiety. In a state of low cognitive anxiety, the relationship between physiological arousal and performance will be an inverted U. In a state of high cognitive anxiety, on the other hand, the relationship will be a catastrophe. This means that after reaching the optimal level of physiological arousal, performance will decrease dramatically (catastrophe). As a consequence, it is cognitive anxiety that prescribes the influence of physiological arousal on athletic performance. In other words it stated that physiological arousal should only be negatively related to performance when the level of cognitive anxiety is high. In this theory, it is clear that the relationship between anxiety and performance is dynamic and may change within a few seconds. To capture these temporal dynamics of competitive anxiety, continuous measurement of anxiety during performance is necessary.



Competitive anxiety has been one of the most important in sports. Athletes deal with anxiety which are goal-setting, breath control, imagery, positive self-talk, focus on the present, progressive relaxation, biofeedback, etc. with the help of coping strategies. These are the environmental demands which are causing of imbalanced situations of arousal or stress and these abilities are required to fulfill the expectations of competition demands. Competitive State Anxiety Inventory-2D scale of John & Swain which is modified in 1995, they assessed firstly, the anxiety of athletes during competition with intensity level of scale and secondly assessed the perception of these anxiety of athlete with directional level of scale. The effect of competitive anxiety upon performance has received considerable attention. It is often assumed that anxiety during competition – that is, a negative emotional state characterized by feelings of nervousness, worry, apprehension and bodily arousal – has beneficial or detrimental effects upon sport performance (Weinberg & Gould, 1995).

Objective

The main objectives of the study were to find out the competitive state anxiety scales interactive relationship on Indian athletes,

Hypothesis

There would be significant interactive correlation among the selected 3 sub-scales of Competitive state Anxiety on Indian athletes.

Procedure and Methods

Participants:

The Indian elite level athletes (N=38) above aged from 17 years were selected for the present study. At the time of collection of the data the subjects were attending Junior Indian National coaching camp of Athletics at coaching center of Sports Authority of India at Sonapat, Haryana, India and IIIrd Lusofonia Games 2014

coaching camp of Athletics at Goa, India. All the data would be collected with the help of National Coach, Sports Authority of India Mr. Wazir Singh, Instrumentation:

A standardized questionnaire CSAI-2D (Modified version of CSAI-2) developed by John and Swain in 1995 was used to evaluate the extent of selected state anxiety of athlete's. The questionnaire was used in Hindi and English both language for examine the interactive relationship between variables Cognitive State Anxiety, Somatic State Anxiety and Self-Confidence of competitive state anxiety at intensity and directional level both.

Statistical Method:

As per the objective of the study selected statistical techniques Descriptive Statistics, and Pearson's Product Moment Correlation was used in the present study to measured interactive relationship between competitive anxiety variables, which used to assessed the effect of anxiety on Indian athletes sports performance.

Results

Pearson's Product Moment Correlation and descriptive statistical analysis was used to measure the results which shows most of the athletes used mental skills strategies to cope with anxiety symptoms during competition. There was found the significant interactive relationship between competitive state anxiety sub-scales.

Table No.-1: Descriptive Results of Interactive Relationship between the Competitive State Anxiety Variables at Direction and Intensity Interpretation of Anxiety

S. No.	Variable	N	Test	
			Mean	SD
1.	Cognitive State Anxiety_Intensity	38	18.26	5.44
2.	Somatic State Anxiety_Intensity	38	14.92	3.99
3.	Self-Confidence_Intensity	38	28.05	3.78
4.	Cognitive State Anxiety_Direction	38	-.63	11.12
5.	Somatic State Anxiety_Direction	38	-5.45	9.57
6.	Self-Confidence_Direction	38	14.29	5.48
7.	Sport Performance	38	8.09	.85
8.	Achievements	38	9.04	1.36
9.	Total Performance	38	17.13	1.91

As depicted in the table no.-1, the descriptive result of Interactive Relationship between the Competitive State Anxiety Variables at Direction and Intensity Interpretation of Indian Athletes'. The descriptive values (Mean \pm SD) of anxiety were measured on Intensity and Directional interpretation on Cognitive State Anxiety, Somatic State Anxiety and Self-Confidence of athlete's with performance. Mean and SD value of athletes at Intensity level are 18.26 \pm 5.44 value of cognitive state anxiety, 14.92 \pm 3.99 value of somatic state anxiety, 28.05 \pm 3.78 value of self-confidence, and at Directional level Interpretation Mean and SD value are -.63 \pm 11.12 value of cognitive state anxiety, -5.45 \pm 9.57 value of somatic state anxiety, 14.29 \pm 5.48 value of self-confidence of Competitive state Anxiety Inventory-2D scale.

Table No.- 2: Correlation between the Interactive Relationship between Competitive State Anxiety Variables at Direction and Intensity Interpretation of Anxiety

S. No.	Variables	'r'	p-value
1.	Cognitive State Anxiety Interactive relationship between Direction and Intensity	.674**	.000
2.	Somatic State Anxiety Interactive relationship between Direction and Intensity	.484**	.002
3.	Self-Confidence Interactive relationship between Direction and Intensity	.344*	.035

		Intensity		
--	--	------------------	--	--

** Correlation significant at 0.01 level (2-tailed)* Correlation significant at 0.05 level (2-tailed)

Table no.2 states the results of Interactive relationship between Competitive State Anxiety variables at Direction and Intensity interpretation of anxiety was significantly correlated. There was positive interactive relationship between Direction and intensity interpretation of anxiety on the variable Cognitive State Anxiety and Somatic State Anxiety and Self-Confidence.

Discussion and Conclusion

The purpose of the present study was to measure the Interactive relationship between Direction and Intensity interpretation of anxiety during competition on Indian Population with the help of **CSAI-2D (Modified version) developed by John & Swain, 1995**. In this study with the help of Pearson's Product Moment Correlation researcher found the significant relationship between Direction and Intensity interpretation of anxiety variables, which are helpful in developing facilitative approaches of anxiety on athletes' performance during competition. According to further research anxiety effects on athletes' performance during competition which facilitate and debilitate the performance through cognitive and somatic state anxiety and self-confidence. CSAI-2D scale assessed the intensity of cognitive anxiety, somatic anxiety and self-confidence which represents the affect of state anxiety on performance and in other hand directional interpretation represents these anxiety symptoms affects which perceived as being facilitative or debilitative the performance. At the Directional interpretation of CSAI-2D is helpful to find the effect of anxiety on athletes' performance where positive score responses facilitative the performance of athlete and negative score debilitative the performance of athlete.

Suggestions According to the positive relationship between variables of anxiety scale reflects uncertainty regarding goal attainment and coping with the situation which experienced by the athlete's in relation to performance. This anxiety indicates belief that an athlete experiences develop directly from "autonomic arousal" these are such a problematic for athlete performance which increases the physiological arousal and may accompany other emotions, such as excitement or anger. The problematic physiological arousal in athlete performance can be controlled and cope with anxiety, and achieve the desired goals with the help of mental skills program strategies. Mental Skills Training plays an important role to facilitative performance of athletes which are requirement for best performance during sports competition. According to the present study it was found that an athlete's without any mental skills training in their training session use to face many physiological and psychological arousal which creates negative expectancies, self-doubt, increases in heart rate and muscular tension. Changes in physiological and psychological arousal of athletes performance can be controlled with the uses of mental skills training (MST) program in their training session as it had a high correlation in terms of performance in competition.

References

- Craft, L.L., T.M. Magyar, B.J. Becker and D.L. Feltz, Others. (2003). "The relationship between the Competitive State Anxiety Inventory-2 and sport performance: A meta-analysis". *Journal of Sport and Exercise Psychology*. 25(1): 44-65.
- Jacobs, A. (1991). *The winning edge in sports* [Video file]. Available from
- Hardy, L. (1990). A catastrophe model of anxiety and performance. In G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 81 – 106). Chichester: Wiley.
- Parnabas, V.A., Y. Mahmood and K. Ampofo-Boateng, (2009). "Cognitive, Somatic and Negative Coping Strategies Among Malaysian Athletes". *European Journal of Social Sciences*. 9: 3.
- Raglin, J.S. and Y.L. Hanin, (2000). "Competitive anxiety". *Emotions in Sport*. pp: 93-111.
- Weinberg, R. S., & Gould, D. (1995). Arousal, stress, and anxiety. In R. S. Weinberg & D. Gould (Eds.), *Foundations of sport and exercise psychology* (pp. 91 – 113). Champaign, IL: Human Kinetics.

“Credit Risk Assessment of Bank of Baroda”

Ahmad Abdollahnezhad Bildashi ¹

1. Student of MBA, College of Business Management, Osmania University, Hyd., India

Abstract:

Risk usually arises out of uncertainty and is usually interpreted in layman's terms as the probability of failure. Most significant among all the other risks, credit risk is applicable to all banks as they give loans. Credit risk is risk due to uncertainty in counterparty's ability to meet its obligations. The level of risk will be indicated by risk ratings. Based upon the credit rating, the lending institution decides whether or not to extend credit. The pricing of loans normally should be linked to risk rating. At best-practice banks, the internal loan grading system is used as the basis for the determination of "economic capital" allocations that vary substantially across grades. Risk-sensitive determination of minimum capital requirements is an essential goal of Basel II. The option of using internal rating systems for the assessment of credit risks is extremely relevant to achieve this goal. A significant innovation of the revised Framework is the greater use of assessments of risk provided by banks' internal systems as inputs to capital calculations. The internal ratings-based approach (IRB), according to Basel II, enables financial institutions to utilize their many years of experience and industry-specific knowledge in the form of internal ratings models. This will increase the precision of their determinations and achieve lasting competitive advantages in the area of tension that exists between loan default risk and costs of capital. Credit Risk Rating Platform offers a comprehensive solution for Basel II-compliant credit risk management. This platform supports the multi-dimensional requirements involved in implementing credit risk rating models as well as ensuring compliance with supervisory provisions. RBI has already issued the guidelines for implementing the Basel II framework in the Indian banking system. Banks must have robust systems in place to evaluate the accuracy and consistency system, processing and the estimation of the PDs.

Keywords: Credit risk, Bank of Baroda

Introduction

Credit risk means risk of payment default. Credit risk or default risk involves inability or unwillingness of a customer or counterparty to meet commitments in relation to lending, trading, hedging, settlement and other financial transactions. Credit risk is the primary financial risk in the banking system and exists in virtually all income-producing activities. Credit risk affects the lenders highly. Trust is fundamental to the existence of any bank. The public deposit their hard-earned savings in the bank based on the confidence that the bank would return their money on demand and pay them interest for the money deposited. A prudent banker would thus need to ensure that the funds placed in their custody by public are deployed in avenues that are safe. The lending activity of a bank is particularly important to the economy as it caters to the credit requirements of business concerns for their expansion activities or working capital requirements. To sum up main idea of credit risk assessment of Baroda bank is to develop an understanding of how credit risk rating of corporate loans is carried out in a bank. With the changing business environment and emergence of the global economy, the risks associated with lending have increased manifold. However, of the many risks, the most fundamental of all is the credit risk. The challenge for any banker is to do a thorough credit assessment of the customer to ensure safety of loan. Any negligence on part of the assessing can lead to bad debts, which affect the asset quality and financial health of the bank. Improper financial health of the bank erodes the trust of the depositors, which makes it vulnerable to a 'run' on its deposits. Dealing with non-performing loans also results in a huge waste of employee's time and energy in legal wrangling and recovery proceedings. Credit risk assessment at the point of the customer interface holds the key in the overall credit risk management policy of any bank. The basic information needed to assess the creditworthiness is 3 C's of Credit: Character, Capability and Collateral. A banker will have to collect

information from the client so as to arrive at the creditworthiness in the form of a credit rating for the company or entity.

Also under the Basel II norms, risk profiling of borrowers would become necessary, as banks would have to allocate capital depending on the credit rating of the borrower. An understanding of the client's track record, managerial expertise and integrity will help the banker's assessment regarding the safety of the bank's funds. A basic understanding of the nature of the client's business is necessary while evaluating the loan proposal.. "Bank of Baroda" was founded by Maharaja of Baroda Sir Sayajirao Gaekwad III on July 20, 1908 in the princely state of Baroda, in Gujarat. The bank, along with 13 other major commercial banks of India, was nationalized on 19 July 1969, by the Government of India..BoB has total assets in excess of Rs. 2.27 lakh crores, or Rs. 2,274 billion, a network of over 3000 branches and offices, and about 1100+ ATMs.

International Presence: In its international expansion Bank of Baroda followed the Indian Diaspora, and especially that of the Gujaratis. It has significant international presence with a network of 72 offices in 25 countries, six subsidiaries, and four representative offices.

Methodology:

The methodology used is as follows:

In order to fulfill the stated objectives of the study, the needed Information was collected from 'Integrated Risk Management Department' (IRMD) of Bank of Baroda.

Primary data: Primary data was collected from the bank's process notes, rating systems annexure, rating model circulars, risk rating modules, rating sheets and one to one interaction with employees of the bank.

Secondary data: Secondary data was collected from books, journals, and web based resources. This included RBI guidance note on credit risk management, CRISIL industry rating reports, financial newspapers, RBI website, as well as BIS website.

In addition, the operations of IRMD department (credit risk rating for Basel-II purpose), Bank of Baroda were studied through:

Interaction with senior officials
Observation of credit risk rating model application

Data analysis:

A descriptive analysis was used with respect to the rating process and rating model.

SCOPE:

An extensive study was done on the new Basel-II compliant credit risk rating model and on the loan process note of bank with respect to corporate loans alone.

The basic differences between Basel-I & Basel-II

Basel-I: Banks are required to maintain capital only for credit risk. Uniform risk weights are prescribed for various types of exposures. Banks are required to use the same risk weights irrespective of the quality of the portfolios. This made the accord risk non-sensitive.

No capital charge for Operational Risk.

Basel-II: Banks have to maintain capital for Credit Risk, Market Risk, & Operational Risk also.

Risk weights depend on the quality or the portfolios. Risk weights are to be decided based on the credit rating by approved External Credit Rating agencies such as CARE, CRISIL, FITCH or ICRA.

Banks have to maintain capital charge for operational risk too. And it is revised frame work on banking supervision. Basel-I only acts for credit risk and market risk, but Basel-II includes operational risk and other risks also. Basel-II aims to make capital requirements more risk sensitive.

Findings:

BANK OF BARODA has adapted BASEL II model with effect from April 2006. This enabled it keep pace with competition and to retain market share. All corporate accounts with exposures above Rs. 1.00 crore are rated under the new Credit Risk Rating model and the basic differences between Basel-I & Basel-II was:

Basel-I only acts for credit risk and market risk, but Basel-II includes operational risk and other risks also.

Basel-II aims to make capital requirements more risk sensitive.

CRRM rigorously evaluates the risk associated with a particular borrower.

The new credit risk rating model is software driven and technical in nature, users need some training on its usage. The new credit risk rating model provides a scientific and robust method for assessing credit risk rating of a client. Bank of Baroda has rated over 300 accounts with credit exposure of Rs.1.00 crore and above, under the new credit risk rating model in parallel run.

The Bank is following RBI guidelines promptly and with diligence. It helps the bank to cope with competition. This discipline can contribute to a safe and sound banking environment.

Various credit rating models followed by Bank of Baroda result in differentiating the degree of credit risk in different credit exposures of a bank.

The Bank prices different products differently for different customers based on the credit rating assigned to them. Bank's capital requirements depend on the rating of the structured assets they hold, as well as large losses in the banking industry. Borrowers work diligently to improve their credit rating, which helps them to get the credit easily and with less interest rate. The decisions related to renewal, enhancement of limits will depend mostly on up gradation or degradation of loan. Credit risk assessment is also not a one-time activity, but an ongoing part of the relationship with the customer.

Conclusion:

Given the pressures of globalization, liberalization, consolidation and disintermediation, it is important that banks have robust credit risk management policies and procedures which are sensitive and responsive to these pressures. Banks need risk management packages not only to adhere Basel II, also for effective risk management and mitigation, effective capital allocation, gain competitive advantage, develop the robust system and process, improve reporting systems and transparency, and cost reduction through detailed data analysis. The soundness of the banking system is one of the most important issues for the regulatory authorities and for the financial system stability. A well managed credit risk rating systems promote bank safety and soundness by facilitating informed decision making. Rating systems measure credit risk and differentiate individual credits and groups of credits by the risk they pose. This allows bank management and an examiner to monitor changes and trends in risk levels. The process also allows bank management to manage risk to optimize returns. Credit approval and underwriting use the credit ratings to determine or influence who is authorized to approve a credit, how much credit will be extended or held, and the structure of the credit facility (collateral, repayment terms, guarantor, etc). Credit risk ratings also guide price settings in a way that taking credit risk must be sufficient to compensate for the risk to earnings and capital. Higher risk credits should be reviewed and analyzed more frequently. Thus credit risk ratings strongly influence banks decision to buy, sell, hold and hedge credit facilities.

Suggestions For Further Study:

Each borrower within a portfolio must be assigned the rating before a loan is originated. The risk rating system should be dynamic ratings should change when risk changes. Given the importance and subjective nature of credit rating, the credit ratings should be subjected to review at least annually. Rating must be updated at least on annual basis. Higher risk credits should be reviewed and analyzed more frequently, and higher risk borrowers normally should be concentrated more frequently.

Bibliography

Sites Browsed:

www.bankofbaroda.com, www.bis.org, www.riskglossary.com

www.rbi.org, www.wikipedia.org

Books Referred:

Asset liability management
Credit risk rating model manual &
Credit rating systems circulars

Guidance Note on Credit Risk .M(CRM)

Author & Publication

T. Ravi Kumar
Bank of Baroda

Reserve Bank of India

Effects Of Weight Training And Circuit Weight Training On Selected Strength And Physiological Variables

Mr. A. RAMAKRISHNAN *Ph.D., Scholar*
Dr. R. GOPINATH, *Professor*

Department Of Physical Education And Sports Sciences, Annamalai University.

Abstract

The purpose of the present study was to find out the effect of weight training and circuit weight training on strength and physiological variables among male players of various games and sports. For this purpose, forty five male players studying in various colleges around Thiruvallur, Tamilnadu, were selected as subjects. The age of the subjects ranged from 18 to 23 years. They were divided into three equal groups, each group consisted of fifteen subjects, in which experimental group - I underwent weight training, experimental group - II underwent circuit weight training and group - III acted as control who did not participate in any special activities apart from their regular activities. The training period for the present study was three days (alternative days) in a week for twelve weeks. Prior to and after the experimental period, the subjects were tested on back strength, strength endurance and resting pulse rate. Back strength was assessed by administering dynamometer in kilograms, strength endurance was assessed by administering sit-ups test in numbers per minute and resting pulse rate was assessed by counting the pulse at resting condition of the subject for one minute. The Analysis of Covariance (ANCOVA) was applied to find out any significant difference between the experimental groups and control group on selected criterion variables. Whenever the adjusted post-test mean was found to be significant, the Scheffé S was used as post-hoc test. The result of the study shows that the weight training and circuit weight training groups were increased the back strength, strength endurance and resting pulse rate significantly ($P > .05$). It was concluded from the results of the study that weight training and circuit weight training has brought positive changes in back strength, strength endurance and resting pulse rate as compared to the control groups. It was concluded that no significant difference was found between the weight training group and circuit weight training group on selected criterion variables.

Key words: Weight training, Weight circuit training, Back strength, Strength endurance, Resting pulse rate, ANCOVA.

Introduction

Weight training is a common type of strength training for developing the strength and size of the skeletal muscles. It uses the force of gravity (in the form of weighted bars, dumbbells or weight stacks) to oppose the force generated by muscle through concentric or eccentric contraction.[1] The basic principles of strength training involve a manipulation of the number of repetitions (reps), sets, tempo, exercises and force to cause the desired changes in strength, endurance, size or shape by overloading a group of muscles.[2] Weight training boosts VO₂ max, the maximum capacity of an individual's body to transport and use oxygen during incremental exercise, which reflects the physical fitness of the individual.[3] Circuit training is a workout routine that combines cardiovascular fitness and resistance training. It was first proposed in the late 1950s as a method to develop general fitness.[4] In planning a circuit training programme, exercises are chosen to fit the need of the individual. [5] Circuit weight training (CWT) was developed in the 1950's to address the question of whether one program can increase muscular strength and endurance while working the aerobic system.[6] In a circuit weight training session, heart rate average around 80% of max, but oxygen consumption only 40% of VO₂max, which is the minimum level for aerobic fitness improvements.[7] Back strength plays a vital role in the daily activities of human being. It is an essential factor for including in almost all games and sports. Strength endurance is defined as the capacity of the whole organism to

withstand under the long lasting experience of strength.[8] The pulse of an individual, or the rate at which his heart beats, can facilitate a quick evaluation of the individuals health.[9]

Methodology

Forty five male sports person around Thiruvallur, Tamilnadu studying in various colleges were selected as subjects. The age of the subjects ranged from 18 to 23 (mean age = 21.0 ± 0.7 months) years. *Design:* The selected subjects were divided into three equal groups, each group consisted of fifteen subjects, in which group - I (n=15) underwent weight training, group - II (n=15) underwent circuit weight training and group - III (n=15) acted as control, which did not participate in any special activities apart from their regular curricular activities. The training period for weight training group and circuit weight training group was three days (alternative days) per week for twelve weeks. The researcher consulted with the physical education professionals and coaches of various games and sports and selected the following variables as criterion variables: 1. back strength, 2. strength endurance and 3.resting pulse rate. The back strength was assessed by using leg lift with dynamometer and it was recorded in kilograms, strength endurance was assessed by administering sit-ups test and it was recorded in numbers per minutes and resting pulse rate was assessed by using the wet spirometer and it was recorded in liters. For the purpose of collection of data the subjects were asked to report early morning, one day prior and one day after experimental period. .Analysis of covariance (ANCOVA) was applied to find out the significant difference if any, among the experimental groups and control group on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered appropriate. Whenever the 'F' ratio was a significant in adjusted post test mean, the Scheffé S was applied as post-hoc test.

Results

The data collected on back strength, strength endurance and resting pulse rate among weight training group, circuit weight training group and control group were analysed and presented in Table – I.ANALYSIS OF COVARIANCE ON SELECTED CRITERION VARIABLES AMONG EXPERIMENTAL GROUPS AND CONTROL GROUP

Variable Name	Group Name	Weight Ttraining Group	Circuit Weight Training Group	Control Group	'F' Ratio
Back strength (in Kgs.)	Pre-test Mean \pm S.D	58.60 \pm 5.816	58.33 \pm 6.17	56.4 \pm 6.127	0.593
	Post-test Mean \pm S.D.	62.13 \pm 5.693	61.33 \pm 5.92	55.40 \pm 4.595	6.871*
	Adj. Post-test Mean	61.454	60.874	56.539	22.285*
Strength Endurance (No./min)	Pre-test Mean \pm S.D	32.47 \pm 3.226	30.67 \pm 2.19	32.07 \pm 3.282	1.555
	Post-test Mean \pm S.D.	35.27 \pm 3.081	34.13 \pm 2.20	31.20 \pm 3.052	8.381*
	Adj. Post-test Mean	34.680	34.987	30.933	31.22*
Resting pulse rate (No./min)	Pre-test Mean \pm S.D	66.267 \pm 4.21	65.467 \pm 3.06	66.53 \pm 3.33	0.362
	Post-test Mean \pm S.D.	64.867 \pm 4.22	63.933 \pm 3.03	66.87 \pm 3.39	2.618
	Adj. Post-test Mean	64.692	64.545	66.430	29.754*

*Significant 0.05 level of confidence. (The table values required for significance at .05 level of confidence with df 1 and 28 and 1 and 27 were 4.20 and 4.21 respectively).

Table – I shows that pre and post test means 'f' ratio of weight training group, circuit weight training group and control group on back strength were 0.593, which was not significant ($p > 0.05$) and 6.871, which was significant ($p < 0.05$). The adjusted post test mean 'f' ratio value of experimental groups and control group was 22.285, which was significant ($p < 0.05$). The pre and post test means 'f' ratio of weight training group, circuit weight training group and control group on strength endurance were 1.555, which was not significant ($p > 0.05$) and 8.381, which was significant ($p < 0.05$). The adjusted post test mean 'f' ratio value of experimental groups and control group was 31.22, which was significant ($p < 0.05$). The pre and post test means 'f' ratio of weight training group, circuit weight training group and control group on resting pulse rate was 0.362 and 14.25, which was not significant ($p > 0.05$). The adjusted post test mean 'f' ratio value of experimental groups and control group was 29.754, which was significant ($p > 0.05$).

Table - II

SCHEFFÉ S TEST FOR THE DIFFERENCE BETWEEN THE ADJUSTED POST-TEST MEAN ON SELECTED CRITERION VARIABLES

Adjusted Post-test Mean on Back strength				
Weight Training Group	Circuit Weight Training Group	Control Group	Mean Difference	Confidence interval at .05 level
61.454		56.539	4.915*	1.140067
61.454	60.874		0.58	1.140067
	60.874	56.539	4.335*	1.140067
Adjusted Post-test Mean on Strength endurance				
34.680		30.933	3.747*	1.444971
34.680	34.987		0.307	1.444971
	34.987	30.933	4.054*	1.444971
Adjusted Post-test Mean on Resting pulse rate				
64.692		66.430	1.738*	0.687657
64.692	64.545		0.147	0.687657
	64.545	66.430	1.885*	0.687657

* Significant at .05 level of confidence.

Table – II shows that the Scheffé S Test for the difference between adjusted post-test mean in back strength of weight training group and control group (4.915) and circuit weight training group and control group (4.335), which were significant at .05 level of confidence. There was a significant difference in strength endurance between weight training group and control group (3.747) and circuit weight training group and control group (4.054) and also there was a significant difference on resting pulse rate between weight training group and control group (1.738) and circuit weight training group and control group (1.885) which was significant at 0.05 level of confidence after the respective training programme.

Conclusions

There was a significant improvement in back strength after the weight training period [11,14]. There was a significant improvement in strength endurance due to weight training [11] and circuit weight training [13]. The decrease in resting pulse rate was significantly higher for weight training group [15,14] and for circuit weight training group [16] when compared with the control group. It was also found that there was no significant difference was found between the weight training group and circuit weight training group on selected criterion variables.

Reference:

[1]Retrieved from http://en.wikipedia.org/wiki/Weight_training on 01-11-2014

[2]Jason Menoutis, "Weight Training", retrieved from http://www.peandhealth.com/Weight_Training.html on 21-05-2014.

- [3]Julie Wilcox, "The Health Benefits of Weight Lifting and the New Science That Supports Strength", Retrieved from <http://www.forbes.com/sites/juliewilcox/2012/05/31/health-benefits-weightlifting/2/> on 28-3-2014
- [4]Lonnie Soloff, "The Benefits of Circuit Training", Retrieved from http://www.sparkpeople.com/resource/fitness_articles.asp?id=267 on 22-02-2014.
- [5]Patsy Neal, *Coaching Method of Women*, (Massachusetts:Addision Wesley Publishing Company, 1969), p.15.
- [6]Corey Crane, www.selfhelpmagazine.com
- [7]Raphael Brandon, "Circuit Training: Weight Training Circuits will Improve Aerobic Fitness, Muscle Strength and Help Reduce Body Fat", *Sports Performance Bulletin*, Retrieved from <http://www.pponline.co.uk/encyc/circuit-training-weight-training-circuits-will-improve-aerobic-fitness-muscle-strength-and-help-reduce-body-fat-604#> on 22-03-2014.
- [8]Frank W. Dick, Carl Johnson and Walf Paish, *Strength Training for Athletics*, (London: British Amateur Athletic Board, 1978), p.6.
- [9] Retrieved from <http://www.buzzle.com/articles/normal-pulse-rate.html> on 14-06-2014.
- [10]Paul C. Godwin, "Effect of Weight Training and Resistance Training on Selected Biomotor, Physiological and Skill Variables among Tamilnadu State Hockey Players", *Unpublished Ph.D., Dissertation*, (Tamilnadu Physical Education and Sports University, (March 2013)).
- [11]G. Rajamohan, P. Kanagasabai, Suthakar Krishnaswamy and Annida Balakrishnan, "Effect of Complex and Contrast Resistance and Plyometric Training on Selected Strength and Power Parameters", *Journal of Experimental Science*, 1:12, (2010), 1-12.
- [12]L.R. Gettman, J.J. Ayres, M.L. Pollock and A. Jackson, "The Effect of Circuit Weight Training on Strength, Cardio-respiratory Function, and Body Composition of Adult Men", *Journal of Medical Science in Sports*, 10:3, (1978), 171-6.
- [13]H. Kaikkonen, M. Yrjama, E. Siljander, P. Byman and R. Laukkanen, "The Effect of Heart Rate Controlled Low Resistance Circuit Weight Training and Endurance Training on Maximal Aerobic Power in Sedentary Adult", *Scand J Med Sci Sports*, 10:4, (August 2000), 211-5.
- [14]A. Subramanian, "Investigation of Core Strength Training Induced Adaptations on Selected Physical and Physiological Parameters of Cricket Players", *International Journal of Physical Education, Fitness and Sports*, 3:1, (March 2014), 65-70.
- [15] Paul C. Godwin, "Effect of Weight Training and Resistance Training on Selected Biomotor, Physiological and Skill Variables among Tamilnadu State Hockey Players", **Unpublished Ph.D., Dissertation**, (Tamilnadu Physical Education and Sports University, (March 2013)).
- [16] Hyun-Joo Kang, Yang Sun Lee, Doo-Soon Park and Duk-Ho Kang, "Effects of 12-Week Circuit Weight Training and Aerobic Exercise on Body Composition, Physical Fitness, and Pulse Wave Velocity in Obese Collegiate Women", **Soft Computing**, 16:3, (March 2012), 403 - 410

Analysis Of Selected Psychological Skills Of Male And Female Participants In Different Sport Domains

¹ Mr.K.Ravi Kumar, ² Dr.P. Johnson, ³ N.Veerendra, ⁴ N.Avulaiah
^{1,3&4} Research Scholar, University College of Physical Education & Sports Sciences, Acharya
Nagarjuna University, Guntur, Andhra Pradesh, India.

² Vice-Principal, University College of Physical Education & Sports Sciences, Acharya Nagarjuna
University, Guntur, Andhra Pradesh, India

Abstract

This investigation was purported to analyze the selected psychological skills of male and female participants in different sport domains. For this reason, 320 sportsperson from different sport domains (*individual and team sports*) were selected as subjects from Guntur district, Andhra Pradesh, India. These subjects were in the age group of 18 to 21 years, and they were tested for their level of achievement motivation and competitive anxiety using standardized instruments. The data collected were subjected to statistical analysis by means of Two-way ANOVA, and simple effect test. The confidence interval was fixed at $p < 0.05$ in all cases. The research findings imply that difference in gender and participation in different sport domains contributes to the variation in developmental process on achievement motivation and anxiety.

Introduction

Every human being is born with specific physical and psychological strengths and weaknesses, yet the skills are learned and developed through day to day endeavours. Irrespective of the sport in question, an athlete's success or failure is dependent on a combination of physical and mental abilities (Nideffer, 1976). Psychological, social and physical development process project powerful influences on sport participation, defined broadly as engagement, learning, and performance in sports. Sport experiences often foster citizenship, social success, positive peer relationships, leadership skills, and a sense of initiative in participants.

The highly desirable benefits of a physically active lifestyle are mastery of motor and sport-specific skills that contribute to competence in lifelong physical activities, attaining social and psychological life skills (e.g., interpersonal skills, resistance skills), and improving developmental outcomes such as confidence, self-regulation, character, motivation, and perseverance (Weiss, 2008).

Developmental sport psychology is the term for the area of study focused on determining the role of sport participation experiences in developing psychological, social, and physical competencies. The acquisition of sport skill expertise is both a product of development and a process for development, meaning that psychological development affects sport skill acquisition and that the sport skill acquisition process results in psychological changes.

Youth sport participants themselves give many specific reasons or motives for sports participation, and typically have higher perceptions of competence and control than those who drop out. Competence motivation theory suggests that mastery behaviour in activities such as sport is predicted by one's perceptions of ability and sense of control over performance situations. Achievement goal theory shows that behaviour is often predicted by children's perceptions of their abilities and their goal perspectives, meaning their views on what it means to be successful in sport.

Contemporary thinking views stress as a dynamic relationship between athletes and their practice and competition environment. Specifically, performers appraise the demands to cope with these demands. Inherent within this approach is the perspective that performers will encounter many different demands that

tax their resources and it is the athletes' perceived ability to cope with these that form the process of stress. If athletes feel that they cannot cope with the demands then they are then likely to experience different levels of competition anxiety.

Elite athletes repeatedly have to perform under high pressure, and it is therefore not surprising that psychological characteristics often distinguish those successful at the highest standard from their less successful counterparts (Morris, 2000). Early research evidence already supported an association between psychological characteristics and sports performance (Morgan & Pollock, 1977; Morgan, 1979; May *et al.*, 1985). Further research evolved with an emphasis in identifying psychological skills relevant to sport (Meyers *et al.*, 1996). Yet, it is not self-evident that the relation between psychological skills and performance level is similar for different types of sports or for males and females.

The conceptualization of sport structure plays a vital role in the modification of psychological skills. Furthermore, gender differences play a prominent role in the enhancement of psychological skills of athletes participating in different sports. Thereby, the analysis of psychological skills of male and female athletes participating in different sports is necessitated to understand the gender difference and nature of activity in developing the psychological skills. The main aim of this investigation was to analyze the selected psychological skills (*achievement motivation and competitive anxiety*) of male and female participants in different sport domains.

Methodology

In this study, 320 sportsperson from different sport domains (*individual and team sports*) were selected as subjects from Guntur district, Andhra Pradesh, India. The subjects selected in the domain of individual sports consist of 74 male and 58 female sportsperson, whereas, 105 male and 83 female sportsperson considered as subjects from that of team sports. The subjects selected were position holders in the district level tournament in respective sports. The age of the subjects were ranged between 18 and 21 years. The participants in athletics, badminton, table tennis, tennis, power lifting, and weight lifting were considered to be as subjects categorized as individual sports in this study, while the basketball, cricket, football, handball, hockey, kabaddi, khokho, and volleyball players were considered as subjects belonging to team sports. These sports of different domains were chosen considering the popularity and achievement of the sportsperson in State level tournaments.

The selected subjects were tested for their level of achievement motivation and competitive anxiety using standardized instruments. The data collected were subjected to statistical analysis by means of Two-way ANOVA, and simple effect test. The confidence interval was fixed at $p < 0.05$ in all cases.

Results

The data on achievement motivation and competitive anxiety were analysed for statistical significant gender difference and the influence of participating in individual and team sports. And all those results were tabulated in tables from 1 through 6.

Table – 1: Mean and Standard Deviation on Achievement Motivation among Sportsperson of different Sports Domain

Gender	Sports Domain	Mean	Std. Deviation	N
Male	Individual Sports	26.689	3.420	74
	Team Sports	24.962	3.905	105
Female	Individual Sports	25.431	3.550	58
	Team Sports	27.289	2.878	83

It is obvious from Table-1 that female has more achievement motivation than their counterpart irrespective of their sports. Furthermore, it is observed that participants in individual sports are highly motivated to achieve compared to those engaged team sports.

The data on achievement motivation have been analyzed by two-way analysis of variance to determine the gender difference and the influence of participation in different sports domains, and the obtained results are presented in Table-2.

Table – 2: Two-Way Analysis Of Variance On Achievement Motivation

Source	Sum of Squares	df	Mean Square	F	Sig.
Gender	21.843	1	21.843	1.799	.181

Sports Domain	.327	1	.327	.027	.870
Gender * Sports Domain	245.670	1	245.670	20.232	.000
Error	3836.983	316	12.142		

It is observed from Table-2 that the achievement motivation between gender (*male and female*) irrespective of sports domain is $F(1, 316) = 1.799$, ($p = 0.181$), which indicates that no significant differences exist between male and female irrespective of sports domain (*individual and team sports*) on achievement motivation. Moreover, the achievement motivation between sports domain (*individual and team sports*) irrespective of gender is $F(1, 316) = 0.027$, ($p = 0.870$), which indicates that no significant differences exist between individual and team sports irrespective of gender on achievement motivation.

But, the obtained $F(1, 316) = 20.232$, ($p < 0.05$) value for the two-way interaction of gender (*male and female*) and sports domain (*individual and team sports*), reveals a significant difference on achievement motivation. It establishes the existences of significant differences in the two way interaction effect on achievement motivation. Since, the interaction effect is significant, the simple effect test has been applied as follow up test and it is presented in Table-3.

Table – 3: The Simple Effect Test on Achievement Motivation among Sportsperson of different Sports Domain

	Sum of Squares	df	Mean Squares	F ratio	Sig.
Gender and Individual Sports	51.470	1	51.470	4.239	.040
Gender and Team Sports	251.071	1	251.071	20.677	.000
Sports Domain and Male	129.508	1	129.508	10.666	.001
Sports Domain and Female	117.879	1	117.879	9.708	.002
Error	3836.983	316	12.142		

Table-3 reveals that statistically significant difference on achievement motivation exists between male and female sportsperson participating in individual sports, as the obtained $F(1, 316) = 4.239$, ($p < 0.05$). Likewise, considerable difference on achievement motivation between male and female sportsperson participating in team sports is observed, as the obtained $F(1, 316) = 20.677$, ($p < 0.05$). It also shows that there is a statistically significant difference on achievement motivation between individual and team male sportspersons as the $F(1, 316) = 10.666$, ($p < 0.05$), per se, considerable difference on achievement motivation exists between individual and team female sportspersons as the $F(1, 316) = 9.708$, ($p < 0.05$).

Table – 4: Mean and Standard Deviation on Anxiety among Sportsperson of different Sports Domain

Gender	Sports Domain	Mean	Std. Deviation	N
Male	Individual Sports	19.649	3.677	74
	Team Sports	20.391	2.669	105
Female	Individual Sports	15.862	3.247	58
	Team Sports	18.349	2.662	83

It is obvious from Table-4 that male are more anxious than female irrespective of their sports. Furthermore, it is observed that participants in team sports are highly anxious compared to those play individual sports.

The data on anxiety have been analyzed by two-way analysis of variance to determine the gender difference and the influence of participation in different sports domains, and the obtained results are presented in Table-5.

Table – 5: Two-Way Analysis Of Variance On Anxiety

Source	Sum of Squares	df	Mean Square	F	Sig.
Gender	649.028	1	649.028	70.488	.000
Sports Domain	199.275	1	199.275	21.642	.000
Gender * Sports Domain	58.226	1	58.226	6.324	.012

Error	2909.619	316	9.208		
-------	----------	-----	-------	--	--

It is observed from Table-5 that the anxiety between gender (*male and female*) irrespective of sports domain is $F(1, 316) = 70.488$, ($p < 0.05$), which indicates that significant differences exist between male and female irrespective of sports domain (*individual and team sports*) on anxiety. It also shows that the anxiety between sports domain (*individual and team sports*) irrespective of gender is $F(1, 316) = 21.642$, ($p < 0.05$), which indicates that significant differences exist between individual and team sports irrespective of gender on anxiety. Furthermore, the obtained $F(1, 316) = 6.324$, ($p = 0.012$) value for the two-way interaction of gender (*male and female*) and sports domain (*individual and team sports*), reveals a significant difference on anxiety.

A finding of the study establishes the existences of significant differences in the two way interaction effect on anxiety. Since, the interaction effect is significant, the simple effect test has been applied as follow up test and it is presented in Table-6.

Table – 6: The Simple Effect Test on Anxiety among Sportsperson of different Sports Domain

	Sum of Squares	df	Mean Squares	F ratio	Sig.
Gender and Individual Sports	466.208	1	466.208	50.633	.000
Gender and Team Sports	193.121	1	193.121	20.974	.000
Sports Domain and Male	23.888	1	23.888	2.594	.108
Sports Domain and Female	211.229	1	211.229	22.941	.000
Error	2909.619	316	9.208		

Table-6 shows that there is a statistically significant difference on anxiety between male and female sportsperson participating in individual sports, as the obtained $F(1, 316) = 50.633$, ($p < 0.05$). Per se, considerable difference on anxiety between male and female sportsperson participating in team sports is noticed, as the obtained $F(1, 316) = 20.974$, ($p < 0.05$). However, it also demonstrates that statistically significant difference on anxiety didn't exist between individual and team male sportspersons as the $F(1, 316) = 2.594$, ($p = 0.108$), whereas, considerable difference on anxiety exists between individual and team female sportspersons as the $F(1, 316) = 22.941$, ($p < 0.05$).

Conclusion

The research findings of this study imply that difference in gender and participation in different sport domains contributes to the variation in developmental process on achievement motivation and anxiety.

References

- May, J.R., Veach, T.L., Reed, M.W., and Griffey, M.S. (1985). A psychological study of health, injury and performance in athletes on the US alpine ski team. *Physician and Sportsmedicine*, 13, 111- 115.
- Meyers, M.C., LeUnes, A., and Bourgeois, A.E. (1996). Psychological skills assessment and athletic performance in collegiate rodeo athletes. *Journal of Sport Behavior*, 19(2), 132-146.
- Morgan, W.P. (1979). Prediction of performance in athletics. In *Coach, Athlete and the Sport Psychologist* (edited by P. Klavara and J.V. Daniel), pp. 172-186. Champaign, IL: Human Kinetics.
- Morgan, W.P. and Pollock, M.L. (1977). Psychologic characterization of the elite distance runner. *Annals of the New York Academy Sciences*, 301, 382-403.
- Morris, T. (2000). Psychological characteristics and talent identification in soccer. *Journal of Sports Sciences*, 18(9), 715-726.
- Nideffer, R.M. (1976). Test of Attentional and Interpersonal style. *Journal of Personality and Social Psychology*, 34(3), 394-404.
- Weiss, M.R. (2008). "Field of Dreams:" Sport as a context for youth development. *Research Quarterly for Exercise and Sport*, 79, 434-449.

A Study Of Socio-Psychological Characteristics Of Students Kabaddi Players

M.S.Rathod, Asst. Professor, M.S.M.s.College of Physical Education, Aurangbad
Dr.M.M.Rathod, M.S.M.s. College of Physical Education, Aurangbad
Vishal K.Dube, Asst. Professor, Sant Janabai B.Ed College, Gangakhed

Abstract:

Sport has become a psycho-social activity, full of tension, anxiety, fear and stresses. In competitive sports teams and individual players play to win and this spirit of winning the matches and individual events causes many psychological stresses. So the job of the coach is to prepare or train the individual athlete as well as learn in such a way that the players individually as well as, in their capacity, as members of the team are to bear all types of stresses and overcome the effect of over-stresses and strains which may deteriorate the sports performance. The players need to undergo such an arduous, training that they should be able to have physical during practice schedules and can have psychic stress during the period of competition, because it is during competition that athletes as well as teams inevitably come under psychological stress.

Key Words : Personality, Aggression, Self-esteem, Achievement motivation, Self confidence, Social adjustment, Locus of control

Introduction

Maharashtra is the pioneer state to popularize this game and bring it to the national platform. It was only in 1918 that certain rules and regulations were laid down and efforts were made to give the game a National status. The rules and regulation were brought out in print for the first time in 1923 and an All India competition was conducted the same year at Baroda on the basis of these rules. The game received International exposure during the 1936 Olympic Games at Berlin when it was demonstrated by the Hanuman Vyayam Prasarak Mandal, Amravati, and it received good appreciation.

Kabaddi was introduced in the Indian Olympic Games at Calcutta in 1938. An All India Kabaddi Federation came into existence during 1950. Regular National Championships commenced from the year 1952. The first men's National was held in Madras and the first women's National was held in Calcutta in 1955. New rules were framed in 1954 at the National Championship held in New Delhi. Efforts were made to demonstrate the game in the World Youth Festival held at Moscow in 1957 but unfortunately due to various reasons this could not be accomplished. The Indian university Sports Control Board included Kabaddi as one of the main sports disciplines in their curriculum during 1961. The School Games Federation of India included the discipline in the school games during 1962.

The Amateur Kabaddi Federation of India, a new body, came into existence in the year 1972 with the prime motive of organizing competitions at the National level and popularizing the game in the neighboring countries. Junior sections were also included in the national competitions.

The National Institute of Sports, the premier institute to develop sports in the country included the game in the coaching curriculum with effect from 1971. Since then, qualified coaches are being produced every year, to train players at different levels in a systematic and scientific manner.

The Indian men's team toured Bangladesh in 1974 as a part of the Cultural Exchange Program and played test matches in different parts of the country. The Bangladesh team visited India in 1979 and played 5 test matches in our country.

The Asian Amateur Kabaddi Federation was formed in the year 1978, at Bhillai, on the occasion of the silver jubilee of National Championship in Kabaddi. The first Asian Championship was conducted in the year 1980 at Calcutta. In 1981, India men and women teams went on a goodwill tour of the Asian countries and played exhibition matches in Thailand, Japan, Malaysia etc in order to popularize the game abroad. Federation cup

competitions for men and women commenced in the same year i.e., from 1978. In the IX Asian Games held at New Delhi, Kabaddi was included as a demonstration game.

An open international tournament was conducted in Bombay in 1984. The game was included in the South Asian Federation Games held at Dhaka for the first time in 1985. On the occasion of the tri-centenary celebrations of the city of Calcutta, an International Invitation Kabaddi Tournament was organized at Calcutta.

Methodology:

Secondary data are used for the present research.

Objectives of the research paper:

To study the Definition and Explanation of Important Technical Terms.

To study the review of related research.

Definition and Explanation of Important Technical Terms:

Personality Allport (1961) believed, "personality is the dynamic organization within the individual of those psycho-physical system that determine his unique adjustment to his environment

Aggression Aggression is defined as the infliction of an aversive stimulus either physical verbal or gestural, upon one person by another. Aggression is not with the intent to physical harm.

Self Esteem Self-esteem as the evaluation which the individual makes and customarily maintains with regard to himself. It expresses an attitude of approval and disapproval.

Achievement Motivation It is an athlete's predisposition to approach or avoid a competition situation.

Self Confidence Self Confidence refers to a person's perceived ability to tackle situations successfully without leaning on others and to have and to have a positive self-evaluation. In the words of Basavanna (1975), "In general effectively in a situation to overcome obstacles and to get things go all right".

Social Adjustment Social Adjustment is commonly defined as "change in habitual conduct or behavior which; an individual must make in order to fit into the community in which he lives".

Locus of control Locus of control generally refers to the mechanism through which individuals determine or do not determine. their action and behavioral controls.

Self Concept Self-perception encompassing the values, attitudes and behavior towards one-self in relation to environment.

Review Of Related Literature.

The following literature is reviewed for the present research paper.

Whitesell, Mitchell & Spicer (2009) Latent growth curve modeling was used to estimate developmental trajectories of self-esteem and cultural identity among American Indian high school students and to explore the relationships of these trajectories to personal resources, problem behaviors, and academic performance at the end of high school. The sample included, 611 participants from the Voices of Indian Teens project, a 3-year longitudinal study of adolescents from 3 diverse American Indian cultural groups in the western United States. Trajectories of self-esteem were clearly related to academic achievement; cultural identity, in contrast, was largely unrelated, with no direct effects and only very small indirect effects. The relationships between self-esteem and success were mediated by personal resources and problem behaviors.

Costello (2000) conducted this study to determine the techniques of neutralization self - Esteem, Sykes and Matza argued that delinquents use techniques of neutralization to enable them to engage in behavior they believe is wrong under most circumstances. One function of using these techniques is that individual is able to protect his or her self - concept while committing delinquent acts. This implies that delinquent youth, who use these techniques, should have higher levels of self - Esteem than delinquents who do not use them. Because Sykes and Matza hold that neutralization is necessary because of the delinquent's lies to conventional society this effect should be stronger among delinquent's youth who are more strongly attached to their parents. In contrast, Hirschi's social control theory predicts that delinquents who are able to maintain a bond to conventional society should be less likely to neutralize, but if they do neutralize, they should be unable to sufficiently convince themselves of the validity of the neutralizations to protect Self - Esteem. These hypotheses are using data from the Richmond Youth Survey. The results differed depending on whether general neutralizations regarding the police were analyzed. Children who are attached to their parents are less likely to use police - related neutralizations, but delinquents who use these neutralizations have higher Self - Esteem, consistent with neutralization theory. Delinquents who are more strongly attached to their parents are also less likely to use general neutralizations, but this Self - Esteem, consistent with control theory.

Ackerman PL, et.al (2011) studied recent research has provided evidence for the predictive validity of personality traits in academic settings, the path to an improved understanding of the nature of personality influences on academic achievement involves a reconceptualization of both criterion and predictor construct spaces. For the criterion space, one needs to consider student behaviors beyond grades and level of educational attainment, and include what the student does among other things outside of the classroom. For the predictor space, it is possible to bring some order to the myriad¹ personality constructs that have been developed over the last century, by focusing on common variance among personality and other non-ability traits. Methods. We review these conceptual issues and several empirical studies.

Conclusions:

Sport has become a psycho-social activity, full of tension, anxiety, fear and stresses.

Prior to formation of VFI the game was controlled by the India Olympic Association and at the time Interstate Volleyball Championship was held every two years from 1936 to 1950 for men only.

In the year 1974 when India participated in the Asian Games at Tehran it got 5th place and it was felt that India has lagged behind.

personality is the dynamic organization within the individual of those psycho-physical system that determine his unique adjustment to his environment.

Latent growth curve modeling was used to estimate developmental trajectories of self-esteem and cultural identity among American Indian high school student.

Sykes and Malza argued that delinquents use techniques of neutralization to enable them to engage in behavior they believe is wrong under most circumstances.

The personality traits measured included anxiety, concentration, confidence, mental preparation, motivation, and cooperation.

References

- 1) Barbara J. Costello,(July 2000) "Techniques of Neutralization and Self- Esteem: A Critical Test of Social Control an.il Neutralization Theory" Taylor & Francis 21 (Taylor &Francis Group Publisher, 11 New Fetter Lane, London EC4P4EE, July 2000), p.307.
- 2) B.K. Balazs, ,(May 1994) "Psycho-Social Study of Outstanding Female Athletes" Cited in Psychology in Sports Metliods and Applications, Richard M. Suin (Delhi: Sujjeet Publications, 1982), p. 156. 7M. P. Barnett and P. Wright, "Psychological Consideration for Women and Sport" Clinic in Sports Medicine, 13:2 (April 1994): 207-313 cited in Sport Documentations Monthly Bulletin 24:25 (May 1994): p.26
- 3) Jack Schendal,(August 1979)"Psychological Differences between Athletes and Non- participants in Athletics at Their Educational Level" Research quarterly 36 (March 1965):52-6
- 4 Dixie Anne Grimmelt,(August 1979) "Psychological and Physiological Comparison between Female. Athletes and Non-Athletes" Dissertation Abstracts International 40 (August 1979):738-A
- 4) Tenenbaum Gershon and S. Amy,(Dec.2000) "Aggression and Violence in sport" Journal of sport psychology Vol.14 (4): Dec.2000, pp.315-326.
- 5) Dominick A. Mattessich, (1978)"The Relationship of Social Class and Aggression in Athletes and Non-Athletes at the University of Maryland" Completed Research in Health, Physical Education and Recreation Vol.19, (1978).
- 6) Hatcher Graham, (1978) "Correlation of Aggression and Style of Play among Tennis Players" Completed Research in Health, Physical Education and Recreation Vol.19, (1978).
- 7) N. R. Whitesell,(,2009 January), C. M. Mitchell & P. Spicer, "A Longitudinal Study of Self- Esteem, Cultural Identity and Academic Success among American Indian Adolescents" Cultural Divers Ethnic Minor Psychology,2009 January; 15(1): 3 8-50.PubMed.

Influence Of Extracurricular Activities On Academic Achievement Of Secondary School Students

Dr. D. Ram Babu
Research Scholar, Department of Education
Institute of Advanced Study in Education, Osmania University, Hyderabad-500 007, A.P., India.

INTRODUCTION

Extracurricular activities are activities performed by students that fall outside the realm of the normal curriculum of school education. Extracurricular activities exist at all levels of education from 4th to 6th, secondary school, college and university education. Numerous studies have been conducted concerning the relationship between extracurricular activities and academic performance. Total extracurricular activity participation (TEAP), or participation in extracurricular activities in general, is associated with an improved grade point average, higher educational aspirations, increased college attendance, and reduced absenteeism" (Broh, 2002)¹. Guest and Schneider (2003)², in looking at the previous research on this subject said, "Researchers have found positive associations between extracurricular participation and academic achievement". Although researchers agree that extracurricular activities do, in fact, influence academic performance, the specific effect that various activities produce is debated. One study, conducted by the National Educational Longitudinal Study, found that "participation in some activities improves achievement, while participation in others diminishes achievement" (Broh, 2002)³.

Many extracurricular activities have proven to be beneficial in building and strengthening academic achievement, even if the activities are not obviously related to academic subjects. "A number of studies revealed that students participating in extracurricular activities did better academically than students who did not participate" (Marsh & Kleitman, 2002)⁴. Researchers have particularly studied the relationship between extracurricular activities and academic performance in adolescents. One study found that "adolescents who participated in extracurricular activities reported higher grades, more positive attitudes toward school, and higher academic aspirations" (Darling, Caldwell, & Smith, 2005)⁵. Darling, Caldwell, and Smith (2005)⁶ conducted a longitudinal study concerning extracurricular activities and their effect on various aspects of development, including academic performance. A survey containing a list of twenty different extracurricular activities was distributed to students; they were asked to check which extracurricular activities they participated in that year. Demographic questions, such as their favorite activity, gender, and ethnicity were asked in order to take the social factors and influences into account when calculating the results. The students were also asked what their academic goals were and their grade point average. The results showed that the students who participated in school-based extracurricular activities had higher grades, higher academic aspirations, and better academic attitudes than those who were not involved in extracurricular activities at all.

¹ Broh, B.A. (2002), "Linking extracurricular programming to academic achievement: Who benefits and why?", [Electronic version]. *Sociology of Education*, vol.75, pp.69-96.

² Guest, A., & Schneider, B. (2003), "Adolescents' extracurricular participation in context: The mediating effects of schools, communities, and identity", [Electronic version]. *Sociology of Education*, vol.76, pp.89-105.

³ Broh, (2002), Op.cit.

⁴ Marsh & Kleitman (2002),Op.cit.

⁵ Darling, N., Caldwell, L.L., & Smith, R. (2005), "Participation in school-based extracurricular activities and adolescent adjustment", [Electronic version], *Journal of Leisure Research*, vol.37, pp.51-77.

⁶ Ibid.

Objectives of the Study:

The following research questions were selected:

1. Is the academic performance of secondary school students influenced by their choice of extracurricular activities?
2. What effects do specific activities have on academic performance?

Hypotheses:

- H₀₁: Participation in athletics improve academic performance
- H₀₂: Participation in television viewing improve academic performance
- H₀₃: Participation in community service improve academic performance
- H₀₄: Participation in musical programmes improve academic performance
- H₀₅: Participation in extra-curricular activities improve academic performance

METHODOLOGY

Method of Data Collection: The survey instrument used in this study was designed to determine whether or not the activities that secondary school students choose have an effect on their academic performance and was based on a four point Likert-scale, with 1 means “I agree;” 2 means, “I agree somewhat;” 3 means, “I disagree somewhat;” and 4 means, “I disagree.”

Statistical Procedures: A total of 62 survey questionnaires were distributed to the students studying in secondary schools of Warangal urban area. The students who participated in the survey returned their completed questionnaires to the schools in one week. The survey questionnaires were completed and returned on a voluntary and anonymous basis.

RESULTS AND DISCUSSION

The subjects sampled for this study were the secondary school students attending different schools in Warangal urban area. 62 copies of the survey instrument were distributed; 50 were returned and 50 were used in this study. The data collected from the 50 students will be discussed, commencing with the reporting of the demographic findings. Table 1 summarizes the survey responses.

Table 1: Chi-square values of Extra-curricular activities

Survey Question	Scale Number					Total Responses	Chi-Square Value	
	1	2	3	4	No Response		Computed	Table
	My grades improve when I am involved in extracurricular activities	10	20	10	9			
When I participate in musical performance (play a musical instrument) my grades improve	9	11	14	14	2	50	11.84	13.27
When I participate in sports my grades improve	10	20	10	9	1	50	13.23	11.34
When I watch television my grades improve	4	10	11	25	1	50	26.30	11.34
When I participate in community service my grades improve	8	17	12	13	0	50	15.50	13.27

FINDINGS AND CONCLUSION

Findings: The results of the One-dimensional Chi-square test suggested that participation in extracurricular activities improves academic performance; participation in musical performance does not improve academic performance; athletic participation improves academic performance; watching television improves academic performance; and participation in community service improves academic performance among the secondary school students attending in Warangal urban area of Telangana state.

Conclusions:

On the basis of the findings of the study, the following conclusions were drawn:

1. Participation in extracurricular activities has a positive effect on academic performance among the sampled secondary school students.
2. Participation in athletics, television viewing and community service improve academic performance, while participation in musical performance does not improve academic performance among secondary school students.

Recommendations For Further Study

The following recommendations for further research and study are offered:

1. This study should be replicated, using a different population to determine whether extracurricular activities benefit or hinder the academic performance of students who participate.
2. A study should be conducted to determine the effects of parental support in extracurricular activities on academic achievement.
3. The views of extracurricular activities of various cities in Telangana state and other cities of India and their levels of academic performance.
4. The effects of interscholastic extracurricular activities on academic achievement should be compared to the effects of extracurricular activities outside of school.
5. The present research study concerning the effects of extracurricular activities on different aged children could be conducted.
6. The research study determining which academic subject areas are most influenced by extracurricular activities can also be done.

Biomechanical Analysis Of Velocity Of Com During Takeoff Phase In Fosbury Flop High Jump Of National Level Participants

**Ch. Raja Rao, Lecturer in Physical Education, GDC, Mahabubabad, Wgl, Telangana.
Prof. Y. Kishore, Dean faculty of Education, Head & Director Dept. of Physical Education, ANU, AP.
Dr. J. Ramamohan Rao, Faculty of Physical Education, ANU, Guntur, AP.**

Introduction

The high jump as we know it today became popular in the 19th century and was included in the program of the first modern primitive technique for clearing the bar. It is the "Scissors style", in which a straight run-up is used, from there; the technical evolution of the event has included techniques known as the "Western roll", the "Straddle" and the "Fosbury Flop". Fosbury flop high jump consists of run-up with a curved approach and a vertical one-leg jump to clear a bar. This running one-leg vertical jump uses the mechanical principle of the transfer of the kinetic energy stored during the run-up into potential energy. Biomechanical studies of elite athlete's skills have contributed to improving sports performance and records of the athletes with the findings of mechanical principles involved in the skills. The high jump motion involves a series of movements interrelated by mechanical causal relationships but for the convenience of analysis the technique was divided into four phases of run-up, take-off, bar clearance and landing. The performance of an athlete in high jump is determined primarily by the vertical velocity of the mass centre at the instant the athlete leaves the ground. The approach phase is used to place the athlete in a favorable position (Dapena, 1988) from which to generate this vertical velocity during the takeoff phase. The contact or takeoff phase, considered to be the most important part of a high jump (Dapena and Chung, 1988), is affected by a number of factors. Despite the considerable research into high jumping, investigations into optimal takeoff technique are very limited. The purpose of the present study was Biomechanical analysis of velocity of CoM in terms of horizontal and vertical velocity during takeoff phase of Indian national fosbury flop high jumpers.

Methodology

Sample: Thirteen male national high jumpers were selected for this study and get videotaped with three high speed video cameras during their competitive performance in the men's high jump final during the 52nd National open athletics championship in outdoor with the informed consent of the athletes.

Tools and equipments:

The experimental apparatus used in this research work were three Panasonic-AG-DVX-102B, F11 sensitivity, high image quality, camcorders, Quintic Biomechanics v21 motion analysis software.

Collection of data and filming protocol:

For quantitative video analysis certain procedures must be followed carefully, at both the video recording and digitizing stages, to minimize the systematic and random errors in the digitized co-ordinates. For the collection of data three Panasonic camcorders were used. First camcorder was fixed at left standard line for left foot takeoff jumpers, the second camcorder was fixed perpendicular to the bar and third camcorder mounted at right standard line for right foot takeoff jumpers. Three camcorders captured the video clippings of Fosbury flop jumper's last stride. Prior to digitizing the jump sequences, 18 landmarks on the image (top of the head, neck, left shoulder, left hip, right hip, right shoulder, left elbow, left wrist, left hand, right elbow, right wrist, right hand, left knee, left ankle, left toe, right knee, right ankle, right toe) were digitized manually. The variables selected for this study during takeoff phase were 1) horizontal velocity at touchdown and toe off (HvTD & HvTO) and change value (ΔHv) 2) vertical velocity at touchdown and toe off (VvTD & VvTO) and change value (ΔVv).

Analysis

The raw data were arranged separately, tabulated and subjected for the descriptive statistical analysis, followed by coefficient of correlation by using SPSS to distinguish if there any relation between performance and variables. The researcher reached at the results of this empirical investigation which is presented by the respective tables and graphs.

Table 1: Physical characteristics of the thirteen subjects and their best performance

Sl.No	BIB No	Name of the Athlete	Age(Y)	Ht(ms)	Wt(Kg)	Leg L(Cm)	BMI	Tr. age(Y)	B. J(cm)
1	190	Amarnath Ojha	21	187	64	102	18.30	2	195
2	728	Arun Kumar	22	183	66	98	19.71	8	200
3	819	Ashok.M	27	180	66	95	20.37	8	200
4	750	Ch.Nikhil	23	188	76	98	21.50	7	216
5	343	Harishankar Rai	29	177	72	87	22.98	13	216
6	591	Harshith .S	18	189	62	99	17.36	2	216
7	593	Jagdeep singh	20	187	71	97	20.30	5	205
8	827	Jithin thomas	22	175	61	95	19.92	8	222
9	488	K.Gotham	22	180	65	93	20.06	5	205
10	345	K.S.R.Singh	22	179	62	94	19.35	4	205
11	532	Navin.S	23	180	73	92	22.53	8	195
12	495	Rithesh kumar	22	180	62	90	19.38	5	195
13	860	Shaiju.A	26	185	70	95	20.45	3	200
			22.85	182.31	66.92	95.00	20.17	6.00	205.38
			2.72	4.16	4.57	3.68	1.42	2.85	8.56

The data indicates that the average age of thirteen fosbury flop high jumpers is 22.85±2.7 years with an average height of 182.31± 4.12; average weight is 66.92±4.6 kg average leg length was 95.00±3.7 cm, average BMI is 20.17±1.4 and training age is 6±2.9 years. The best performance was 222cm

Table 2: Horizontal and vertical velocity of best performance at touchdown and toe off.

Sl.No	Name of the Athlete	Bar Ht	Hv TD	HvTO	ΔHv	% Ratio	VvTD	VvTO	ΔVv
1	Amarnath Ojha	195	7.41	5.35	2.06	39	1.73	4.66	2.93
2	Arun Kumar	200	7.58	2.11	5.47	29	1.5	5.02	3.52
3	Ashok.M	200	8.21	4.27	3.94	52	1.17	4.43	3.26
4	Ch.Nikhil	216	8.04	5.54	2.5	69	2.48	5.42	2.94
5	Harishankar Rai	216	8.11	5.47	2.64	67	2.54	5.54	3
6	Harshith .S	216	7.8	2.39	5.41	31	1.54	3.54	2
7	Jagdeep singh	205	8.9	5.56	3.34	62	2.23	4.89	2.66
8	Jithin thomas	222	9.13	6.13	3	67	2.65	6.7	4.05
9	K.Gotham	205	8.85	6.47	2.38	73	1.71	5.12	3.41
10	K.S.R.Singh	205	7.45	3.33	4.12	45	1.93	4.63	2.7
11	Navin.S	195	7.19	3.46	3.73	48	1.09	4.56	3.47
12	Rithesh kumar	195	7.48	3.52	3.66	47	1.45	4.85	3.4
13	Shaiju.A	200	7.78	3.37	4.41	43	1.58	4.78	3.2
	Mean	205.38	7.99	4.38	3.59	54	1.82	4.93	3.12
	Sd	8.88	0.60	1.39	1.05		0.49	0.70	0.49

Height unit: centimeters, Velocity unit: meter per second.

(HvTD) horizontal velocity at touchdown(HvTO) horizontal velocity at toe off,*(VvTD) vertical velocity at touchdown,*(VvTO) vertical velocity at toeff, * (ΔHv,& ΔVv) change values of horizontal and vertical velocity.*(% ratio) the horizontal velocity latter to the former

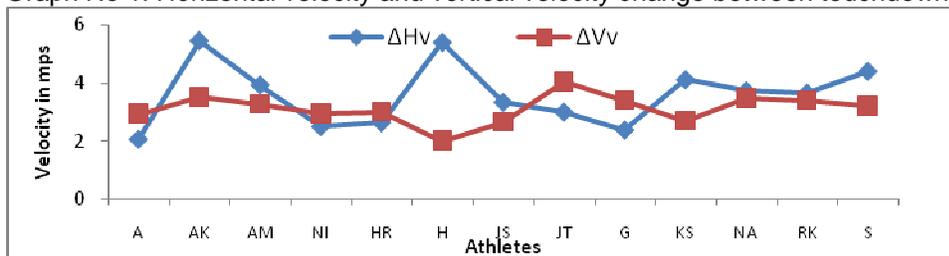
horizontal velocity from TD to TO was decreased up to 3.59±1.05m/s and vertical velocity was increased up to 3.12±0.49m/s the ratio of the mean horizontal velocity latter to the former was almost equal i.e 54% to Dapena et al (1986) reported the average horizontal velocity was 7.37mps at touchdown and 3.92mps at takeoff (53%). Adashevskiy V.M et al (2013) reported that the male sportsmen of high class quality have horizontal running velocity ranged 6.5 – 8.00 mps. Dapena(1980a) and Dapena et. al. suggested that there

is a close interdependence between decreasing the horizontal velocity and increasing the vertical velocity. The third subject ratio (52%) was similar to the previous studies results than others.

Vertical velocity at touchdown mean value was 1.82mps and mean at takeoff was 4.93mps. Vertical velocity at touchdown by Dapena (1980a) found that the means was 0.44mps at touchdown and 4.30mps at takeoff respectively. Present study results showed similar value at takeoff but at touchdown mean value showed higher than the previous study results. Judging from the fact that the subjects of the former studies jumped higher it seemed that when the jumping height was high the downward vertical velocity was small.

These results showed that vertical velocity at the time of toe off influence the CoM height is related to hand technique more than physique. Jithin Thomas, who used closed double arm action had highest vertical value change (ΔVv) of 4.26 m/s when compared to lower value of 2.94 m/s fourth subject who used running arm action. The difference in arm actions refers 13cm, even if the latter jumper is 1.88m tall.

Graph No 1: Horizontal velocity and vertical velocity change between touchdown and toe off



Above graph shows the horizontal and vertical velocity change between touchdown and toe off. Second and sixth subjects had higher value change than others. As per the ratio of horizontal velocity between TD and TO 53% reported by Dr.Dapena(1986) the higher change is not advantage to convert vertical velocity. In case of vertical velocity the eight subject who secured gold in this competition showed more lift i.e than others.

Summary And Conclusion

Higher percentage of subjects' horizontal velocity at touchdown was maintained as per the previous study of Adashevskiy V.M et al (2013). The third subject ratio (52%) was similar to the previous studies results than others. About vertical velocity the Present study results showed similar value at takeoff but at touchdown mean value showed higher than the previous results. Judging from the fact that the subjects of the former studies jumped higher it seemed that when the jumping height was high the downward vertical velocity was small. These results showed that vertical velocity at the time of toe off influence the CoM height is related to hand technique more than physique. Jithin Thomas, who used closed double arm action had highest vertical value change (ΔVv) of 4.26 m/s when compared to lower value of 2.94 m/s fourth subject who used running arm action. The difference in arm actions refers 13cm, even if the latter jumper is 1.88m tall. High jumper may lower the CoM from 2 to 3 strides before and run more parallel to the ground at the last stride. In this case the downward vertical velocity at the touchdown is moderate or the jumper may keep the CG relatively high up to the start of the last stride and then lower it at the last stride, here the downward vertical velocity becomes large. Another variation in which high jumper lower the CG as in the first alternative but heighten the CG at the last stride. In this case the downward vertical velocity is relatively small but it reduces the vertical distance of the CG at takeoff.

Recommendations

We would recommend that those who are weak in generation of more lift at the end of the takeoff concentrate on leg strength and ratio of velocity change. It requires a considerable amount of effort and training. We would caution that those who are using much faster run up's at touchdown than ideal would be closer to collapse their take off leg. We also recommend that who have higher values of vertical velocity at TD the athlete has to try to make the last two foot contacts with the ground very quickly one after the other as well as the length of the last step is very long, it could contribute to a late planting of the takeoff foot, which in turn could lead to a large negative value at touchdown.

References

Dapena, J. (1980a) Mechanics of t r a n s l a t i o n i n the F0sbur.y-flop.~e.d S ci . sports ~exrcsie 12 :3 7
Dapena,J,Feltner,M,Bahamonde,R(1986)Biomechanical analysis of high jump#5(Men) report for scientific service project(USOC/TAC)

Effects of 14-week Aerobic Training on Abdominal Adiposity Cardiovascular Endurance and Flexibility of Overweight School Children of West Bengal

Dr. Sandip Sankar Ghosh

Assistant Professor,

State Institute of Physical Education for women, Hastings House, Alipore, Kolkata-700027, West Bengal, India, Email. - sandipsankarmal@gmail.com

Mr. Jayanta Kumar Medya

Research Scholar

Department of Physical Education, Kalyani University, Kalyani, Nadia, West Bengal, India, Email. - jaymedya@gmail.com

Abstract

The objective of the study was to assess the effects of fourteen (14) week aerobic training on abdominal adiposity, cardiovascular endurance and flexibility of overweight school boys of West Bengal. Forty overweight school boys were selected from Adabona Nagandra Nath High School (H.S.), Purulia; West Bengal, India. They were in the age group of 11 –14 years. They did not have any mental and physical disorder as recommended by the doctors. Ethical consents were taken from the student's family as well as from the Head of the Institution. The overweight subjects were selected on the basis of BMI vs. Age table (WHO, 2007). All the subjects were divided into two groups: Experimental Group (N = 20) and Control Group (N = 20). The selected variables considered for the study were Body weight (kg.), Height (m), Abdominal Adiposity (cm.), cardiovascular endurance, Flexibility (cm.). Abdominal adiposity was measured by taking Waist circumference in centimeters by steel tape. Cardiovascular endurance was measured by 600-Yard Run/Walk Test in terms of time (Sec.). Flexibility was measured by Modified Sit and Reach test. To compare adjusted post test means of Experimental Group and Control Group in relation to Abdominal Adiposity, Cardiovascular Endurance and Flexibility ANCOVA were used. Statistical significance was tested at $p < 0.05$ level of confidence. Result of the study showed that intervention of aerobic training for 14-week had significant effect on the reduction of body weight, BMI and abdominal adiposity of the overweight school children of west Bengal. On the other hand this training intervention significantly increased the cardiovascular endurance and flexibility of the same population. Within the limitations of the study following conclusions were drawn- a) Participation in 14-week aerobic training program significantly reduces weight and B.M.I and abdominal adiposity. b) Participation in 14- week aerobic training programs significantly increases cardiovascular endurance and flexibility.

Key-words: *Aerobic Training; BMI, Abdominal adiposity, cardiovascular endurance; VO_2 max*

Introduction

The prevalence of childhood obesity has been increasing dramatically worldwide, particularly in the last two decades. Although the prevalence of overweight and obesity varies quite substantially across ethnic groups and gender, numerous studies have shown alarmingly high levels of being fat among children. Estimates in several studies indicate that one in four children aged 6-14 years is presently overweight in developed and developing countries, which ranges from 11% to 39% (6-9). The prevalence of overweight and obesity was found similar or significantly different between genders, with difference found in studies that reported higher prevalence of overweight and obesity in either girls or boys. It is unclear what cultural, lifestyle, genetic, or environmental factors may explain these differences. Lack of physical activity and/or physical fitness and excessive calorie consumption are some reasons epidemiologists suggest for the increase of obesity in the last 20 years. The low level of physical activity and health-related physical fitness, represented by cardiorespiratory (aerobic) endurance, seems to contribute to the development of obesity, type 2 diabetes,

hypercholesterolaemia, hypertension, the metabolic syndrome, cardiovascular diseases, and all-cause mortality in both adults and children

Therefore, the study was carried out to (a) investigate the prevalence of overweight and control among overweight Bengali school children and (b) determine the relationship between physical activity and weightloss indicators in overweight Bengali school children aged 11-14 years. The purpose of this study was to assess the effects of 14-week aerobic training on abdominal adiposity, cardiovascular endurance and flexibility of overweight school children of west Bengal

Methods And Materials

SUBJECTS:- Forty overweight school boys were selected from Adabona Nagandra Nath High School (H.S.), Purulia; West Bengal, India. They were in the age group of 11 –14 years. They did not have any mental and physical disorder as recommended by the doctors. The overweight subjects were selected on the basis of BMI vs. Age table (WHO, 2007). All the selected subjects had known swimming previously. All the subjects were divided into two groups: Experimental Group (N = 20) and Control Group (N = 20). The purpose and experimental protocol of the study were critically explained to all the subjects prior to the study. Ethical consents were taken from the student's family as well as from the Head of the Institution. All participants were assured of anonymity and were free to withdraw from the study at any time.

VARIABLES STUDIED:- The selected variables considered for the study were Body weight (kg.), Body Mass Index i.e. BMI (kg.m^{-2}), Abdominal Adiposity (cm), Cardiovascular endurance (Sec.), Flexibility (cm).

MEASUREMENT OF VARIABLES:- The Date of Birth of the subjects were collected from their Birth Certificates and age was recorded in years. Body height was measured by adopting standard procedure as described by **Sodhi, (1991)**. Body height was measured by the calibrated anthropometric rod. The distance from the floor to the highest position of the head (vertex) was measured with the help of anthropometric rod which indicated subject's height. The height was recorded nearest centimeter. The body weight was measured by standard procedure adopted by **Sodhi (1991)**. Body weight of the subjects was measure by digital weighing machine. The body weight was recorded to the nearest kilogram.

Prediction of Body Mass Index (BMI):- In the present study Body Mass Index (BMI) was calculated as a person's Body Mass in kilograms divided by the squared Height in meters So the unit of B.M.I as kg.m^{-2}

$$\text{BMI (kg.m}^{-2}\text{)} = \frac{\text{Body Mass in kilograms.}}{(\text{Height in meters})^2}$$

Measurement of Abdominal Adiposity:- Abdominal adiposity in terms of waist circumference was measured by steel tape (M/s. Freemans Ltd.). The measurement was taken in centimeter. The accuracy of measurement was up to 0.1 cm (WHO, 2008).

Prediction of Cardiovascular endurance:- Cardiovascular endurance was measured by 600-Yard Run/Walk in terms of time (seconds) taken to cross the distance. Time taken by each subjects were recorded by reliable Timing device (e.g., stop watch).

Measurement of Flexibility:- flexibility was assessed by Modified Sit and Reach test. For measuring, the equipments used were a Flexometer, a sit-and-reach box made by wood. There was a measuring stick on top of a box (approximately 30 cm or 12 in. high) so that the 23-cm or 9-in. mark is on the edge of the box facing the participant. The measurement was taken to the nearest centimetre. **Scoring:** Maximum distance reached

TRAINING PROTOCOL: - All initial data on selected variables were collected through different standard tests prior to the intervention of the treatment. The subjects underwent a scientifically structured aerobic training for duration of fourteen week which was started in the month of January and lasts up to the middle of April. The subjects were participated in the physical training every day except Sunday. They were gone through 12 minutes run and walk as initial treatment load for six days per week. The intensity of Run and walk of each individual was initially set at 65% of the total load taking ability on the basis of the Cooper - Test norms. After 4 weeks, the subjects were given calisthenics exercises, without any interruptions, as aerobic task for 12 minutes (70% intensity) on every alternate day in addition with 12 minutes run and walk (70% intensity). Gradually, after 9 weeks, the duration of calisthenics exercises was increased from 12 minutes to 15 minutes and the distance target was increased from 70% to 75% for 12 minutes Run and walk. The Run and walk was intervened for six days per week with the calisthenics and aerobic dance were intervened on alternate days in addition with 12 minute Run and walk. The data on selected variables were collected by two steps i.e. prior to the intervention of the treatment and after the completion of the treatment program.

Table 1: FOURTEEN WEEK AEROBIC TRAINING PROTOCOL.

Training Period	Nature of Training	Days/Week	Duration	% of maximum load
(1 – 4) week	Run and walk	6 days	12 Minute	65%
(5 – 9) week	Run and walk	6 days	12 Minute	70%
	Calisthenics	3 alternate days	12 Minute	
(10 – 14) week	Run and walk	6 days	12 Minute	75%
	Calisthenics	3 alternate days	15 Minute	
	Aerobic Dance	3 alternate days	15 Minute	

STATISTICAL ANALYSIS: - The pre and post treatment Mean and Standard Deviation of each variable were calculated. Analysis of co-variance (ANCOVA) were used as statistical technique to test the adjusted post test mean differences among the experimental and control groups. Statistical significance was tested at 0.05 level of confidence. All data were analyzed using the statistical package (SPSS Version 10.0).

Results

The personal data were comprised to age, height and body weight of the subjects. Computed mean and SD were presented in **table-2**

Table-2: DESCRIPTIVE STATISTICS OF THE SUBJECTS OF BOTH GROUPS

Name of the Variable	Experimental Group Mean ± SD		Control Group Mean ± SD	
	Pre Test	Post Test	Pre Test	Post Test
Age (years)	12.42 ± 0.92	12.69 ± 0.92	12.67 ± 1.12	12.94 ± 1.12
Height (cm.)	156.80 ± 7.30	157.96 ± 7.32	156.85 ± 7.54	157.98 ± 7.46
Weight (Kg.)	60.75 ± 6.72	55.48 ± 7.07	60.31 ± 7.50	60.86 ± 7.47

Table –2 shows the value of Means ± SD of Age for the Experimental Group in pre and post test was 12.42 ± 0.92 years & 12.69 ± 0.92 years respectively and for the Control Group was 12.67 ± 1.12 years & 12.94 ± 1.12 years respectively. Again the Height for the Experimental Group in pre and post test was 156.80 ± 7.30 cm & 157.96 ± 7.32 cm and for the Control Group was 156.85 ± 7.54 cm & 157.98 ± 7.46 cm respectively. The value of Means ± SD of Body weight in pre and post test was 60.75 ± 6.72 kg & 55.48 ± 7.07 kg respectively and for the Control Group was 60.31 ± 7.50 kg & 60.86 ± 7.47 kg respectively.

Table – 3: COMPUTATION OF ANALYSIS OF COVARIANCE ON BODY WEIGHT

Name of the variables	Test	Experimental Group	Control Group	Source of variance	Sum of squares	Df	Mean squares	'F' Ratio
Weight (kg)	Baseline Mean ± SD	60.75 ± 6.72	60.31 ± 7.50	Between	1.94	1	1.94	0.038
				Within	1928	38	50.73	
	Post Treatment Mean ± SD	55.48 ± 7.07	60.86 ± 7.47	Between	289.44	1	289.44	5.475 *
				Within	2009.01	38	52.87	
	Adjusted post test Mean	55.25	61.08	Between	338.80	1	338.80	250.11 *
				Within	50.12	37	1.35	

*Table value of 'F' Indicates Significant at 0.05 level of confidence for df. (1, 38) = 04.10 and for df. (1, 37) = 04.11

In **Table 3** the analysis of covariance of Body weight has shown. It was seen from the table that the pre-test means differed insignificantly implies that the random assignment of subjects to all the groups was quite successful. The post test mean of both the groups yielded an F-ratio of 5.475 which was found significant at 0.05 level of confidence. Again the difference between the adjusted post test mean was found significant as the obtained F-ratio was 250.11 and the F-ratio needed for significance at 0.05 level of confidence was 4.11.

Table – 4: COMPUTATION OF ANALYSIS OF COVARIANCE ON BODY MASS INDEX

Name of the variables	Test	Experimental Group	Control Group	Source of variance	Sum of squares	df	Mean squares	'F' Ratio
BMI (kg/m ²)	Baseline Mean ± SD	24.64 ± 1.15	24.41 ± 1.20	Between	0.51	1	0.51	0.372
				Within	52	38	1.38	
	Post Treatment Mean ± SD	22.14 ± 1.26	24.29 ± 1.19	Between	46.03	1	46.03	30.562 *
				Within	57.23	38	1.51	
	Adjusted post test Mean	22.04	24.40	Between	55.16	1	55.16	200.712 *
				Within	10.17	37	0.27	

*Table value of 'F' Indicates Significant at 0.05 level of confidence for df. (1, 38) = 04.10 and for df. (1, 37) = 04.11

In **Table 4** the analysis of covariance of Body Mass Index (BMI) has shown. It was seen from the table that the pre-test means differed insignificantly implies that the random assignment of subjects of both the groups was quite successful. The post test mean of both the groups yielded an F-ratio of 30.56 which was found significant at 0.05 level of confidence. Again the difference between the adjusted post test mean was found significant as the obtained F-ratio was 200.71 and the F-ratio needed for significance at 0.05 level of confidence was 4.11.

Table – 5: COMPUTATION OF ANALYSIS OF COVARIANCE ON ABDOMINAL ADIPOSITY

Name of the variables	Test	Experimental Group	Control Group	Source of variance	Sum of squares	df	Mean squares	'F' Ratio
Abdominal Adiposity (cm.)	Baseline Mean ± SD	88.43 ± 4.99	88.32 ± 5.72	Between	0.13	1	0.13	0.005
				Within	1096	38	28.83	
	Post Treatment Mean ± SD	85.33 ± 5.24	89.07 ± 5.85	Between	139.88	1	139.88	4.533 *
				Within	1172.68	38	30.86	
	Adjusted post test Mean	85.27	89.13	Between	148.57	1	148.57	66.228 *
				Within	83.00	37	2.24	

*Table value of 'F' Indicates Significant at 0.05 level of confidence for df. (1, 38) = 04.10 and for df. (1, 37) = 04.11

In **Table 5** the analysis of covariance of Abdominal Adiposity has shown. It was seen from the table that the pre-test means did not differ significantly implies that the random assignment of subjects of both the groups was quite successful. The post test mean of both the groups yielded an F-ratio of 4.53 which was found significant as the required F-ratio was 4.10 at 0.05 level of confidence. Again the difference between the adjusted post test mean was also found significant as the obtained F-ratio was 66.228 and the F-ratio needed for significance at 0.05 level of confidence was 4.11.

In **Table 6** the analysis of covariance of Cardiovascular Endurance has shown. It was seen from the table that the pre-test means did not differ significantly implies that the random assignment of subjects of both the groups was quite successful. The post test mean of both the groups yielded an F-ratio of 39.623 which was found significant as the required F-ratio was 4.10 at 0.05 level of confidence. Again the difference between the adjusted post test mean was also found significant as the obtained F-ratio was 372.196 and the F-ratio needed for significance at 0.05 level of confidence was 4.11.

Table – 6: COMPUTATION OF ANALYSIS OF COVARIANCE ON CARDIOVASCULAR ENDURANCE

Name of the variables	Test	Experimental Group	Control Group	Source of variance	Sum of square	df	Mean square	'F' Ratio
Cardiovascular Endurance (Sec.)	Baseline Mean ± SD	210.90 ± 12.76	211.80 ± 11.95	Between	8.10	1	8.10	0.053
				Within	5807	38	152.82	
	Post Treatment Mean ± SD	187.50 ± 13.13	212.25 ± 11.69	Between	6125.63	1	6125.63	39.623 *
				Within	5874.75	38	154.60	
	Adjusted post test Mean	187.93	211.82	Between	5699.14	1	5699.14	372.196 *
				Within	566.55	37	15.31	

*Table value of 'F' Indicates Significant at 0.05 level of confidence for df. (1, 38) = 04.10 and for df. (1, 37) = 04.11

In **Table 7** the analysis of covariance (ANCOVA) of Flexibility has shown. It was seen from the table that the pre-test means did not differ significantly implies that the random assignment of subjects of both the groups was quite successful. The obtained F-ratio value 4.41 for post test scores on flexibility which was greater than the required table value 4.10 for significance at df 1 and 38 at 0.05 level of confidence. Thus the differences in flexibility at post test between experimental and control group was significant. Again the difference between the adjusted post test mean was also found significant as the obtained F-ratio was 162.057 and the F-ratio needed for significance in df (1, 37) at 0.05 level of confidence was 4.11.

Table – 7: COMPUTATION OF ANALYSIS OF COVARIANCE ON FLEXIBILITY

Name of the variables	Test	Experimental Group	Control Group	Source of variance	Sum of squares	df	Mean squares	'F' Ratio
Flexibility (cm)	Baseline Mean ± SD	88.43 ± 4.99	88.32 ± 5.72	Between	0.13	1	0.13	0.005
				Within	1096	38	28.83	
	Post Treatment Mean ± SD	85.40 ± 5.18	89.07 ± 5.85	Between	134.69	1	134.69	4.414 *
				Within	1159.62	38	30.52	
	Adjusted post test Mean	85.34	89.13	Between	143.37	1	143.37	162.057 *
				Within	32.73	37	0.88	

*Table value of 'F' Indicates Significant at 0.05 level of confidence for df. (1, 38) = 04.10 and for df. (1, 37) = 04.11

Discussion

The aim of this study was to investigate the effects of aerobic training on Body Weight, Body Mass Index (BMI), Abdominal Adiposity, Cardiovascular Endurance and Flexibility of overweight school boys of West Bengal.

Body Weight - In Table-3 it was observed that the post test mean difference and adjusted post test mean difference was significant, revealed that the 14-week aerobic training programme significantly reduced body weight of the subjects represented as experimental group. The significant reduction of body weight of the experimental group may simply be explained as they gone through an active training schedule for few weeks that spend additional calories by the cost of the loose of saturated fat; body fluid and consequently reduced body weight. Thus, it revealed that aerobic training programme intervention reduces body weight.

Body Mass Index (BMI) - Table-4 revealed that the Aerobic training programme significantly decreased Body Mass Index among the subjects of experimental group.

The decreased value of BMI may be explained by the fact that the Body weight of the subject representing Exp. Group was decreased significantly at the same time the standing height of the subject was increased slightly thus the ratio of body weight by squared height i.e. B.M.I decreased. Hence, it revealed that aerobic training programme intervention had a significant role of weight as well as B.M.I reduction.

Abdominal Adiposity - Table-5 revealed that the aerobic training programme significantly decreased Abdominal Adiposity among the subjects of experimental group that may be due to expenditure of additional calories supplied by stored fat consequently reduced. Hence, aerobic training programme intervention had a significant role of reduction to Abdominal Adiposity among overweight school boys.

Cardiovascular Endurance - The results of this study showed that the cardiovascular endurance of intervention group was increased significantly at post tests. Also, it demonstrated that combination of Run & walk calisthenics and aerobic dance (aerobic exercise training) for 14 weeks had significant effect on the cardiovascular endurance of the overweight school boys. The improved cardiovascular endurance may be due to routine exercise program intervention that may improve the functional ability of the heart and lungs consequently circulorespiratory mechanism enhances as a result it increases aerobic capacity. At the same time the improvement of venous return may have some positive influence for the development of cardiovascular endurance. The findings of present study confirm the previous studies and shows that aerobic exercise training can improve the cardiovascular endurance in the overweight children.

Flexibility - Result of the present study revealed that the aerobic training programme significantly improved Flexibility among the subjects of experimental group (Table-7). The improvement of Flexibility may be explained by the fact that intervention of regular aerobic exercise training improves the mobility of joints due to increased exposure of various stretch receptors that increased stretch-ability of the ligaments, tendons, cartilage and other connective tissues consequently flexibility increases.

Conclusion

Within the limitations of the study following conclusions were drawn,

- 1) Participation in 14-week aerobic training program significantly reduces weight and B.M.I and abdominal adiposity.
- 2) Participation in 14- week aerobic training programs significantly increases cardiovascular endurance and flexibility.

Reference:

1. Arslan, F. (2011). The effects of an eight-week step-aerobic dance exercise programme on body composition parameters in middle-aged sedentary obese women. *International Sport Med Journal*, 12(4), 160-168.
2. Clinton, Smith. J. (1999). *Understanding Childhood Obesity*. United State of America: University Press 1of Mississippi.
3. Duncan. M.J., Al-Nakeeb, Y., & Nevill, AM. (2009, June). Effects of a 6-week circuit training intervention on body esteem and body mass index in British primary school children. *Body Image*, 6(3), 216-20.
4. Elizabeth, Poskitt., & Laurel, Edmunds. (2008). *Management of Childhood Obesity*. UK: Cambridge University Press.
5. Gupta, N., Kashish, G., Priyali, S., & Anoop, M. (2012, February). Childhood obesity in developing countries: Epidemiology, determinants, and prevention. *Endocrine Reviews*, 33(1), 48-70.
6. Rahman, Rahimi. (2006). Effect of moderate and high intensity weight training on the body composition of overweight men. *Physical Education and Sport*, 4(2), 93 – 101.
7. Saygin, O., & Ozturk, M.A. (2011). The effect of twelve week aerobic exercise programme on health related physical fitness components and blood lipids in obese girls. *African Journal of Pharmacy and Pharmacology*, 5(12), 1441-1445.
8. Shenbagavalli, A., & Mary, R.D. (2008). Effect of Aerobic Training on Body Mass Index on Sedentary Obese Men. *Journal of Exercise Science and Physiotherapy*, 4(2), 125-128.
9. Watts, K., Beye, P., Siafarikas, A., Driscoll, G.O., Jones, TW., Davis, EA., & Green, DJ. (2004, May). Effects of exercise training on vascular function in obese children. *Journal of Pediatric*, 144(5), 620-625.

A Philosophical Perspective On Sports Education

Janaiah Chimata
Research Scholar (UGC-NET)
Department of Philosophy,Osmania University, HYD

Abstract

Philosophy of Sport is an area of philosophy that seeks to conceptually analyze issues of sport as human activity. These issues cover many areas, but fall primarily into three philosophical categories: metaphysics, ethics and moral philosophy, and political philosophy. The philosophical perspective on sport originated in Ancient Greece, having experienced a revival in the latter part of the 20th century[1] with the work of Paul Weiss and Howard Slusher. A philosophical perspective on sports incorporates its metaphysical relationships with art and play, ethical issues of virtue and fairness and more broadly socio-politics. The philosophy of sport is concerned with the conceptual analysis and interrogation of key ideas and issues of sports and related practices. At its most general level, it is concerned with articulating the nature and purposes of sport. The philosophy of sport not only gathers insights from the various fields of philosophy as they open up our appreciation of sports practices and institutions, but also generates substantive and comprehensive views of sport itself. The philosophy of sport is never fixed: its methods demand an inherently self-critical conception of intellectual activity; one that challenges its own preconceptions and guiding principles continuously both as to the nature and purposes of philosophy and of sports. Important questions in Philosophy of Sport are concerned with the social virtues of sport, the aesthetics of sporting performances and display, the epistemology of individual and team strategy and techniques, sporting ethics, the logic of rules in sport, metaphysics of sport as a component of human nature or instinct, etc.

Key words: ethics, metaphysics, mind-body, athletic

Introduction

Ancient Greece is considered the birthplace of both ancient philosophy and Olympic sport. Hellenistic philosophies hung great significance on athletic performance. A leader's athletic prowess, according to the view of the times, reflected their ability to lead. (Games of the Phaeacians in Homer's Odyssey in The Iliad and Odyssey) Sport was seen as an epistemic inquiry, a methodological process by which we learn the objective truth of a person's athletic potential by actualizing it in athletic competition. Athletics as a measure of individual worth was seen as a cure to social inequality. Sport was even seen as moral education, with Plato advocating the participation of women in sport for their moral enrichment. Aristotle emphasized physical activity as an ethical responsibility. Mentions of sport were also found in the work of Socrates.

Contemporary philosophy of sport

The resurgence of interest in Philosophy of Sport was marked by Yale philosopher Paul Weiss' book publication *Sport: A Philosophical Inquiry* (1969), considered the first book-length text in Philosophy of Sport. In it, Weiss explains the dearth of work in Philosophy of Sport as a reflection of academic elitism. Sport was always considered vulgar or common, according to Weiss.

Long before this, however, philosophical considerations of sport and physical and activity were discussed as a subset of educational reform in the late 19th century as the link between physical education and health and well-being gained appreciation among scholars. To many of the time, the health and educational benefits of physical activity were a component of public life. Inadvertently, many non-philosopher proponents of physical education took on philosophical positions on teleology, mind-body dualism and metaphysics as part of their model of human agency and personhood. In a broader context, political

philosophy entered the picture as thinkers of the time, in response to pressing social and political issues of the day associated civic duty, responsible citizenship and other political features to sport.[3] While much of the focus has been on the work done in the west, philosophers of sport acknowledge the importance of work done in the east, particularly Japan.

Purpose of the study

It has most specifically interrogated substantive issues in the following sub-fields of philosophy as exemplified within sport and related human activities involving the use of the body in social practices and institutions. Other areas of intersection with contemporary areas of philosophy include Philosophy of Education, Philosophy of Law, Philosophy of Mind, Philosophy of Rules, Philosophy of Science and Social and political philosophy.

Issues in philosophy of sport

Ethical issues in Philosophy of Sport predominantly center on athlete behavior in relation to rules of the game, other athletes, spectators, external factors such as socioeconomic issues among supporters and communities, and issues of doping. Issues of doping focus on the ethics of medical intervention on athletic performance- what is acceptable versus what is not, and how boundaries can be drawn. Particular attention is given to the question of what factors ought to be taken into consideration when banning certain medical interventions. These and other issues are usually compared and contrasted through the lenses of three significant moral theories: Consequentialism, Deontology and Virtue-Ethics.

Body of Knowledge

Being a form of philosophical discourse, the philosophy of sport embodies the formal and contextual character of the parent discipline: philosophy. Unlike the biomedical sciences of sport, philosophers (just like social scientists and humanities scholars) generate research that is overtly reflective of its non-theory neutrality. Intellectual progress can be made in philosophy and the philosophy of sport without presupposing an idea of linear development - or at least largely shared view of cumulative, commensurable, knowledge – that is assumed within the natural or biomedical sciences of sport.

Methodology

Although early analytical philosophers saw themselves elucidating the concepts others used in their sports talk and research, there is a clear sense in which we can say the empirical researchers of the natural and social sciences and the humanities have themselves become much more sophisticated in their conceptual approaches to sports related research. So, one of the traditional roles of the philosophers of sport, to clear the conceptual ground for others to carry out their research, has diminished - though it is never likely to disappear altogether. In politics as in ethics and other branches of study there will always be disputes about what constitutes “democratic processes” or “good character” for these debates are ineliminable from the field itself. Yet the convergence of the conceptual and empirical cuts both ways. Philosophers of sport themselves are paying much greater attention to the processes and outcomes of empirical research. Nevertheless, their focus remains exclusively conceptual in character. Every philosopher worthy of the name still seeks to get things right – even if there is no clear and undisputed sense of what the truth of matters might be. Its task is, through dialogue, to aim at the truth by close attention to valid argumentation entailing the clear explication of ideas that aim towards truth. In this sense, philosophy does not try to be pure, nor do philosophers of sport attempt to view sports as if they were in a position of complete neutrality, as is presupposed in positivistic research. The old philosophical ideal of philosopher as an ideal spectator embodies a view of sports worlds from nowhere in particular within those worlds. Such a view has largely disappeared in contemporary philosophy of sport. In a clear sense, then, philosophy is returning to its ancient promise to bring wisdom to bear on important matters that concern us (in sports) and not merely to the detailed technical analysis of key concepts.

Discussion

The Fields of Philosophy and their Application in Philosophy of Sport

The philosophy of sport then, is characterized by conceptual investigations into the nature of sport and related concepts, areas and professions. It draws upon and develops many of the diverse branches of the parent discipline, philosophy, and reflects abroad church of theoretical positions and styles.

- Aesthetics (e.g. is sport a form of art? are sports events works of art? can we objectively evaluate sports actions aesthetically?)
- Epistemology (e.g. can kinesthetic awareness properly be called knowledge? what precisely do we know when we are able to perform skills? must a coach have performance knowledge at elite level to coach effectively at that level?)

- Ethics (e.g. does sport necessarily develop good character? what do we agree to when we agree to play a game? is there such a thing as the ethos of sports?)
- Logic (e.g. are sports separate from other spheres of logic by their nature? are the concepts of sport and game logically discrete?)
- Metaphysics (e.g. are humans naturally game playing animals?)
- Philosophy of education (e.g. can we morally educate through sport? is paternalism in sports coaching and teaching inevitable? What do we mean by the concept “sport skill”?)
- Philosophy of law (e.g. can children give consent to engage in elite sports training? do rules underdetermine conduct?)
- Philosophy of mind (e.g. is mental training just a form of imagination? are sportspersons simply to be thought of as machines?)
- Philosophy of rules (e.g. are regulative sports rules just a species of constitutive ones?)
- Philosophy of science (e.g. is there such a thing as a singular method for all science ? what does sports scientist mean when they say a given statistical procedure has explanatory power? why do sports psychologists ignore the (post) Freudian tradition?)
- Social and political philosophy (e.g. did a pure conception of sport ever exist in a given social and political time and order? are sports competition necessarily capitalistic in nature? do sports institutions always corrupt pure play?).

East and West: the Traditions of Philosophy

Despite the diversity of these fields of applied philosophy in sport, there has been a tendency for one philosophical tradition to dominate: analytical philosophy. This is not to deny that continental philosophy has not developed a sport philosophical literature. Indeed the labels themselves are somewhat misleading – and both, being traditions of western philosophy take no significant account of Eastern philosophy, which in Japan notably has spawned a significant volume of sport philosophical literature.

Given that philosophical research is always and everywhere internally related to the expression of ideas, the idiom of that expression somewhat shapes the boundaries of what can be said. In contrast to the idea that the biomedical sciences of sport represent a universal language housed in technical rationality (“the” scientific method) philosophers working in the continental tradition have largely developed research within the fields of existentialism, hermeneutics and phenomenology. Although the label is itself driven by geographical considerations (the work emanated from communities of scholars in Continental Europe), one finds philosophers of sport right across the globe drawing upon those traditions. Similarly, analytical philosophy though the dominant tradition in the Anglo-American tradition of Western Philosophy is misleading in the sense that some of its founding fathers were indeed from Continental Europe. The drawing of distinctions to represent our experience of the world, however, is common to all schools or traditions of philosophical and sport philosophical endeavour. Given the dominance of the analytic tradition in the English-speaking world, a few more specific words are required in order to make sense of recent developments in the philosophy of sport.

Analytical philosophy emerged as an essentially conceptual enquiry whose aim was foundational. It is often captured in Locke’s famous remark about philosophical work being akin to an under labourer working in the garden of knowledge. As a second-order activity, its central aim was to provide secure foundations for other disciplines by articulating their conceptual geography.

Its pre-eminence was captured by the insistence that conceptual work precedes all proper empirical enquiry. Its exponents were equipped with the analytical tools of dissecting concepts for constituent criteria, drawing conceptual distinctions by their logical grammar and seeking fine-grained differences in their employment. In some quarters, the discipline of philosophy was reduced to the detailing of ordinary linguistic usages and their necessary and sufficient conditions in order to detect the proper meaning (or essence) of concepts that others had to operate with and between. Despite this “new” direction there remained a strong sense of continuity here with the ancient past. Philosophers such as Plato and Aristotle too were concerned with making distinctions, bringing clarity where before there was puzzlement or, worse, commonsensical acquiescence.

Many philosophers argue now that we are in a period of post-analytical philosophy. What this means is not entirely clear. We are living through a period of exciting intellectual development in the subject, which is

very much reflected in the Philosophy of Sport. While the careful attention to conceptual analysis will always be an essential component of the philosophers' toolkit, research-driven analyses of the key concepts of sports, games and play, have to a clear extent declined.

Of much greater prevalence in the contemporary literature has been the development of substantive axiological issues ranging from social and political philosophy of sport to the rapidly growing field of ethics of sport. Philosophers have been clear about the need to throw off the cloak of apparent neutrality of analytical philosophy in favour of arguing for substantive positions in terms of the "co modification" of sports, their "commercialisation", and their corruption". The development of substantive normative positions has proceeded in addition - rather than in opposition- to the careful articulation of precisely what those concepts logically entail. If these debates have also raged in the social scientific literatures then it is clear that academics in this portion of the philosophy of sport have made their own important contributions, premised on a clear understanding of the potentially diverse conceptualizations of sport. Similarly, in ethics, philosophers of sport have attempted to argue for the aptness of different moral philosophical theories to capture sports' nature and the nature of sporting actions therein. In these fields, philosophers have generated new ideas about the contested nature of sports ethics itself – whether as contract, or duty/obligation, or utility, or virtue. And in doing so they have often connected with the empirical research of other bodies of knowledge that would have been unimaginable to the "ordinary language philosophers" who saw themselves neutrally dissecting the linguistic usage of others through much of the previous fifty years.

Conclusion

The diversity of practices that fall within the compass of the different schools and traditions of philosophy means that there is not a universal method to characterise the philosophy of sport. It is impossible therefore to state unequivocally what relations hold between philosophising and practice. While there will always be a portion of philosophical scholarship in sport that is more abstract (whether in the analytical, continental or eastern traditions), there is a growth of more applied work in the fields of axiology. Increasingly, philosophers are making contributions to national and international sports policy development, along with pressure groups, where the need for the knowledge and skills of argumentation philosophers characteristically bring to bear on challenging normative issues is clear. Examples of such applied work include research into diverse conceptions of equity in operation with respect to categories such as gender and race; arbitrating between proper and improper means of performance enhancement and genetic engineering; illuminating the fascistic tendencies of elite sports or the xenophobia of modern sporting nationalism. Many of these issues would have been unthinkable to philosophers fifty years ago but are increasingly becoming part of the standard work of philosophers of sport.

Reference

- Clifford, C. (1995) *The Tenure of Phil Wisdom: Dialogues*, Lanham, Maryland: University Press of America.
- Hyland, D.A. (1984) *The Question of Play*, Washington: University Press of America.
- Hyland, D.A. (1994) *Philosophy of Sport*, Maryland: University Press of America.
- Inglis, F. (1977) *The Name of the Game: Sport and Society*, London: Heinemann.
- Kleinman, S. (Ed.) (1986) *Mind and Body: East Meets West*, Illinois: Human Kinetics.
- Kretchmar, R. S. (1994) *Practical Philosophy of Sport*, Illinois: Human Kinetics.
- Lumpkin, A.; Stoll, S.K.; & Beller, J.M. (1999) *Sport Ethics: Applications for Fair Play*, (second edition) Boston: McGraw Hill.
- McIntosh, P.C. (1978) *Fair Play: Ethics in Sport and Education*, London: Heinemann.
- Reid, H. L. (2002) *The Philosophical Athlete*, Durham: Carolina Academic Press.
- Tamboer, J. and Steenbergen, J. (2000) *Sport Filosofie*, Leende: Davon.

Youth Unemployment, Factors And Consequences

(A Study of Kohgiluyeh and Boyer Ahmad Province, Iran)

TalebHassanpourChenarestan Sofla^{1*}, C. Ganesh²

¹Department of Sociology, Osmania University, Hyderabad (INDIA)

² Professor, Department of Sociology, Osmania University, Hyderabad (INDIA)

Abstract:

Today, one of the major problems of governments in each country is the increasing rate of unemployment and so that is the reason why unemployment's elimination and increasing rate of employment for young generation is the responsibility of the governments. Present research is associated with causes of youth unemployment in Kohgiluyeh and Boyer Ahmad province, Iran. This study is based on the data from the years 2011 and 2012 and method of it is documentary, tools of data collection in this research are referral to libraries, relevant organizations, magazines and the Internet and data analysis in this research is commentary analysis. The results show that; Fertility between the years, 1976 to 1986 and 1991, Villagers migration to the cities and rural underdevelopment, Shortage of Banking resources, Lack of investment in this province, Management and authorities weaknesses and administrative corruption, are the most important factors in the rise of unemployment rate in this province.

Key words: Kohgiluyeh, Boyer Ahmad, occupation, Unemployment, Youth.

Introduction

Work and job are important issues which are reconsidered in each community and citizens in every community have the right to work, governments should provide employment field for their citizens so those people who are looking for job can find the appropriate job easily and thereby they can support their livelihood. If people are not able to find job and if unemployment becomes prevalent in the community and unemployment continues to be in the society, problems in governments will multiply and social deviances such as theft, drug addiction, evils and ... will prevail. Each country defines unemployment in a different manner. According to Almanac's definition of the latest census in 2011 in Iran, Unemployed people are those who are 10 years old and more who: 1- is unemployed in the reference week 2- is ready for work in the reference week or after that 3- is seeking job three weeks before And employed people are those who had worked at least one hour during the reference week or had left work temporarily due to some reasons (Governance of Kohgiluyeh and Boyer Ahmad Province 2011: 118)

Kohgiluyeh and Boyer Ahmad is one of Iran's Province which is located in southwest of Iran, the space of this province is 16249 square kilometers and its population according to the last census in 2011, is 658629 persons. This province has abundant resources for example, 25% of oil and gas and 10% of water of Iran are situated in this small province. Despite of the abundant resources in this province, this province is one of the provinces in the country of Iran which has the highest rate of unemployment among youth, in other words, a large number of youth in this province are unemployed. This province has had this problem for many years. According to the last census in 2011, the unemployment rate in this province is 14.1% (Ibid), of course there are also many people who have underling and handy jobs with low wages or temporary jobs. Increasing of unemployment among youth in Kohgiluyeh and Boyer Ahmad province has caused social insecurity that appeared and this insecurity is increasing daily and youth tend to be thieves, addicts, criminals and evil doers. Unemployed youth in this province cannot marry so they are forced to migrate to other provinces to do any low-level job for their livelihoods. In this research, the researcher wants to study the factors which to cause that be appeared unemployment among the youth of this province? Valadkhani (2003) in a research on "*The causes of unemployment in Iran: an empirical investigation empirical*" showed that five factors appeared to have been responsible for unemployment in

Iran: inflation, output gap, economic uncertainty associated with an unstable currency, the real growth of investment, and a dummy variable capturing the devastating impact of Iraqi war. Chamberlin(2006) in the research under title “*the rise in European unemployment: a bargaining perspective*” found that :

The rise in European unemployment is predominately due to the slow and incomplete reaction of the supply side to negative demand shocks in the labour market. The traditional factors which generate low flexibility in the labour market are to be blamed. Grigoryeva (2012) in the research on “*The Problem Of Youth Unemployment in Rural Area*” believed the reasons of young people’s unemployment are; The interest of young people to work in agricultural sector is low, because of high demand for unskilled labour, low wage levels in comparison with industry and total national economy of the Czech Republic. Soomro et al (2012) in the research under title “*Impact of economic globalization on unemployment: global and national perspective*” found that there is a positive significant impact of economic globalization on the unemployment in Pakistan, in other words economic globalization has caused unemployment in Pakistan. Bunaev(2011) in the research on “*The rate of growth of wage rate as a function of unemployment rate*” proved that The rate of growth of wage rate is proportional to inflation and is an increasing function of unemployment rate. The unemployment rate growth increases inflation. Arranz et al (2010) in a research on “*The Influence of Temporary Employment on Unemployment Exits in a Competing Risks Framework*” found that individuals who become unemployed due to the end of a temporary contract are more likely to exit unemployment by finding another temporary job and less likely to exit through permanent jobs, self-employment or inactivity. However, long tenures in temporary jobs enhance the probability of finding a permanent employment. Lahlum (2007) in a research on “*Urban youth unemployment and human capital development in Iran*” found that Deficiency in higher education is generally one of the key factors of unemployment problem in Iran.

Materials and Methods

Method of this is documentary and data analysis in this research is analysis commentary. Tools of data collection: researcher have referred to libraries, relevant organizations, magazines and the Internet. The universe of this research is youth of Kohgiluyeh and Boyer Ahmad Province. This study is based on data from the years 2011 and 2013 in Kohgiluyeh and Boyer Ahmad province in Iran.

Results & Discussions:

In the last census in 2011 year , the Population of Kohgiluyeh and Boyer Ahmad province was 658629 persons, and according to the table-1 in the census of different years of 1956, 1966, 1976, 1986, 1991, 1996 , 2006 and 2011 the annual growth rate of population has been toward up and down. for example, from 1956 to 1966, the population annual growth rate of this province has been % 4.53 , from 1966 to 1976, the population annual growth rate of this province has reduced % 4.24, from 1976 to 1986 , the population annual growth rate of this province has been % 5.36 and since the beginning of 1365 the annual growth rate of population of this province has reduced (Governance of Kohgiluyeh and Boyer Ahmad Province 2011: 71).

(Table No. 1)

Population Growth in Kohgiluyeh and Boyer Ahmad province.

Annual growth rate	Population	year
103439	1956	
% 4.53	161219	1966
% 4.24	244370	1976
% 5.36	411828	1986
% 3.82	496739	1991
% 1.85	544356	1996
% 1.54	634299	2006
% 0.76	658629	2011

As regards the highest unemployment rate among young people is between the ages of 15 to 35, than there is significance relationship between the annual growth rate from 1976 to 1991 years and youth unemployment , on other words ,the growth of population in these years can be one of factors of youth unemployment.

In 1966 year, % 9.52 of people of this province was living in the city and % 90.48 of them was living in the villages. . In the census of 1355, 1365, 1375, 1385 and 1390, the city's population has increased

immensely and the rural population has declined, and until the last census in 1390, the population of the city was 52.60% and rural population was 47.40% and it is expected that this trend will continue (Ibid).

Villager's migration to cities can be the result of underdeveloped villages. Ardalan Zeinal Zadeh (the director of Cooperatives, Labor and Social Welfare, in Kohgiluyeh and Boyer Ahmad province) in an interview with Fars News Agency says: If the problems of rural areas are resolved and if they are developed, the unemployment problems will be less (<http://www.farsnews.com/newstext.php?nn=13910820001367>).

Villager's migration to cities is one of the signs of underdevelopment of villages and will cause that unemployment population to increase in cities.

The population of Kohgiluyeh and Boyer Ahmad province in the last census in 2011 was about 1% of Iran's population. According to Mr. Abdul Al-Hussein Nafeian (the Planning Deputy Governor), the banking resources in the province in 2011, was 442 billion USD (Toman) and this number is 0.4% of the bank deposit of the country. Mr. Nafeian believes that, the problem of unemployment is not solved in Kohgiluyeh and Boyer Ahmad province because the bank resource which is allocated to this province is very negligible and low. He says that, things have failed due to the lack of resources and this province in the context of industrial development in the country is the penultimate, Mr. Nafeian (the Planning Deputy Governor of Kohgiluyeh and Boyer Ahmad province) said that, this province in the field of investment among the 31 provinces of the country has the rank of 29 (<http://hamshahrionline.ir/details/142113>).

One can see that, if the bank resource is negligible, the industry in one province cannot develop and therefore no jobs creation will be available. Since the formation of Kohgiluyeh and Boyer Ahmad province in 1963 till now, foreign investors did not show any interest to work in this province, so after 47 years in 2010, only one foreign investor (non-Iranian), has invested in this province to build a Margoon cement factory, and much of the capital needed to build the factory was taken from the public facility (<http://www.loor.ir/News.asp?nid=3134&ln=fa>).

Thus we can say that this province in the field of investment is approximately one of the last provinces and there has been a very little investment in it and as a result of low investment the factories and industries did not develop in this province so no new job was created and unemployment was increased.

The Governor of Kohgiluyeh and Boyer Ahmad In March 2010, to Kabnanews reporter said that, the employment commitment for the year 2011, is 16503 persons, but according to the availability of a set of factors for job opportunities in all sectors, managers have to work to create over 30 thousand jobs for people (<http://kebnanews.ir/37854>), But in 2011 it was found that, in the province of Kohgiluyeh and Boyer Ahmad in the year of 1390, only 6852 new jobs were created which was the lowest rate in the country of Iran.

Montazeri, the Chief of Justice Administration (this organization inspects administrative violations of directors and staffs in Iran) at the meeting of the Administrative Council in Kohgiluyeh and Boyer Ahmad said: A public complaint of population of 2012 year has been increased with 31 percent more than that of the year 2011

(<http://www.dadgostarikb.ir/Default.aspx?tabid=2704&articleType=ArticleView&articleId=44570>).

Public complaints could be a sign of corruption in the offices of the province. An employee must work 8 hours per day in the office. In 2011, the effective work in Iran was, 1 hour and 44 minutes which was announced by the research center of the parliament, and in 2012, it was 1 hour and 22 minutes. The effective work time in the province of Kohgiluyeh and Boyer Ahmad is less than one hour. In the developed countries out of 44 hours of work per week, the useful work is 30 hours. In Japan useful hours are 2420 hours, 1900 hours in South Korea, 1360 hours in America and 1600 hours in Germany (<http://www.kebnanews.ir/?p=51361>).

According to ILNA news: Parandvar, the representative of this province in the Supreme Council of Provinces, said: that, the province of Kohgiluyeh and Boyer Ahmad has the first rank in the management replacement, which shows the managerial instability, he also said that, in this province there are valuable resources and although the province is one of black gold (oil) mines yet it has dark and gloomy days (<http://ilna.ir/news/news.cfm?id=11365>).

Conclusions:

The uncontrolled growth of population in the years 1976 to 1986 and 1991 is one of the most important factors of unemployment in the province of Kohgiluyeh and Boyer Ahmad. When those who were born between these years, reached to the working age and were seeking work, many of them have been unemployed due to their abundance.

Another factor of unemployment in the province of Kohgiluyeh and Boyer Ahmad is the villages underdevelopment, because it has caused many young individuals migrate to cities and this matter, increased the unemployment and dissonance, crowding and bustle of the cities.

The shortage of banking resources is one of the causes of unemployment, because due to the lack of resources, employers and entrepreneurs cannot supply the necessary facilities for the development of economic infrastructures, therefore, there is no ground for Entrepreneurship and unemployment has increased.

Failure to attract investors to invest in the industrial and other sectors in the province of Kohgiluyeh and Boyer Ahmad resulted that, no new jobs were created for the youth of this province.

Management inefficiency and administrative corruption in this province, is an important factor in the rising of unemployment in this province, because inefficiency and inadequacy of managers have caused all of these items such as; attraction of investors, control of population growth, schematization for development of villages and cities, resolving banking sources and disability of managers can be due to many factors such as being a non-specialist or having a less knowledge about the management job.

Recommendations:

Governments and local authorities should control the population growth according to the given resources, in other words, they should increase their population in the time of increase, and decrease their population when the time demands. Population control policy is possible through education of women, the ways to prevent pregnancy and increase their literacy, cultural activities in order to control the population and reduce the migration. Creation of education and health facilities in rural areas to prevent migration of villagers to cities and doing some cultural activities to change people's negative prospective towards villagers, encouragement of the investors to invest in the villages, supporting the rural educated people for the development of villagers, development of rural tourism and adoption of policies for reduction of migration to cities. Governments and organizations can attract domestic and foreign investors with reducing the taxes, fixing of currency exchange rate or to give subsidies, creation of economic and social security and propaganda, to create jobs and reduce unemployment and governments must provide adequate banking facilities and resources for underdeveloped provinces. Special supervision of government on organizations and agencies, checking the performance of managers, encouraging the prolific managers and timely punishment of delinquent managers, improvement of level of literacy of staffs, establishing the self-control mechanisms in the offices, employment of managers based on expertise and their educational degrees is needed. And at the end it is required that governments should prevent illegal employments of managers and also they should encourage people in order to identify the violations.

Reference:

Arranz, José M et al (2010), The Influence of Temporary Employment on Unemployment Exits in a Competing Risks Framework, the Working Paper Series of FUNCAS, Vol.(n.d), No.31, pp.1-2.

Bunaev, B. B (2011). The rate of growth of wage rate as a function of unemployment rate, Cybernetics and Systems Analysis, Vol.47, No.5, pp.1-2.

Chamberlin, Graeme (2006). The rise in European unemployment: a bargaining perspective, Journal of Economic Studies, Vol. 33, No.1, pp.1-2.

Governance of Kohgiluyeh and Boyer Ahmad province (2011). Statistical yearbook of Kohgiluyeh and Boyer Ahmad, The center of statistics of Iran, Tehran, pp.71.

Grigoryeva, N (2012). The Problem Of Youth Unemployment in Rural Area, Agris on-line Papers in Economics and Informatics, Vol.4, No.1, pp.1-2.

Lahlum, Nils Ivar (2007). Urban youth unemployment and human capital development in Iran, unpublished Master thesis in Middle East and North Africa Studies, University of Oslo, pp.1-53.

Soomro, riaz. H et al (2012). Impact of economic globalization on unemployment: global and national perspective, journal of contemporary research in business Vol.3, No.12, pp.1-2.

Valadkhani, Abbas (2003). The causes of unemployment in Iran: an empirical investigation Empirical, Journal of Applied Business and Economic Research Vol.1, No.1, pp.1-2.

Website

<http://www.kebnanews.ir/?p=51361> visited at September 2012

<http://www.dadgostarib.ir/Default.aspx?tabid=2704&articleType=ArticleView&articleId=4450> visited at October 2012

<http://hamshahronline.ir/details/142113> visited at October 2012

<http://www.loor.ir/News.asp?nid=3134&ln=fa> visited at December 2012

<http://kebnanews.ir/37854> visited at December 2012

Divorce, Factors And Consequences (A Study Of Kohgiluyeh And Boyer Ahmad Province, Iran)

TalebHassanpourChenarestan Sofla^{1*}, C. Ganesh²

¹ Department of Sociology, Osmania University, Hyderabad (INDIA)

² Professor of department of sociology of Osmania University in Hyderabad (India)

E-mail: talebhassanpour@yahoo.com

Abstract:

This article is about Kogiluyeh and Boyer-Ahmad one of the provinces that is located in the southwest of the country of Iran. One of the most important social problems in recent years is the addition of divorce and reduction of marriage annually according to the raise in the age of marriage. According to statistics of organization of registration, divorce has been increasing in this province annually. Divorce in literary words means to be released, in terms of ending the marriage by the husband and wife. Often, divorce has been defined as the most common solution and incompatibility of couple. This study is based on the data from the years 2011 and method of it is documentary. Tools of data collection in this research are referral to libraries, relevant organizations, magazines, the internet and data analysis in this research is commentary analysis. The results show that addiction of men, Male unemployment, Women's employment, Education of women, Lack of honesty, transparency and veracity of couples, Men's sexual disability, Growth of urbanity and fading of kinship groups are mostly the reasons of divorce in this province.

Key words: Kohgiluyeh, BoyerAhmad, Divorce, problem, province, Family.

Introduction:

Social changes in the world over the past decade have caused the family system to face changes, challenges, issues and new requirements. During this time, families especially due to complex causes have been threatened. Gradual decrease in family satisfaction firstly causes psychological rupture and then it causes social rupture and finally it causes legal event and this rupture is titled "divorce". Although divorce is considered social injury and it is one of the factors of disintegration and rupture of the family circle yet for various reasons all of the marriages don't have complete durability and some of them end in divorce. Therefore, to prevent the reduction of the incidence of divorces in society, factors of divorce should be identified and be attempted for eliminating or diminishing these factors. (fatehi&Nazari, 2011:2).

Divorce in literary words means to be released, in terms of ending the marriage by the husband and wife, often divorce has been defined the most common solution and incompatibility of couple, collapse of family life, marriage failure and disorder of communication of parents and children(www.haghgostar.ir/ShowPost.aspx?ID=663). Kogiluyeh and Boyer-Ahmad are two of the provinces that are located in the southwest of the country of Iran. One of the most important social problems in recent years is the addition of divorce and reduction of marriage annually according to the raise in the age of marriage. According to statistics of organization of registration, divorce has been increasing in this province annually. Divorce has affected couples and their children in this province, Most criminal teenagers and youth depend on families whose parents have been divorced in this province. Parents are divorced and have sickened family disputes; divorce has also affected divorced couples physically, psychically and generally created an anomaly. The researchers would like to know what the main cause of divorce in this province is?

Review of literature:

Strow&Strow (2006) in their article under topic "A history of divorce and remarriage in the United States" note how the advent of industrialization transformed the family and contributed to rising divorce rates for the dramatic increase in divorce throughout the 20th century and they believe the feminist movement along with

numerous legislative and demographic changes brought about the increased labor force participation of women and female economic independence, which allowed both men and women greater freedom to divorce. And hence divorce has become a more common event.

Taylor (2009) Said that "most important determinant of a quick decision to divorce is outside interference from stepchildren and/or in-laws, much more so than abuse, falling in love with someone else, not being there physically, lack of marital effort, money problems, or substance abuse. A possible reason for the importance of outside interference follows from the work of biologist Hamilton (1964) who emphasized an individual's genes rather than his or her optimizing behavior. Not surprisingly, abandonment also hastens the divorce decision, and for male decision makers, sexual issues hasten divorce".Janmardy(2011) in her article under the topic "Study of divorce in Iran provinces from 1977 to 1998: Emphasizing on the role of Iran-Iraq war" believes that war of Iran and Iraq caused heavy economic losses , unemployment , change in family structural and all of them led to increased divorce.Musaiet al (2011) in their paper (The Relationship between Divorce and Economic-Social Variables in Iran) said that there is relationship between divorce and Iran's economic-social variables. They showed that there is a significant relation between income distribution and divorce such as the worse income distribution qualityfor the occurrence of more divorces. They discovered that there is direct relationship between divorce rate and monthly expenditures of Iranian households and its reverse relationship with income per capita and illiteracy rate.

Doherty (2012) said that the most common reasons people give for their divorce are lack of commitment, too much arguing, infidelity, marrying too young, unrealistic expectations, lack of equality in the relationship, lack of preparation for marriage and abuse. Some of these problems can be fixed and divorce can be prevented([http:// www.divorce.usu.edu/files/uploads/Lesson3](http://www.divorce.usu.edu/files/uploads/Lesson3)).Adegoke (2010) in the research on " Socio-cultural Factors as Determinants of Divorce Rates among Women of Reproductive Age in Ibadan Metropolis, Nigeria" found that childlessness within the first marriage, marriage support by family and relatives, age of marriage, couple's role obligation and couple's ethnic/cultural background and divorce rates among women of reproductive age effect on divorce rate.Khurshid et al (2012) showed that various personal, social and psychological factors are among the major perceived causes of the divorce. Present research increases our understanding regarding one of the social issues which has profound effects on the society through various corners.

Methodology:

The method used in this if of documentary method and the method of data analysis in this research is commentary analysis. Tools of data collection: researcher have referred to libraries, relevant organizations, magazines and the internet. The universe of this research is youth of Kohgiluyehand Boyer-Ahmad Province. This study is based on data from the years 2011 and 2012 in Kohgiluyeh and Boyer-Ahmad province in Iran.

Findings & Discussions:

According to the Department of Social Welfare and Kohgiluyeh and Boyer-Ahmad Province in year 2007, 2723 addicted people of self-referred have visited addiction treatment center of welfare organization and these figures in the year 2008 are 3520 people and in the year 2009 were 4752 people and in the year 2010 were 6505 people and in the years 2011 and 2012, these are increasing (statistics center of Iran,2011:111). These figures show addicted individuals are increasing annually. Most referred individuals to this center are youth that due to addiction have left their families and are inhabited in this center for several months. They are far from their family for a while, therefore, their women and children have to sustain this situation but in reverse. This could be grounds for tensions and conflicts in the families and could be grounds for divorce between the couples.

According to census of years 1976, 1986, 1996 , 2006, the rate of Employment of women in Kohgiluyeh and Boyer- Ahmad Province was in the order of 1505, 3684, 7889 ,15692 individuals and this figures are raising these years (Ibid:121).

Women's employment can provide a sense of independence for women and this independence causes women to decrease the dependence on their husbands, and this subject gradually affects the relationship of males and females leading to an increase in sensitivity and autonomous of women. In this state, women know that they do not need their husband's money. Hence, they are obedient lesser than males who are

unemployed and don't have salary. Of course it doesn't mean that any wife have to be obedient completely, it means that employed women are more autonomous than women who don't have job and salary.

Finally, occupation can provide a background which is in first tension among males and females that increases hatred and ultimately some of these tensions turn into divorce. Kohgiluyeh and Boyer-Ahmad's people are traditional and traditionally females have to follow their husband's behaviors' and provide satisfaction of their husbands. Therefore, in this society expectations on husbands are more than another non-traditional society and if women disobey their husbands the rate of hatred is more than another society. This province is passing from traditional attitudes to modernity attitudes. Males cannot sustain disobedience of their wife but in modern society sometimes males obey their wife and there is no difference between wife and husband in life and management of family.

According to census of years 1976,1986,1996,2006 to now, the number of female students have been 6021,17356,54335,73064 in order and this flow is increasing (Ibid:122). Education for women can provide a background for awareness and growth of them who administrate life and children and provide a social welfare for family. Usually illiterate women have lesser experience than literate women and they have a lesser perception and some time they cannot realize their husband and children's demand. Then hates and tension in the families are expected among women and their husband who are illiterate or with low literacy. While statistics and information show other things different from these expectations and with a lengthy addition of number of educated women, divorce is increased.

It is already noted that the people of this province are traditional so education can provide a kind of self-consciousness for women who understand their environment and education because they sense there is no difference between woman and man and women can behave like men, and hence they expect to be treated like men, as regards to governed traditional culture in this province, this culture doesn't allow women for participation in social work or in other words women have to obey their husband. Educated women some time want to break these norms and the breaking of these norms causes hate and tension in families, and finally sometimes these tensions turn into divorce.

According to information and figures of statistical yearbook of this province, the number of individuals who get divorced in village were 44.7% and in cities of this province were 55.7 % in last census of years 2008,2009,2010,2011(Ibid:111). Anybody who lives in city, is not affected by informal governance while in village there is dominated of an informal investigation if anybody is separated from one's spouse may be placed in contempt. In cities especially metropolitan divorce is not stigma and shame and it is a usual subject because the people live in cities in anonymity.

KaramaliRezai, head of the Branch of 101 Family justice said: if the ethical cases by parents and young couples is observed, we will see dramatic reduction of divorce in this province. He said: with regard to initial investigation before marriage can be helpful to many of their problems, we expected that parents before marriage of their children are too careful. He said: one of method that can prevent divorce is transparency and honesty of couples in sage of courtship and marriage (<http://www.farsnews.com/newstext.php?nn=8708071372>).

Thus we can conclude that transparency and honesty are two terms that are important in life and couples have to pay attention to them, and there can be a relationship between increase of divorce and lack of transparency and honesty of couples before or after marriage. Unfortunately some times, sons and daughters in initial stage look for marriage and stipulate each other. They try to brag and bounce onto each other, then this problem arises as they cannot know each other and understand each other. But later after marriage they discover capability of each other, if this capabilities are opposite in treatment of each other in stipulate period or before marriage, it turns into tension and hate in their life and if it continues, these tensions later lead to divorce.

Dr. Mohammad Reza Norouzi (Iranian Urological Association board member) said: "men at all did not refer to physician or they refer too late in background of diseases such as blood in urine, sexual potency of divorce and that leads to sexual disorder" (<http://boyernews.com/23376>). Women in this province due to dominance of traditions and customs cannot express sexual problems, they express another problems instead of sexual problems, also customs have caused men and women not to have knowledge about sexual relationship. Therefore they are unable to sexually satisfy each other and this lack of sexual satisfaction causes tension in family and eventually leads to divorce.

According to the information and figures of registration organization in Kohgiluyeh and Boyer-Ahmad province, in years 2009,2010,2011, most divorces are related to those who have been married for less than one year (registration organization of Iran, 2011:492). This problem can be due to different reasons such as: lack of sufficient knowledge, honesty and integrity,transparency before marriage in relationship between wife and husband. There are a lot of young people who on whim love girl and promise her a social welfare but after marriage they turn away from their promises. Thus these characteristics of youth can provide background of h and tensions in family and finally divorces.

The addition of population in cities in this province and dominance of urban culture have caused to remove the influence of kinship groups slowly, kinship groups have a lot of functions in this province such as: to prevent crime and disorder of youth, to prevent divorce, to resolve local hatred and tension between individuals. The population of cities in this province in the years of 1966 was 9.48%; while in last census in the year 2011, the population of cities was 52.6% and population of villages are 47.4% (statistics center of Iran,2011:106). Withstrong development of cities and urban culture, individualism and collectivism was replaced and materialism appeared between people.Today the influence of these groups is not like previous times. Thus it is more difficult to solve tension offamilies.

Results/Implications:

Based on the data analysis.We can say one of the causes of divorce in Kohgiluyeh and Boyer-Ahmad is addiction of men to narcotic materials that causedamage to family and causes separation of wife and husband from each other.

Male unemployment is one factor that will be provided in the context of divorce. According to tradition, work is usually expected from men more than women in the province and so the rate of unemployment is 14.1%, therefore men unemployment can be the ground for divorce of couples. Women's employment can be another reason to addition of divorce between couples. It is already noted that occupation provides kind of independence to women who reducetheir dependence on their husband and with starting of the smallest stress, women want to get separated from their husbands. Education of women is another predisposing cause of divorce in this province. Education hascaused self-awareness of women and caused added capability of women to understand their rights and participation in social work but traditions in this province expectother works for women or this subject is not a match to traditions. Thus after tensions, divorce appears. Lack of honesty, transparency and veracity of couples when they want to marry each other or after marriage are another reasons of divorce in Kohgiluyeh and Boyer-Ahmad province.

Sexual disability in men, sexual disorders, fertility disorders are another factors are an addition to divorce in this province. Growth of urbanity and fading of kinship group's investigation and traditional culture can affect the rate of increase of divorce in this province.

Suggestions:

Parents through education and correct training can familiarize their children to methods of better life. Parents have to prevent the mistakes or errors of children when they are in their childhood or teenage because if this task would not be done, in future it will be worse and parents and society cannot control them.

Governments through schools, NGOs, organizations etc. should teach their citizens background of marriage, safe sexual training and methods of sexual satisfaction of couples in life.Governments through investment, increasing banking sources, addition of marriage loans and policies of population control can help youth and eliminate unemployment and reduce divorce of couples. Governments can help to change patriarchal attitudes in family in traditional society and semi-traditional societies and establish equality between men and women and educate men through mass media, schools and NGOs.

Families should be given free or low-cost medical care, until they check themselves and prevent themselves from some of the diseases and disorders. For example, family physicians can help people in villages and cities.

References:

Adegoke T. G. (2010), Socio-cultural Factors as Determinants of Divorce Rates amongwomen of Reproductive Age in Ibadan Metropolis, Nigeria,Stud Tribes Tribals, Vol. 8, No.2, pp.107-114.

Strow, Claudia W. &Strow, Brian K. (2006), A history of divorce and remarriage in the United States, journal of Economic Studies, Journal ofHumanomics, Vol.22, No.4, pp.239-257.

Fatehi, Abolghasem&Nazari , alimohammad(2011). Sociological analysis of the affective factors on the tendency of couples to divorce in Isfahan province, journal of studies of social security, Vol.1, No.14, pp.1-42.

Khurshidand, Fauzia et al (2012).Personal, social and psychological factors leading toward divorce, journal of contemporary research in business, Vol.3, No. 3, pp.500-513.

Janmardy, Mahvash(2011). Study of divorce in Iran provinces from 1977 to 1998, International journal of Sociology and Anthropology, Vol. 3, No.4, pp.132-138.

Musai, Maysam et al (2011), The Relationship between Divorce and Economic-Social variables in Iran, British Journal of Arts and Social Sciences, Vol.1, No.2, pp.1-5.

Registration organization of Iran (2011).Statistics yearbook of Iran, published by Noor sea, Tehran (Iran), pp.492.

Statistics center of Iran (2011).statistics yearbook of Kohgiluyeh and Boyer-ahmad, Noor Sea, Tehran (Iran), pp.111.

Taylor, Larry W. (2009).The transition to mid-life divorce, journal of Springer Science +Business media, Vol.1, No.9, pp.251–271.

Website

<http://boyernews.com/23376> visited at 21 February 2013.

<http://www.farsnews.com/newstext.php?nn=8708071372> visited at 27 October 2008.

<http://www.haghgostar.ir/ShowPost.aspx?ID=663> visited at 11 October 2011.

<http://www.divorce.usu.edu/files/uploads/Lesson3> visited at 10 November 2012.

Sociological investigation of cultural historical relations of Iran and India

AzarEskandaricharati¹ ,TalebHassanpour Chenarestansofla^{2*}

¹*faculty member of Department of Sociology, Islamic Azad UniversityAzadshar, Iran*

²*Ph.D. student of Osmania university, Hyderabad(India)talebhassanpour@yahoo.com*

Abstract:

India-Iran relations span centuries marked by meaningful interactions. The two countries shared a border till 1947 and share several common features in their language, culture and traditions. Both South Asia and the Persian Gulf have strong commercial, energy, cultural and people-to-people links. Relations between peoples of the Iranian plateau and India were extensive and uninterrupted between the 13th and 18th centuries. Migration, commerce, and politics all led to a range of cross-regional influences. In this research we have used the library methodology and descriptive analysis. By study and sociological investigation we observed that two civilizations of Iran and India with a rich and ancient culture during history have friendly and kind relations with each other.

Key word:relations, culture, history, Iran, India

Introduction:

In order to have the discussion regarding cultural relations, it is needed to have a brief mention to the knowledge of sociological investigation which is sociology and culture in this writing. One of the approaches of sociologists in defining culture is descriptive definition. In this approach, "culture or civilization is a woven generality including knowledge, religion, art, law, ethics, custom and any ability and habit the human gains from the society". However, in the historical approach, "culture means a correlative set of actions and believes which are inherited by society that composes the texture of our life (Ashoori, p 380). The trend began with India's first sultan, Qoṭb-al-Din Aybak (r. 1206-10; q.v.), whose congregational mosque in Delhi followed the Iranian plan of a central open courtyard surrounded by cloistered halls on three sides, with a prayer chamber on the fourth side (Tsukinowa, pp. 54-60). This appears to have happened in the case of Bengal's Adina Mosque (1375), which in structural terms recalls the third-century Sasanian palace, Ṭāq-e Kesrā (Eaton, pp. 40-47).. In India these elements appeared first in Homāyun's tomb (1571), whose architect had himself come from Bukhara. Through Timurid influence, too, came the Iranian conception of the garden, symbolic of paradise, with water channels, pools, and pavilions (Subtleny, pp. 119-20). Already evident in Bābor's own memoirs, the aesthetic of the garden was translated into many Mughal architectural triumphs, most famously the TājMaḥal (Golembek, 1632-43; pp. 43-5). The relations of Iran and Indian subcontinent before Islam have been based on common race, language and custom. Iran and Indian subcontinent with the Dari Persian language created the same relation they had with, Avestan and Sanskrit languages before Islam and by prevalence of different languages that today 22 languages officially has been recognized in different states of this country and 1400 official accent has turned this society to a large democracy and have provided a bed for propagation of different religions. For people of Iran and the history and literature of Iran no land is more famous and known than India. No historical-literature and geographic book is found in Persian that has not talked about India, in a way that the most important and ancient legendary book of Iranians, Shahnameh has mentioned the name of India, Sand and Macran for over a hundred times. Perhaps, one of the best descriptions from the cultural closeness of two nations and their common interest in each other is provided by "SobramanianSoami", the post minister of India and the head of Janata movement. After visiting Iran, several years ago he writes:

"India and Iran have centuries of cultural and civilization relation and have many cultural common points. In the past, Iran has influenced India via Persian language, art and architecture. However, the critical aspect I encountered during my visit of Iran is related to the great interest of Iranians in India, ordinary

people usually feel good of India and this goes back to clean cultural and civilization connections of the two countries and has nothing to do with the overseas policy of Iran" (Soami, 1831, p 15).

The precedent of cultural relations of Iran and India:

The antiquity of cultural, language and immigration relations of Iranians and Indians is so famous that there is no need for explanations, for about 2500 to 3000 years ago, a large wave of immigrants started from north-east Iran to Sand which is called Aryans' immigration. Since Sasanid, a cuneiform inscription is remained in Saint Thomas church, that Dr. Aliasghar Hekmat has brought its picture on page 11 of the book Persian symbols on Indian stones (Hekmat, 1959. p-91) The famous sentence of Jawaharlal Nehru "the relations between two countries of Iran and India is an old story of the history of the universe, it seems even older of that.

A review of the history of relations of Iran and India:

In the explorations conducted on 1930 at Kashan Silk Hill by archeologists, it is discovered that Kashan old town has been the intersection of ancient civilization of Iran and India. Few archeologists think that the old relation between Iran and India in fact goes back to the time before Medians and Sumerians (before invasion of Aryans). From the old time in the past, Iran and India have had integrated historical and cultural relations with each other and in the speeches of Jawaharlal Nehru the Late Minister of India and Alameh Shebeli Namani it is brought that: "in the history of the whole world, two nations of Iran and India have been so close to each other that no more example can be found like them".

As a result of the same race and origin of these two civilizations, is the compatibility and similarity of Avestan Language in Iran and Vada Language in India. From the remained proves and stuff, we can conclude that from the very long time ago, the Iranians and Indians were living with each other. And by emerge of Sasanid dynasty good relations existed between Iranian Royals and Indian Maharajahs that the historians call that "The Golden Age of Iran". The Indian lands were known by the kings and from Punjab and Kashmir to North India was ruled by them.

The ages of cultural prosperity and cultural exchanges:

If we consider culture as a complicated set including studies, believes, arts, techniques, ethics, rules, customs and all habits, behaviors and regulations that the person learns as a society member and has duties and responsibilities against that for the society (Salimi, 1998, p 11), thus Iran and India with the ancient background from the ancient times until Goorkanian and Safavian, they have had cultural exchanges in different ways. The common roots and mutual contacts for cultural exchanges have been made between the two nations.. In fact, the ages of Goorkanian kingdom in the Indian land is the age of cultural transformation, revitalization of literature and philosophy of old India and the age of prosperity and development of Persian language, literature and culture. The most important faces for cultural penetration can be observed in development of Persian language and literature in India and the Hindu-Iranian art such as painting and architecture.:

Persian language and literature:

The Persian language and literature is the most important symbol of the rate of effectiveness of the two cultures from each other.. Indian languages such as Urdu-Hindi, Bangali, Sandi, Kashmiri, Pashto-Hindi, Dakani, Gojarati, Sarahati, Bahari, Tamil, Kenari and Malayalm have taken advantages of Persian language (Yektaee, 1974, p 164). From the Indian-Iranian Persian languages we can mention Mirzamen, ,Hartoseni, Krishnavasi and Chandarbahan Berahman (Hekmat, 1958, p 91) The Goorkani kings of India were interested in Persian poetry and literature and were promoting that. When Babarshah attacked Delhi from Kabol and conquered the north India, Persian poets such as Atashi Ghandehari came to India with him (Ibid, Hekmat, p 11). Also Khandmir, the great Iranian Historian joined the Barbar's kingdom (Ghiaseddin Homam Khandmir, 1983, p 9). Therefore, not only Persian language was considered by the Indian Muslims, but the Hindus learnt it soon and communicated with it. Dr. Tarachand, "the premier consul of India in Iran" has considered two elements regarding relations of Iran and India civilizations; one is Islamic mysticism of Iranian people and the other is the Persian language and he says: Cultural relation between two civilizations of Iran and India empowered by emergence of Islam and penetration of this religion in Indian subcontinent (Tarachand, 1958) and for Islam found India via Iran lands most Islamic trainers, teachers and missionaries were Iranians As a result of cultural relation between Hindus and Persian language, a deep transformation has occurred in Indian culture specifically in the field of poetry, terminology, biography, journalism, study of India and translation of texts (Roohollah Amini, 1986, p 11)

Painting:

In the time of Goorkani kingdom in India the influence of Iranian painting art is more obvious and the footprint of Iranian immigrants is clearly apparent. Wall drawing and miniature painting which was flourishing in Safavi era in Iran was taken to India by the students of KamaledinBehzad. When Homayoon was in Iran, learnt miniature painting and by returning to his country, he took a number of students of Behzad including AbdolsamadShirazi and Mirseyed Ali Tarizi with himself (FarhangErshad, 1986, p 275). The colors used were coming from Iran and its perspective was thoroughly Iranian (FarhangErshad, Ibid, p 276).

The influence of Iranian painting school was not a transient and sectional issue, because several Indian artists were trained by Iranian painters and were working in the Teymoorian kingdom, among them we can mention to Beshnovas, Dolat and Dasvanet. In the book of Akbari bylaw, name of a number of Indian painters is recorded who have been students of Abdolsamad and Mirseyed Ali (FarhangErshad, Ibid, p 257).

Architecture:

The art of architecture in India was evolved by taking advantage of Islamic Iranian Architecture. The influence of Iranian architects on creation of this art is observed as well. Homayoon Shah accepted Iranian Architecture, and his tomb was made by an Iranian architect called MirzaMirakGhias and Iranian symbols were used in it. Iranian Architecture reached to its peak at the time of successors of Homayoon. The most durable samples of Hindu-Iranian architecture is including: tomb of Etemadodolleh in Agra, royal mosque of Lahore at the time of Jahangir, Tajmahal building in Agra (the tomb of Momtazmahal the spouse of Shah Jahan) and they took them from local architects based on their taste and by mixture of both styles, the Hindu-Iranian style was created. For instance, Sabat (the roofs seen on some Iranian alleys) by the local name of Sovat, is a sample of architecture belonging to India applied in Iran. The crescent forms and arch buildings, simple walls and narrow smooth columns with vast piles and astonishing arches are signs of Iranian architectural style. In many buildings a mixture of Iranian-Hindu architecture is observed.

Conclusion:

By study and sociological investigation we observed that two civilizations of Iran and India with a rich and ancient culture during history have friendly and kind relations with each other. Since the far past, they have had stable relation with each other and the people of these two civilizations (Iran and India) have ancient precedent in race and culture and they have the same .however following emergence of social and political evolutions in India and emergence of critical changes in common geographic boundaries between the two countries of Iran and India and after Goorkanian dynasty and at the time of colonization, the Persian language which had become the common language between Iran and India was forgot and the common culture which was the result of thousand years of cultural exchanges was neglected and the relations of two nations were reduced .The most visible form of Iranian influence in India is found in the hundreds of architectural monuments patronized by rulers who looked to Iran for their aesthetic inspiration, and often for their architects.

At the end, we hope to observe progress and development of relations between two lands of Iran and India in different fields especially cultural fields .

References:

- Ahmad, A. (1987). The history of Islamic thought in India (N. Lotfi and M.J.Yahaghi,trans.). (1st ed.). Tehran:Keyhan Publishing, 191-192 .
- Ahmad, A.(1976).Safawid Poets and India. Tehran:Iran14. 32-117.
- Ashoorian, D.(2001). Definition and concept of culture (3rded). Tehran:Agahpublishing, 47.
- Bin Hammamkhand Mir, Gh.(1983). Habibolseir history.Tehran:Khayyam Book. Introduction, 9.
- Eaton, R.M.(1993). The Rise of Islam and the Bengal Frontier.Berkeley. 1204-1760.
- Guidance cultural. (1986). Historical migration to India (1st ed.). Tehran:Institute of Cultural Studies, 275
- Guidance cultural. (1986). Historical migration to India (1st ed.). Tehran:Institute of Cultural Studies, 276.
- Guidance cultural. (1986). Historical migration to India (1st ed.). Tehran:Institute of Cultural Studies.
- Golombek, L.(1981). From Tamerlane to the TajMahal.Daneshvari,A.(Ed). Essays in Islamic Art and Architecture in Honor of Katharina Otto-Dorn.Malibu. 43-50.
- Halabi, AA.(1991). Understanding Sufism and Iranian mysticism(3rded). Tehran:Zavar Press.
- Hekmat , AA. (1957). Indian Territory.Tehra:Tehran University Press , 91.
- rohol Amin, M. (1986). Field of culture (1st ed.). tehran: Attar, 18.
- Shariati, A.(1992). Islamic Iranian identity recognition (3rded). collection .No. 27, 142.
- Shahabi, AA.(1937). Iran- India relations literature.Tehran:printing and Central Bookstore.
- Salimi, M. (1998).Cultural relations between Iran and India (1st ed.). Tehran:Institute of Foreign Affairs Press .Introduction ,11.
- Subtelny, M. E. (2002).Le Monde est un jardin: Aspects de l'histoireculturelle de l'Iran medieval. Paris:Studialranica, Cahier 28.
- Stewart, D.J.(1966). The First Shaykh al-Islam of the Safavid Capital Qazvin.JAOS 116/3. 387.
- Tsukinowa, T.(1982).The Influence of Seljuq Architecture on the Earliest Mosques of the Delhi Sultanate Period in India.ActaAsiatica .43, 54-60.

Comparison Of Serum Creatinine Values Of Elite Athletes With Their Aerobic & Anaerobic Power

Ravi Prakash Singh

**Research Scholar, Department of Physical Education
Aligarh Muslim University, Aligarh-202002, U.P. India**

Dr. Syed Tariq Murtaza

**Assistant Professor, Department of Physical Education,
Aligarh Muslim University, Aligarh-202002, U.P. India**

Dr. Archana Chahal

**Assistant Professor, Department of Physical Education,
University of Allahabad, Allahabad-211002, U.P. India**

Shamshad Ahmad

**Research Scholars, Department of Physical Education
Aligarh Muslim University, Aligarh-202002, U.P. India**

Sakshi Singh

**Assistant Teacher, Primary School Pipertali,
Pratapgarh-23001 U.P. India**

Abstract

This is an attempt to investigate the relationship of serum creatinine with aerobic and anaerobic power of national level athletes. The study was conducted on 17 male athletes in the age group of 16 -20 years who have been under training at Madan Mohan Malviya Stadium Allahabad for participating in National meets. At the time of evaluation their competition experience was of minimum three years. The creatinine was estimated by taking blood samples through Jeffers's methods. The physiological variables such as aerobic power and anaerobic power were examined with the help of three minute step up test and Sarjant jump test respectively. Each subject was examined individually during rest hours with the help of standard scientific instruments. The results of the study were drawn here: (1) the mean values of creatinine (1.32 ± 0.39) anaerobic power (106.29 ± 15.26) and aerobic power (54.41 ± 9.06). Significant relationship with anaerobic power of athletes was found in relation to creatinine.

Key Words: Creatinine, aerobic and anaerobic power

Introduction

The concentration of creatinine in serum is the most widely used and commonly accepted measure of renal function in clinical medicine. Reference values of biochemical variables specific for sportsmen have never been defined, and those used for the general population are also applied to athletes (Giuseppe B. 2006). It is understandable that a degree of scepticism exists as to the relevance of talent identification and selection but this assumption is largely untested. Therefore this study namely comparison of serum creatinine values of elite athletes with their aerobic & anaerobic power can contribute to selection procedures in junior athletes at elite senior level as well as sketch of selecting, training, comparing, improving and knowing the status of both level athletes and determinants of success and be profiled later at senior level. The present study aims at analyzing and predicting the factors to success in sports among junior and senior players.

LIMITATIONS OF THE STUDY

Factors that could not be controlled in the study were as follows:

Environmental factors

Difference regarding subjects daily routine
 Training schedule. Non availability of sophisticated tools.

Hypotheses

There would be no significant relationship between creatinine and aerobic power.
 There would be no significant relationship between creatinine and anaerobic power.

Objectives

The result of the present study may contribute effectively to guide the users in the following ways:
 The physical educator and coaches will be able to utilize serum creatinine, aerobic power, anaerobic power, components for adequate training to enhance these important characteristics in the players.
 Results of this study will be helpful to select the best players for competitive team. On the basis of the results of their study coaches will be able to give the training according to the preference level of the players. The coaches and physical educators will be able to compare their team with other team. The players will be able to self evaluate themselves.

METHODOLOGY

To know the effect of serum creatinine on aerobic power and anaerobic power the study was conducted on 17 subjects. All were male players of National level & were under training in Madan Mohan Malviya stadium of age ranging from 16-20yr.

The vertical jump test known as the Sargent jump is conducted to measure anaerobic power. The difference in distance between the simple reach height and the jump height is recorded. Modified Harvard Step test was conducted on 17 male athletes and to monitor the efficiency of cardiovascular system by using 12 inches bench at the step of one every two second for 3 minutes. After completion of test pulse rate was counted for 15 second from carotid artery and then multiply by four to get aerobic power.

Serum creatinine is taken to know the relation with aerobic and anaerobic power. Serum creatinine of athlete was measure by Jeffers method.

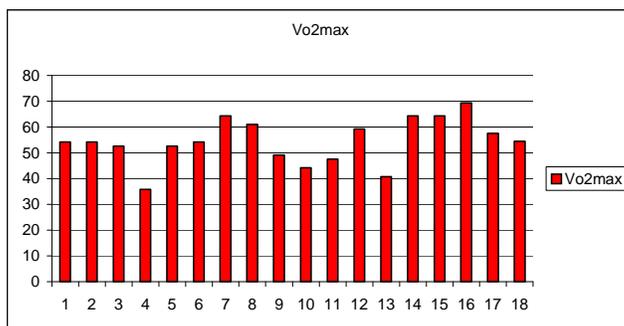
FINDINGS

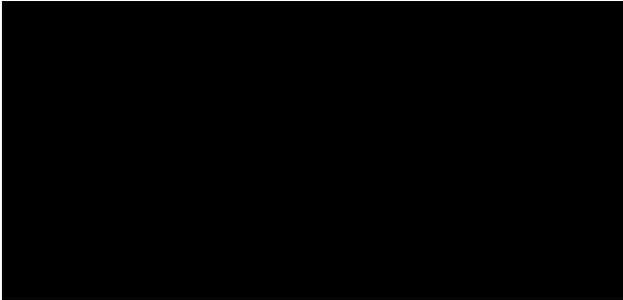
To know the relation of serum creatinine with aerobic power and anaerobic power study was conducted on 17 subjects.

Mean and standard deviation of aerobic and anaerobic power were given in following table:

Exercise	Mean	Standard Deviation
Anaerobic Power	106.29	±15.25
Aerobic Power	54.40	±9.06

Graph 1: Represent the Anaerobic Power of 17 Athletes and number 18 represent the mean value of 17 athletes:

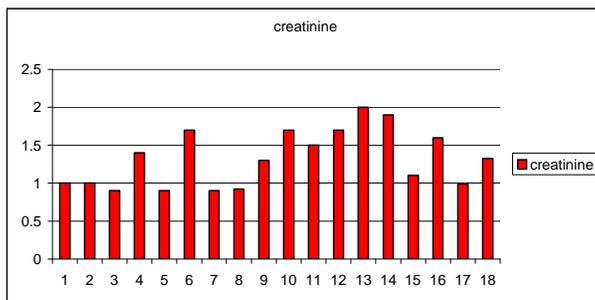




Graph 2: Represent the aerobic Power of 17 Athletes and number 18 represent the mean value of 17 athletes:

The Mean anaerobic power of male athlete of Madan Mohan Malviya Stadium(106.29) was much higher than Sargent Jump Ratings for Anaerobic Power (excellent>65) it is might be due to that most of athlete are thrower and engaged in short duration, high intensity exercise.The Mean aerobic power of male athlete of Madan Mohan Malviya Stadium(54.40) was much lower than Harvard Step Test rating for Aerobic Power (Poor<50) it is might be due to that most of athlete are thrower and engaged in short duration, high intensity exercise.

Graph 3: Represent the Creatinine of 17 Athletes and number 18 represent the mean value of 17 athletes:



Correlation of biochemical indices with aerobic and anaerobic power table 2:

	Aerobic Power	Anaerobic Power
Creatinine	-0.19	0.148

Discussion:

The above table and graph shows that there is no significant relation between Creatinine & Anaerobic power while there is no significant relation between Creatinine & Aerobic Power is may be due to fact that creatinine may improve the performance of short-duration, high-intensity activities such as weight lifting.

Conclusion:

Serum creatinine is taken to know the relation with aerobic and anaerobic power. Serum creatinine of athlete was measure by Jeffers method. The compilation of studies by **Williams et al (1998)** is suggestive that creatinine supplementation has little or no effect upon athletic performance under field conditions. Additionally, it is quite likely that creatinine supplementation may be less effective in elite or highly trained athletes.

References

Giuseppe B. and Massimo D. F. *Serum Creatinine Values in Elite Athletes competing in 8 Different Sports: Comparison with Sedentary People* Clinical Chemistry 2006; v. 52, p.330-331
 Giuseppe Lippi, Giorgio Brocco, Massimo Franchini³ Federico Schena² and Giancesare Guidi. *Comparison of serum creatinine, uric acid, albumin and glucose in male professional endurance athletes compared with healthy controls* Clin Chem Lab Med 2004;42(6):644–647 _ 2004

Levey AS, Coresh J, Greene T, Stevens LA, Zhang YL, Hendriksen S, Kusek JW, Van Lente F: Using standardized serum creatinine values in the modification of diet in renal disease study equation for estimating glomerular filtration rate. *Ann Intern Med* **145**: 247–254, 2006

Perrone RD, Madias NE, Levey AS: Serum creatinine as an index of renal function: New insights into old concepts. *Clin Chem* **38**: 1933–1953, 1992

ISSN 2231-3265

International Journal of Health, Physical Education and Computer Science in Sports

Volume No.15, No.2, pp64-66

Journal Impact Factor 0.624

Vegetarian and Non vegetarian diets are associated with healthy mood states in students 13,14years Gover, Hyderabad 2013.

Azizollah pourmahmoudi*, Zobaida Azeem**, Mohamad Malekzadeh***, Abdollah poursamad****.

*Faculty member Yasuj university medical of science and Ph.d, student in nutrition OU university ,

**Prof, in nutrition Osmania university (OU) Hyderabad India.

***Employee Yasuj university medical of science and Ph.d, student psychology

****Faculty member Yasuj university medical of science and Ph.d, student in health economic Mysore university.

Abstract:

A vegetarian is a person who does not eat meat (including fowl) or seafood, or products containing these foods. The eating patterns of vegetarians may vary considerably. The lacto-ovo vegetarian eating pattern is based on grains, vegetables, fruits, legumes, seeds, nuts, dairy products, and eggs.

This study compared the dietary and anthropometric profile of vegetarian and Omnivorous meals and female adolescents, between 13 and 14 years old. **Method:** The study was carried out in the year 2013-2014. Government schools in Hyderabad were stratified randomly sampling selected. The target population was adolescent girls and boys who studied in the selected government schools. A total of 470 (235 girls and 235 boys) Government in the age group of 13 years (117 boys and 117 girls), 14 years (118 boys and 118 girls) was selected schools. The selected adolescent girls and boys were briefed on the objectives of the study and all of them gave consent to take part in the study. **Finding:** It has been verified that 108 (23%) of the vegetarians, 49 (10.4%) OvoVeg and 313 (66.6%) of the omnivores however, according to finding in this study 65 (40.7%) of the vegetarians was and 64 (59.3%) was girls ($p \leq 0.03$). It was BMI-for-age 7 (6.5%) of the vegetarians less than -3 Z-score, 11 (10.2%) of the vegetarians less than $-3Z$ To $-2Z$ and 4 (4.3%) vegetarians was overweight, and was not vegetarians obese. In addition 20 (6.4%) omnivores was less than -3 Z-score, 39 (12.5%) omnivores were less than $-3Z$ To $-2Z$ and 14 (4.5%) overweight, and was not a vegetarian obese. **Discussion:** In the present study where rice has been the staple food, it could not provide the energy needs and other nutrient foods. This provides the ground for different levels of malnutrition in the consumers which is seen in the current study. The status has been the same in both vegetarians and omnivorous. It means that the staple food of both groups of students was rice and both of them had different levels of malnutrition. The continuation of this status would cause chronic malnutrition in the adolescent students who are in the second period of growth.

Introduction:

vegetarian is a person who does not eat meat (including fowl) or seafood, or products containing these foods. The eating patterns of vegetarians may vary considerably. The lacto-ovo vegetarian eating pattern is based on grains, vegetables, fruits, legumes, seeds, nuts, dairy products, and eggs (1). During the past decades, increasing knowledge has emerged about the effects of vegetarian diet on nutritional status and physical health. Taken as a whole, studies have shown that vegetarians are in good physical health compared with national averages and as healthy as non vegetarians with a comparable background and lifestyle (2,3). This outcome can be explained by the more health conscious behaviors of vegetarians and by the fact that vegetarian diets are often healthy with the respect to such factors as fat composition (4) and fiber (5). In 2006, based on a nationwide poll, approximately 2.3% of the US adult population (4.9 million

people) consistently followed a vegetarian diet, stating that they never ate meat, fish, or poultry About 1.4% of the US adult population was vegan (6).In 2005, according to a nationwide poll, 3% of 8- to 18-year-old children and adolescents were vegetarian; close to 1% were vegan (7).

Vegetarians tend to have a lower body mass index (BMI) and lower overall cancer ratesVegetarians are predominant Female(8), are more likely to live in urban areas and to be single (9).A small but increasing number of people in Western countries are choosing to restrict meat for various reasons.While in countries such as India a high proportion (35%) of the population follows a vegetarian diet due to cultural and religious traditions (10),Rates in Western countries are much lower. However, a considerable minority of populations in Western countries do not consume meat. In a methodologically sound study (11)1.6% of respondents in a representative sample of 20.000 Germans reported being vegetarians (11). Estimates for US and UK samples are slightly higher (3%) (12,13).The body mass index(BMI) was calculated.The nutritional diagnostic criteria proposed by the World Health Organization (14) were used, which state that adolescents between the 5th and 85th percentile of BMI-for-age are at a normal weight, those who are below this cutoff value are thinness, those above the 85th percentile are at risk of overweight, and adolescents above this cutoff value and \$90th percentile for both triceps and subscapular skinfolds are obese (14).

Methods and materials:

The study was carried out in the year 2013-2014.Government schools in Hyderabad were randomly selected. The target population was adolescent girls and boys who studied in the selected government schools. A total of 470 (235girls and 235 boys) Government in the age group of 13 years (117boys and117girls), 14 years (118boys and 118girls) was selected schools.The selected adolescent girls and boys were briefed on the objectives of the study and all of them gave consent to take part in the study. The anthropometric measurements included height and body weight and calculated (BMI). **Finding:** It has been verified that 108 (23%) of the vegetarians, 49 (10.4%) OvoVeg and 313 (66.6%) of the omnivores however, according to finding in this study 65 (40.7%) of the vegetarians was and 64 (59.3%) was girls (p≤0. 03).It was BMI-for-age 7 (6.5%) of the vegetarians less than<-3 Z-score, 11 (10.2%) of the vegetarians less than -3Z To-2Z and 4 (4.3%) o vegetarians was overweight, and was not vegetarians obese.In addition 20 (6.4%) omnivores was less than<-3 Z-score, 39 (12.5%) omnivores were less than -3Z To-2Z and14 (4.5%) overweight, and was not a vegetarian obese table.It was Height-for-age 7 (6.5%) of the vegetarians less than<-3 Z-score, 12 (11.1%) of the vegetarians less than -3Z To-2Z and was not vegetarians more than normal height. In addition 5 (1.6%) omnivores was less than<-3 Z-score, 36 (8.3%) omnivores was less than -3Z To-2Z and 1 (0.3%) more than a normal height table.His popularity of vegetarianism has increased greatly over the regarding regular physical activity, the total time on physical exercise was by vegetarians107 (98.1%), ovovegetarins 48 (98%) and omnivorous309 (98.7%) (p≤0.03). In addition staple food by vegetarians, ovovegetarins and omnivorous, respectively; rice89 (82.4%), 44 (89.8%) and 273 (87.2%) the difference is not statistically significant.It has become evident that only 44.4% of the vegetarian and 31.8% of the omnivorous adolescents exercised with adequate frequency and duration of training. Besides, 57.1% of the vegetarians and all of the omnivores carried out moderate intensity activities.In addition, 33% of the vegetarians had very inadequate diets, even considering total proteins. As far as the omnivores are concerned, 28% had a very low intake of animal protein and only 6% of total proteins. It must be emphasized that a significantly higher percentage of vegetarians consumed very low amounts of total proteins (p≥ 0.05) and animal proteins (p≥ 0.0001) than omnivores.

Table1.Assessment of gender according to Type diet.

Gender Type diet	Boy	Girl	Total	Chi-square 7.3	
Vegetarian	65(40.7%)	64(59.3%)	108(100%)	df	Sig.(2- side)
OvoVeg	21(42.9%)	28(57.1%)	49(100%)	=2	=0.03
Omnivores	170(54.3%)	143(45.7%)	313(100%)		
Total	235(50%0	235(100%)	470(100%)		

Discussion:

In this study, the type of food and staple food diet in the main meals (lunch and dinner) in the adolescent students were considered as one of the objectives. The findings showed that students were categorized into two groups of vegetarians and omnivorous. At the same time, the most important part of food intake was rice, which was taken in large scale on a daily basis (information is in is the table 4-12). Evaluation of the relationship of food diet with anthropometric indexes (body mass index, height for age index) is shown in the table 4-. There is a significant relationship between the nutrition status and the type of diet (0.000). These findings confirm the fact that intake of all food groups and the type of diet have an important relevance to the health and growth in the age and gender groups. In the present study where rice has been the staple food, it could not provide the energy needs and other nutrient foods. This provides the ground for different levels of malnutrition in the consumers which is seen in the current study. The status has been the same in both vegetarians and omnivorous .It means that the staple food of both groups of students was rice and both of them had different levels of malnutrition. The continuation of this status would cause chronic malnutrition in the adolescent students who are in the second period of growth. This causes negative consequences. It also is a threat to the adult and fertile years (especially in the girls). The macro policies of nutrition and health should be performed by the planners and the chief managers of health sectors and the policy makers in the government. They include the plans such as supporting consumers regarding food security and environmental hygiene in order to decrease chronic nutrition and prevent nutrition issues in the age groups.

References:

- Types and Diversity of Vegetarian Nutrition.American Dietetic Association Evidence Analysis Library Web site. http://www.adaevidencelibrary.com/topic.cfm?cat_3897. Accessed March 17, 2009.
- Craig WJ: Nutrition Concerns and Health Effects of Vegetarian Diets. *NutrClin Pract* 2010, 25:613–620.
- Key TJ, Appleby PN, Rosell MS: Health effects of vegetarian and vegandiets. *Proc Nutr Soc* 2006, 65:35
- Key TJ, Davey G: Prevalence of obesity is low in people who do not eatmeat. *BMJ* 1996, 31:816–817.
- Farmer B, Larson BT, Fulgoni VL 3rd, Rainville AJ, Liepa GU: A vegetariandietary pattern as a nutrient-dense approach to weight management: ananalysis of the national health and nutrition examination survey 1999–2004. *J Am Diet Assoc* 2011, 111:819–827.
- Stahler C. How many adults are vegetarian?The Vegetarian Resource GroupWebsite.<http://www.vrg.org/journal/vj2006issue4/vj2006issue4poll.htm>. Posted December 20,2006. Accessed January 20, 2009.
- Stahler C. How many youth are vegetarian?The Vegetarian Resource Group Web site. <http://www.vrg.org/journal/vj2005issue4/vj2005issue4youth.htm>. Posted October 7,2005. Accessed January 20, 2009.
- .Position of the American Dietetic Association:Vegetarian DietsAuthors: Winston J. Craig,; Ann Reed Mangels, RD, LDN, FADA.Journal of the american dietetic association © 2009 by the American Dietetic Association p:1266-1282
- Larsson CL, Klock KS, Nordrehaug Astrom A, Haugejorden O, Johansson G:Lifestyle-related characteristics of young low-meat consumers and omnivores in Sweden and Norway. *J Adolesc Health* 2002, 31:190–198.
- Refsum M, Yajnik CS, Gadkari M, Schneede J, Vollset SE, Örnning L,Guttormsen AB, Joglekar A, Sayyad MG, Ulvik A, Ueland PM:Hyperhomocysteinemia and elevated methylmalonic acid indicate a high prevalence of cobalamin deficiency in Asian Indians. *Am J Clin Nutr* 2001, 74:233–241.
- Max Rubner Institut (Hrsg.): Nationale Verzehrsstudie II. Karlsruhe. 2008 http://www.was-esseich.de/uploads/media/NVS_II_Ergebnisbericht_Teil_1.pdf.12. UK Food Standards Agency: Public attitudes to Food Survey 2009. 2009 ,<http://www.foodgov.co.uk>.13. Vegetarian Times: “Vegetarianism in America” study. 2009. Available from:<http://www.vegetariantimes.com>.14- World Health Organization. Physical status: the use and interpretation of anthropometry. Geneva, WHO (World Health Organization. Technical Report Series, 854), 1995;263–311.

Comparative Study On Vital Capacity Of Selected District High School Kabaddi Players Of Karnataka State

Mr. Chidanand Prabhuling
Ph.D Research Scholar, University College of Physical Education, Gulbarga University, Gulbarga.
Dr. N.G. Kannur
Chairman, P.G in Physical Education, University College of Physical Education, Gulbarga University

Introduction

Vital capacity is closely related with motor qualities especially endurance. Endurance is one of the elements of physical fitness and it is determined first and foremost by the functional efficiency of the cardiovascular metabolic and nervous systems as well as the level of co-orientation of the activities of the systems of the body. Vital capacity is very essential in the games like Kabaddi where the players have to perform with endurance and strength endurance capacity for a longer period with breathing mechanism. The players of such games need to have larger lung volume to supply sufficient amount of oxygen to working muscle groups for effective performance. Keeping these aspects ahead the present study aims to find out the vital capacity among the high school Kabaddi players of six selected districts of Hyderabad Karnataka region, Karnataka State. The researcher ventured to undertake this study as there was little evidence of studies made to show the vital capacity of high school Kabaddi players of Hyderabad Karnataka region.

Significance of Vital Capacity

Vital capacity is especially important during intense physical activity such as exercise, sport, rigorous work or running away from a dangerous situation. Such demands require more air and oxygen in the lungs to fuel body organs, especially those of the musculoskeletal, cardiovascular, respiratory and nervous systems. If you are unfit and overweight, you will not have the lung capacity to increase the volume of air you inhale and exhale beyond normal breathing. You will become out of breath and be unable to perform many activities more difficult than sitting or lying down. Participating in sports you enjoy, such as Kabaddi can be a win-win situation. It helps you to get in shape without you really realizing how hard you're working because you're having fun. Playing Kabaddi can condition your body and strengthen your cardiovascular system. But while exercise has many far-reaching benefits, expanding your lung capacity can't be achieved through working out.

Statement of the Problem

The problem formulated for the present study is "Study on vital capacity of selected district high school Kabaddi players of Karnataka State".

Purpose of the Study

The major purpose of this research is "Study on Vital Capacity and Body Mass Index of selected District High School Kabaddi players of Karnataka State". The study is conducted on selected districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka State which comprises of six districts like Gulbarga, Bidar, Yadgir, Raichur, Koppal and Bellary.

The study aims to find out the vital capacity level among the high school Kabaddi players. The study also makes the comparisons on vital capacity among the six districts high school Kabaddi players.

Further present study attempts to make the suggestions and recommendations to the Department of Public Instructions and Department of Youth Empowerment and Sports, Karnataka for developing the vital capacity level through scientific method of training among Kabaddi and of Hyderabad Karnataka region, Karnataka State. Further the study makes recommendations and gives suggestions to improve the

basic infrastructure facilities at high school level for the promotion and development of Kabaddi game in selected six districts of Hyderabad Karnataka region, Karnataka State.

Objectives of the Study

To find out the vital capacity level among selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka State. To compare the vital capacity level and body mass index among six districts high school Kabaddi players with standard norms to find out in which category they will fall in. To compare and analyze the vital capacity level among selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka State. To make suggestions and recommendations to the Department of Public Instructions and Department of Youth Empowerment and Sports, Karnataka for developing the vital capacity level through scientific method of training among Kabaddi players of Hyderabad Karnataka region, Karnataka State. To make further recommendations and suggestions to improve the basic infrastructure facilities at high school level for the promotion and development of Kabaddi game in selected six districts of Hyderabad Karnataka region, Karnataka State.

Methodology

The methodological aspects related to the present investigation have been described. The procedure and methods applied in selection of subjects and sample design, selection of variables, selection of tests, instrument reliability, reliability of data, orientation of the subjects, collection of data, test administration, experimental design and statistical technique are present in this chapter.

Selection of Subjects and Sample Design

The purpose of the study was to find out the vital capacity level among six districts high school Kabaddi players of Hyderabad Karnataka region. To achieve the purpose of study total 300 subjects ranging 14-16 years of age were selected at randomly. The sample design is presented in the following table,

Sample Design

Game	Total Subjects
Kabaddi	300

Selection of variables

The researcher had gone through the available literature and had discussions with various experts and with his guide before selecting variables. The availability of technique for the purpose of analysis, feasibility, reliability of the procedure and the outcome were extensively taken care before finalizing the variables. After analysing the various factors associated with the present study, criterion variables vital capacity is selected.

Criterion Variables

Each sport demands specific requirement of endurance capacity for successful performance, the importance of endurance capacity lies in the fact that in majority of the sports, it scores as the basis for good endurance. The vital capacity is selected.

Selection of Tests

To measure the selected variables the respective tests are administered and represented in the table 1.

**Table 1
Variables and Tests**

S. N	Variables	Test
1.	Vital Capacity	Forced Vital Capacity (FVC)

Instrument Reliability

In the present study standard equipment such as digital spirometer which is available in the physiology laboratory, Department of Physical Education, Gulbarga University, Gulbarga are used.

Reliability of the Data

Test and retest method was followed in order to establish reliability of data by using 50 subjects at random. These ten subjects were tested twice by the same person under similar conditions. Johnson and Nelson’s intra-class co-efficient of correlation was used to find out the reliability of the data as suggested.

Orientation of the Subjects

The investigator explained the purpose of the study and the importance of the tests to the subjects in order to get their co-operation as well as to secure reliable data.

Collection of Data

The data on vital capacity were collected by administering digital spirometer. The above said data were collected during the district high school Kabaddi matches in the Hyderabad Karnataka region.

Test Administration

The investigator has done pilot approach to the places of various districts of Hyderabad Karnataka region of Karnataka state where the district high school Kabaddi tournaments were organized. The investigator has collected the data related to present study in the following methods,

Vital Capacity

Purpose

To assess the vital capacity. **Equipment used** :Digital Spirometer.

Procedure

Prepare the players for the Spirometry test. Remember, this is a player’s effort dependent test. First explain the procedure to the players, and then demonstrate the procedure to the players. Instruct the players to place the mouthpiece on top of their tongue, with their teeth and lips around the mouthpiece. Seal the outer part of the mouthpiece with their lips. Let the players get used to the feeling of breathing with the mouthpiece in their mouth to realize there is no resistance.

When the players are ready, instruct the players to hold the handle close to their cheek, not in front of their mouth. Be sure that the players are not breathing through the mouthpiece when you start the test.

Click on Start New Test - wait for the zeroing process – DO NOT ALLOW AIRFLOW TO PASS THROUGH THE MOUTHPIECE DURING THIS PROCESS. Wait for the Spirometry incentive display.

When “Start When Ready” appears, instruct the players to take a full inspiration and to then place the mouthpiece in their mouth. Instruct the players to Blast out the air; try to achieve 80% in the first second.

Encourage the players with verbal and body language to blast out fast and blast out long (try for 6 seconds). Coach them to Squeeze out the air until “Inhale Now” appears or a volume-time curve plateau is achieved. If a flow volume loop is required, the players must keep the mouthpiece in their mouth, and inhale deeply at the end of the expiration. Click the Stop button or press the ENTER key to conclude the test. Accept or Reject the test based on the player’s effort. Click on Yes to start another test, No to stop. Repeat steps 3 and 4 until the appropriate number of tests has been performed. Try to obtain 3 accepted tests for the players. Click the Save Review button to save the test session and display the review screen. Use the review screen to review, edit the interpretation, print the results, and/or to initiate a Post-BD test.

ScoringThe best of the three trials was recorded as the test score.

Cooper Normative data for VO2max (Vital Capacity)

The VO2 max assessment is based on the Cooper VO2 max tables and comprises of the following grades: Very Poor, Poor, Fair, Good, Excellent and Superior.

Male (values in ml/kg/min)

Age	Very Poor	Poor	Fair	Good	Excellent	Superior
13-19	<35.0	35.0-38.3	38.4 - 45.1	45.2 - 50.9	51.0-55.9	>55.9
20-29	<33.0	33.0-36.4	36.5 - 42.4	42.5 - 46.4	46.5- 52.4	>52.4
30-39	<31.5	31.5-35.4	35.5 - 40.9	41.0 - 44.9	45.0- 49.4	>49.4
40-49	<30.2	30.2-33.5	33.6 - 38.9	39.0 - 43.7	43.8- 48.0	>48.0
50-59	<26.1	26.1-30.9	31.0 - 35.7	35.8 - 40.9	41.0- 45.3	>45.3
60+	<20.5	20.5-26.0	26.1 - 32.2	32.3 - 36.4	36.5- 44.2	>44.2

Statistical Techniques

Descriptive, Paired t-test and One way-ANNOVA statistical techniques were used to analyze and interpret the data.

Analysis Of Data And Interpretation

The analysis of data and interpretation is done based on the statistical results and findings of the present study. Further the levels and comparisons on the variables like vital capacity and body mass index (BMI) of selected six districts high school Kabaddi and Kabaddi players of Hyderabad Karnataka region, Karnataka state were discussed as per the findings of the study in the following steps,The vital capacity level among

selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka state. The comparisons (paired t-test) on vital capacity level among selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka state. The analysis of variance (One way ANNOVA) on vital capacity level among selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka state.

Findings and Discussions of Results

The vital capacity level among selected six districts high school Kabaddi and Kabaddi players of Hyderabad Karnataka region, Karnataka state.

a) It can be seen from the table that the values of Gulbarga (44.36), Bellary (43.67), Raichur (43.76) and Yadgir (40.50), Bidar (40.91) and Koppal (38.93) districts Kabaddi players fall under 'Fair' category according to standard norms of Cooper normative data for VO₂ max. Thus, it can be concluded that average values of six districts high school Kabaddi players is 42.02 which fall under 'Fair' category according to standard norms of Cooper normative data for VO₂ max. In other words the above six districts high school Kabaddi players have efficiency to perform under fatigue conditions in Kabaddi game.

The comparisons (paired t-test) on vital capacity level among selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka state.

a) Pair 1, Pair 2, Pair 3, Pair 4 and Pair 5:

- It can be seen from the table that the value t-statistic .830 and .802 of paired samples test between the of Gulbarga & Bellary and Gulbarga & Raichur district high school Kabaddi players respectively. The t-value is not significant as the p-values (.411 and .426) are higher than 0.05. Thus, it can be concluded that average vital capacity of Gulbarga (44.36) Bellary (43.67) and Raichur (43.76) district high school Kabaddi players are almost similar. In other words there is no significant difference between vital capacity of Gulbarga, Bellary and Raichur district high school Kabaddi players.
- It can be seen from the table that the value t-statistics 5.17, 4.36 and 7.00 of paired samples test between the Gulbarga & Yadgir, Gulbarga & Bidar and Gulbarga & Koppal respectively. The t-values are significant as the p-values (.000) are lesser than 0.05. Thus, it can be concluded that average vital capacity of Gulbarga (44.36), Yadgir (40.50), Bidar (40.91) and Koppal (38.93) district high school Kabaddi players is not similar. In other words there is significant difference on vital capacity between above said district high school Kabaddi players.

b) Pair 6, Pair 7, Pair 8 and Pair 9:

- It can be seen from the table that the value t-statistic .142 of paired samples test between the of Bellary & Raichur district high school Kabaddi players respectively. The t-value is not significant as the p-value (.887) is higher than 0.05. Thus, it can be concluded that average vital capacity of Bellary (43.67) and Raichur (43.76) district high school Kabaddi players are almost similar. In other words there is no significant difference between vital capacity of Bellary and Raichur district high school Kabaddi players.
- It can be seen from the table that the value t-statistics 3.74, 3.58 and 9.24 of paired samples test between the Bellary & Yadgir, Bellary & Bidar and Bellary & Koppal respectively. The t-values are significant as the p-value (.000) is lesser than 0.05. Thus, it can be concluded that average vital capacity of Bellary (43.67), Raichur (43.76), Yadgir (40.50), Bidar (40.91) and Koppal (38.93) district high school Kabaddi players is not similar. In other words there is significant difference on vital capacity between above said district high school Kabaddi players.

c) Pair 10, Pair 11 and Pair 12:

- It can be seen from the table that the value t-statistics 4.28, 3.48 and 10.33 of paired samples test between the Raichur & Yadgir, Raichur & Bidar and Raichur & Koppal respectively. The t-values are significant as the p-value (.000) is lesser than 0.05. Thus, it can be concluded that average vital capacity of Raichur (43.76), Yadgir (40.50), Bidar (40.91) and Koppal (38.93) district high school Kabaddi players is not similar. In other words there is significant difference on vital capacity between above said district high school Kabaddi players.

d) Pair 13 and Pair 14:

- It can be seen from the table that the value t-statistic .567 and 1.980 of paired samples test between the of Yadgir & Bidar and Yadgir & Koppal district high school Kabaddi players respectively. The t-values are not significant as the p-values (.573 and .053) are higher than 0.05.

Thus, it can be concluded that average vital capacity of Yadgir (40.50) Bidar (40.91) and Koppal (38.93) district high school Kabaddi players are almost similar. In other words there is no significant difference between vital capacity of Yadgir, Bidar and Koppal district high school Kabaddi players.

e) Pair 15:

- It can be seen from the table that the value t-statistic 2.693 of paired samples test between the Bidar and Koppal. The t-value is significant as the p-value (.010) is lesser than 0.05. Thus, it can be concluded that average vital capacity of Bidar (40.91) and Koppal (38.93) district high school Kabaddi players is not similar. In other words there is significant difference between vital capacity of Bidar and Koppal district Kabaddi players.

3.1.2 The analysis of variance (One way ANNOVA) on vital capacity level among selected six districts high school Kabaddi players of Hyderabad Karnataka region, Karnataka state.

Table.No.1

ONE WAY ANOVA					
VITAL CAPACITY OF KABADDI PLAYERS					
Groups	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1213.782	5	242.756	18.70	.000
Within Groups	3815.623	294	12.978		
Total	5029.405	299			

Significant at 0.05 level

The F-value (18.70) in TableNo.1 is significant as its p-value (.000) is less than 0.05. Thus, it can be concluded that there is a significant difference between and within groups on vital capacity among six districts high school Kabaddi players.

Conclusions

The Gulbarga, Bellary, Raichur and Yadgir, Bidar and Koppal districts Kabaddi players fall under 'Fair' category according to standard norms of cooper normative data for VO2 max. Thus, it can be concluded that average values of six districts high school Kabaddi players is 42.02 which fall under 'Fair' category according to standard norms of cooper normative data for VO2 max. In other words the above six districts high school Kabaddi players have efficiency to perform under fatigue conditions in Kabaddi game. There is no significant difference between vital capacity of Gulbarga & Bellary and Gulbarga & Raichur district Kabaddi players. There is a significant difference on vital capacity between Gulbarga, Yadgir, Bidar and Koppal district high school Kabaddi players. There is no significant difference between vital capacity of Bellary and Raichur district high school Kabaddi players. There is a significant difference on vital capacity between Bellary, Yadgir, Bidar, Koppal district high school Kabaddi players. There is a significant difference on vital capacity between Raichur, Yadgir, Bidar and Koppal district high school Kabaddi players. There is no significant difference on vital capacity between Yadgir & Bidar and Yadgir & Koppal district high school Kabaddi players. There is significant difference between vital capacity of Bidar and Koppal district Kabaddi players.

Recommendations

It is recommended that based on the study results coaches and trainers can prepare scientific training to various high school Kabaddi players for better performance. The data and results can be used by concerned public instruction departments of Hyderabad Karnataka region for the improvement of performances in the respective games. The study helps to prepare physiological profile of each high school Kabaddi players of Hyderabad Karnataka region which will be utilized for future training and coaching purpose.

REFERENCE

1. Dreyer G (1921), The assessment of physical fitness by correlations of vital capacity and certain measurement of the body New your. Paul B. Hoeber.
2. Jain, S.K. and C.K. Gupta (1867), "Age Height and Body Weight as determinants of Ventilatory "Norms" in healthy men above thirty years of Age: Indian Journal of Medical Research Vol. 55.
3. Lemam, Willis S. and Herman J. Monersch (1956). "Factors Influencing Vital Capacity is normal men our forty Journal of Applied Physiology, Vol. 9.
4. Nag. Chattergi, S. and Day S.K (1988). "Spirometric Standards for Smokers and Non-smokers of Indian "Japanese journal of physiology" Vol. 38.
5. Scaffidi, K.J., 2004. "Lung Capacity: Is There a Difference in Athletes and Non-Athletes" California State Science Fair Abstract [accessed August 15, 2006]

6. Abishek Singh (2014), A Comparison of the Selected Physiological Variables Among Handball, Volleyball and Hockey Players, Indian Streams Research Journal, Vol. IV, Issue IV pp 1-4.
7. Archana Chahal et.al, (2012), Predicting Excellence in Basketball: Anthropometric and Physiological Attributes in Elite Indian Female Players, International Quarterly of Sport Science.

ISSN 2231-3265

International Journal of Health, Physical Education and Computer Science in Sports

Volume No.15, No.2,pp72

Journal Impact Factor 0.624

Sports Medicine - Influence On The Performance Of Indian Sports

Mirza Raza Ali Baig Research Scholar, Osmania University,
Prof.V.Satyanarayana, Director, Dept of Physical Education Osmania University,

Introduction:

Sports mean recreational and competitive activity which involves a degree of physical exertion which requires skills in the playing of an object for scoring. Sports medicine deals with Anatomical, Physiological, Biochemical and Psychological, effects of exercises on the sports person and also includes the prevention and treatment of sports related injuries. International Federation of sports medicine was founded in Rome in 1928, and very soon various European and American Countries adopted the specialties to improve their performance of sports in their respective countries. But unfortunately, the subject of sports medicine did not see the light of the day in India till the year 1972 with the formation of Indian Association of sports medicine at Patiala as a member nation. Nearly 86 countries mostly European and American have developed sports medicine as professional subject and they are serving their countrymen from school age to adulthood through various physical education, exercises, sports and games. It is pertinent to note that in those countries sports medicine has developed to such an extent that every team when participating in any International meet in any event on athletes sports and game, whether for boys and girls or men and women a positive role with responsibility is played by sports medicine doctors along with the coaches and team managers. But unfortunately the picture in India in general is completely different and disappointing. This is due to various reasons including non availability of sports medicine oriented physicians and personnel. Only a handful of trained persons in sports medicine are working in their individual capacity but not in an organized way to promote the sports and games in our country. It is heartening to declare that with the formation of SPORTS AUTHORITY OF INDIA the situation has improved to some extent in our country. With its Headquarters at New Delhi and various regional centers at Patiala, Kolkata, Bangalore, etc. These centres are trying to develop sports in our country in a scientific way. These centers are equipped with sophisticated gadgets and modern equipments and trained personnel to identify train and assess the performance of sportsmen and women and render treatment to the injured and to rehabilitate the injured player back to their game, but unfortunately we have not been able to disseminate the knowledge and facilities to the grass-root level i.e. in the villages and peripheral areas from where most of the talents are likely to be identified nurtured. Coming to the Indian scenario of sports and games we see that the two categories of sports and games viz team games and individual games, the performance of team games in recent years is far from satisfactory and leaves much to be desired where as in the individual games the performance of Indian participants in comparison to those of other countries is far better. We see that Indians brought laurels to their motherland. We have many stars of Indian origin of whom we can be justly proud of like Karnam Malleshwari (Weight lifter), Mr. Vishwanath Anand (Chess), and Pullela Gopichand (Badminton). In the team games also we have seen that the individual performance of V.V.S.Laxman, Harbhajan Singh, Virender Sehwag, Mohammed Kaif, Zaheer Khan by world cup winning in the game of cricket against Australia, England, Sri Lanka which happens to be the top most teams in the world. But as and when performance is poor every citizen complains about all the coaches, Administrator and Sports organizer including the Government of India.

Conclusion

Hence we see that there is a great need of paying ample attention towards sports medicine so that not only physical education teachers, coaches, and sports administrator realize the importance and benefits of sports medicine but also the athletes should reap the fruits of sports medicine and make themselves familiar with

its beneficial consequences. If the sports fraternity religiously follow sports medicine the problem of failure in individual and team events will be over once and for all.

References

Bengt O Eriksson
Sports medicine health and medication. A complete self help-guide. Pg.No.16
Webster sport Dictionary 1978 page no.414f

ISSN 2231-3265

International Journal of Health, Physical Education and Computer Science in Sports
Volume No.15, No.2,pp73-76
Journal Impact Factor 0.624

Effects Of Yoga Circuit Training And Combined Training On Albumin, Sodium, And Potassium Among Mild I.C People

Dr.R.Venkatesan

Head of the Department i/c, Department of Exercise Physiology and Biomechanics, Tamil Nadu
Physical Education and Sports University, Chennai-600127.

Abstract: The purpose of study was to find out the effects of yoga, circuit training and combined training on selected metabolic and lipid profile status among mild intellectually challenged persons. **Selection Of Subjects:** To achieve the purpose of this study, the researcher randomly selected sixty (N=60) Mild Intellectually Challenged People from AGAPE and Deebam special schools in Chennai and Their age group ranged between 18 and 30. **Selection of Variables:** Glucose, Calcium, Total Protein, Albumin, Sodium, and Potassium. **Experimental Design:** The subjects (N=60) were randomly assigned to four equal groups of 15 Mild Intellectually Challenged People in each. The groups were designed as Experimental Group I Yogic Practices Group, Experimental Group II Circuit Training Group and Experimental Group III Combined Training (combination of yoga and circuit training) and Group IV was Control Group. Pretest was conducted for all the sixty subjects on Selected Metabolic and Lipid Profile Variables. The Experimental Groups participated in the respective training for a period of twelve weeks. The post test was conducted on the above said dependent variables after a period of twelve weeks for all the four groups. **Statistical Techniques:** Analysis of Covariance's statistical techniques was used, to test the significant difference among the treatment groups. If the adjusted post-test results were significant, the scheffe's post hoc test was used to determine the paired mean significant. **Conclusion:** It was concluded that the Metabolic Profile such as Glucose, Calcium, Potassium, Albumin, Total Protein were significantly decreased and there were significant improvement on the Metabolic Profile such as Sodium, Creatinine due to the influence of Yoga, Circuit Training and Combined Training among Mild intellectually Challenged Persons than the Control Group. Yoga is an art and science of living, and is concerned with the evolution of mind and body. Therefore, yoga incorporates a system of discipline or furthering an integrated development of all aspect of the individual.

Mild I.C people: Mental retardation (MR), learning disability or intellectually challenged is a common disorder among the children, characterized by significantly impaired cognitive functioning and deficits in two or more adaptive behaviors. It has been historically defined as an intelligence quotient score under 70. Once focused almost entirely on cognition, the definition now includes both a component relating to mental functioning and one relating to individual's functional skills in their environment.

PURPOSE: The purpose of study was to find out the effects of yoga, circuit training and combined training on Glucose, Calcium, Total Protein, Albumin, Sodium, and Potassium among mild I.C people.

SELECTION OF VARIABLES: Albumin, Sodium, total protein and Potassium

SELECTION OF SUBJECTS: To achieve the purpose of this study, the researcher randomly selected sixty (N=60) Mild Intellectually Challenged People from AGAPE and Deebam special schools in Chennai and Their age group ranged between 18 and 30.

EXPERIMENTAL DESIGN: The study was formulated as a true random group design consisting of a pre test and post test. The subjects (N=60) were randomly assigned to four equal groups of 15 Mild Intellectually Challenged People in each. The groups were designed as Experimental Group I Yogic

Practices Group, Experimental Group II Circuit Training Group and Experimental Group III Combined Training (combination of yoga and circuit training) and Group IV was Control Group. Pretest was conducted for all the sixty subjects on Selected Metabolic and Lipid Profile Variables. The Experimental Groups participated in the respective training for a period of twelve weeks. The post test was conducted on the above said dependent variables after a period of twelve weeks for all the four groups.

STATISTICAL TECHNIQUES: Analysis of Covariance's statistical techniques was used, to test the significant difference among the treatment groups. If the adjusted post-test results were significant, the scheffe's post hoc test was used to determine the paired mean significant. **Thirumalaisamy R. (1995)**

COMPUTATION OF ANALYSIS OF COVARIANCE OF ALBUMIN

The following tables illustrated the statistical results to the Effects of Yoga, Circuit Training and Combined Training on Glucose of Mild Intellectually Challenged people and ordered adjusted means the groups under study.

TABLE- III-COMPUTATION OF ANALYSIS OF COVARIANCE OF ALBUMIN

Means	Exp.G-I	Exp.G-II	Exp.G-III	Con.G	S.V	S.S	D.f	M.S	F
Pre Test Mean	5.19	5.18	5.18	5.22	B	0.03	3	0.08	0.06
					W	6.93	56	0.13	
Post Test Mean	4.57	4.56	4.3	5.23	B	7.05	3	2.35	30.57*
					W	4.29	56	0.08	
Adjusted Post Test	4.56	4.57	4.31	5.22	B	6.69	3	2.23	43.37*
					W	2.83	55	0.06	

TABLE- III (a) - COMPUTATION OF SCHEFFE'S POST HOC TEST ORDERED ADJUSTED FINAL MEAN DIFFERENCE OF ALBUMIN (Scores in gm/dl)

Control Group	Exp Group -I	ExpGroup -II	Exp Group -III	M.D	C.I
5.21	4.56	-	-	0.65	0.24
5.21	-	4.57	-	0.64	0.24
5.21	-	-	4.31	0.91	0.24
-	4.56	4.57	-	0.01	0.24
-	4.56	-	4.31	0.25	0.24
-	-	4.57	4.31	0.27	0.24

Discussion On The Findings Of Albumin

From these analyses, it is found that the results obtained from the Experimental Groups had significant decrease in the Albumin level from the higher level to moderate or normal level, when compared with the one from the Control Group. This is due to the influence of Yoga, Circuit Training and Combined Training in the analysis of Experimental Groups.

It is interesting to note that the results obtained from Experimental Group III had more significant effect than Experimental Group I and II on the decreased level of Albumin. Further, the results obtained from Experimental Group II had significant influenced on Albumin than the Experimental Group I and Control Group.

These results are found to be in a good agreement with the earlier works done by different researchers. **Clark and Bannon.(2005)**determined that the Serum Albumin in Down syndrome with and without Alzheimer's disease. He has concluded that serum albumin significantly decreases.

TABLE- V-COMPUTATION OF ANALYSIS OF COVARIANCE OF SODIUM

Means	Exp.G-I	Exp.G-II	Exp.G-III	Con.G	S.V	S.S	D.f	M.S	F
Pre Test Mean	140.27	140.6	140.2	140.14	B	1.94	3	0.65	0.09
					W	388.67	56	6.95	
Post Test	145.07	148	150.07	140.8	B	726.72	3	242.24	14.58*

					W	930.27	56	16.62	
Adjusted Post Test	145.09	147.82	150.13	140.91	B	706.90	3	235.63	16.49*
					W	785.82	55	14.20	

TABLE- V (a) - COMPUTATION OF SCHEFFE'S POST HOC TEST ORDERED ADJUSTED FINAL MEAN DIFFERENCE OF SODIUM (Scores in mmol/L)

Control Group	Exp Group -I	Exp Group -II	Exp Group -III	M.D	C.I
140.90	145.09	-	-	4.19	3.94
140.90	-	147.82	-	6.92	3.94
140.90	-	-	150.13	9.23	3.94
-	145.09	147.82	-	2.73	3.94
-	145.09	-	150.13	5.04	3.94
-	-	147.82	150.13	2.31	3.94

Discussion On The Findings Of Sodium

From these analyses, it is found that the results obtained from the Experimental Groups had significant increases in the Sodium level from the lower level to moderate when compared with the one from the Control Group. This is due to the influence of Yoga, Circuit Training and Combined Training in the analysis of Experimental Groups.

It is interesting to note that the results obtained from Experimental Group III had more significant effect than Experimental Group I and II on the increases of level Sodium. Further, the results obtained from Experimental Group II had significant influenced on Glucose than the Experimental Group I and Control Group.

TABLE- VI- COMPUTATION OF ANALYSIS OF COVARIANCE OF POTASSIUM

Means	Exp.G-I	Exp.G-II	Exp.G-III	Con.G	S.V	S.S	D.f	M.S	F
Pre Test Mean	4.56	4.56	4.55	4.45	B	0.13	3	0.05	0.22
					W	10.49	56	0.19	
Post Test Mean	3.96	3.92	3.88	4.4	B	3.013	3	1.05	8.79*
					W	6.39	56	0.12	
Adjusted Post Test Mean	3.95	3.91	3.87	4.48	B	3.68	3	1.23	21.16*
					W	3.19	55	0.06	

TABLE- XVII (a) - COMPUTATION OF SCHEFFE'S POST HOC TEST ORDERED ADJUSTED FINAL MEAN DIFFERENCE OF POTASSIUM

Control Group	Exp Group -I	Exp Group -II	Exp Group -III	M.D	C.I
4.48	3.94	-	-	0.53	0.25
4.48	-	3.90	-	0.57	0.25
4.48	-	-	3.87	0.61	0.25
-	3.94	3.90	-	0.04	0.25
-	3.94	-	3.87	0.08	0.25
-	-	3.90	3.87	0.04	0.25

Discussion On The Findings Of Potassium

From these analyses, it is found that the results obtained from the Experimental Groups had significant decreases in the Potassium level from it higher level to moderate when compared with the one from the Control Group. This is due to the influence of Yoga, Circuit Training and Combined Training in the analysis of Experimental Groups. It is interesting to note that the results obtained from Experimental Group III had more significant effect than Experimental Group I and II on the decreases level of Potassium. Further, the results obtained from Experimental Group II had significant influenced on Potassium than the Experimental Group I and Control Group.

These results are found to be in a good agreement with the earlier works done by different researchers. **Medved, et. al, (2004)** evaluated the effects of intravenous N-acetylcysteine infusion on time to fatigue and potassium regulation during prolonged exercise.

Conclusions:

Within the limitation of this study, the following conclusions were drawn:

It was concluded that the Metabolic Profile such as Potassium, Albumin were significantly decreased and there were significant improvement on the Metabolic Profile such as Creatinine due to the influence of Yoga, Circuit Training and Combined Training among Mild intellectually Challenged Persons than the Control Group.

It was concluded that the Experimental Group III (Combined Training Group) showed greater significant decrease on the selected metabolic profile such as Albumin, Total Protein and there were significant improvement on such as Creatinine, Sodium than Yoga Training Group (Experimental Group I) and Circuit Training Group (Experimental Group II).

Effects Of Two Packages Of Complex Training On Kicking Ability Of Inter-Collegiate Soccer Players

Akhilesh Edathodi

Lecturer adhoc in Physical Education, NIT Calicut, Calicut673601,Kerala, India

Atul Meethal

Lecturer adhoc in Physical Education, NIT Calicut, Calicut673601,Kerala, India

Sumesh. D

Lecturer adhoc in Physical Education, NIT Calicut, Calicut673601,Kerala, India

Dr.A.M.Najeeb

Associate Professor & Head of Physical Education, NIT Calicut, Calicut 673601, Kerala,India

Abstract:

Forty five intercollegiate level male Football players were selected from different affiliated colleges of Bharathiar University. The selected subjects were randomly divided into three groups (15 in each group). Group I was considered as High Load Complex Training Group. Group II was considered as Contrast Load Complex Training Group. Group III was considered as Control Group which was not given any training. The dependant variable is kicking ability(right foot and left foot). The intensity for the high load complex training group was increased consistently. The intensity for the contrast load training group was increased and decreased alternatively. The training was given 5 days a week for 6 weeks. Pre-test was conducted for all the three groups before giving the training and post-test was conducted after 6 weeks of training. The statistical technique used was ANCOVA. The result of the study showed that high load complex training improved kicking ability(right foot and left foot) better than contrast load complex training after 6 weeks of training program among the male inter-collegiate foot ball players.

Keywords: High Load Complex Training, Contrast Load Complex Training and Football.

Introduction

Football is the most popular and exciting sport in the world. The game has evolved in terms of tactics and strategies, first articulated by Herbert Chapman, a continuous process of trying to bring the best out of the eleven players in the light of changing rules, players and playing conditions. The competition demands that this process be unflinchingly kept up. Fundamental to this skill speed and surprise. Managers and coaches have foresaw the variables involved in the game, plan for every second of actual play; players and coaches together have to prepare to exploit situations and initiate moves to clinch victory from seemingly impossible situations. According to Baechle and Earle, "complex training is a combination of high intensity resistance training followed by plyometrics". However, a somewhat more detailed definition is provided by Ebben who states: "Complex training alternates biomechanically similar high load weight training exercises with plyometric exercises, set for set in the same workout. An example of complex training would include performing a set of squats followed by a set of jump squats." As in the case of plyometric training, complex training appears to have its origins in Eastern Europe. Certainly this is the argument put forward by Chu: "Complex training was developed by the Europeans to blend the results of heavy weight training with what they call shock training and what we call plyometrics." Note that in some programmes, the plyometric or explosive drill precedes the strength exercise. Complex training activates and works the nervous system and fast twitch muscle fibers simultaneously. The strength exercise activates the fast twitch muscle fibers (responsible for explosive power). The plyometric movement stresses those muscle fibers that have been

activated by the strength training movement. During this activated state, the muscles have a tremendous ability to adapt. This form of intense training can teach slow twitch muscle fibers to perform like fast twitch fibers.

Methodology

Forty five intercollegiate level male Football players were selected from different affiliated colleges of Bharathiar University. The selected subjects were randomly divided into three groups (15 in each group). Group I was considered as High Load Complex Training Group. Group II was considered as Contrast Load Complex Training Group. Group III was considered as Control Group which was not given any training. The dependant variable is kicking ability(right foot and left foot). Kicking ability was measured by noting the kicking distance by right foot and left foot separately. Each training session started with light warm-up and ended with cool-down exercises. The intensity for the high load complex training group was increased consistently. The intensity for the contrast load training group was increased and decreased alternatively. The training was given 5 days a week for 6 weeks. The training schedule for group I and group II are:

Table 1

Group I - High load complex training group– Training schedule

Week	Weight training	Plyometric exercises	Set	Repetition	Intensity
	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	70%
	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	75%
	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	80%
	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	85%
	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	90%
	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	95%

*Rest was for 2 minutes in between sets and duration was for 45 minutes for each session.

Table 2

Group II - Contrast load complex training group – Training schedule

Week	Weight training	Plyometric exercises	Set	Repetition	Intensity
1.	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	75%

2.	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	65%
3.	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	80%
4.	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	70%
5.	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	85%
6.	Leg press, half squat, knee extension, leg curl, abdominal curl, heal raise	Bounds, box jump, Hurdle hopping, Single leg hop, depth jump, two leg hopping	3	6-8	75%

*Rest was for 2 minutes in between sets and duration was for 45 minutes for each session.

Pre-test was conducted for all the three groups before giving the training and post-test was conducted after 6 weeks of training. The statistical technique used was ANCOVA. When the study was significant, the scheffe's post hoc test was used to find out the paired mean difference.

Analysis Of Data And Results Of The Study

The level of significance to test-F-ratio obtained by the analysis of covariance was fixed at 0.05 level of confidence.

Table 3 : Analysis of co-variance on pre, post and adjusted means on kicking RIGHTFOOT

Test	High load complex training	Contrast load complex training	Control group	Source of variance	Sum of square	df	Mean square	F ratio
Pre- test	32.80	35.06	29.80	B/G	209.38	2	104.69	3.46*
				W/G	1271.73	42	30.28	
Post-test	36.20	38	30.66	B/G	438.18	2	219.09	7.84*
				W/G	1173.73	42	27.95	
Adjusted mean	35.97	35.65	33.25	B/G	59.41	2	29.71	22.01*
				W/G	.55.34	41	1.35	

* Significant level at 0.05 level

The adjusted post test means on High load complex training, Contrast load complex training and control group were 35.97,35.65and 33.25 respectively and the obtained F ratio of 22.01 was greater than the required F ratio of 3.21, which indicates that test was significant at 0.05 level of confidence for the degrees of freedom 2 and 42. The results of the study indicate that there was statistically significant difference in a kicking for right foot. Further, to determine which of the paired means had significant difference Scheffe's post hoc test was applied.

Table 3.1 : Scheffe's post hoc test for the difference between the adjusted post-test paired means of kicking for right foot

High load complex training	Contrast load complex training	Control group	Mean diff	Confidence interval
35.97	35.65	-----	0.32	1.07
35.97	-----	33.25	2.72	1.07
-----	35.65	33.25	2.4	1.07

*Significant level at 0.05 level

Table 3.1 indicates that the mean difference in kicking for right foot between High load complex training group and Contrast load complex training group is 0.32, it is higher than the confidence interval of 1.07 required for significance at 0.05 level. The mean difference in kicking for right foot between High load complex training and control group is 2.72, it is higher than the confidence interval of 1.07 required for significance at 0.05 level. The mean difference kicking for right foot between contrast load complex training and control group is 2.40, it is higher than the confidence interval of 1.07 required for significance at 0.05 level.

This clearly indicates that there is better improvement in the High load complex training group than the contrast load complex training group and control group. It may be concluded from the results of the study that 6 weeks of training increased kicking for right foot significantly for High load complex training group than the contrast load complex training group.

Table 4 : Analysis of co-variance on pre, post and adjusted means on kicking
LEFT FOOT

Test	High load complex training	Contrast load complex training	Control group	Source of variance	Sum of square	df	Mean square	F ratio
Pre- test	25.60	25.06	20.53	B/G	232.53	2	116.27	5.41*
				W/G	902.27	42	21.48	
Post-test	28.73	27.33	21.86	B/G	394.98	2	197.49	9.45*
				W/G	878	42	20.90	
Adjusted mean	26.94	26.05	24.95	B/G	24.39	2	12.20	12.26*
				W/G	40.78	41	0.99	

* Significant level at 0.05 level

The adjusted post test means on High load complex training, Contrast load complex training and control group were 26.94, 26.05 and 24.95 respectively and the obtained F ratio of 12.26 was greater than the required F ratio of 3.21, which indicates that test was significant at 0.05 level of confidence for the degrees of freedom 2 and 42. The results of the study indicate that there was statistically significant difference in a kicking for left foot. Further, to determine which of the paired means had significant difference Scheffe's post hoc test was applied.

Table 4.1: Scheffe's post hoc test for the difference between the adjusted post-test paired means of kicking for left foot

High load complex training	Contrast load complex training	Control group	Mean diff	Confidence interval
26.94	26.05	-----	0.89	0.91
26.94	-----	24.95	1.99	0.91
-----	26.05	24.95	1.1	0.91

* Significant level at 0.05 level

Table 4.1 indicates that the mean difference in kicking for left foot between High load complex training group and Contrast load complex training group is 0.89, it is lower than the confidence interval of 0.91 required for significance at 0.05 level. The mean difference in kicking for left foot between High load complex training and control group is 1.99, it is higher than the confidence interval of 0.91 required for significance at 0.05 level. The mean difference kicking for left foot between contrast load complex training and control group is 1.1, it is higher than the confidence interval of 0.91 required for significance at 0.05 level.

This clearly indicates that there is better improvement in the High load complex training group than the contrast load complex training group and control group. It may be concluded from the results of the study that 6 weeks of training increased kicking for left foot significantly for High load complex training group than the contrast load complex training group.

Discussion

Football is quite simply, the most popular sport in the world, a game where humanity comes alive with one goal. It inspires and enthuses millions of people all over the world. The Federation of International de Football Association (FIFA) is probably the single largest organization in the world. With the establishment of the Football Association in England in 1863, Football has evolved into fiercely competitive sport, requiring

the highest levels of physical fitness, technical skill, courage and endurance. Training is usually defined as a systematic process of repetitive progressive exercise or work, involving the learning process and acclimatization (David, D. 1987). The performance of a footballer is largely depended upon his or her physical fitness and technical skill. Kicking the ball is an important basic technical skill in football. Various fitness factors affect the kicking ability of a footballer like his core strength, quadriceps and hamstring strength, flexibility, balance, explosive power etc.

Complex training, one of the most advanced forms of sports training, integrates strength training, plyometrics, and sport-specific movement. It consists of an intense strength exercise followed by a plyometric exercise. According to Ebben and Watts: "High load weight training increases motor neuron excitability and reflex potentiation which may create optimum training conditions for subsequent plyometric exercise. Also, the fatigue associated with high load weight training may force more motor units to be recruited during the plyometric phase, possibly enhancing the training state." The results of the study reveals that there was a significant improvement in kicking ability(right foot and left foot) after the completion of 6 weeks of complex training program among the male inter-collegiate foot ball players as compared to the control group. Further the study revealed that the kicking ability(right foot and left foot) was better improvement by high load complex training programme than by contrast load complex training programme.

Conclusions

Based on the analysis and results of the study the following conclusions were drawn.

High load complex training and contrast load complex training improved kicking ability(right foot and left foot) after the six weeks of training program among the male inter-collegiate foot ball players.

Six weeks of high load complex training improved kicking ability(right foot and left foot) better than contrast load complex training among the male inter-collegiate foot ball players.

Six weeks of contrast load complex training improved kicking ability(right foot and left foot) better than control group among the male inter-collegiate foot ball players.

References

- Best, John W. (1972). Research in Education, New Delhi: Prentice Hall of India Pvt Ltd. Clarke H. Harrison and David H. Clarke (1972), Advanced Statistics with Application to Physical Education, London: Prentice Hall, Inc.
- Hardeman Singh (1991), Science of Sports Training, New Delhi: D.V.S. Publications. P.12. Johnson Perry and Donald Stobberg (1971), Conditioning, Englewood Cliffs, New Jersey: Prentice Hall Inc., P.67
- Johnson, Barry L. and Jack K. Nelson (1982), Practical Measurement for Evaluation in Physical Education, Burgers Publishing Company.
- Mathew D. K and Fox *et al.* (1980), The Physiological Basis of Physical Education and Athletics, Philadelphia: W. B. Brothers.
- Mitchell Laura and Barbara Dale (1980), Simple Movement, the Why and How of Exercise, London: London: John Murray, P. 199
- Hojjat, Shahla (2001) has conducted a study on the effects of two methods of plyometric and weight training on the kicking, explosive power and the speed of soccer players
- Calder, A.W., Chilibeck, P.D., Webber, C.E., & Sale, D.G. (1999). Comparison of whole and split weight training routines in young women. Canadian Journal of Applied Physiology, 19, 185-199.
- M DeBeliso (2005), A comparison of periodised and fixed repetition training protocol on strength in older adults

History of Action Sports in India: A study

Dr. Ch. Saidulu
Department of History, Osmania University, Hyderabad – 500 007
e-mail: sathvik1148@gmail.com

Abstract

This article explains about various historic action sports played in India. This article mainly concentrates and identifies about more popular and well known action sports that are existing in India. It tells about History of sports before independence and after independence of various sports and listed about the same. The history of sports in India dates back to the Vedic era. Physical culture in ancient India was fed by a powerful fuel--religious rites. There were some well-defined values like the *mantra* in the *Atharva-Veda*, saying, "Duty is in my right hand and the fruits of victory in my left". In terms of an ideal, these words hold the same sentiments as the traditional Olympic oath: ".....For the Honour of my Country and the Glory of Sport." The founders of the Olympic idea had India very much in mind when they were deciding on the various disciplines. There is a fascinating link between Greece and India which stretches back to 975 B.C. The zest for chariot-racing and wrestling was common to both the countries. With the flowering of Buddhism in the country, Indian sport reached the very peak of excellence. Gautam Buddha himself, is said to have been an ace at archery, chariot - racing, equitation and hammer - throwing. In *Villas Mani Manjri*, Tiruvedacharya describes many of these games in detail. In *Manas Olhas* (1135 AD.), Someshwar writes at length about *bharashram* (weight - lifting), *bharamanshram* (walking), both of which are established Olympic disciplines at present, and *Mall - Stambha*, a peculiar form of wrestling, wherein both contestants sit on the shoulders of their 'seconds', who stand in waist - deep water throughout the game. The renowned Chinese travellers Hieun Tsang and Fa Hien wrote of a plethora of sporting activities. Swimming, sword - fighting (fencing, as we know it today), running, wrestling and ball games were immensely popular among the students of Nalanda and Taxila.

Keywords: Indian Sports, Sports in India, History of Sports, Games, Athletics

Introduction:

In India, *dehvada* or the body-way is defined as "one of the ways to full realisation." In the day and age of the *Rig-Veda*, *Ramayana* and *Mahabharata* men of stature and circumstance were expected to be competent in chariot-racing, archery, horsemanship, military tactics, wrestling, weight-lifting, swimming and hunting. The *guru-shishya* (teacher-pupil) relationship has always been an integral part of Indian sport from time immemorial. Indian sport reached a peak of excellence when Buddhism held sway here. In *Villas Mani Majra*, Tiruvedacharya describes many fascinating games, namely, archery, equitation, hammer-throwing and chariot-racing. In *Manas Olhas* (1135 A.D.), Someshwar writes about *bhrashram* (weight-lifting), *bhramanshram* (walking) and also about *Mall-Stambha* (wrestling). It is more than likely that many of today's Olympic disciplines are sophisticated versions of the games of strength and speed that flourished in ancient India and Greece. Chess, wrestling, polo, archery and hockey (possibly a fall-out from polo) are some of the games believed to have originated in India.

There are a number of popular sports in India but cricket is the most popular. The country also has won eight Olympic gold medals in field hockey. India has hosted and co-hosted several international sporting events, including the 1951 and 1982 Asian Games, the 1987, 1996 and 2011 Cricket World Cup, the 2003

Afro-Asian Games, the 2010 Hockey World Cup and the 2010 Commonwealth Games. Major international sporting events annually held in India include the Chennai Open, Mumbai Marathon, Delhi Half Marathon, and the Indian Masters. In 2011, India hosted its first Indian Grand Prix at the Buddh International Circuit, an Indian motor racing circuit in Greater Noida, Uttar Pradesh, India.

The National Games of India is a national domestic sports event, which has been held in the country since 1924. India also is home to cricket's Indian Premier League (IPL), launched in 2008.

Purpose of the study:

To study the existing action sports in India which includes before and after independence and also mainly concentrates the sports activities that are still popular in this present age.

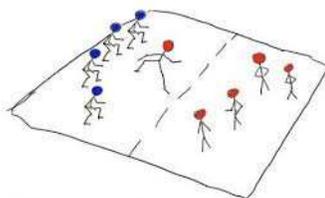
Methodology

To adopt data collection from the secondary source of data that are existing in Books, Journals and various websites. After collecting the information about various Action Sports activities with its origin and historical background, will be present in this article.

History of Indian Sports: During the era of the Rig - Veda, Ramayana and Mahabharata, men of a certain stature were expected to be well - versed in chariot - racing, archery, military stratagems, swimming, wrestling and hunting. Excavations at Harappa and Mohenjodaro confirm that during the Indus valley civilization (2500 - 1550 B.C) the weapons involved in war and hunting exercises included the bow and arrow, the dagger, the axe and the mace. These weapons of war, for instance, the javelin (*toran*) and the discus (*chakra*), were also, frequently used in the sports arena. Lord Krishna wielded an impressive discus or *Sudarshan chakra*. Arjuna and Bhima, two of the mighty Pandavas, excelled in archery and weightlifting respectively. Bhimsen, Hanuman, Jamvant, Jarasandha were some of the great champion wrestlers of yore. Women, too, excelled in sport and the art of self - defence, and were active participants in games like cock - fighting, quail - fighting and ram - fighting.

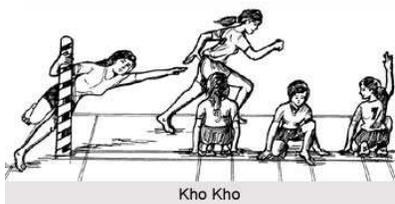
The history of sports in India is very ancient and dates back to the Vedic era. It is more likely that many of today's Olympic disciplines are advanced versions of games of strength and speed that flourished in ancient India. Chess, wrestling, polo, archery and hockey (possibly a fall-out from polo) are some of the games believed to have originated in India.

Kabaddi: It is one of the most popular sports in India played by the people in villages as well as in small towns. Kabaddi is an Indian game which requires both power and skill for its play.



*Origin*The origin of Kabaddi can be traced to pre-historic times when man learned how to defend in groups against animals or attack weaker animals individually or in groups for survival and food.

Kho-Kho: Kho-Kho is one of the most popular traditional sports in India. KhoKho is a 'run and touch' game that is very simple to play and can be enjoyed by people of all ages.



Origin

Kho-Kho in India goes back a long way, as it was first started in the state of Maharashtra. One of the main points of a successful animal life is "Active Chase" which is a fundamental principle of the Indian game called KhoKho, synonymous with the phrase "Game of Chase". It will not be a mistake to say that KhoKho was a recognized sport in the ancient times even earlier to the oldest mythological writings of classics- Mahabharata.

Mallakhamb: Mallakhamb is an ancient traditional Indian sport. 'Malla' means gymnast, and 'khamb' means pole. Thus, the name 'Mallakhamb' stands for 'a gymnast's pole'. Mallakhamb was used by wrestlers for practicing their skills in the game KUSTI. But now a days the trend has changed and it has got a special identity.

Origin: The origin of this ancient Indian sport can be traced to earlier part of the 12th century. A mention of wrestlers exercising on wooden poles is found in the Manasholas, written by Chalukya in 1153 A.D.

Ball badminton: Ball badminton is an indigenous sport of India. It is a racquet game played with a woolen ball upon a court of fixed dimensions. Ball badminton is a fast-paced game; it demands skill, quick reflexes, good judgment, agility, and the ability to control the ball with one's wrist.



Origin: Previously, ball badminton was an attractive game for rural boys since it required a minimum of equipment. The game drew a large number of students from South India, resulting in the formation of the Ball Badminton Federation of India in 1954. This game was played as early as 1856 by the royal family in Tanjore, capital of Thanjavur district in Tamil Nadu.

Gilli-Danda: Gilli-Danda is an amateur sport played in the rural areas and small towns all over India and Pakistan as well as Cambodia and Italy. This sport is generally played in the rural and small towns of the Indian subcontinent. It is widely played in Punjab and rural areas of the North-West Frontier Province and Sindh (Pakistan) and Sultanpur district, Uttar Pradesh (north India).



Origin: The game's origins in India date back to at least the Maurya Dynasty.

Vallamkali: The snake boat race, known as Vallamkali in Kerala. It is an interesting traditional game held on the occasion of Onam. It is a famous water sport and one of the main attraction held in Kerala. Boat Race is truly a feast to the eyes of the visitors, who come from far off places to see it.



Origin: The Vallamkali was first originated in Assyria, on a New Year day in BC.300. The history also reveals that, the Vallamkali (Boat Race) also took place in some other countries like The Andaman and Nicobar Islands, Cambodia, Bangkok, Burma, Britain etc. In the 14th century, there was a war occurred between Kayamkulam and Chembakasseri. During that time the king Chembakasseri Devanarayana had decided to build a suitable war boat and he gave the responsibility to the famous "Thachan" (Carpenter) in that period.

Jallikattu: Jallikattu is one of the oldest living ancient sports seen in the modern era. The ancient sport of Jallikattu pits crowds of brave young men against angry bulls. It is similar to the Spanish running of the bulls but a traditional part of Pongal celebrations in Tamil Nadu.



Kambala – the Buffalo race: When the fields are flush with water there is one sight not to be missed, the kambala or the buffalo race that is unique to Dakshina Kannada. This is a unique sport of this region. Historians date the roots of this race back to more than a thousand years. At that time Kambala was the event when farmers paid tribute to their gods for protecting their crops.



Camel Race: Camel racing in Pushkar is one of the major attractions for tourists in Rajasthan. Camels are a very important part of desert life, these camels are decorated beautifully at the time of race.

Kalarippayattu (Martial Arts): Martial art is a part of India's ancient culture. Kalarippayattu is one of the oldest forms of Indian martial art. This famous art is from Kerala. Indian martial art is a gift to the modern world and mother of all other Asian martial arts.



Archery: Archery is one of the most ancient sports originated in India. This is the favorite pastime or sports of the people of Manipur. It's an everyday activity of the state dwellers. During every festival archery matches are held.



Before independence

The history of sports in India dates back to the Vedic era. Physical culture in ancient India was fuelled by religious rights. The mantra in the Atharvaveda, says, "Duty is in my right hand and the fruits of victory in my left." In terms of an ideal, these words hold the same sentiments as the traditional Olympic Oath: "For the Honour of my Country and the Glory of Sport." Badminton probably originated in India as a grownup's version of a very old children's game known in England as Battledore and Shuttlecock, the battledore being a paddle and the shuttlecock a small feathered cork, now usually called a "bird." Games like chess, snakes and ladders, playing cards, and polo originated in India, and it was from here that these games were transmitted to foreign countries, where they were further modernized.

After independence

After the IX Asian Games in New Delhi in 1982, the capital city now has modern sports facilities. Such facilities are also being developed in other parts of the country. Besides sports and games included in the international sporting agenda, there are many which have developed indigenously. Among these are wrestling and several traditional systems of martial arts. The Ministry of Youth Affairs and Sports was initially set up as the Department of Sports in 1982 at the time of organisation of the IX Asian Games in New Delhi. Its name was changed to the Department of Youth Affairs & Sports during celebration of the International Youth Year in 1985.

India has hosted or co-hosted several international sporting events, including the 1951 and the 1982 Asian Games, the 1987 and 1996 Cricket World Cup, the 2003 Afro-Asian Games, the 2010 Hockey World Cup, and the 2010 Commonwealth Games. Major international sporting events annually held in India include the Chennai Open, Mumbai Marathon, Delhi Half Marathon, and the Indian Masters. The country hosted the 2011 Cricket World Cup and the first Indian Grand Prix in 2011.

Following are the some of games played in India

Gilli-Danda: It is a sport played using one small stick called 'gilli' and one long stick called 'danda' like cricket with ball being replaced by Gilli. This games is generally played in villages of Rajasthan, Uttar Pradesh, Madhya Pradesh and Haryana etc states of India.

Kancha: It is played using marbles called 'kancha' in India in cities as well as in villages also. The festival of 'MakarSankranti' is marked with competitions of this sport in various competitions.

Badminton: Badminton is a very popular sport in India. Badminton is supposed to have originated in India 2000 years ago.

Bandy: India is having a Bandy team and Bandy Federation of India takes care of it. It's headquarters are in Himachal Pradesh. Bandy is generally played in northern India where there is generally snow and ice.

Boxing: Boxing is not so populated game in India. During the 2008 Beijing Olympics, Vijender Kumar won a bronze medal in the middleweight boxing category and Akhil Kumar and Jitender Kumar qualified for the quarterfinals.

Cricket: Cricket is the most popular sport in India. India won the 1983 Cricket World Cup under KapilDev and finished as runner-up in the 2003 World Cup under SouravGanguly.

Cycling: This history of cycling in India dates back to 1938. Cycling Federation of India takes care of the sport.

Golf: Golf is an emerging sport in India. It is more popular in wealthier classes than the middle class and poor class peoples in India. There are numerous golf courses all over India. There is an Golf Tour. India's men's golf team won silver at the 2006 Asian Games.

Ice hockey: Ice hockey in India is mainly played in the Himalayan region of Ladakh in Jammu and Kashmir. In winter season the game is extremely popular and there are more than 25 clubs and villages that play the sport. However, due to shortage of artificial freezing, the game is limited to cold winter months of December, January and February which facilitate natural freezing of lakes and ponds.

Kayaking: Indian flat kayakers are considered emerging powerhouse in the Asian circuit. Aside from professional flat water kayaking, there is very limited recreational kayaking. Indian tourists consider kayaking a one-time activity and not a sport to be pursued.

Kabaddi: Kabaddi sport basically originated in India. It is one of the most popular sport in India played mostly in villages. India has taken part in four Asian games Kabaddi and won gold in all four of them.

Lawn tennis: Tennis is popular among Indian in urban areas. However, India's fortunes in the Grand Slams singles have been unimpressive although Leander Paes and Mahesh Bhupati have won may Men's Doubles and Mixed Doubles Grand Slam titles.

Mountain biking : Mountain biking is getting popular in India also. From the last four years, Himachal MTB has been organised regularly by HASTPA, and NGO. It is attended by a number of national and international participants, such as Indian Force, Indian Air Army, ITBP and a number of young and energetic MTB individual riders from cities like Bangalore, Pune, Chandigarh and Delhi.

Ruby: Like other sports founded in England and introduced during the British Raj such as cricket, rugby union has a long history in India. The first recorded match was played on Christmas day 1872, at CFC in Calcutta. Although low in profile as compared to cricket or field hockey, it is growing as some Indian sporting clubs are beginning to embrace the game.

1. **Throw ball:** Throw ball is also gaining popularity in India as a competitive sport and Indian authorities of the game was instrumental in organizing Asian level and later, world level association

for the sport. The game is popularly played in schools, clubs, colleges throughout Asian countries such as India, Korea, Sri Lanka, China, Japan, Pakistan and Nepal.

2. **Volleyball:** Volleyball is a sport played all over India, both in urban as well as rural India. It is a popular recreation sport. Indian ranked 5th in Asia and 27th in the world. Currently, an important problem for the sport is the lack of sponsors

Conclusion

Given the close association of sports with national pride and the kind of influence it has on the psyche of the nation, a role for the State is imperative in sports governance. However, this role has to be subtle so that it does not violate the Olympic charter. The proposed model shows one of the ways to achieve this. It is very clear that the existing model has failed to achieve its objective and a new model is long overdue. In addition, it is quite clear that our culture and our attitude towards sports is the biggest stumbling block in improving sporting standards. The change has to begin from the primary education level to build a sporting culture in the country. The education system should be revamped to give sports an equal, if not higher importance in the holistic upbringing of a child – rather than just doing lip service. The state and its entities must provide at least basic, bare minimum facility at the grassroots level, in villages and small towns, so that those who want to play are encouraged to come out and play. The quality of infrastructure can be scaled up at major towns and regional centers are made available for those who are serious about sports as a professional option. Education of athletes must come on the priority list – they should be made aware about the right use of sports-medicines. In the end, the attitude towards sports administration has to undergo a major change in India with a strong dose of professionalism.

References

- David Underdown (2000), "Start of Play", Allen Lane, p.3
Fish, Joel & Magee, Susan (2003), 101 Ways to Be a Terrific Sports Parent, Fireside, p. 168
Harper and Douglas (2008), "sport (n.)". Online Etymological Dictionary.
<http://www.etymonline.com/index.php?search=sport&searchmode=none>.
http://en.wikipedia.org/wiki/Sport_in_India
<http://www.facts-about-india.com/sports-in-india.php>
Sportal – Sports Portal – GOVERNMENT OF INDIA
Sports Authority of India (2010), Statistical Report, Ministry of Youth Affairs and Sports - Government of India".
Justice Mukul Mudgal (Retd.), 2010, 'Law and Sports in India: Developmental Issues and Challenges'

Life Within Nonliving Objects in Strange World: A Qualitative Inquiry into Digital Artworks, Visualisation and Story Telling”

Dr.Tripti Singh
Head, Design and Market Development
Only for U Designs Pvt. Ltd. Mumbai
Artist & New Media Researcher,
House No 51, Lakhanpur Housing Society, Vikas Nagar,
Kanpur, Uttar Pradesh, India.
Mob +91 800 543 8410 Email: dr.triptis14@gmail.com

Abstract:

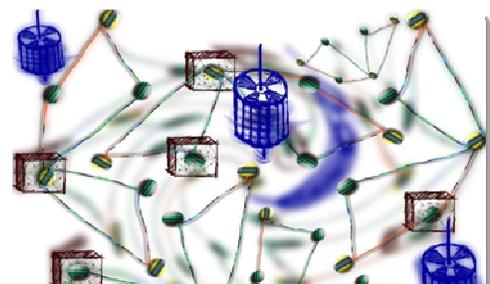
This is a work of qualitative research [1] and, as such, is dependent on an innovative structure and supporting narrative. Author has been trained as visual artist, researcher in the visual arts, and is internationally exhibited artist specialising in digital and new media arts. The visualisations that are the focus of this article are in the form of 2D digital drawings and story telling. Art driven by digital tools being expressed by artists, lead author of this article: Tripti Singh. As such, this article provides a brief overview, with examples, of Dr. Singh's digital art. All unedited remarks made by these Indian art professionals are presented in italics.

Narrative:These artworks define the patterns and visualise imaginary information such as what goes with which information to generate understanding in a religious, spiritual and cultural ground. An effective visual is an image, which provides viewers to threshold a story by simple drawings. For example, Paul Klee's [2] drawings are sometimes described as simple childlike line images that were filled with symbols and yet still attractive. On the other hand, Tufte's [3] powerful insight about visualisation is that visuals should be experienced by the viewer and it should involve them in such extent that they react and participate.

This series named as "Life with in nonliving objects." are symbolic and simple drawing used in the artworks talked to the subjects who are artists. The drawing of nonliving objects influences the thinking of an individual. They have motivated them to talk and they respond to the queries in form of stories. The nonliving things such as Charkhi or Latai, a wheel to bind threads for a kite, Gandhi's round glasses, book named as Bharat (India), Bottles, Kite, utensils, and earth stove, these things are symbolic to particular thought based on particular culture and beliefs. It gives an influential subject to think and freedom to explore; it takes the viewer to his own personal space to pull out his/her experiences and apply their imagination as story they have told.

1. "The Bolt Connected to Create Energy"

This artwork there are three data sets, one is dots, boxes and the spinning wheels. Dots are of different size, small and big which are connected through lines, it seems they get processed

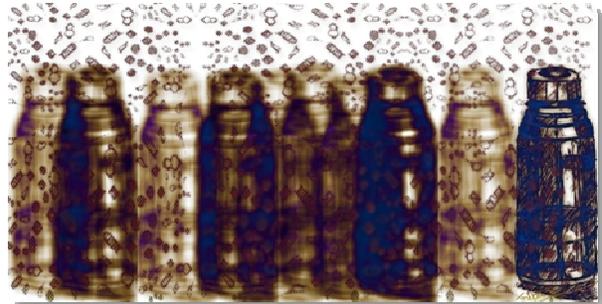


in these boxes (one can see those dots actually been processed inside of those boxes) and it generates some output as information by rotating wheels.

Digital Artist Mandeep Singh Manu told this story based on the above artwork, "The story is about the action of human and reaction of nature. Water is the need of life and the source of all life. Man is trying to make the world fulfil his needs. Using water for irrigation, using water for watering his cement jungle and polluting water by throwing the wastage in from of drains in rivers and other water sources. Man has forgotten his limits that the development on the cost of nature's balance will ultimately affect him sooner or later. Man who can improve this present situation by polluting these sources of nature will be helpless when nature will apply its forces. This artwork shows how human are handling the nature. And background suggests that all efforts will be destroyed if nature applies its forces. It will be blank background. If we want life on earth man should think about saving water."

2. "Bottle filled with Water"

This artwork is about the concepts behind the Klein bottle, which is widely used to visualise the surfaces, calculus etc. These bottles are randomly arranged here. It creates a pattern, which develop a framework to evaluate what belongs to which and what doesn't belong. There is possibility to reject some of it and some can be used.



A story to tell "bottle half filled with water, undergoing through litmus test they are moving here and there far and close. Like a small kid would do moving around

and telling about something about s/he has come across. The container itself has explained a tough and long conversation about thinking of optimist and pessimist. Now question is why the bottle should bother about what people think where as it is solving the purpose for which it is been made".

Shatarupa Roy tells the story. She has given it a title as "Sister's Act": "This is a story of ten sisters. They were born together. There was a time when they all turned women. They began to look similar, they spoke alike, and they also started thinking alike and acted more or less in a similar manner. They tend to turn cylindrical pretty much like bottles creating such visual blocks. No one bothered to look at them no longer. Some of them were transparent, some quite opaque. Some full, some empty. No one wanted to stand in anomaly in spite of having occasional differences. They all wore caps that had chocked their throats. They allowed them to loosen once in a while, as they needed to pour. The lives were a smooth sail in a process of emptying and refilling every now and then. Life was safe and downy till they realize, there is a message dwelling inside each bottles constantly in a struggle to get released. The day they would pour all those messages into those empty glasses they might be marked by a 'crash after use' tag. Fear, anxieties, excitements together has shaken the sisters to some extent. What will they do next?"

3. "The Earth Stove"

By plotting abstract data in a given space creates pattern, these patterns plotted next to each other create some different patterns which appear on its own.

Story time.... Mud Stove generally used by villagers in India, and lots of dotted circular beads floating and merging in the food. What are they? How they are related to the mud stove and food being cooked. The dotted circular beads represents small quantity or it can be seen as zero ... May be nothing is on the stove, and may be a poor mother has made this arrangement so that her kids will think that food will be serve to them shortly. May be mother waiting



for their father to arrange some food for her children meanwhile.

Ravindra Mardi had told this story based on this artwork as, "The limited sweetness on this Earth can only be found in our pursuit of the 'Nirvana' (bliss). Contentment, jubilation and the relationships stretched across a colorful sky are all from the almighty.

I'm building connections here in this world. Ones that I hope will one day allow me to, reach the castles in the sky. So yes, I choose to endlessly strive for my last day of judgment. But, I also choose to enjoy the permissible pleasantries of this world. To relish the beauty of God's creations, to taste the sweetness of love and knowledge on the palate of life and to express my deepest gratitude to my Lord for each and every day, that I am alive and that He has mercifully blessed me. You see because my dreams and passion for life are for the whole world. I am persistently fighting for my dreams because I have a soul that is not only of this Earth. God created us all as unique individuals and blessed us with unique talents and abilities; all of which can be used to please him. The fire in my belly is fury of dense emotions. It is the sentiment that says that God is never omitted from anything that I do, from my duties, to my job, to my hobbies. Because in the end I pray that God grants us the best of this life and reward beyond compare in the next, and also keeps the fire alive in my belly to excel."

Conclusions

From my examination of the art professionals narratives included herein it is clear that these particular viewers have been able to involve themselves very deeply and individualistically, with these artworks. The stories shared here are based on given symbolic patterns related to the religions, and cultures of India. These stories differ from individual to individual and the descriptions shared vary in from expressions of great detail to just the form of an outline. But in all cases it is clear that those who viewed the artworks and responded to the questions asked in this study were able to relate to the artworks and see a variety of narratives in Dr. Singh's works. Moreover the visual aspects of these artworks seem to "work" with every explanation expressed by the viewers. In the end it seems clear that visualisation, the elements and principles of design, and presenting imagery as bespoke artworks can work together in an attractive and engaging manner. This approach is, of course, not entirely different from more traditional studio art practices. My contention is that this novel example of qualitative research supports contention that visualisation and story telling has a significant impact on art making in the age of the computer.

Acknowledgements for the Indian Art Professionals

Divya Singh is a visual artist, muralist and teacher from Rajasthan.

Mandeep Singh Manu is a digital art artist who's works been selected in many international and national digital art events. He is from Amritser.

Ravindra Mardi is a visual artist and Director at Mardia Extrusions Ltd, Industry: Mining / Minerals / Metals. Thane, Maharashtra.

Shatarupa Thakurta Roy is MFA from Visva Bharati University, Her interests are: - History of Art, Art Appreciation, Design Theory, and Visual Communication. Presently she is professor in Fine Art Department, IIT Kanpur.

Yogendra Kumar Purohit is master of painting from Rajasthan School of Art, Jaipur, working in his own Studio at Bikaner, he have had more than 60 art exhibitions from the local to international level.

References

1. Elliott Eisner

On the Differences between Scientific and Artistic Approaches to Qualitative Research

Educational Researcher

Vol. 10, No. 4 (Apr., 1981), pp. 5-9

Published by: American Educational Research Association

Article Stable URL: <http://www.jstor.org/stable/1175121>

2. Edward Tufte: Mark Zachry and Charlotte Thralls, An interview with Edward R. Tufte, *Technical Communication Quarterly*, 2004., 13(4), 447-462, Lawrence Erlbaum Associates, Inc. http://www.edwardtufte.com/tufte/s15427625tcq1304_5.pdf

3. Paul Klee: Marcel Franciscono: *Paul Klee: His Work and Thought*. University Of Chicago Press, 406 pages, 1991, ISBN 0-226-25990-0.

A Comparative Study of Agility between Basketball Players and Football Players of Senior Secondary School

Priyanka Singh

**Ph.D Research Scholar, S.O.S in Physical Education, Pt. RaviShankar Shukla University, Raipur
Email:priyankasinghchandel1989@gmail.com**

Abstract

The objective of this study to compare the Agility between Basketball Players and Football Players of Senior Secondary School. 60 Players were selected for this study in which 30 Basketball players (Boys) and 30 Football players (Boys) of Senior Secondary School. T-test Agility test was used to measure the Agility between Basketball Players and Football Players. Independent 't' test used as a statistical technique. The level of significance was set at 0.05. This study shows that the Basketball players were have good Agility compare to Football players of Senior Secondary School, there was a statistical significant difference found between Basketball Players and Football Players of Senior Secondary School .

Key words: Basketball, Football, Agility.

Introduction

Agility is the ability of an individual to react to changes in direction without loss of speed or accuracy. The expression that someone can "stop on a dime" describes the ability of an athlete to sprint at maximal velocity and rapidly changed direction without reduction in speed. Agility is often used to describe the ability of an athlete to change from one type of movement to another (Hoffman, 2002). Basketball is one of the world's most popular sports. It is a fast paced indoor team sport, requiring good levels of skill, speed, agility and endurance (Home of Basketball, 2014). Players will be expected to sprint for distance of up to approximately 90 feet. Changing direction quickly and maintaining balance are also paramount to proper play. Participants are expected to hold their hands above their heads for extended periods of time. For these reasons, agility, balance, speed and upper body strength are necessary for success (Basketball Fitness, 2014).Football is India's second most popular sport (Football in India, 2014). Agility is an essential attribute if a Football player is going to give 100% effort and commitment during a match (Soccer Agility, 2014). Football refers to a number of sports that involve, to varying degrees, kicking a ball with the foot to score a goal (Football, 2014). In Football, an agile player can respond quicker to an opposing player, closing down or jockeying. An agile player has the ability to explosively brake, change direction and accelerate again (Soccer Agility, 2014).

Objective

The objective of this study was to compare agility between Basketball Players and Football Players of Senior Secondary School.

**MATERIAL AND METHODS
SELECTION OF SUBJECTS**

For the purpose of this study 60 students were selected in which 30 Basketball players (Boys) and 30 Football players (Boys) between 16 to 18 years of age were selected from Senior Secondary School, through purposive sampling technique.

SELECTION OF VARIABLE

Agility

CRITERION MEASURE

T-test Agility test was used to measure the agility of the subjects or players. Equipment required: tape measure, marking cones, stopwatch.

Statistical Technique

Independent t- Test used as a statistical technique for the data analysis. The level of significance was set at .05.

Result And Discussion

Table one Show that the average value of Agility for Basketball players 12.204 and for Football players 13.82. Standard deviation for Basketball and Football players 1.61 and 2.15 respectively.

Table:-1. Showing Descriptive statistics for Agility between Basketball Players and Football Players of Senior Secondary School

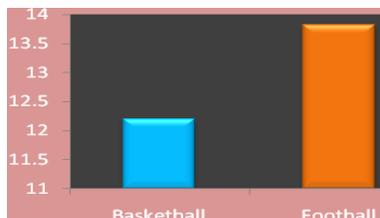
T-Test Agility		
Statistics	Basketball	Football
Mean	12.203667	13.82
Standard Error	0.2948997	0.393027155
Standard Deviation	1.6152324	2.152698387
Kurtosis	-0.2281692	-0.81765447
Skewness	0.588489	0.291546082
Range	6	7.57
Minimum	10	10.45
Maximum	16	18.02
Sum	366.11	414.6
Count	30	30

Table:-2. Showing significance difference for Agility between Basketball Players and Football Players of Senior Secondary School

S. No.	Subjects	N	Mean	S.D.	df	't' Ratio
1.	Basketball Player	30	12.204	1.61	58	3.29
2.	Football Player	30	13.82	2.15		

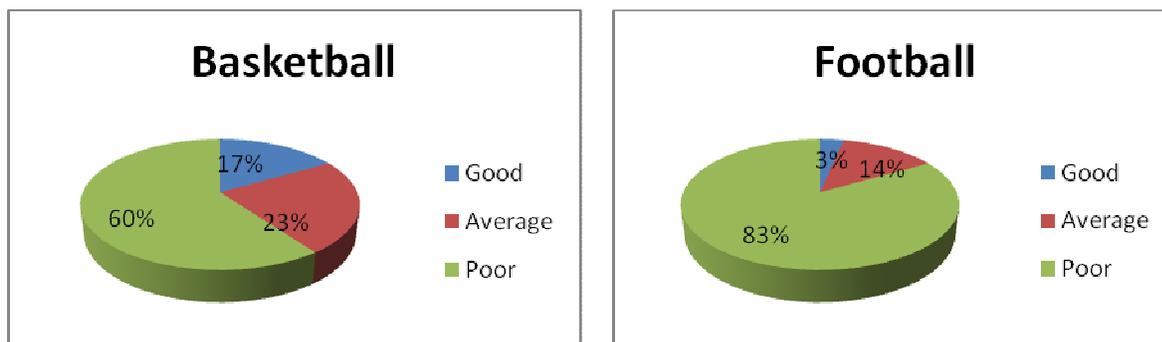
Table two shows that significance difference was found between the mean of Basketball players and Football players. Calculated 't' value was 3.29 at 0.05 level of significance its shows that significant difference because this calculated value is higher than the tabulated 't' value of 2.00.

Graph:-1. Showing significance difference for Agility between Basketball Players and Football Players of Senior Secondary



This graphical representation shows that mean values of Basketball players and Football players.

Graph:-2. Showing Frequency Distribution for Agility between Basketball Players and Football Players of Senior Secondary School



Frequency distribution of Agility between Basketball Players and Football Players of Senior Secondary School the graph two Shows that 17% Basketball players belonged to Good category, 3% Football players belonged to Good category, 23% Basketball players belonged to Average category, 14% Football players belonged to Average category 60% Basketball players belonged to Poor category and 83% Football players belonged to Poor category.

Conclusion

On the basis of obtained result it was concluded that, the Basketball players have good Agility as compare to the Football players. There was a statistical significant difference was found between Basketball players and Football players of Senior Secondary School. Agility training must be given to Football players of School to improve the game performance and also for Basketball players to improve more.

References:

Book

Hoffman, J. (2002). *Physiological Aspects of Sport Training and Performance*. Human Kinetics.

Online

Agility T-Test (2013). Retrieved on 25 Aug 2013 from <http://www.topendsports.com/testing/tests/t-test.htm>

Agility Testing (2013). Retrieved on 19 Aug 2014 from fitness2u.net.au/...tests/agility-tests/

Basketball Fitness (2013). Retrieved on 19 Aug 2014 from <http://www.fitnesshealth101.com>

Football in India (2014). Retrieved on 20 Aug 2014 from http://www.en.m.wikipedia.org/wiki/Football_in_india

Football (2014). Retrieved on 20 Aug 2014 from <http://www.en.m.wikipedia.org/wiki/Football>

Home of Basketball (2014). Retrieved on 19 Aug 2014 from <http://www.topendsports.com/sport/basketball/index.htm>

Soccer Agility (2014). Retrieved on 19 Aug 2014 from <http://www.teachpe.com/Soccer.../agility/introd...>

Self-Efficacy and Job Satisfaction of Physical Education Teachers

Dr. Ravindranath K. Murthy, Assistant Professor

Department of Education, Institute of Advanced Study in Education, Osmania University, Hyderabad

Abstract

The objective of this research was to study the relationship that exists between self-efficacy and Job Satisfaction among Physical Education Teachers. Standardized instruments were used to collect the primary data on self-efficacy and job satisfaction on 270 Physical Education Teachers. Statistical analysis of the data indicated that there exists a significant positive relationship between self-efficacy and job satisfaction. The meaning of this result and implications of this finding are discussed in this study.

Key words: Self-efficacy, Job Satisfaction, Work Attitudes

Introduction

Bandura (1977) introduced the concept of self-efficacy in the literature of Psychology. The concept of self-efficacy is derived from Bandura's (1977) social learning theory. Self efficacy basically refers to the perceived ability or capability for performing a specific task. Research on self-efficacy has been carried out extensively in the area organizational behaviour (Bandura, 1997; Gist & Mitchell, 1992; Stajkovic & Luthans, 1998). In the organizational context the study of self-efficacy becomes extremely important and valuable, as perception of efficacy serves as a behavioural predictor (Bandura, 1986). In general individuals working for an organization would avoid tasks perceived as exceeding their capabilities, while they may undertake tasks, and perform, which they think they are capable of handling (Bandura, 1978). Further Wood and Bandura (1989) observed that individuals, who demonstrate strong self-efficacy beliefs are more likely to undertake challenging tasks, persist longer and perform more successfully than those with lower self-efficacy beliefs. Thus individual with high self-efficacy beliefs would be more valued assets to the organization than less self-efficacy members of their organization. Thus to what extent this self efficacy belief would contribute to their job satisfaction is the purpose of this present research study. Schools require teachers who are psychologically connected to their work; who are willing and able to invest themselves fully in their roles; who are proactive and committed to high quality performance standards (Bakker & Leiter, 2010). They need employees who feel energetic, having high self efficacy and are satisfied with their job.

Job Satisfaction

Job satisfaction has been one of the most researched work attitude in the organizational behavior literature (Spector, 1997) and one of the important constructs in psychology (Cooper-Hakim and Viswesvaran, 2005; Maertz, Griffeth, Campbell, and Allen, 2007). Spector (1997) considers job satisfaction as constellation of attitudes comprising about various aspects or facets of the job or as a global feeling about the job. Job satisfaction is generally defined as an employee's affective reactions to a job based on a comparison of desired outcomes and actual outcomes (Cranny, Smith, & Stone;1992). Locke (1969) defined job

satisfaction and dissatisfaction as complex emotional reactions to the job (p. 314) Smith, Kendall, and Hulin (1969) conceptualized job satisfaction as “feeling or affective responses to facets of the situation”(p. 6), Job satisfaction is the degree to which people like their jobs (Spector, 1997). and job satisfaction leads to employee behaviors that affect organizational functioning and performance (Rowden, 2002).

Theoretical framework

Schools require reliable and responsible teachers who can solve problems, and who have the social skills, efficacy beliefs, positive attitudes, and are willing to work together with other teachers and other colleagues in the institution. They require teachers who have positive attitude towards their jobs. Self-efficacy is the belief in one's ability to perform the behaviours required to produce a desired outcome and is considered to be an important determinant of behaviour change (Bandura, 1977).

Teachers with higher self-efficacy easily adjust to the work environment and are more likely to accept organizational goals and values, and are likely to remain loyal, and have emotional attachment with the school. Research in the area of self-efficacy indicates that self efficacy has a significant relationship with job satisfaction (Erez & Judge, 2001; Judge, Bono, & Locke, 2000; Luthans, Zhu, & Avolio, 2006; Luthans, Avolio, Avey, & Norman, 2007). Research studies on in the area of organizational behaviour have documented that employees having high job satisfaction have a great impact on the successful performance of an organization. Much of the research on self efficacy and job satisfaction has been carried out in the North American and European context, mostly focusing on executives and employees working in industrial or manufacturing organizations. Very little research has been carried out in the Indian context on teachers. The present study attempts to investigate the relationship between self efficacy and job satisfaction of physical education teachers working in India

Method

Research Design

The present research study is designed on a quantitative research framework which utilized a descriptive research perspective. This study was a non experimental research study in nature and adopted a survey research methodology in which psychometrically sound instruments-questionnaires were used to collect primary data from physical education teachers working in different schools.

Sample

The sample for the present study comprised of 270 physical education teachers, their age range was from 32 to 52 years.

Measures

General Self-Efficacy Scale: General self efficacy scale developed by Chen, Gully, and Eden (2002) was used in the present study. This scale has 8 items having a five point Likert-type response format ranging from strongly disagree (1) to strongly agree (5). Chen, Gully and Eden (2002) developed this scale after finding inadequacies in the existing scales to measure generalized self efficacy (eg. Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). They have established that this scale has higher reliability and construct validity. The possible scores on this scale range from 8 to 40. High scores on this scale indicate high self efficacy

Job Satisfaction Scale: For measuring job satisfaction of physical education teachers, the job satisfaction survey developed by Spector (1997) was used in the study. This scale is a 36 item scale, having a response format ranging from 1 = strongly disagree to 5 = strongly agree. The minimum and maximum possible scores on this scale range from 36 to 180. High scores on this scale indicate high job satisfaction, and low scores on this scale indicate low job satisfaction. This scale measures job satisfaction on nine different facets, however for the purpose of the present study, the total score on all the 36 items was taken as the measure of job satisfaction. Several studies have employed this job satisfaction scale and have obtained satisfactory internal consistency-reliability coefficients. This scale has also demonstrated construct validity and reliability (Spector, 1985, 1997).

Procedure

Both the questionnaires along with the covering letter were bound in the form of a booklet, the teachers were briefly explained about the manner of responding to the items on the two questionnaires. Teachers were encouraged to give frank and honest responses to the items in both the questionnaires. Informed consent were obtained from all the teachers before administering the questionnaires. They were also assured of the confidentiality of the information that they are going to provide in this research work. Later, the researcher personally collected all the filled questionnaires from the teachers and they were thanked for their cooperation and support for the research work

Results and Discussion

To examine the relationship between self-efficacy and job satisfaction the correlation coefficients between self-efficacy and job satisfaction, were computed and is presented in table 1.

Table 1

Correlation Coefficients between Self-Efficacy and Job satisfaction

Variable	Correlation Coefficient	Sig.
Self-Efficacy	0.178	.005
Job satisfaction		

From table 1 it can be observed that the correlation coefficient computed between self-efficacy and job satisfaction is positive and found to be significant ($p = 0.005$). This indicates that there is significant positive relationship between self-efficacy and job satisfaction. To further examine whether self-efficacy scores of teachers would predict their job satisfaction scores, simple linear regression analysis was carried out. Job satisfaction scores were treated as criterion variable and self-efficacy as predictor variable. The result thus obtained is presented in table 2.

Table 2

Results of Regression Analysis with Self-Efficacy predicting Job satisfaction of physical education teachers

Variable	F	df	Adj. R ²	β
Dependent Variable: Job satisfaction	5.513*	1, 268	0.022	0.147*
Self-Efficacy				

* $p < 0.05$

It can be observed from table 2 that the F value is significant ($p < 0.05$), and also the standardised regression coefficient values is found to be significant ($p < 0.05$), this indicates that self-efficacy is a significant predictor of job satisfaction scores of teachers. Only two percent (Adjusted R² = 0.022) of the variation in the job satisfaction scores of teachers can be explained by the changes in the self-efficacy scores of the teachers. The positive and significant correlation between self-efficacy and job satisfaction and the emergence of self-efficacy as significant predictor of job satisfaction indicates that the self-efficacy of teachers influences and predicts their job satisfaction. This result confirms the hypothesis formulated in the present study.

Conclusion

The major goal of this study was to examine the relationship between self-efficacy and job satisfaction of teachers. The study found self-efficacy to be having a significant predictor and correlate of job satisfaction of teachers. This demonstrates the importance of self-efficacy for developing positive work attitude namely job satisfaction among teachers. The results of the present study suggest that self-efficacy is a significant predictor of job satisfaction of teachers. These results suggest the need for self-efficacy training of teachers. Self-efficacy training suggested by Eden and Aviram (1993) may be conducted by the schools on teachers to enhance their self-efficacy. School management may also assess the self-efficacy of teachers and may include it as one of the criterion during selection process of teachers. Further studies may be carried out by conducting an intervention, to enhance the self-efficacy of teachers, and the difference in job satisfaction it brings may also be examined.

References

- Bakker, A., B., & Leiter, M., P. (Eds.). (2010). *Work engagement: a handbook of essential theory and research*. New York: Psychology Press
- Bandura, A. (1978). Reflections on self-efficacy. In S. Rachman (Ed.), *Advances in behavior research and therapy* (Vol. 1., pp. 237-269). Oxford: Pergamon
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational Behavior and Human Decision Processes*, 50, 248-287.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman

- Chen, G., Gully, S. M., & Eden, D. (2001) Validation of a New General Self-Efficacy Scale. *Organizational Research Methods*, 4, (1), 62-83.
- Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: Testing an integrative framework. *Psychological Bulletin*, 131, 241–259.
- Cranny, C.J., Smith, C.P. and Stone, E.F. (1992), *Job Satisfaction: How People Feel about their Jobs and How It Affects their Performance*, New Lexington, San Francisco, CA.
- Eden, D., & Aviram, A. (1993). Self-efficacy training and speed of reemployment: Helping people to help themselves. *Journal of Applied Psychology*, 78, 352-360.
- Erez, A., & Judge, T. A. (2001). Relationship of core self-evaluations to goal setting, motivation, and performance. *Journal of Applied Psychology*, 86, 1270–1279.
- Gist, M. E., & Mitchell, T. R. (1992). Self-efficacy: A theoretical analysis of its determinants and malleability. *Academy of Management Review*, 17, 183-211.
- Judge, T. A., Bono, J. E., & Locke, E. A. (2000). Personality and job satisfaction: The mediating role of job characteristics. *Journal of Applied Psychology*, 85, 237-249.
- Locke, E.A. (1969), What is job satisfaction?, *Organizational Behavior and Human Performance*, Vol. 4, pp. 309-36.
- Luthans, F., Avolio, B., Avey, J., & Norman, S. (2007). Psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60, 541-572.
- Luthans, F., Zhu, W., & Avolio, B. J. (2006). The impact of efficacy on work attitudes across cultures. *Journal of World Business*, 41, 121-132.
- Maertz, C.P., Griffeth, R.W., Campbell, N.S. and Allen, D.G. (2007), The effects of perceived organizational support and perceived supervisor support on employee turnover, *Journal of Organizational Behavior*, 28, 1059-1075.
- Rowden, R.W. (2002), The relationship between workplace learning and job satisfaction in US small midsize businesses, *Human Resource Development Quarterly*, Vol. 13 No. 4, 407-425.
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The Self-Efficacy Scale: Construction and validation. *Psychological Reports*, 51, 663-671.
- Smith, P.C., Kendall, L.H. and Hulin, C.L. (1969), *The Measurement of Satisfaction in Work and Retirement: Strategy for the Study of Attitudes*, Rand-McNally Company, Chicago, IL
- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. Thousand Oaks, CA.: Sage.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124, 240-261.
- Wood, R., & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56, 407-415.

The Study Of Mental Health On The Performance Of Kabaddi Players

*Dr. Hanumanthayya pujari,
Asst professor
D.O.S. In physical Education and sports sciences
Karnataka state women's university bijapur.
Cell—09740108853 Mail—hgpujaru@gmail.com

Introduction:

The word 'mental health' conjures up the image of mentally ill persons in the public mind. The WHO (1978), has stated quite clearly that mental health is not a state of absence from diseases but a state of well being encompassing our physical, social and emotional lives. This concept also implies that a healthy person must actualize all the potentialities of growth and development without being unduly tense or unhappy. This concept needs some reiteration, as overburdened medical professionals, who are solely preoccupied with relief of immediate human suffering, have dominated this field too long. It is only in recent years that a consciousness is dawning on workers in this field, that almost every form of community activity has a direct bearing on the state of health of its citizens. Hence, the politicians, law makers, economists, people engaged in trade, commerce, industry, educationalists, food and nutrition specialists, ecology experts including doctors, nurses and social workers, are all involved, either overtly or covertly, in prompting or harming the mental health of citizens and / or in allowing them to actualize their growth potential.

Mental Health:

Mental health covers an elusive and diffuse field and the term itself encompasses a multiplicity of meaning. It is a valuable rubric to head a chapter and an area of research than as a concept. The concept is difficult, challenging, and complex, full of unknowns and half-truth and no doubt some fad and fancy as well". The mental health reflect some of these influences but contemporary thought on mental health initiate the phase for departure from the traditional frame of reference providing significant additions to the conceptual network that constitute the core as well extra relevance to the very psychological construct.

Mental health defies its being pressed between words, and definitions are less popular. World health organization defined mental health "as a state of complete physical, mental and social well being and not merely the absence of disease or infirmity". It is conceived as "a condition and level of social functioning which is socially acceptable and personally satisfying. Mental health is an adjustment of human beings to the world and to each other with the maximum of effectiveness and happiness English (1958) conveyed more of the concept of denoting mental health as "a relatively enduring state wherein the person is well adjusted, has a zest for living, and is attaining self actualization or self realization. It is positive state and not mere absence of mental disorder

Significance Of Study:

The study makes an attempt to assess the influence of mental health the psychological factors on sports performance of kabaddi players selected form the Karnataka state women's university bijapur. It is well understood that these factors are highly inter-related to sports activities. Knowing the

significant influence of factors, a sports psychologist or sports educationist can manipulate these psychological factors to improve the performance of kabaddi players.

STATEMENT OF THE PROBLEM: To study of mental health on the performance of kabaddi players

OBJECTIVES: To assess the effect of mental health on the performance of kabaddi players.

HYPOTHESES: There is a significant impact of mental health on the performance of kabaddi players.

The Sample: The study was conducted on a sample of 24 players of kabaddi selected from Karnataka state women's university bijapur. The selection was done based on level of mental health. The respondents were administered mental health scale. The sample was divided in to high and low mental health.

Tools. Mental health Inventory; This inventory is developed by Jagdish and Srivistav (1988) .The scale consists of 56 items and has four response categories. As per the manual of the scale, the one who scores high is regarded as having higher mental health. The reliability and validity of the scale is fairly high.

Statistical Analysis; To meet the objectives of the study and to verify the formulated hypotheses the data were analyzed, using the statistical technique of t-test.

The aim of this study; was to know the effect of mental health on the performance of kabaddi players. The players were selected from Karnataka state women's university bijapur. The players were administered the mental health scale and grouped into high and low categories of mental health. Thus the sample was grouped equally in to two groups. The t-test was applied to compare the sample on mental health. The data were organized and presented in the tables.

Table: Shows the Mean's and t-values of Sports Performance of kabaddi Players in Two categories of Mental Health (N=22)

Category	Mean scores	SD	t-value
High mental health	49.41	3.52	8.38*
Low mental health	41.28	2.79	

*Significant at 0.05 level

Table-1. The sample of the players was divided in to two levels of mental health-high and low mental health. The means scores of high mental health players are 49.41 and the mean scores of low mental health players is 41.28. This tells that the performance of the high mental health players is more than the players with low mental health. The anxiety, tension and stress make the players more disturbed and as a result they lose concentration in the given task. The players who are not much disturbed by such factors will have higher mental health and concentrate in the given task. Therefore the players with high mental health have higher mean scores than the low mental health players. The t-value of 8.38 is significant at 0.05 level. This suggests that there are significant differences in the performance of kabaddi players. Thus higher mental health always is facilitating factor of performance in the sample of sports persons.

Conclusions:

*. There is an effect of mental health on the performance of kabaddi players.

*. The mentally healthy players have significantly higher sports performance than those of low mental health.

Bibliography

1. Clarke H. Harrison: "Historical Orientation", physical fitness newsletter :5:2 anuary 1956.
2. Clarke H. Harrison : "Academy Approves Physical fitness Newsletter , 25:9:1 May, 1979.
3. Clarke H. Harrison : "Application of measuring to Health 1963 and physical education (Englewood cliffs, N.J. Prentice Hall Inc.,) 173.
4. Duda M. : Plyometrics : a legitimate form of power Training the physical & sports medicine 16 (13), 1988.
5. Fox L.E.B. rowers W.R & Mrerle I. V. . : The physicalogical Basis of Physical Education & Athletics (4th ed) Philedoephia PA Sanduers College Publishing.
6. Holland A. Kenneth : the Predictive value of selected variables in determining the ability to play basket ball in small high school", Completed Research in Health, Physical Education Ad Recreation, 7 – 37, 1965.

Sports Journalism A Challenging Approach In Telangana – A Review

Dr.Jagan Mohan Sidda
Bhavan's New Science College, Narayanaguda, Hyderabad-, India
jmsidda@gmail.com

Introduction

Sports Journalism

There is a glamorous romanticism in the very mention of the two words `Sports Journalism. This apparently comes from the expectation that one could get to meet and interview their sport icons as part of their day-to-day duty. As a career, it surely marks as the high point of one's professional life. Sports journalism is a form of journalism that reports on sports topics and events. In sports journalism, it is not about using a lot of big people. Journalism should be easy to read and follow. words and flowery language to impress. Sports coverage has grown in importance as sport has grown in wealth, power and influence. While the sports departments within some news papers has been mockingly called the toy department, because sports journalists do not concern themselves with the 'serious' topics covered by the news desk.

Sports Illustrated and the Sporting News all-sports talk radio stations, and tele Sports journalism is an essential element of any news media organization. Sports journalism includes organizations devoted entirely to sports reporting — newspapers such as L'Equipe in France, La Gazzetta dello Sport in Italy, and the now defunct Sporting Life in Britain, American magazines such as vision networks like ESPN and NDTV etc. Since the 1990s, the growing importance of sport, its impact as a global business and the huge amounts of money involved from sponsorship and in the staging of the Olympic Games and football World Cups, cricket has also attracted the attention of well-known investigative journalists. The sensitive nature of the relationships between sports journalists and the subjects of their reporting, as well as declining budgets experienced by most Fleet Street news papers, has meant that such long-term projects have often emanated from TV documentary makers. There are several traditional disciplines, like kabaddi, kho-kho, weight-lifting, body building, ball badminton, to name a few, that are popular in rural areas but are least covered by the urban-based media. These certainly need the complete support of the State Government, nee political bosses, because there is a dearth of sponsors. Even the most liberal corporate houses prefer to be a vibrant part of cricket, tennis or badminton. A correspondent who has to file stories on lean days (when there are no tournaments) will find it extremely difficult to dig inside stories. Having sources in politically-run associations can be rewarding and easy to get inside information but a former player/athlete will be overly protective unless he is planning to float a parallel power-lobby.

Challenges In Sports Journalism In Telangana

Lack of subject information on various national, state and district level sporting events. Lack of photo/visual libraries on sports persons and sports teams. Lack of interest and space allocation to sports events in sports pages in Telugu and other Vernacular dailies. Public relations between Sports Officials and Sports Journalists. Government support to various organizations in the state to organize major events. Translation is taking major time from Telugu sports journalists compared to English and Hindi sports journalists. Too much coverage of cricket leads to less space (in print) and time (in TV) for other games. Hence Telugu sports journalists will forget other games in due course with less and less coverage. One of the biggest problems confronting a reporter is getting access to a celebrated sports person, given the security compulsions and

the individual's averseness to 'open his mind to media'. But his office adamantly expects him to deliver a 'scoop' almost every other day. It is aimed at scoring over the rival newspaper or regional television channel, which eventually translates to circulation figures and TRP jugglery. Lack of support from managements for abroad and upcountry coverage. Lack of refreshing programmes of rules and regulations and various developments of sporting events. Telugu Sports Journalists need to improve their speaking abilities in other language especially in English to survive in the field for a long. Hard news stories – breaking news of the day. Very timely. Not a lot of room for creativity. No opinion.

This is often the standard news story you would expect to see on the front page. Game/event stories. Features – less time-sensitive than hard news stories. Can be tied to an event in terms of timeliness or can be completely timeless. Columns – Opinion pieces.

Methodology

The researcher was interviewed the sports journalists of various news papers and TV channels (total 30 members) like Andhra Jyothi, Eenadu, Vaartha, The Hindu, The Times of India, The Deccan Chronicle and Saakshi, TV9 Channels in Telangana region and collected data from international news agencies, exclusively sports channels like ESPN and NDTV etc. The researcher opted questionnaire method to obtain information regarding how the growth of the sports coverage occurred, From which period the news papers giving priority to sports coverage, which Telugu paper allotted first full sports page and what are the developments, how channels air exclusively sports programmed and what are the challenges in sports journalism faced by the sports journalists.

Results And Discussion

Since the 1990s, the growing importance of sport, its impact as a global business and the huge amounts of money involved from sponsorship and in the staging of the Olympic Games and football World Cups, cricket has also attracted the attention of well-known investigative journalists. There are several traditional disciplines, like kabaddi, kho-kho, weight-lifting, body building, ball badminton, to name a few, that are popular in rural areas but are least covered by the urban-based media

Conclusion

Do not miss deadline. Ever. Ever. EVER. Always check spelling of names, teams, places, etc. Then check them again. With the invention of spell check, there's no excuse for having words spelled wrong. Never trust your memory for facts. Confirm that information. Double-check stats.

It is concluded that the biggest problems confronting a reporter is getting access to a celebrated sports person, given the security compulsions and the individual's averseness to 'open his mind to media'. A correspondent who has to file stories on lean days (when there are no tournaments) will find it extremely difficult to dig inside stories. A Lack of support from the managements for abroad and upcountry coverage and the Lack of refreshing programmes of rules and regulations and various developments of sporting events in state.

Suggestions

Lack of subject information on various national, state and district level sporting events. Lack of photo/visual libraries on sports persons and sports teams. Lack of interest and space allocation to sports events in sports pages in Telugu and other Vernacular dailies. Public relations between Sports Officials and Sports Journalists. Government support to various organizations in the state to organize major events. Translation is taking major time from Telugu sports journalists compared to English and Hindi sports journalists.

References

1. Sports journalism-by Steen, Rob-Taylor and Francis-2007
2. Sports Journalism-A practical introduction by Phil Andrews-2013
3. Sachin- Cricketer of the century by Vimal kumar-2013
4. Match world Cup by Match (Brazil 2014)-Pan Macmillan India.

Effects Of Different Modes Of Yoga Practice On Selected Physiological And Biochemical Variables

Mr. S. ANANTH, Ph.D., Scholar
Dr. S. CHIDAMBARA RAJA, Associate Professor,
Department of Physical Education and Sports Sciences, Annamalai University.

Abstract

The purpose of the present study was to find out the effect of different modes of yoga practice on physiological and bio-chemical variables among middle aged men. For this purpose, forty five middle aged men residing around Kumbakonam town, Thanjavur district, Tamilnadu, were selected as subjects. The age of the subjects were ranged from 40 to 45 years. They were divided into three equal groups, each group consisted of fifteen subjects, in which experimental group - I underwent Bihar School of yoga practice, experimental group - II underwent B.K.S. Iyengar yoga practice and group - III acted as control that did not participate in any special activities apart from their regular curricular activities. The training period for the study was six days (Monday to Saturday) in a week for twelve weeks. Prior and after the experimental period, the subjects were tested on breath holding time, high density lipoprotein and total cholesterol. Breath holding time was assessed by holding the breath for maximum duration in seconds of the subject. High density lipoprotein and total cholesterol were tested after taking 5 ml of blood samples by venous puncture method, by using Boehringer Mannheim Kit Method. The Analysis of Covariance (ANCOVA) was applied to find out any significant difference between the experimental groups and control group on selected criterion variables. The result of the study shows that the Bihar School of Yoga practice group and B.K.S. Iyengar Yoga practice group were decreased the total cholesterol and increased the high density lipoprotein and breath holding time significantly. It was concluded from the results of the study that Bihar School of Yoga practice and B.K.S. Iyengar Yoga practice has bring positive changes in breath holding time, high density lipoprotein and total cholesterol as compare to the control group. Moreover it was also concluded that there was no significant difference was found between the experimental groups in all criterion variables.

Key words: Bihar School of Yoga and B.K.S. Iyengar Yoga, Breath holding time, high density lipoprotein, total cholesterol, Boehringer Mannheim kit method, ANCOVA.

Introduction

Yoga is one of the most ancient cultural heritages of India. The word *yoga* in Sanskrit means “to unite”, and so *yoga* can be said to connote a unitive discipline. In this sense, it is an exercise in moral and mental cultivation that generates good health (*arogyā*), contributes to longevity (*chirayū*), and the total intrinsic discipline culminates into positive and perennial happiness and peace.[1] Yoga is one of the orthodox systems of Indian philosophy. It was collated, coordinated and systematized by Patanjali in his classical work, the Yoga Sutras, which consists of 185 terse aphorisms. Yoga is a complete science of life that originated in India many thousands of years ago. It is the oldest system of personal development in the world, encompassing body, mind and spirit. [2]

Bihar School of Yoga (Swami Satyananda Saraswati) is a type of yoga which integrates intellect, emotion and action: the head, heart and hands. Known as Satyananda Yoga or Bihar Yoga (the School lies in Bihar in India), the system embraces many different philosophies and encourages students to examine the very

essence of their being and make gradual changes to improve their awareness. Satyananda Yoga is considered truly holistic and suitable for everyone.[3] Iyengar Yoga, named after and developed by B.K.S. Iyengar, is a form of Hatha Yoga that has an emphasis on detail, precision and alignment in the performance of posture (asana) and breath control (pranayama).[4]

Recent scientific studies of the effects of yoga and meditation on health validates its ability to improve virtually every aspect of our functioning—brain function, hormonal function, sleep, mood, balance, etc. More active practices followed by relaxing ones lead to deeper relaxation than relaxing practices alone, documented by research from Swami Vivekananda yoga research foundation near Bangalore city and possibility of neuroplasticity bringing about changes in the hypo-pituitary–pancreatic axis.[5] The improvement in the lipid levels after yoga could be due to increased hepatic lipase and lipoprotein lipase at cellular level, which affects the metabolism of lipoprotein and thus increase uptake of triglycerides by adipose tissues.[6,7] Direct stimulation of the pancreas by the postures can rejuvenate its capacity to produce insulin.[8] Regeneration of pancreatic beta cells could occur by yoga exercises that promote blood circulation in the region of the pancreas and yoga asanas that stimulate the meridian of pancreas also could assist in some diabetic patients.[9] Pranayama practices, stretches the lung tissue producing inhibitory signals from action of slowly adapting receptors and hyperpolarizing currents. These inhibitory signals coming from cardio-respiratory region involving vagi are believed to synchronize neural elements in the brain leading to changes in the autonomic nervous system; and a resultant condition characterized by reduced metabolism and parasympathetic dominance.[10]

Methodology

Thirty middle aged men residing around Kumbakonam town, Tanjavur district, Tamilnadu were selected as subjects. The age of the subjects were ranged from 18 to 23 years. The selected subjects were divided into three equal groups, each group consisted of ten subjects, in which group - I (n = 15) underwent Bihar School of Yoga practice, experimental group - II (n = 15) underwent B.K.S. Iyengar Yoga practice and group - III (n = 15) acted as control, which did not participate in any special activities apart from their regular curricular activities. Different modes of yoga practices were conducted six days (Monday to Saturday) per week for twelve weeks. The researcher consulted with the yoga experts and selected the following variables as criterion variables: 1. breath holding time, 2. high density lipoprotein and 3. total cholesterol. The breath holding time was assessed by asking the subject to hold the breathe for maximum duration after a deep inhalation and it was recorded in seconds, high density lipoprotein and total cholesterol were assessed by using the Boehringer Mannheim Kit method. For the purpose of collection of data the subjects were asked to report at early morning, one day prior and one day after experimental period, in fasting condition. 5 ml of blood was collected from each subject by venous puncture method and the blood thus collected was stored in small bottles for pre and post-test for measuring the high density lipoprotein and cholesterol. Analysis of covariance (ANCOVA) was applied to find out the significant difference if any, among the experimental groups and control group on selected criterion variables separately. In all the cases, .05 level of confidence was fixed to test the significance, which was considered as appropriate. After applying the analysis of covariance, the result of this study shows that there was a significant increase in breath holding time, decrease in total cholesterol and high density lipoprotein levels.

Results

The data collected on breath holding time, high density lipoprotein and cholesterol among experimental and control groups were analyses and the results were presented in Table – I.

Table - I

ANALYSIS OF COVARIANCE ON SELECTED CRITERION VARIABLES AMONG EXERCISE GROUPS AND CONTROL GROUP

Variable Name	Group Name	Bihar School of Yoga Practice Group	B.K.S. Iyengar Yoga Practice Group	Control Group	'F' Ratio
Breath Holding (in seconds)	Pre-test Mean ± S.D	30.40 ± 2.530	30.60 ± 1.298	30.0 ± 2.42	0.301
	Post-test Mean ± S.D.	32.33 ± 2.554	32.20 ± 1.373	30.07 ± 2.89	4.343*

	Adj. Post-test Mean	32.265	31.297	30.409	20.269*
High Density Lipoprotein (mg/dl)	Pre-test Mean \pm S.D	45.07 \pm 2.463	44.53 \pm 3.021	44.87 \pm 2.95	0.137
	Post-test Mean \pm S.D.	47.60 \pm 2.772	46.80 \pm 3.189	44.00 \pm 2.80	6.253*
	Adj. Post-test Mean	47.357	47.088	43.956	77.42*
Total Cholesterol (mg/dl)	Pre-test Mean \pm S.D	191.53 \pm 6.39	192.27 \pm 6.029	192.47 \pm 5.04	0.106
	Post-test Mean \pm S.D.	188.80 \pm 6.33	190.13 \pm 6.034	192.53 \pm 6.36	1.532
	Adj. Post-test Mean	189.350	189.957	192.160	20.472*

*Significant .05 level of confidence. (The table values required for significance at .05 level of confidence with df 2 and 42 and 2 and 41 were 3.22 and 3.21 respectively).

Table – I shows that pre and post test means 'f' ratio of Bihar School of Yoga practice group, B.KS Iyengar practice group and control group on breath holding time were 0.301, which is insignificant and 4.343, which is significant at 0.05 level of confidence. The adjusted post test mean 'f' ratio value of experimental groups and control group was 20.269, which was significant at 0.05 level of confidence. The pre and post test means 'f' ratio of Bihar School of Yoga practice group, B.KS Iyengar practice group and control group on high density lipoproteins were 0.137, which is insignificant and 6.253, which is significant at 0.05 level of confidence. The adjusted post test mean 'f' ratio value of experimental groups and control group was 77.42, which was significant at 0.05 level of confidence. The pre and post test means 'f' ratio of yogasana practice group, aerobic exercise group and control group on total cholesterol were 0.106 and 1.532 which is insignificant at 0.05 level of confidence. The adjusted post test mean 'f' ratio value of experimental groups and control group was 20472, which was significant at 0.05 level of confidence.

Table - II

Scheffé S Test for the Difference Between the Adjusted Post-Test Mean of Selected Criterion Variables

Adjusted Post-test Mean on Resting Pulse Rate					
Yogasana Practice Group	Aerobic Exercise Group	Control Group	Mean Difference	Confidence interval at .05 level	
32.265	31.297		0.978	0.7828767	
32.265		30.409	1.856*	0.7828767	
	31.297	30.409	0.888*	0.7828767	
Adjusted Post-test Mean on High Density Lipoproteins					
Yogasana Practice Group	Aerobic Exercise Group	Control Group	Mean Difference	Confidence interval at .05 level	
47.357	47.088		0.269	0.7395837	
47.357		43.956	3.401*	0.7395837	
	47.088	43.956	3.132*	0.7395837	
Adjusted Post-test Mean on Total Cholesterol					
Yogasana Practice Group	Aerobic Exercise Group	Control Group	Mean Difference	Confidence interval at .05 level	
189.350	189.957		0.607	1.16883531	

189.350		192.160	2.81*	1.16883531
	189.957	192.160	2.203*	1.16883531

* Significant at .05 level of confidence.

Table – II shows that the Scheffé S Test for the difference between adjusted post-test mean on resting pulse rate of Bihar School of Yoga practice group and control group (1.855) and BKS Inyengar Yoga Practice group and control group (0.888), which were significant at .05 level of confidence. There was a significant difference on high density lipoproteins between Bihar School of Yoga practice group and control group (3.401) and BKS Inyengar Yoga Practice group and control group (3.132) and also there was a significant difference on total cholesterol between Bihar School of Yoga practice group and control group (2.81) and BKS Inyengar Yoga Practice group and control group (2.203) which was significant at 0.05 level of confidence after the respective training programme.

Conclusions

The experimental groups such as, Bihar School of Yoga practice group and B.K.S. Iyengar Yoga practice group have achieved a significant improvement in selected criterion variables such as breath holding time, high density lipoprotein and a significant reduction in total cholesterol when compared with the control group. It was also found that there was no significant difference was found between the Bihar School of Yoga practice group and B.K.S. Iyengar Yoga practice group on selected criterion variables.

Reference:

- [1] Retrieved from <http://hinduism.about.com/bl-yoga-define.htm> on 24-04-2012.)
- [2] Swami Vishnu Devananda, *The Sivananda Companion to Yoga*, (New York: Fireside Book, Simon and Schuster, 2000), p. 10.
- [3] Retrieved from <http://samsaramindandbody.com/different-types-yoga-classes-ultimate-guide>
- [4] Retrieved from http://en.wikipedia.org/wiki/Iyengar_Yoga on 22-7-2014.
- [5] McCall T. The Scientific Basis of Yoga Therapy. [Accessed Jun 16, 2012]. at http://www.yogajournal.com/for_teachers/2016 .
- [6] Delmonte MM. Biochemical indices associated with meditation practice: A literature review. *Neurosci Biobehav Rev.* 1985;9:557–61. [PubMed]
- [7] Tulpule TH, Shah HM, Shah SJ, Haveliwala HK. Yogic exercises in the management of ischaemic heart disease. *Indian Heart J.* 1971;23:259–64. [PubMed]
- [8] Ramaiah SA. *Yoga Therapy for Diabetes*: Washington, D.C. Study, International Conference on Traditional Medicine, 1986, Madras. Madras, India: Published by Siddha Medical Board, Govt. of Tamil Nadu;
- [9] Yogalink. A community service donated by samyama yoga. [Accessed Jul 9, 2012]. at <http://www.yogalink.com.au> .
- [10]. Jerath RJ, Edry VA, Barnes VA, Jerath V. “Physiology of Long Pranayamic Breathing: Neural Respiratory Elements May Provide A Mechanism that Explains How Slow Breathing Shifts the Autonomic Nervous System”, *Med Hypotheses*. 2006;67:566–71. [PubMed]

A Comparative Study On Physical Fitness Components Between Fencing Players And Kabaddi Players Of Medak District

Alli Naresh

Physical Education Teacher, ZPHS, Wadiaram, Chegunta (M) Medak (Dist) A.P

Introduction:-

Fencing : Fencing is the activity of fighting with swords. The most common version of fencing today, also called Olympic fencing or competitive fencing. Although swordsmanship can be traced back to ancient civilizations; the inclusion of fencing in the first modern Olympic game (Athens 1896) secured it's based on the principle 'hit opponents without being hit of self'. Fencing is an elegant, prestigious and traditional sport which reflects the success qualities that are important to contemporary people who seek a challenge to both body and mind through a competition blend of patience and determination, discipline and competitiveness. Fencing is a game that demands physical power, agility and flexibility.

History of Kabaddi Game in India

Origin

The origin of kabaddi can be traced to the pre-historic times. In India, kabaddi was primarily devised as a way to develop the physical strength and speed in young men. During its inception, kabaddi was played to boost the self-defense skills and to develop quick responsiveness to attacks. It also sharpened the reflexes of counter attacks of the individuals, who mostly played in groups or teams. Kabaddi also finds place in Hindu mythology. The dramatized version of the great Indian epic, the Mahabharata, has made an analogy of the game, wherein the warrior Arjuna's son Abhimanyu faces a tough time, when he is trapped in the 'Chakravyuha' set by his enemies of the War.

Kabaddi in Modern India

In the modern times, kabaddi was given the national status of a game in India in 1918. The state of Maharashtra is accredited with upbringing the game to a national platform. Consequently, the standard set of rules and regulations for the game were formulated in the same year. However, the rules and regulations were brought to print only after a few years, in 1923. During the same year, an All India Tournament for kabaddi was organized at Baroda, wherein the players strictly followed the rules and regulations formulated for the game. Since then, the game has come a long way. Its popularity increased and a number of tournaments were organized at national level, throughout the country. The game was introduced at the 1938 Indian Olympic Games held at Calcutta, which fetched it international recognition.

The Objective Of The Study:

The purpose of the present study to compare the selected physical fitness components between fencing players and kabaddi players.

Methodology:

To find out the physical fitness components between Male fencing players and kabaddi players. The sample for the present study consists of 40 male fencing players and kabaddi players of Medak district out of which 20 are fencing players and 20 are kabaddi players.

Selection of variable:

Among various physical fitness components generally evaluated strength, speed, and agility were chosen for this present study. The selected physical fitness components were measured through 5 hops (R&L legs), 50 m run for speed and shuttle run for agility is conducted.

Result and Discussion

The table no 1 showing the Mean, S.D, Standard Error, t-ratio of fencing players and kabaddi players in 5 hops (R&L legs), 50 M run Test and agility.

Test items	Group	N	Mean	Std.devition	Std.error mean	t	sig.(2tailed)
Shuttle run	Fencing players	20	11.08	0.32	0.32	1.697	0.41
	kabaddi players	20	11.91	0.73	0.89		
50 M run	Fencing players	20	6.79	0.27	0.09	2.43	0.06
	kabaddi players	20	6.94	0.53	0.04		
Lt.leg	Fencing players	20	8.4846	0.802	0.217	3.186	0.002
	kabaddi players	20	8.9739	0.826	0.209		
Rt.leg	Fencing players	20	8.1843	0.629	0.124	2.983	0.001
	kabaddi players	20	9.1749	0.752	0.169		

Result:

In shuttle run the fencing players mean is 11.08 and kabaddi players mean is 11.91. There is a difference of 0.83 in shuttle run. The fencing players are having good in egility. In 50 M run the fencing players mean is 6.79 and kabaddi players mean is 6.94 there is difference of 0.15. The fencing players are having the good speed. The 5 hops (lt.leg) test result of fencing payers mean is 8.4846 and kabaddi players mean is 8.9739 similarly the (rt.leg) of fencing players mean is 8.1843 and kabaddi players mean is 9.4749. there is differene 0.4893 and 0.9906 so that indicats kabaddi players are having good leg strength when compared to fencing players.

Conclusion

It is been concluded that fencing players are having good level speed, agility and kabaddi players are having the good level leg strength.

Recommendations:

It is recommended that the fencing players and kabaddi players must be given good training or the physical fitness components for improvement of performance. Tha similar study may be undertaken by selecting subjects belonging to different level and age groups of participations in different games and spots.

References:

Wikipedia of fencing and kabaddi
 Measurments for evaluation in physical education .R gupta publication

Analysis On The Effect Of Moderate Intensity Of Aerobic, Resistance And Interval Training Program On Ldl-C In Young Men

*R.Sudhakar, Research Scholar, Dept. of Phy. Edn., S.V. University, Tirupati, A.P.
**Dr. D. Krishna Murthy, Deputy Director of Phy. Edn., University of College of Engr. & Techn.
S.V. University, Tirupati, A.P., India.
***Dr. Y Kalyan Kumar, Lecturer in Physical Education, GDC, Nandikotkur, Kurnool, A.P.
****Dr. A. Kaleemulla, H.O.D., Dept. of Phy. Edn., K.L. University, Vaddeswaram, A.P., India

Abstract

BACK GROUND: This study examined the impact of 16 week program of maximal intensity aerobic, resistance and interval training program on LDL-C in 60 untrained men ages 21-25 years. OBJECTIVE: To investigate the training effect of sixteen weeks of maximum intensity progressive aerobic, resistance and interval training program on LDL-C in young men. METHODS: Participants were randomly assigned to an aerobic based training group (ABTG) n=15, resistance based training group (RBTG) n=15, Interval based training group (IBTG) n=15 and control group (CG) n=15 participants in the experimental groups performed their training protocols. RESULTS: Maximum intensity aerobic, resistance and interval training program on LDL-C show significant decrease when compared to control group and in between exercise protocol groups LDL-C is identical.

KEY WORDS: LDL-C, Aerobic, Resistance, Interval.

INTRODUCTION: Countries that have in terms of Technology development, as residents living, inactivity and passive enough to become prevalent that the prevalence of direct or indirect cause of many problems and issues such as health and wellness Heart diseases – Cardio Vascular Disease, Obesity and CAD is so that as a major problem in these communities are known. One of the Problems today especially in developed countries are Atherosclerosis is one. The health related physical fitness which is considered as key component in an individual's life is develop and protected through participation in various physical activities. Low density lipoprotein Cholesterol (LDL-C) is considered the most potent independent risk factor for coronary heart disease (CHD) and is inversely correlated with CHD¹. Endurance exercise training characterized by continuous activity at moderate exercise intensity demonstrates significant decreases in LDL-C in both men and women after a period of training, typically 20-30% for endurance athletes compared with inactive controls^(2, 3). Aerobic based training has been proposed as an effective mechanism for improving cardio vascular protection, with training resulting in decreases of LDL-C in men 18 years of age and older⁽⁴⁾ also found positive training related adaptation on Total Cholesterol, Triglycerides, Low density lipoproteins Cholesterol and High density lipoprotein Cholesterol⁽⁵⁾ or only on Low density lipoprotein Cholesterol and T.C/HDL-C without changes on HDL-C and T.G⁽⁶⁾. Considering the observed deterioration

of the Cardio vascular system and the metabolic profile that tends to accompany young men, it is important to know the potential benefits derived from the exercise. Although the effects of aerobic versus resistance training on Cardio vascular risk factors have been compared^(7,8).

Methodology And Materials:

Sixty sedentary individuals (21-25years) volunteered (mean (SD) age \pm 22.5 (2) years) to participate in this study. Participants were informed about any potential risks and / or discomforts associated with participation in this study and were required to provide their written informed consent before being included in the study. Participants were randomized in to three training groups and one control group. All the participants were from the various colleges of Kurnool city under the Rayalaseema University, Kurnool, Andhra Pradesh, India.

AEROBIC BASED TRAINING GROUP (ABTG): the training was supervised by an exercise physiologist and the frequency was kept three times per weeks for 16 weeks with 45 minutes per session. The intensity of the main part of the session started with work heart rate (HR) 40-50% $HR_{reserve}$ (1st to 4th week) increasing progressively to 51-60% $HR_{reserve}$ (5th to 8th week), 61-70% $HR_{reserve}$ (9th to 12th week), 71-80% $HR_{reserve}$ (13th to 16th week).

RESISTANCE BASED TRAINING GROUP (RBTG): after an adequate warm-up the participants completed resistance exercise for three days a week for 16 weeks. They performed 8 exercises with elastic bands for the major muscular groups respecting the following progression

1 set of 8 repetitions (1 st -2 nd week)	1 set of 12 repetitions (3 rd – 4 th week)
2 sets of 8 repetitions (5 th – 6 th week)	2 set of 10 repetitions (7 th -8 th week)
2 sets of 12 repetitions (9 th -10 th week)	2 sets of 15 repetitions (11 th – 12 th week)
3 sets of 12 repetitions (13 th -14 th week)	3 sets of 15 repetitions (15 th -16 th week)

an interval period of at least 3 minutes was assured between sets of the same exercise.

INTERVAL BASED TRAINING GROUP: The experimental participants run a distance of 3.2 km 3 days per week for 16 weeks. Participants ran 4 sets of 800metres interval i.e. 4 X 800mts interval 1:1 work: rest ratio at approximately 60-70 of their age predicted maximal heart rate (HR Max 220-age in complete years).

CONTROL GROUP: The control group was instructed not to undertake any vigorous exercise during the training period.

MATERIALS: Venous blood samples were collected in the morning between 8 AM and 9.30AM by two specialized staff nurses before the training session and the blood samples has collected after completion of 16 week training session. LDL -C was determined using a direct two point Kinetic assay kit(CH2652, Randox, laboratories ,Ltd., U.K.).

STATISTICAL ANALYSIS: Analysis of Covariance technique was used to study the effect of the experimental variable on the selected physiological variables. Scheffe's post hoc test also applied to find out the source of significant difference among the groups and to test the hypotheses to arrive at conclusion. The level of significance was 0.05.

Analysis On Ldl Cholesterol:

Table I depicts analysis of covariance for the LDL Cholesterol of the subjects on the experimental variable selected. The table indicates that there is significant effect through the selected experimental variable i.e. aerobic, resistance and interval for the selected experimental period. The obtained F value i.e. 34.915 is much higher than the table F value i.e. 2.78 and hence the selected experimental variables caused the significant change in the selected LDL cholesterol levels of the subjects.

Table II contains the mean values of the selected criterion variable i.e. LDL Cholesterol of the subject. The table brings out the following observations. The aerobic running group showed better reduction in LDL cholesterol levels when compared to the other two groups viz. resistance and Interval Based Training Group. The aerobic running group's post training LDL cholesterol mean is 116.30, the resistance group's post training LDL Cholesterol mean is 121.7636 and the Interval Based Training Group post training LDL Cholesterol mean is 125.214. When compared with the mean values of the three groups, it is clear that the aerobic group showed significant reduction in LDL Cholesterol when compared to the other two groups. The resistance group also showed reduction in the LDL Cholesterol levels when compared to the Interval Based Training Group. This simple analysis on the post training adjusted mean values shows that there is significant reduction in the LDL cholesterol levels of the subjects due to the selected three activities at the selected intensity.

Table-I

ANCOVA TABLE

SOURCE	DF	SS	MS	F	CR.F
TOTAL	59	2849.847			
BG	3	1868.653	622.8845	34.91526	2.78
WG	55	981.1941	17.83989		

Table- II
Pre training, Post training and adjusted post training means for LDL Cholesterol:

GROUPS	N	MX	MY	MY.X
IBTG	15	115.0667	109	125.2149
RTG	15	124.3333	114.2	121.7626
AG	15	136.4667	120.0667	116.3004
CG	15	153.8667	152.0667	132.0541
		132.4333	123.8333	123.833

**Table III - Scheffe's Post Hoc test for LDL Cholesterol
CD FOR SCHEFFE'S TEST**

CD=	$\sqrt{(a-1)F_{\alpha} \sqrt{(2(MsError)/n)}}$ 4.355
-----	--

INDIVIDUAL COMPARISONS FOR LDL CHOLESTEROL

GROUPS And VALUES	A G 116.3004	RBTG 121.7626	IBTG 125.2149
RBTG 121.7626	-5.4622 Sig		
IBTG 125.2149	-8.9447 Sig	-3.45227 n.sig	
CG 132.0541	-15.7537 Sig	-10.2915 sig	-6.83918 sig

Though there is variance in the mean values of the LDL Cholesterol because of the three protocols of the exercise, to find out the real difference and the cause of significant difference the Scheffe's post hoc individual comparison test was conducted. The Scheffe's post hoc individual comparison test for the individual groups is presented in table III. The individual comparisons through the Scheffe's post hoc test elicited that the aerobic running group has brought out significant reduction in the LDL Cholesterol of the subjects when compared to the other two experimental protocols of exercise. The resistance and Interval Based Training Group post training adjusted averages are different in values, the Scheffe's post hoc comparison test indicated that the difference between the groups is insignificant and hence the training effect of the resistance and Interval Based Training Group is identical. But, all the three exercise protocol groups of the experimentation showed significant reductions in the LDL cholesterol levels as per the Scheffe's post hoc individual comparison test when compared to the Control group.

Conclusions:

The following conclusion has been derived after analyzing the experimentation results through the appropriate statistical tools: All the three different protocols selected for the aerobic training group, resistance training group and interval training group at the moderate intensity of maximal heart rate intensity caused for the significant decrease in the LDL cholesterol levels of the subjects

Recommendations:

Aerobic exercise programs at a moderate intensity of 60-70% percent of the maximal heart rate of not less than four kilometers distance should be needed to better control the precipitating factors for the degenerative diseases like Coronary Heart Disease, Hypertension etc. Similar study may be conducted cross sectionals for various populations changing the geographical limitations. Same type of study may be done for various ages of the same geographical population

Reference:

spate-Douglass, T and Key et.al, R.E. Exercise intensity its effect on high density lipoprotein profile. Arch phy Med Rehabil 80; 691-695, 1999.
 Durstine J.L et.al. effect of exercise training on plasma lipids and lipoproteins. Exerc sport sci. Rev 22; 477-521, 1994.
 Kelly GA, Kelly KS; Aerobic exercise, lipids and lipoproteins in men: a meta analysis of randomized controlled trails. J Mens Health Gend 2006; 3:61-70.
 Halverstadt A, Phares DA, Wilund KR, et.al. Endurance exercise training raises HDL-C and lowers small LDL-C, VLDL-C independent of body fat phenotypes in older men and women. Metabolism 2007; 56:444-450.
 Kelly GA, Kelly KS, Tran ZV: walking lipids and lipoproteins: a Meta analysis of randomized controlled trails. prev Med 2004; 38:651-661. Sillanpaa E, Hakkinen A, et.al: effects of strength and endurance training on metabolic risk factors in healthy 40-65 year oldmen. Scan J Med Sci. sports 2009; 19:885-895.
 Poehlman ET, Drorak RV et.al: effects of resistance training and endurance training on insulin sensitivity in non obese, young women: a controlled randomized trial, J.clin. endocrinol. Metab. 2000, 85:2463-2568.

A Comparative Study of Hostile Aggression between Tribal and Non Tribal Sportspersons

C.D. Agashe

**Prof. and Head, SOS in Physical Education, Pt. Ravishankar Shukla University, Raipur C.G.
Karmishtha Shambharkar**

Assistant Prof., Department of Physical Education VIPRA College, Raipur C.G.

Abstract

In the present study, hostile aggression was compared among university sportspersons on the basis of their tribal non-tribal belongingness. To conduct the study, 40 tribal male sportspersons (Ave. age 23.09 years) and 40 non tribal male sportspersons (Ave. age 22.38 yrs) were selected as sample. The criteria for selection of sample was participation in inter university sports competition in any sporting discipline. Sultania's Aggression Inventory (2006) was used to assess hostile aggression in tribal and non tribal sportspersons. Results indicate that hostile aggressive behaviour of non tribal sportspersons is significantly in larger magnitude as compared to tribal sportspersons. It was concluded that tribal non-tribal belongingness do affect the magnitude of hostile aggression among university sportspersons.

Keywords : Hostile aggression, tribal, non tribal, sportspersons

Introduction

Aggression is an essential part of human nature. This aggression is dependent on several economic, social, cultural and situation specific events. Berkowitz (1989) defined aggression as "behavior directed toward the injury of some target" whereas Dollard *et al.* (1939) defined aggression as any sequence of behavior directed towards a person to commit intentional injury. The theories and principles governing aggression clearly suggests that it is an interpersonal behaviour accompanied by emotions towards an individual or group of people which violates norms set by society. Similarly in sports certain rules are framed for smooth conduction of a game, when a player go beyond that rule and shows his/her dissent in the form physical violence, verbal abuse etc. it is termed as hostile aggression in sports.

Just like our society, sports encompass sportspersons from all race, caste and cultures. So naturally in a country like India, sportspersons hail from non tribal as well as tribal communities. It is also worth mentioning that aggression is influenced by age, situational factors and race. In anthropological studies it has been found that distinct culture is associated with race. It has also been documented that race with different cultural background affect aggression (Thomas, 1958). So it would be interesting to know that whether hostile aggression in Indian sportspersons differ with each other on the basis of their tribal, non-tribal belongingness. Hence the present study was planned to investigate hostile aggression among Indian university sportspersons on the basis of their tribal-non tribal belongingness.

Review of Literature

Aggression has been studied widely in sporting world. Researchers such as Cox *et al.* (2007), Esfahani *et al.* (2010), Peter (2012) but no work is related with the effect of tribal-non tribal background upon aggression.

Hypothesis

It was hypothesized that tribal-non tribal belongingness will show its significant impact upon hostile aggression among university sportspersons.

Method:

To test the abovementioned hypothesis, following methodological steps were taken.

Sample :

To conduct the study, 40 tribal male sportspersons (Ave. age 23.09 years) and 40 non tribal male sportspersons (Ave. age 22.38 yrs) were selected as sample. The criteria for selection of sample was participation in inter university sports competition in any sporting discipline.

Tools :

Amount of hostile aggression in selected subjects was assessed by eight dimensional aggression inventory prepared by Sultania (2006). It comprise of eight aspects of aggression i.e. assault, indirect aggression, irritability, negativism, resentment, suspicion, verbal aggression and guilt. The reliability of this inventory is 0.67 while the validity is 0.45. Higher the score, higher the hostile aggression is the direction of scoring in this inventory.

Procedure :

All the selected subjects were asked to give their response on Aggression Inventory in a laboratory like condition and convenience of the subjects.

Scoring of responses given by the subjects was done according to author's manual. After scoring, data were tabulated according to their respective groups. 't' test was used to find out differences among these two groups. Results are presented in table 1.

Results

Table No. 1: Comparison of Hostile Aggression between Male Tribal and Non-Tribal Sportspersons

Variable	Male Non Tribal Sportspersons (N=40)		Male Tribal Sportspersons (N=40)		t	Level of Significance
	M	S.D.	M	S.D.		
Hostile Aggression	31.32	5.72	24.15	7.64	4.75	.01

A perusal of statistical entries reported in table 1 indicate that mean scores of male non-tribal sportspersons on aggression scale (M=31.32) is significantly higher as compared to male tribal sportspersons (M=24.15) at .01 level of significance. This shows that hostile aggression in male non-tribal players is significantly higher as compared to male tribal players at acceptable statistical significance.

Discussion

The result of the present study indicates that hostile aggression is significantly higher in male non tribal sportspersons as compared to male tribal sportspersons. The findings of the present study once again reiterate the previous findings that primitive people were low on aggression (Thomas, 1958) but in a sporting context. It may also be due to the fact that non-tribal are much more goal oriented and to achieve their goal they resort to hostile aggression. Hence, the result of the present study also signifies the same notion that tribal-non tribal belongingness does affect hostile aggression among sportspersons.

Conclusion :

On the basis of results it may be concluded that male non tribal sportspersons are more hostile in their behaviour as compared to male tribal sportspersons.

References :

- Berkowitz, L. (1989). Frustration-aggression hypothesis: examination and reformulation. *Psychol. Bull.* 106:59-73.
- Cox, R. H. (2007). *Sport psychology: Concepts and applications*, (6th ed.). New York: McGraw-Hill.
- Dollard, J., Doob, L., Miller, N., Mowrer, O., & Sears, R. (1939). *Frustration and aggression*. New Haven, CT: Yale University Press.
- Esfahani, N. and Soflu, H.G. (2010). The Comparison of Pre-Competition Anxiety and State Anger between Female and Male Volleyball Players. *World Journal of Sport Sciences* 3 (4): 237-242.
- Peter, V.F. (2012). Assessment of aggression & anxiety of players participating in different sports. *Indian Journal of Movement Education and Exercises Sciences (IJMEES)*, Bi-annual Refereed Journal, Vol. II No. 2 12.
- Sultania, M.K. (2006). *Aggression Inventory*. National Psychological Corporation, Agra.
- Thomas EM. 1958. *The Harmless People*. Vintage Books, NY.

Relationship Between Leg Explosive Strength And Maximum Speed On State Level Athletes

Adityanarayan Adak
Research Scholar, Visva-Bharati
adityanarayanadak@hotmail.com

Abstract

The purpose of the present study was to find out the relationship between leg explosive strength (jumping performance) and maximum speed (sprinting performance) on state level male and female athletes. 15 male and 15 female state level athletes (sprinters and jumpers) were purposively selected from West Bengal. The age of the subjects ranged between 16 to 22 years. 'Leg Explosive Strength' measured by Standing Broad Jump (S.B.J.) in centimeter and 'Maximum Speed' measured by 30m sprint in second. For the male athletes, leg explosive strength positively effect on maximum speed or the relationship between jumping and sprint performance of male athletes are positive and for the female athletes, leg explosive strength negatively effect on maximum speed or the relationship between jumping and sprint performance of female athletes are negative but both the value of positive and negative relationship was negligible.

Key Words: leg explosive strength, maximum speed, Standing Broad Jump and Sprint,

BACKGROUND OF THE STUDY

The common definition of strength is the ability to exert a force against a resistance. The strength needed for a sprinter to explode from the blocks is different from the strength needed by a weight lifter to lift a 200kg barbell. Therefore, it implies that there are different types of strength. Explosive strength is the ability to overcome a resistance with a fast contraction. It can be measured by (i) laboratory test and (ii) field test. For example, leg explosive strength can be measured in the lab by Vertical Jump and it can be measured in the field by Standing Broad Jump. Explosive strength can be developed with conditioning exercises, medicine ball exercises, plyometric exercises and weight training. Speed is the rate of change of motion of an object or we can define speed is that sense that covers any distance in minimum possible time. Maximum speed should be understood as the high possible speed for moving from one place to another, for a short distance by an individual. Maximum speed measured by anaerobic work. The anaerobic and alactic energy system is best challenged as an athlete approaches top speed between 40m to 70m while running at 95% to 100% of maximum. In the study investigator was interested to find out the relationship between leg explosive strength and maximum speed on state level male and female athletes. Investigator was also interested to find out the relationship between sprinting and jumping performance of male and female performer.

Objectives Of The Study

To find out the relationship between leg explosive strength and maximum speed on state level male and female athletes. To find out the relationship between sprinting and jumping performance of male and female performer. Help the athletic coaches to understand how the leg explosive strength effect on sprint performance and vice versa.

Methodology

Total 30 (15 male and 15 female) state level athletes were purposively selected from Tarakeswar and Srirampur coaching center, West Bengal. The age of the subjects ranged between 16 to 22 years. All the athletes are sprinters or jumpers. 'Leg Explosive Strength' measured by Standing Broad Jump (S.B.J.) in nearest centimeter and 'Maximum Speed' measured by 30m run from a 100m distance i.e. 40m to 70m in second.

To compute the Mean and Standard Deviation of sprint time & jumping distance descriptive statistics was employed and to find out the relationship between leg explosive strength & maximum speed co-efficient of correlation (r value) test was employed.

Result And Discussion

In the present study sprint time of 30m distance i.e. 40m to 70m from 100m distance and the distance of standing broad jump of present male and female subjects were tested. The mean and S.D. have been presented in table – I and table – II.

Table – I

Mean and S.D. of 30m Sprint Time from 100m Running Path i.e. 40m to 70m and Standing Broad Jump of Male Athletes

VARIABLE	MEAN	S.D.
30m Sprint time	3.37sec.	0.31sec.
Distance of S.B.J.	2.44m	0.26m

Table – I shows that the mean values of 30m sprint time (40m to 70m distance of 100m straight path) and standing broad jump of male subjects i.e. 3.37 ± 0.31 sec. and 2.44 ± 0.26 m.

Table – II

Mean and S.D. of 30m Sprint Time from 100m Running Path i.e. 40m to 70m and Standing Broad Jump of Female Athletes

VARIABLE	MEAN	S.D.
30m Sprint time	3.90sec.	0.41sec.
Distance of S.B.J.	2m	0.11m

Table – II shows that the mean values of 30m sprint time (40m to 70m distance of 100m straight path) and standing broad jump of female subjects i.e. 3.90 ± 0.41 sec. and 2 ± 0.11 m.

Table – III

Co-Efficient of Correlation Between 30m Sprint Time from 100m Running Path i.e. 40m to 70m and Standing Broad Jump of Male Athletes

Number of the Subjects	Sum of 30m Sprint Timing (ΣX)	Sum of S.B.J. (ΣY)	ΣXY	ΣX^2	ΣY^2	r
15	36.6m	50.5sec.	116.92	60.39	230.58	0.15

Table – III shows the co-efficient of correlation between 30m sprint time and standing broad jump of male athletes, where 'r' value was 0.15.

Table – IV

Co-Efficient of Correlation Between 30m Sprint Time from 100m Running Path i.e. 40m to 70m and Standing Broad Jump of Female Athletes

Number of the Subjects	Sum of 30m Sprint Timing (ΣX)	Sum of S.B.J. (ΣY)	ΣXY	ΣX^2	ΣY^2	r
15	30.6m	58.52sec.	122.19	90.25	170.71	-0.12

Table – IV shows the co-efficient of correlation between 30m sprint time and standing broad jump of female athletes, where 'r' value was -0.12.

Conclusion:

From the observation and findings of the study the following conclusion may be drawn:

For the male athletes, leg explosive strength positively effect on maximum speed or the relationship between jumping and sprint performance of male athletes are positive but the value of positive relation was negligible. For the female athletes, leg explosive strength negatively effect on maximum speed or the relationship between jumping and sprint performance of female athletes are negative but the value of negative relation was negligible.

References:

- Singh, A. et al. (2008). *Essential of Physical education*. Kalyani Publishers, New Delhi, 978-81-272-4054-7.
- Kamlesh, M. L. (2009). *UGC-NET Digest on Paper III Physical Education*. KheI Sahitya Kendra, New Delhi, 81-7524-563-8.
- Garrett, H. E. (2011). *Statistics in psychology and education*. Paragon International Publishers, New Delhi, 81-89253-00-X.
- Best, J & Kahn, J. V. (2012). *Research in education*, Tenth Edition, PHI Learning Private Limited, New Delhi, 978-81-203-3563-9.

Bio-Magnetism Of Life Force In Physical Body

Mr. Nagarjuna Sangem
Physical Director

University Sports Board, Kakatiya University, Warangal, Telangana State – India,
Email Id: nagarjunasangem@gmail.com

Dr. K. Savithri
Physical Director

Singareni Collieries, Womens Degree & P.G College, Kothagudem, Khammam dist.
Telangana State – India.

Introduction:

Billions of life energy particles keep whirling all over the body. In each life- energy particle, millions and millions of formative dust particles, functions energizing the life energy particle. The self rotating and whirling life energy particles churn out the formative dust particles in the form of bio-magnetic waves. Thus churned out formative dust particles form a field-‘Bio-magnetic’ field which is the basic force for the functioning of the body and the soul. Formative dust Particles are magnetic in nature. They are self rotating and spread over the body as Bio - magnetic waves.

The origin of life force in Human body

When copulation takes place between a man and woman the sexual vital fluid passes out from the man into the womb of woman. A sperm in the fluid and the egg in the womb of the woman get united and at that point of time the ‘Life force’ starts functioning. A cell is formed and life begins. Then the cell multiplies and the child grows. The growth started on that day is still continuing.

As we said earlier we came to this earth with undated return ticket. Some with their fast life make the return faster. But with Kayakalpa and other such exercises we can stay back as long as we like as Saints and Sages did earlier. We can also fix our date of return whenever we want to leave. This stage is called death at will. When Siddhas in olden days were able to do it, Why not we?

Power Centre of the life force

Heart is the power house or control centre which controls blood circulation. The pressure created in the heart pumps out the blood to all parts of the body and to all cells, and returns to the same point where it started, with a low pressure to get recharged. Lungs are the power house or control centre which controls air circulation. “Mooladhar” or “Sexual Vital Fluid”, which lies concentrated and located a little below from the bottom of the spinal cord. A little inward is the power house of the Life Force. These life force particles, like blood, pass through all over the body.

Five Physical Transformations (Panchathanmatra)

When the dust particles come out of the energy particles. The Absolute space creates a compression on the ‘spreading dust particles’. This compression reduces the whirling speed of the dust particles slowly the speed reaches the zero point and at this point the dust particles get dissolved into the ‘Absolute Space’. During this dissolution stage the energy of the dust particle is transformed into pressure, sound, light, taste and smell. This transformation is called ‘Panchathanmatra’.

Mind:

Bio-magnetic waves function as mind, Formative dusts spread out from the life energy particle as waves. The bio-magnetic waves get generated continuously from the life force particles and this is mind which is not something permanent or static. It is a continuum of wave function.

Pressure, sound, light, taste, and smell, the Panchathanmatra are the different perceptions of the mind.

Three functions of the body:

In every human body there are three power centers (bodies)

Physical Body: This is made up of millions of cells

Astral Body: This is formed by Life force energy particles (energy particles)

Causal Body or Magnetic Body: This is made up of dust particles

The functions of the Life-force

Life-force perform two important functions:

To make the body function. The life force particles safeguard the body and cell structures without allowing any disturbance to change the organization. Life force particle is the source for bio magnetism.

When the first function is disturbed the life force gets expanded in to mind and try to remove the obstacles.

Expansion of the life force particles as Bio-magnetic waves is called 'mind'.

Genetic Centre:

In our body three important forces get synthesized to become a great force.

Centre of intensified magnetism : When the Bio-magnetism is circulating throughout the body, it gets intensified at the centre according to the specific gravity principle.

Centre for life force particles : self rotatings, circularly moving life force particles get combined with the slow moving particles and get compressed. They also make the genetic centre as their base and function from there.

Centre for sexual vital fluid : all living beings keep producing the sexual vital fluid, generated from the brain. When it becomes surplus the fluid drips downwards through the spinal cord and reaches the genetic centre. We call a boy or girl 'matured' at this stage

Hence, the Genetic Centre is the coordinating centre for three vital body functions.

Intensified bio-magnetism. 2) Dense concentration of Life Force particles 3) Sexual vital fluid

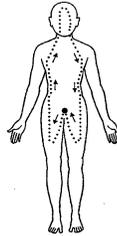
All these three, coordinate their functions from the genetic centre. And also this genetic centre is the store house of all imprints which have been got collected through generation after generation from the time immemorial.

Life Force In Physical Body:

Millions of cells make the human body. The bio-magnetic force holds all the cells in a pattern with precision; like the cement holding the bricks. When the pressure and the, quantity in the bio-magnetic waves get reduced the cell-hold becomes loosened and this is the symptom of being tired or getting older.

The method of circulation of Life-Force:

To keep a man alive there need to be enough life force particles in the body. They get collected in the genetic centre and start their movements from there. These particles reach every cell and feed them with required bio magnetism to function. The same way the life force particles carry with it the bio magnetism in abundance to supply to all cells all over the body. All cells get refurbished continuously to function effectively. The life force particles move inside the body in a circuit and come back to the starting point weakened after supplying bio magnetism to all cells. The life force particles get fresh supply from the sexual vital fluid and restart their



Picture 1-3 :
Life-force circulation

The sexual vital fluid is the bountiful resource for the life force particles and in turn the bio magnetism. So the number of life force particles and the power of bio magnetism depend on the quantum of sexual vital fluid. In other words the quality and quantity of the life force particles depend on the quality and quantity of the sexual vital fluid.

The Power Of Sexual Vital Fluid

The originating point of sexual vital fluid is the brain. Up to 14 years it helps various parts of the body to grow. After that the surplus fluid reaches the “Mooladhar” — the genetic centre through the spinal cord. Now on the life force particles and the bio magnetic waves start functioning from the Mooladhar.

The power of the sexual vital fluid holds the life force particles together. The quantum of life force particles is always, related to the quantum of sexual vital fluid and its quality; so also the case with bio-magnetic force. The quantum of life-force particles decides the force of the bio magnetic waves. When everything is as desired the cell structure will remain intact and this in turn manifests in the sound mind in a sound body.

Base for moral behaviour:

Every action has an outcome and it produce a result. Every result is also a reason for next action and it is quite natural. One has to attune his behaviour and uplift the performance level of his body and mind towards the acme. Sexual urge is a biological instinct. One has to streamline it for a better living.

Exercise For Life-Force:

The physical exercises and meditation will make all youngsters conscious about their body structure and mind. This will automatically result in maintaining the body and mind, healthy. Because of the rotatory motion of the earth the sexual vital fluid gets drained and drops downwards and stagnates. This results in the weakening of the body structure and diseases creep in. The stagnation induces one's sex instincts.

Consolidation:

Circulating life-force particles keep human alive. Life force particles are far smaller. Millions of fundamental energy dust particles form part of life force particles. They produce bio-magnetic waves. Bio-magnetic waves in spread out form, becomes mind. Genetic centre coordinates all three vital functions. Densely concentrated bio magnetism is called life-force. All the life force particles and dust particles originate from the sexual vital fluid. Genetic centre is the centre for the life-force.

Reference:-

- Vethathiri Maharishi institute for spiritual and intuitional education. Temple of consciousness,
- Arutperumjothi nagar, ALIYAR- 642 101, Pollchi
- The World community service centre. 156, Gandhiji road, Erode- 638 001.

Does Moderate Exercise Effect on Interferon-Gamma Serum Level?

Ali Heidarianpour^{1✉}, Majid Vahidian Rezazadeh², Alireza Zamani³

PhD, Associate Professor of Exercise Physiology, Department of Exercise Physiology,
Faculty of Physical Education and Sport Sciences, Bu-Ali Sina University, Hamedan, Iran,
E-mail: heidarian317@gmail.com

PhD Student of Exercise Physiology, Department of Exercise Physiology, Faculty of
Physical Education and Sport Sciences, Bu-Ali Sina University, Hamedan, Iran, E-mail:
majid_vahidian@yahoo.com

PhD, Professor of Immunology, Department of Immunology, School of Medicine, Hamedan
University of Medical Sciences, Hamedan, Iran, E-mail: zamanialireza@yahoo.com

Abstract

Epidemiological evidence suggests that moderate exercise (ME) has a beneficial effect on the human immune system. This study aimed at investigating the changes in serum level of IFN- γ during the withdrawal syndrome induced by 8 weeks of moderate exercise and their effects on immune system function. Twenty four male Wistar rats (220 \pm 10g) were divided into four groups (n=6) of Healthy Control (HC), Addicted Control (AC), Healthy Trained (HT) and Addicted Trained (AT). AC and AT groups were made addicted with morphine sulfate 0.4 mg/mL (in 21 days). To ensure their dependence on morphine, naloxone (3mg/kg, i.p.) was injected into a number of the rats. HT and AT groups were made to run on the treadmill 5 days a week for 8 weeks where time and speed gradually increased. Both prior to the exercises and 24 hours after the last training session, blood samples were collected from all the animals and the IFN- γ serum level was measured using the ELISA method. One-way analysis of variance (ANOVA) and Tukey post hoc test were also used to evaluate the differences among the groups. The results witnessed that after 8 weeks of exercise, there was a significant increase in the IFN- γ serum level in the HT and AT groups in contrast with HC and AC groups respectively. ME for 8 weeks increased the IFN- γ serum level in the morphine dependent rats. Therefore, this type of exercise can improve the function of the immune system during withdrawal syndrome.

Keywords: Moderate Exercise, Withdrawal Syndrome, Interferon-gamma

Introduction

Some of the most common problems of modern man and the precursor to the development of many physical diseases include nervous, digestive, respiratory ailments and drug addiction. Morphine is a drug of which a chronic use causes dependence and addiction through time. After a period of dependence body and central nervous system react to lack of substance through a set of symptoms that collectively are identified as withdrawal syndrome. The most of these symptoms include restlessness, rhinorrhea, perspiration, chills, myalgia, irritability, anxiety, joint pain, insomnia, nausea, vomiting, and diarrhea (1). The withdrawal syndrome is confirmed by the

✉ Corresponding Author: Ali Heidarianpour, E-mail: heidarian317@gmail.com, Phone

+988138381422, Mobile +989188187984, Fax +988138381421

existence of three of these signs. Studies suggest that during the period of drug abuse and addiction withdrawal syndrome the immune system is weakened and its function is impaired (2). One of the immune factors affected by withdrawal syndrome is as cytokines. Cytokines are small protein particles that are biologically very active and regulate growth, function, and differentiation of cells, contributing to guidance of immune responses and inflammation (3). Many immune cells, including lymphocytes, granulocytes, macrophages and other non-immune cells secrete cytokines (4). Interferons are also one of the cytokine elements that have special importance. Interferon-Gamma (IFN- γ) is a major proinflammatory cytokine, belonging to interferons family. This cytokine is an activator of macrophages with anti-bacterial and anti-viral functions (5) of which the anti-inflammatory action has been proven in various studies. IFN- γ is produced by TCD4⁺ cells, NK, Th1, and TCD8⁺ cells (6). IFN- γ and other cytokines secreted from Th1 are involved in the elimination of intracellular pathogens (2). In recent years, several studies have focused on the impact of physical activities and exercises on human health. Many of these studies have revealed the beneficial effects of sport and physical activities on physiological dysfunctions, fitness and quality of life in general (7). The quality of the physical exercises depends on the intensity, duration and type of the activity which have different effects on the immune system. For instance, myriad number of studies have revealed that after an intense workout, different negative outcomes such as susceptibility to upper respiratory tract infections (8), and decreased IFN- γ in peripheral blood occur (9). On the other hand, many studies have indicated that ME can regulate the functions of Th1 and Th2 cells in viral clearance (10), increases level of IFN- γ (11), and shows anti-inflammatory effects of regular exercise (12). Researchers believe that ME increases the secretion of IFN- γ , so researchers want to know that ME can increase IFN- γ serum level in withdrawal syndrome? The present study, evaluate the effects of 8 weeks moderate exercise on serum level of IFN- γ during the withdrawal period.

Materials and Methods

Animals

The experiment was carried out on 24 male Wistar rats (aged 8 weeks and weighing 220 \pm 10g). The rats were purchased from Razi Institute, Tehran, Iran, and the standard laboratory food and water were provided to the animals during the research period. Rats were placed in transparent polycarbonate cages (3 rats per cage). The animals were kept under 12h light and 12h dark and temperature-controlled environment at 22-25 $^{\circ}$ C and 50-70% relative humidity. All instructions were strictly considered in accordance with the ethical protocols of laboratory animals (13). The animals were then classified into four groups of six and underwent testing as following: Healthy Control (HC), Addicted Control (AC), Healthy Trained (HT) and Addicted Trained (AT).

Drug Administration

In this study, the oral method was employed to make the samples morphine dependent using morphine sulfate powder purchased from Temad Company, Tehran, Iran. The rats were made addicted to morphine with concentration of 0.1, 0.2 and 0.3 mg/mL per dose for 48 hours (total 6 days) mixed into the drinking water of the animals. Then the animals were fed with morphine with concentration of 0.4 mg/mL for 15 days. To eliminate the bitter taste of the morphine, sucrose at a concentration of 3% was added to their drinking water. In order to prevent decomposition of the morphine by light, the bottles containing the morphine and water mixture were covered with a thin aluminum sheet. To ensure the dependence on morphine in the rats, on day 21, naloxone at a concentration of 3 mg/kg was intraperitoneally injected into some of the rats' body at random. After the injection, withdrawal symptoms in the animals were assessed by the researcher. A mirror chamber was used for this purpose and the animals that received naloxone for 30 minutes were placed inside the chamber to evaluate their behavior qualitatively.

Exercise protocol

The rats ran on a treadmill designed for animals (made by Arian Instruments, Iran) based on a program adapted from Calegry *et al* (2011) (14). HC and AC groups remained sedentary and were only allowed to move within their cages, while HT and AT groups began running on the treadmill. The rats exercised once a day, 5 days per week for a total of 8 weeks. During the first week, they ran for 10 minutes at a speed of 9m/min but the time and speed were gradually increased so that in the final week they could reach 60-minutes at a speed of 30m/min. The speed and duration of the exercise per each week are presented in table (1):

Table 1. Schematic representation of moderate exercise protocol. Adapted from Calegari et al.

Weeks	1	2	3	4	5	6	7	8	
Time	10	15	20	25	30	40	50	60	min
Speed	9	12	15	18	21	24	27	30	m/min

Experiments

After confirmation of morphine dependence among all four groups of animals in this research, blood samples were taken and deposited in serum separator tubes at room temperature for 30 minutes. Then, the blood samples were centrifuged for 10 minutes at 6° C at 3000 rpm. The obtained serum was immediately frozen at -20° C. Blood sampling process was practiced at the end of the eighth week of the exercise protocol, and again 24h after the last exercise. ELISA kit IFN-γ (Quantikine, R & D Systems, USA) was used to measure the secreted cytokines. For this purpose, fully automatic ELISA reader, Elisys UNO, manufactured by "Human" in Germany was employed.

Statistical analysis

The Shapiro-Wilk test was used to determine the normality of data distribution. One-way analysis of variance (ANOVA) and Tukey post hoc test were also used to evaluate the differences among the groups. Statistical analysis of the results was performed using SPSS software version16.

Results and Discussion

The results of this study showed that after confirmation of dependence on morphine and prior to the beginning of the 8 weeks moderate exercise protocol, there was a significant reduction in the IFN-γ serum level in the AC group in comparison with the HC (P<0.001). On the other hand, there was a significant decrease in the level of IFN-γ serum in AT compared with HT (P <0.001). After 8 weeks of endurance training, there was a significant increase in the level of IFN-γ serum of HC compared with AC (P <0.001). The IFN-γ serum level in AT group increased significantly in contrast with HT (P <0.001). The results are illustrated in table 2 and figure (1).

Table 2. Comparison results of Tukey test among the groups before and after ME.

Groups	Mean	Std. Error	Sig.	Groups	Mean	Std. Error	Sig.
Before ME	Difference			After ME	Difference		
HC	108.500*	9.422	.000	HC AC	43.333*	6.019	.000
AC							
HT	108.333*	9.422	.000	HT AT	32.833*	6.019	.000
AT							

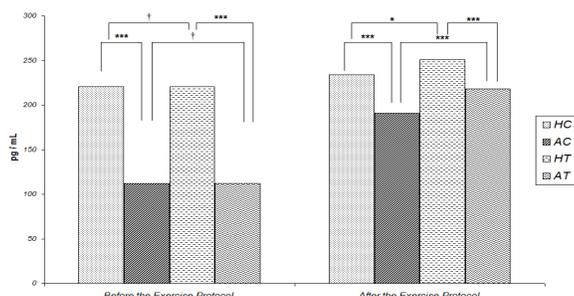


Figure 1. Comparison of IFN-γ serum level between groups (Means±S.E.M). *P<0.05, ***P<0.001, † not significant

The findings of this study showed that IFN-γ serum level decreased in withdrawal period and increased after 8 weeks ME among healthy and addict groups. Consistent with the results of the present study, production of IFN-γ was suppressed after morphine withdrawal period (15, 16 and 17). On the other hand, Zhao et al (2012) noted that in a series of articles that after moderate intensity exercise the IFN-γ serum level significantly increased (10). In another study, Shimizu et al (2008) came to a similar conclusion too (11). Many of the findings of other researchers are in line with the findings of this study, but some studies have reached different conclusions confirming that after exercise, IFN-γ level decreases. For example, in their research, Ranjbar et

al(2013) stated that after 30 minutes of 50% vo₂max intensive cycling and 2 hours after the exercise, the IFN- γ level rose; whereas there was no significant increase at higher values (18). After 8 weeks on a treadmill with a level of 55-70% vo₂max intensity, Zar *et al*(2012) announced decrease in the level of IFN- γ within 24-48 hours after the last session, but the registered decrease was not significant (19). White *et al*(2008) also reviewed a series of studies conducted on patients and reported a decrease in cytokines IFN- γ level after aerobic exercises (20). These differences may be caused by the type, intensity and duration of exercise protocols, some genetic and racial differences or differences among samples, including human and animal samples. Different conditions of physical, psychological and digestive conditions of the samples can also be effective factors. There are many reports confirming that ME drives the immune system toward Th1-type cytokine responses such as IFN- γ and IL-2 (21). Hence, following ME, increase of IFN- γ level is justified in the present study.

Conclusion

A significant increase in the amount of IFN- γ serum level in HT and AT groups, in contrast with the pre-workout levels indicate that 8 weeks of moderate training protocol used in this study could significantly affect the production amount of these cytokines. As it is known, the immune system demonstrates different responses to different exercises and narcotics. The results of the current research reveal that physical activity with moderate intensity, not only in healthy individuals, but also in those during withdrawal course, can play a significant role in increasing the IFN- γ level as an inflammation reducing cytokine. So researchers suggest that ME can be applied in the withdrawal period to improve immune system.

Acknowledgements

This work was supported by Research Grant Bu-Ali Sina University, Hamedan, Iran. The authors would like to thank the other members of the exercise physiology group for their suggestions and help in the research.

References

- Roxane Laboratories, Inc., & United States of America. Dolophine® Hydrochloride (Methadone Hydrochloride Tablets, USP), -Drug Safety Sheet. 2006.
- Greeneltch KM, Kelly-Welch AE, Shi Y, Keegan AD. Chronic morphine treatment promotes specific Th2 cytokine production by murine T cells in vitro via a Fas/Fas ligand-dependent mechanism. *J Immunol* 2005; 175 (8): 4999-5005.
- Arican O, Aral M, Sasmaz S, Ciragil P. Serum levels of TNF- α , IFN- γ , IL-6, IL-8, IL-12, IL-17, and IL-18 in patients with active psoriasis and correlation with disease severity. *Mediators Inflamm* 2005; 5 (2005): 273-9.
- Farrell PA, Joyner MJ, Caiozzo V. ACSM's advanced exercise physiology. *ACSM* 2012; 512-23
- Kohara H, Kitaura H, Fujimura Y, Yoshimatsu M, Morita Y, Eguchi T, et al. IFN- γ directly inhibits TNF- α -induced osteoclastogenesis in vitro and in vivo and induces apoptosis mediated by Fas/Fas ligand interactions. *Immunol Lett* 2011; 137 (1): 53-61.
- Abbas AK, Lichtman AH, Pillai S. Cellular and molecular immunology. 7th ed. Elsevier Health Sciences; 2012.
- Dennison L, Moss-Morris R, Chalder T. A review of psychological correlates of adjustment in patients with multiple sclerosis. *Clin Psychol Rev* 2009; 29 (2): 141-53.
- Calabrese LH, Nieman DC. Exercise, immunity, and infection. *J Am Osteopath Assoc* 1996; 96 (3): 166.
- Steensberg A, Toft AD, Bruunsgaard H, Sandmand M, Halkjær-Kristensen J, Pedersen BK. Strenuous exercise decreases the percentage of type 1 T cells in the circulation. *J Appl Physiol* 2001; 91 (4): 1708-12.
- Zhao G, Zhou S, Davie A, Su Q. Effects of moderate and high intensity exercise on T1/T2 balance. *Exerc Immunol Rev* 2012; 18: 98-114
- Shimizu K, Kimura F, Akimoto T, Akama T, Tanabe K, Nishijima T, et al. Effect of moderate exercise training on T-helper cell subpopulations in elderly people. *Exerc Immunol Rev* 2008; 14: 24-37.
- Walsh NP, Gleeson M, Shephard RJ, Gleeson M, Woods JA, Bishop NC, et al. Position statement. Part one: Immune function and exercise. *Exerc Immunol Rev* 2011; 17:6-63.
<http://www.nap.edu/readingroom/books/labrats>
- Calegari VC, Zoppi CC, Rezende LF, Silveira LR, Carneiro EM, Boschero AC. Endurance training activates AMP-activated protein kinase, increases expression of uncoupling protein 2 and reduces insulin secretion from rat pancreatic islets. *J Endocrinol* 2011; 208(3): 257-64.
- West JP, Dykstra LA, Lysle DT. Immunomodulatory effects of morphine withdrawal in the rat are time dependent and reversible by clonidine. *Psychopharmacology* 1999; 146(3): 320-7.
- Kelschenbach J, Barke RA, Roy S. Morphine withdrawal contributes to Th cell differentiation by biasing cells toward the Th2 lineage. *J Immunol* 2005; 175 (4): 2655-65.
- Rahim RT, Meissler Jr JJ, Zhang L, Adler MW, Rogers TJ, Eisenstein TK. Withdrawal from morphine in mice suppresses splenic macrophage function, cytokine production, and costimulatory molecules. *J Neuroimmunol* 2003; 144(1): 16-27.
- Ranjbar R, Nezhad MPS, Eslami R. Effect of Six Weeks of Endurance Training on Levels of Interferon Gamma in Tissue of Female Mice with Cancer. *NATIONALPARK-FORSCHUNG IN DER SCHWEIZ (Switzerland Research Park Journal)* 2013; 102(10).
- Zar A, Ebrahim K, Hovanloo F, Amani D. Effects of An 8-Week Endurance Training Course on Changes in Interferon Gamma and Leukocyte Subsets. *Journal of Isfahan Medical School* 2012; 30(185).

The Scenario of Basketball Game in West Bengal - A review

Sundar Biswas

Department of Physical Education, Visva-Bharati, Santiniketan-731235, West Bengal,
email: sundarbiswas@rediffmail.com

Abstract

YMCA, Calcutta introduced the game of Basketball in West Bengal in the year 1927. West Bengal Basketball Association, the parent body of basketball game has taken several steps for the development, upliftment and popularity of the game towards every corner of the state by providing coaches, conducting coaching camp, organizing tournaments etc. Women's Basketball Association of Bengal was an association mainly for Anglo-Indian community. They ruled Indian women's Basketball for several consecutive years. As a result Bengal has shown their remarkable performance during sixties and seventies. Women Basketball team of West Bengal became national champion several times and sometime men's team. The state produces many International player and referee. Among them only female, Aparna Ghosh receives Dhyani Chand Award in Basketball. Not only that, Atanu Banerjee a F.I.B.A. referee, from West Bengal carry out several International matches. But the present rising basketball players of West Bengal have failed to lead West Bengal to the crescendo of fame, as a result the game is still surviving in West Bengal.

Key Words: Basketball, Basketball in West Bengal, History of Basketball, YMCA, FIBA

Introduction :

Basketball was originated in U.S.A, Springfield, Massachusetts by Dr. James Naismith in December 1891 at the School for Christian Workers (now Springfield College). But the game was introduced in India in 1905 just after one year when the game was demonstrated in Olympic. YMCA, Calcutta was steered the game in Calcutta, West Bengal in the year 1927. Late S. K. Mukherjee, Physical Director of YMCA, Calcutta and Late R. N. Mukherjee, President of Bengal Olympic Association were the pioneers to introduce the game in West Bengal. Bengal Basketball Association was formed in 1927 [38th Annual Report of West Bengal Basketball Association (1964-65)] and it was recognized unit of Bengal Olympic Association. Just after two years, another association- Women's Basketball Association was formed which was an association mainly for Anglo-Indian community. This association controlled and ruled Indian Basketball for several years. From the very beginning Bengal Basketball Association, currently West Bengal Basketball Association (WBBA) was an affiliated member of Basketball Federation of India (BFI). At the initial stage the personalities like K. N. Roy, J. Buchanan, R. N. Mukherjee, S. K. Mukherjee, J. N. Mukherjee, N. Ahmed, H. K. Mukherjee, Dr. S. K. Banerjee, D. C. Lahoty, P. C. Banerjee etc. spent much more time and contributed a lot towards the growth and development of Basketball in West Bengal as well as the growth of West Bengal Basketball Association.

At the beginning, being an affiliated unit of WBBA, Women's and Girls' Basketball was mainly organized by Women's Basketball Association of Bengal and the selection of players and sending the Bengal woman's team to the national championship was entirely controlled by Women's Basketball Association of Bengal.

Coaching programme organized by WBBA:

By the courtesy of US embassy and with the help of Rajkumari Amrit Kaur Coaching Scheme Mr. Frank Kaufmann, a famous coach of USA, came here on 4th November 1955. K. N. Roy, Chief Inspector of Physical Education Officer & Youth Officer opened the coaching camp at WBBA ground Calcutta. 91 trainee and coach including 20 women came from Andaman, Assam, Bihar, Tanjor and Services personnel from Bareilly, Dehra Dun, and the Punjab attend the camp till 18th November.

Mr. Sam Fox, another first class coach of USA came to WBBA ground Calcutta in 1959. West Bengal State Council of Sports conducted a coaching camp by a popular Philippines coach and Chief Coach of N.I.S. Patiala Lauro G. Mumar at WBBA ground from 18th March 1964 for 45 days. Subhendu Kumar Ghosh (popularly known as BABU Da) came out 'Most Promising Coach' and joined N.I.S., Patiala on State Government stipend. West Bengal State Council of Sports sponsored another coaching camp by 1st foreign qualified Indian Basketball coach of N.I.S. Joseph Sam from 1st to 13th May 1965. Subhendu Kumar Ghosh qualified N.I.S. Basketball Coaching & Training Degree with Class –I and appointed as 1st Basketball coach of West Bengal State Council of Sports. Mr. Alexander Omelow, a celebrated coach from USA conducted a coaching cum demonstration camp at Netaji Indoor Stadium, Calcutta.

Various Tournaments organized by WBBA:

In the session 1954-55, the tournament was held under three groups: Senior, Intermediate and Junior and played in knock-out and league basis. Games were played in week-end and holidays only. Name of the leading goal getters were displayed to the notice board to encourage the players. Side by side the publicity & programme committee used conventional media of publicity like cinema slides, banners, posters, glow sign board etc. Basketball Federation of India first time organized National Championship for school boys in 1955. In 1955-56 a demonstration match was played by two teams of Women's Basketball Association where men's New International Rule was applied first time for women.

5th National Basketball Championship was held at WBBA ground, Calcutta on 8th to 12th December in 1954. Season Tickets were sold by different clubs, members, Women's Association etc. Seating arrangement was made for 8000 spectators. Two Illuminated score boards were used with time clock and Floodlight arrangement was installed. Score Book as modified by the WBBA during the 5th National had been approved and adopted by the Basketball Federation of India. In XIV National Championship at Calcutta, Publicity & Programme Committee receives blessings from President of India, Prime Minister, Chief of Army staff, Secretary, FIBA, Chief Minister of West Bengal and several International Basketball players for their Souvenir.

West Bengal State Open Basketball Championship, a new tournament started on 10th May 1956 aiming that Basketball will become A-1 Sport in West Bengal and to educate the people about this game. Inter Office League and Knockout Tournament was introduced from 1962 – 63 and gaining popularity day by day. Eastern Railway Athletic Association joined the tournament from the session 1966-67. To popularize the game of Basketball an Inter District Basketball Tournament was introduced on 24th March 1967 at Town School ground, Burdwan. Four district were participated viz. Burdwan, Birbhum (Visva-Bharati), Calcutta Central and Calcutta South. Later it conducted at Dalmia Park, Howrah from 28th to 31st March 1968, again at Town School ground, Burdwan in 1970. With the help of WBBA, Calcutta University conducted their Inter College Basketball Tournament at WBBA ground in 1962, 1963, 1964 and so on in regular basis for selection of university team. Many times East Zone and All India Inter University Basketball Tournament were held in different places of West Bengal. By the recommendation of FIBA and accepted by BFI a Mini Basketball ground was prepared for Boys and Girls for the age groups 7 to 12 years in 1971. First time a Mini League was organized by WBBA for Boys & Girls on June 1975 and also sends a Mini Boys & Girls team for Mini National.

WBBA organized National Basketball Championship at Calcutta in the year 1938, 1954, 1963, 1969, 1976, 1990 and 1997. XXVI National Basketball Championship was held at Netaji Indoor Stadium, Calcutta from 4th to 11th January, 1976 on wooden floor with nylon rubber ball and under halogen light which seems to be the first time in National championship.

First State Basketball Championship for Men & Women held from 9th to 19th December 1979 at WBBA ground. A large no of spectators watched the tournament from wooden gallery and the matches were telecasted through Doordarshan. 1st Federation Cup Basketball Championship for Men & Women was organized by Burdwan District Volleyball & Basketball Association at Aurobindo Stadium, Burdwan from 10th to 14th June 1981. First time State championship was held at Bolpur Town Club from 13th to 15th February 1981.

Performance of West Bengal Basketball Teams:

Bengal became winner in the All India Olympic Meet in 1934 and later in 1938, 1940 and 1942. From 1952 to 1959 they were the National Champion and retained Basalt Jha Trophy while absent in 1955. After 1959 they were again National Champion in the year 1964, 1965, 1970,

1971, 1974 and Runner Up in 1960, 1962, 1963, 1966, 1967, 1972 and 1975. Later the performance of Women's Basketball team was not at all satisfied and they only Runner Up after 21 year in 1996 at Kolkata. Performance of Men's team of West Bengal was consistently poor in comparison with women's' team. Men's team became national champion in 1938 (Calcutta), 1940 (Bombay), and Runner Up in 1942, 1946 and 1951-52.

B.F.I. declared West Bengal Basketball Team as 'Best Disciplined Team' and awarded "Kalinga Rolling Trophy" in XVI National Basketball Championship and XXI National Basketball Championship.

Some distinguished Player & Official from West Bengal: Some of the player of International arena of Basketball are: Dwarik Das (represented National team at least 15 times including Asian Games at Delhi in 1951), G. Ramachandan (1963), Mihir Mukherjee (3rd ABC at Kualalumpur in 1965), Sukumar Chatterjee (4th ABC at Korea in 1967), Kunal Roy (Jr. ABC at Seol in 1970), Pradip Tewari and Chandan Bhattachariya (Asian School Championship at Singapore in 1972), Jenny Godfrey(1963), Fitzie D'Sauza(1963), Joan Baptiste(1963), in Pre-Asian Basketball Tournament at Kuala Lumpur, Malaysia, Linda Furtado and Shreen Contractor and others. Jenefer Paes represented India in 3rd and 8th Asian Basketball Confederation (ABC) Championship. Aparna Ghosh, only female Dhyana Chand Awardee in Basketball, ex-international Basketball Player from Bolpur, West Bengal represented India from 11th to 14th and 17th ABC where as she was the captain of India team 14th ABC in Seoul. This Association produces many FIBA referees, such as J. C. Dutta, Milon Dutta, P. M. John, Atanu Banerjee, Tanmoy Das, Biswajit Ojha. Among them Atanu Banerjee was FIBA official in several international tournaments. Basketball at Santiniketan: Nobody can deny that Rabindranath Tagore was the pioneer in introducing Physical Exercise in School curriculum in India. Tagore opined that if a scholar is unable to do any kind of physical exercise he is a Half-scholar, i.e., though he is highly educated but not a proper or perfect man in the true sense. Education Department of Govt. of West Bengal sponsored a tour of West Bengal Basketball team consisting of 13 players and 3 officials to Visva-Bharati, Santiniketan on 12th February 1956 to play a friendly basketball match with Ashrama team. As desired by Sudhi Ranjan Das, Vice Chancellor of Visva-Bharati, a friendly match was arranged outside Calcutta and Visva-Bharati (Patha Bhavana School team) played against Rakhi Sangha at Ashram Ground, Santiniketan on 12th March 1963. Visva-Bharati took part 1st time in Division – II Knockout Basketball tournament in 1966-67 and lost with Calcutta Police by 36-40 points.

Conclusion:

Though WBBA has taken several steps for the upliftment and popularity of the game towards every corner of the state from the beginning and also the Basketball players from West Bengal has shown their remarkable performance during sixties and seventies but the rising basketball players of West Bengal have failed to lead West Bengal to the crescendo of fame, as a result the game is still surviving. The scenario of Basketball game in West Bengal is now disheartening to some extent. If we ponder over this matter, we find various reasons. But it is a fact that at present the game basketball is not played spontaneously in every corner of West Bengal and not spread at the grassroots level whereas football, cricket, volleyball etc. game have an inherited spontaneity either for competition or recreation and may be occupied top in the popularity ranking in comparison to basketball game. The game Basketball has not even taken place in the coverage of today's wide spread media, rather neglected in our country so long, in comparison with other games like Cricket, Football, Volleyball etc. Greater attention is to be paid to the Basketball game as have been given to Cricket, Football etc. Consequently, the importance of Basketball is overlooked not only by Government but also by common people. Rabindranath writes, students of 'Ashrama' (Santiniketan) had an addiction towards the game Football. Once King of NATABAR came to Santiniketan and gifted many sports equipment at different games but students did not shift to other games leaving Football game.

References:

Dutta, J. (1979). *Basketball in Bengal*. Santiniketan: West Bengal Basketball Association. Editor. (October, 1940). *Visva-Bharati News*. Santiniketan, West Bengal: Visva-Bharati. John, P. (1981). *Basketball Yesterday & Today*. Calcutta: West Bengal Basketball Association.

Secretary, G. (1955, 1956, 1963-1967, 1971, 1973, 1975-1978, 1980, 1981, 1983, 1984, 1985, 1986-1988, 1990-2013). *28th, 29th, 36-41st, 44th, 46th, 48-51st, 53rd, 54th, 56-61st, 63-77th and 79th-86th Year Report & Account*. Kolkata: West Bengal Basketball Association

Practice of Physiotherapy in Neonatal and Paediatric Intensive Care Units in Punjab

Ashok Kumar^{*}, Navkaran Shergill^{**} & Jairaman^{***}

^{*} Assistant Professor, Department of Sports Science, Punjabi University Patiala (Punjab)

^{**} Student of Ph.D., Department of Sports Science, Punjabi University Patiala (Punjab)

^{***} Assistant Professor, Department of Physiotherapy, Punjabi University Patiala (Punjab)

Email: navkaran9999@gmail.com

Abstract

The purpose of this study was to observe the practice of physiotherapy in Neonatal and Paediatric intensive care units (NICU and PICU) in Punjab state. The design of the study was exploratory cross sectional survey. Data was collected with the help of standardized questionnaire, which was sent to one hundred thirty therapists who worked in thirty-eight different hospitals in Punjab and these hospitals have claimed physiotherapy facilities in their NICU and PICU premises. A period of two weeks was given to the therapists for the completion of questionnaire. If the therapists were not able to send the filled questionnaire within two weeks, then a reminder call was given to them for the next two consecutive weeks. It was found that only eighty-four (i.e.64.61%) completed questionnaires was received from the twenty-five hospitals. Our Results revealed that 60% of hospitals were having physiotherapists and out of which 51.2% therapists were graduate in Nursing (B.sc), 41.7% Graduate in Physiotherapy (BPT) and 7.1% in Masters in Physiotherapy. Further results revealed that CPT techniques like percussion, vibration, suctioning and other associated techniques like positioning, breathing exercises, postural drainage, aerosol therapy were practiced in both PICU and NICU but more frequently in PICU as compared to the NICU in different hospitals. It was concluded that not all of the patients get routine physiotherapy from professionally qualified physiotherapists as part of their NICU and PICU stay in hospitals located in Punjab.

Key words: ICU, Neonatal, Paediatric, Physiotherapy, Punjab

Introduction

The infant mortality rate (IMR) in India has dropped from 144 per thousand live births to 44 per thousand live births in the past few decades. In Punjab according to the 2011 census infant mortality rate is 30 per thousand live births. The recommendation is for 30 Neonatal intensive care units beds per million population (Fernandez and Mondkar, 1993). Currently, there are only a few neonatal intensive care units in the country, majority of which are attached to teaching institutions. Over the past few years, a few privately run Neonatal and Pediatric Intensive Care units (NICU and PICU) have mushroomed in some of the major cities. However, these are inadequate for the number of babies requiring intensive care and few babies can avail these services because of the high costs. Despite the fact that establishing and maintaining NICUs in a developing country are beset with a number of problems, the fact remains that there is a need for such units which should be developed in suitable institutions on a regional basis (Fernandez and Mondkar, 1993). An intensive care unit is a specially staffed and equipped hospital ward dedicated to the management of patients with life threatening illnesses, injuries or complication (Kumar *et al*, 2007). Intensive care is a unit where physiotherapists are vital members of the multidisciplinary team providing a health care from acute respiratory to rehabilitation. The role of ICU physical therapist is to promote healing and recovery and return the patient to the highest level of life participation and satisfaction. NICU provides high quality skilled care to critically ill neonates through facilities like continuous clinical, biochemical and radiological monitoring and use of life support systems with the aim of improving survival of babies (Fernandez and Mondkar, 1993). NICU is typically directed by one or more neonatologists and staffed by nurses, pharmacists, physician assistants and respiratory therapists (Whitfield *et al*, 2004). Neonatal chest

physiotherapy has become a routine method of care in neonatal intensive care units in western world while the same is less common in India, probably due to shortage of cardiopulmonary physiotherapy training in pediatrics and neonates (Bruno Demontet *et al*, 2007). One of the earliest published study on the effect of respiratory physiotherapists on neonates was done by Holloway *et al* in 1969. In spite of presence of strong evidence base to support the role of physiotherapists in the ICU, the importance of providing specialist physiotherapists has been undermined (Kumar *et al*, 2007). Lewis *et al*, 1992, concluded through their study that methods of chest treatment and the indicators for commencing chest treatment were similar throughout NICU in Australia. Both physiotherapists and nursing staff played a role in the performance chest physiotherapy in all units but in one unit it was the responsibility of the nursing staff. Paediatric intensive care unit is an area within a hospital specializing in the care of critically ill infants, children, and teenagers. Pediatric rehabilitation is currently becoming an independent sub-discipline of physiotherapy. Neonatal and pediatric intensive care are usually provided in distinct units, characterized by highly specialized staffs dedicated either to critically ill newborns or to critically ill children. However, such a model may not be suitable or even applicable to all medical organizations or to different local needs. In Europe there are several PICU which routinely provide care also to neonatal patients, including extremely preterm infants. Conversely, there are many NICU which occasionally, or systematically, admit young infants (Biban and Spaggiari, 2011). The precise role of the physiotherapists in the ICU varies considerably from one unit to the other, depending on factors such as the country in which the ICU is located, local tradition, staffing levels, training and expertise. The referral process is one such example of this variation. In some ICU's, physiotherapists assess all patients, whereas in other ICU's patients are seen only after referral from medical staff. Despite the emphasis on multidisciplinary team, the lack of role definition has resulted in many specialist physiotherapy services being undermined by other professional groups, mostly nursing staff. In spite of presence of strong evidence base to support the role of physiotherapists in the ICU has undermined the importance of providing specialist physiotherapists (Kumar *et al*, 2007). Lewis *et al*, 1992, concluded through their study that methods of chest treatment and the indicators for commencing chest treatment were similar throughout NICU in Australia. Both physiotherapists and nursing staff played a role in the performance chest physiotherapy in all units but in one unit it was the responsibility of the nursing staff. The basic therapeutic principles in pediatric chest physiotherapy (CPT) are identical to those applied in adults. However, the child's growth and development results in continuing changes in respiratory structure and function, and the requirement for different applications of CPT in each age group (Zach and Oberwaldner, 1999). Physiotherapy is sought when there is excess secretion, poor gas exchange, and increased work of breathing or radiologic evidence of atelectasis (Vijay *et al*, 2012). Techniques for cardiopulmonary physiotherapy includes humidification, positioning, percussion, vibration, postural drainage and endotracheal suctioning. The purpose of the study is to find what role physiotherapists play in the care of ill neonatal and pediatric population.

Materials & Methods

The design of the present study was exploratory cross sectional survey. The participants of the present study were physiotherapists and nurses who were working in NICU and PICU. They were requested to fill the questionnaire. A list of hospitals of Punjab state was obtained from the website of Govt. of Punjab, Department of Family and Health Welfare Society and also from various pediatricians across the state. Following which data collection was started from various hospitals and nursing homes in Punjab. The hospitals in Patiala district and nearby towns were personally visited by the investigator and data was collected from the therapists who were working in NICU and PICU. Questionnaires to the hospitals located in other districts of Punjab were sent either by e-mails or personally by fellow colleagues. The investigator did not get the opportunity to meet every therapist personally. Two weeks time was given to the respondents to fill the questionnaire and after that a reminder call was given to them after consecutive one week. The aim and objectives of the study were clearly stated in a cover letter attached to the questionnaire in order to obtain the consent of respondents. The respondents were made clear that the information gathered from them shall remain confidential and be used only for research purpose. Some therapists filled the questionnaire immediately whereas others asked the

investigator to leave the blank questionnaire and collect the filled one at a later date. The investigator distributed the questionnaire to 130 therapists. Repeated requests were made to them regarding to fill the questionnaire two times after 2 weeks. Even after repeated requests made to the respondents, 46 questionnaires were not obtained and only 84 filled questionnaires were collected. Thus the response rate of this survey was 64.61%.

Results

A total of 84 completed questionnaires were received out of 130 (64.61% response rate) and the largest response was from Patiala followed by Mohali, Bathinda, Ludhiana and Muktsar.

Table 1: Table showing Qualification of the Individuals providing Physiotherapy Treatment

Qualification	Number	Percentage
BPT	35	41.7%
MPT	6	7.1%
Ph.D	0	0
Diploma	0	0
B.sc nursing	43	51.2%

Table 1: shows the qualification of the individuals providing physiotherapy treatment in different hospitals. Professionals with b.sc nursing qualification (51.2%) are mostly indulged in physiotherapy treatment than professionals with bachelor and masters qualification in physiotherapy 41.7% and 7.1% respectively

Table 2: Table showing patients treated on Referral and Routine basis

Patients treated	NUMBER	PERCENTAGE
On physician referral	74	88%
On routine assessment	10	12%

Table 2: 88% respondents reported that patients treated by them are on physicians referral and only 12% patients are treated on routine assessment.

Table 3. Chest Physiotherapy Techniques used in PICU

Chest Physiotherapy Techniques	Number	Percentage
Percussion only	76	90.48%
Vibration only	57	67.86%
suctioning only	65	77.38%
Positioning (Supine ,side-lying, prone)	61	72.62%
Breathing exercises	64	76.19%
Incentive spirometry	12	14.29%
Ambulating non intubated patients in PICU	27	32.14%
Aerosol therapy	33	39.29%
Nebulization	65	77.38%
Oxygen therapy	77	91.67%
Postural drainage	62	73.80%
Forced expiratory technique	40	47.62%
Assisted coughing	49	58.33%
Assisted huffing	42	50%

Table 3: shows the physiotherapy techniques frequently used in PICU and it was found that 91.67% respondents were involved in oxygen therapy, 90.48 % in percussion, 77.38% in suctioning and nebulization, 76.19% in breathing exercises, 73.80% and 72.62% in postural drainage and positioning respectively. 58.33% and 50% respondents were involved in assisted coughing and huffing and only 14.29% were involved in incentive spirometry

Table 4. Chest Physiotherapy Techniques used in NICU

Chest Physiotherapy Techniques	Number	Percentage
Percussion only	55	65.48%
Vibration only	48	57.14%
Suctioning only	56	66.67%
Positioning (Supine, side-lying, prone)	53	63.09%
Aerosol therapy	12	14.29%
Nebulization	64	76.19%
Oxygen therapy	56	66.67%
Postural drainage	36	42.86%

Table 4: shows the physiotherapy techniques frequently used in NICU, the nebulization was used by maximum respondents with 76.19% and 66.67% respondents were involved in suctioning, 65.48% in percussion, 57.14% in vibration, 63.09% in positioning and only 42.86% respondents were involved in postural drainage.

Discussion :

A total number of 48 hospitals were identified in Punjab with NICU and PICU facilities and 38 hospitals were invited for the study, out of which 25 responded. The investigator found very little or no considerable data regarding the role of Physiotherapy in NICU and PICU in India or any of its state and this study may be the first to report the practice of physiotherapy in NICU and PICU in Punjab state. Lewis *et al.*, 1992, reported that, methods of chest treatment and the indicators for commencing chest treatment were similar throughout NICU in Australia. Both physiotherapists and nursing staff played a role in chest physiotherapy in all units but in one unit it was the responsibility of the nursing staff. He reported that in 36% of units physiotherapists were only providers of the respiratory therapy and 55% of units shared respiratory therapy between nurses and physiotherapists. In our study the qualification of the individuals providing physiotherapy treatment was also similar in many aspects with the study of Hudson *et al*, 2001, which reported that Respiratory therapy was carried out by physiotherapists and nurses in 54.5% of units, by physiotherapists only in 36.4% of units, and by nurses only in the remaining 9.1% of units surveyed. In our study (43) 51.2% nurses were involved in providing physiotherapy treatment and (35) 41.7% of physiotherapists were involved in providing physiotherapy care. Only (6) 7.1% postgraduate students were involved in providing treatment in NICU and PICU. Our study reported that patients in the NICU and PICU were treated on the referral basis from the physicians. 88% respondents reported to treat patients on physicians' referral and only 12% provide therapy on routine assessment. Our study showed more prevalence of referral system than reported by Kumar *et al*, 2007. In this study respondents reported that 55% of the referral system in the ICU is by physicians. Though recognition of the need for physiotherapy is growing worldwide, the kind of referral system being practiced in Indian ICU's is physician based. Norrenberg *et al*, 2000 study also showed that almost 100% of the ICU physiotherapists performed respiratory therapy, mobilization and positioning. Where as in study of Robyn *et al*, 2001 techniques used by therapists in neonatal intensive care units were postural drainage no tip (35%), postural drainage with tip (0%), non-specific positioning to alter ventilation (75%), vibrations (75%), percussion (75%), positioning prior to treatment (55%) and pre-extubation suction (55%). Other techniques used by physiotherapists in the overall management of neonates included water pillows (15%), peanut pillow (50%), nesting (90%) and techniques such as education, Fraser chair bean bags and action pads (30%). Another study by Jithendra *et al*, 2007 reported that 91% of the respondents were involved in chest manipulations (percussion, vibration, suctioning), 100% in

mobilization, 100% in breathing exercises, 94% in incentive spirometry, 98% in postural drainage, 95% in assisted coughing in the ICU of India. Our study showed that 65.4% therapists were involved in Percussion, 57.14% in Vibration, 66.67% in suctioning, 63.09% in positioning, 42.86% in postural drainage in the NICU of Punjab. Other techniques used by the therapists were nebulization (76.19%), oxygen therapy (66.67%), aerosol therapy(14.29%) in the neonatal intensive care units. Where as in paediatric intensive care unit 90.48% therapists were involved in percussion, 67.86% in vibration, 77.38% in suctioning, 72.62% in positioning, 76.19% in breathing exercises, 14.29% in incentive spirometry, 73.80% in postural drainage, 47.62% in forced expiratory technique, 58.33% in assisted coughing, 50% in assisted huffing. Other techniques used by the therapists in paediatric intensive care unit were nebulization (77.38%), oxygen therapy (91.67%), and aerosol therapy (39.29%). 32.14% therapists were also involved in ambulating no intubated patients in PICU. Less involvement of therapists in NICU may be because of critical conditions of the neonates or because of lack of exposure to neonate population. In our study 57.1% respondents reported that treatment techniques applied to the patient were given after discussing with the doctor, 34.5% responded that they provide physiotherapy as per the order of the doctor and only 7.1% respondents decides personally about the treatment. 1.2% respondents also reported that they provide treatment after discussing with the nurses.

Conclusion

It was concluded that majority of CPT techniques were used in PICU as compared to NICU. It may be due to lack of exposure to neonate population or because of critical condition of the neonates and physiotherapy should be standard routine management of patients in intensive care units.

Acknowledgment: The authors thank all the physiotherapists/hospitals who voluntarily participated in this study.

References

- Biban P, Spaggiari S. "Cohabitation" between NICU and PICU. *J Matern Fetal Neonatal Med*, 2011 Oct; 24: 91-3.
- Bruno demont and Claude Vincon. Chest physiotherapy using the expiratory flow increase procedure in ventilated newborns:A pilot study. *Journal of Physiotherapy*,2007;93:12-16
- Fernandez and AMondkar. Status of neonatal intensive care units in India.*Journal of Post Graduate Medicine*, 1993; 39: 57-9.
- Hudson M. Robyn and Robyn C Box. Neonatal respiratory therapy in the new millennium: Does clinical practice reflect scientific evidence?*Australian Journal of Physiotherapy*, 2003; Vol. 49: 269-272.
- Kumar A. Jitthendra, Arun G. Maiya, Daphne Pereira. Role of physiotherapists in intensive care units of India: A multicenter survey.*Indian J Crit Care Med*, October-December 2007 Vol 11; Issue 4.
- Lewis JA, Lacey JL, Henderson-Smart DJ: A review of chest physiotherapy in neonatal intensive care units in Australia. *J Paediatric Child Health*, 1992; 28:297-300
- Norrenberg M, Vincent J. A profile of European intensive care unit physiotherapists.*Intensive Care Med*,2000; 26: 988-94.
- Robyn M Hudson and Robyn C Box. Neonatal respiratory therapy in the new millennium: Does clinical practice reflect scientific evidence? *Australian Journal of Physiotherapy*, 2003; Vol. 49: 269-272.
- Vijay Pratap Singh, Vaishali, NutanKamath, BiditaKhandelwal and R. N. Salhan. Effect of cardiopulmonary physiotherapy on lung parameters in mechanically ventilated neonates. *International Journal of Medicine and Medical sciences*, 2012; Vol. 4(10), 246-250.
- Whitfield, Jonathan M.; Peters, Beverly A.; Shoemaker, Craig .conference summary- celebration of a centuary of neonatal care (Dallas: Baylor University Medical Center), 2004; 17 (3): 255–258.
- Zach MS, Oberwaldner B. Chest physiotherapy. In: Tausig L, Landau L, eds. *Textbook of Pediatric Respiratory Medicine*, St.Louis, Mosby Inc, 1999; 299-311.

The Need For Indigenous Activities In The Present Day Context

Sri.Srinivasa

Assistant professor, Department of studies in physical education and sports science.
Karnataka State Women's University, Bijapur

Abstract

We have imported many games from the Europeans, and we employed and excelled in them. Now we have our own games, which are indigenous in nature and played throughout the nook and corner of the country E.g. :Kho-Kho, Kabaddi, wrestling, ball-badminton etc. These games are popular because they are simple and they also bring in a sense of togetherness. These games are simple, popular, easy to comprehend the rules, inexpensive, appealing to public and free of sophisticated equipments. Though these games are simple and easy they demand both skill and power. It develops the essential and basic motor qualities in the participants . many indigenous games in India that are played in villages across the country. :The rural population depends purely on agriculture. They do not have much time for competitive sports, and their involvement in them was purely recreational. Even the facilities provided for the rural youth is very meager and hence there is no performance of them in sports and games. :Indigenous sports and community cohesion ,Indigenous games and social inclusion Indigenous activities and community safety.Reasons being Simplicity ,Popularity ,Inexpensiveness ,Minimum space and facilities and Natural movementsLack of patriotism ,Lack of government support ,Unappealing to urban mass ,Lack of glamour,Fails to attract media and sponsorship ,Westernization ,Lack of professional approach by associations and federations The government of India should establish an academy to protect the indigenous and traditional gamesThe state governments should collaborate with the corporate sector to assist the sportsmen financially .Innovations in the playing surfaces including gadgets.Indoor and outdoor stadiums should be built across rural and urban areasKey Words : Indigenous activities, Socio-economic status.

Introduction

We have imported many games from the Europeans, and we employed and excelled in them. Now we have our own games, which are indigenous in nature and played throughout the nook and corner of the country E.g. :Kho-Kho, Kabaddi, wrestling, ball-badminton etc. These games are popular because they are simple and they also bring in a sense of togetherness. These games are simple, popular, easy to comprehend the rules, inexpensive, appealing to public and free of sophisticated equipments. Though these games are simple and easy they demand both skill and power. It develops the essential and basic motor qualities in the participants . many indigenous games in India that are played in villages across the country. These rural sports have different variations and are known by other names depending on the region they are played in Popular with schoolchildren, these traditional games help build stamina, sharpen the mind and create a spirit of sportsmanship needed to excel in professional sports and other fields of life. These games are very quick, requires good fitness levels and is excellent for overall development of your child. It is a quick and exciting game and can be played for hours together. Also, it does not need any training or equipment and can be played by almost anyone.

Socio-Economic Status And Indigenous Sports

The rural population depends purely on agriculture. They do not have much time for competitive sports, and their involvement in them was purely recreational. Even the facilities provided for the rural youth is very meager and hence there is no performance of them in sports and games. This has made the rural populace starting from primary to higher education select the indigenous sports though they are capable of playing the games which suits their physical, physiological and

mental prowess. The facilities like stadiums, gymnasium, indoor stadiums and swimming pools in cities are also not in the reach of youths of low economic background hence we find indigenous activities, even in the urban areas and restricted to government colleges and schools. This is the only option for the people from rural background or from the low economic background Though these games are very poor in the organizational point but they are quite a game of combative nature which demands strength, vigorousness, guts to attack and also intelligence. The indigenous games lack patronization from the society as well as from the institutions because it is considered as a poor mans game and not for the white collars.

Benefits Of Indigenous Activities

Indigenous sports and community cohesion It is an effective tool in encouraging integration between different communities of different social status. Programmes must be devised to promote contact and understanding between rural -urban, ethnic minorities and cultural differences. Indigenous games and social inclusion This helps the larger section of the youths who are deprived of social justice in respect of caste, color and creed to participate focusing on social and personal development rather than involving self destructing and anti social behavior. Indigenous activities and community safety Sports, outdoor pursuits lead the youth in constructive activities and initiates the young people at risk away from crime (indirectly it helps in providing challenge and adventure and a sense of purpose to youths life).

Indigenous Games Attracts Lot Of Rural Mass

Reasons being, Simplicity, Popularity, Inexpensiveness, Minimum space and facilities, Natural movements

Factors Retarding The Growth Of Indigenous Games

Lack of patriotism, Lack of government support, Unappealing to urban mass, Lack of glamour, Fails to attract media and sponsorship, Westernization, Lack of professional approach by associations and federations

Recommendations

The government of India should establish an academy to protect the indigenous and traditional games The state governments should collaborate with the corporate sector to assist the sportsmen financially. Innovations in the playing surfaces including gadgets. Indoor and outdoor stadiums should be built across rural and urban areas.

References

- International Indian Treaty Council. 2006. "Cultural Indicators for Food Security, Food Sovereignty and Sustainable Development". Paper prepared for the Second Global Consultation on the Right to Food and Food Security for Indigenous Peoples, Bilwi (Nicaragua), 7-9 September 2006.
- Smith, Claire, Burke, Heather and Ward, Graeme K.. 2000. "Globalisation and Indigenous Peoples: Threat or Empowerment?" In Indigenous Cultures in an Interconnected World, ed. Graeme Ward and Claire Smith. St Leonards, N.S.W.: Allen & Unwin.
- Anaya, James & Claudio Grossman. 2002. The Case of Awas Tingni v. Nicaragua: A New Step in the International Law of Indigenous Peoples. Arizona Journal of International and Comparative Law. Vol. 19, No.1.
- Bello, Alvaro. 2007. "Indigenous migration in Chile: trends and processes". Indigenous Affairs, Migration, 3/07:6-17. Copenhagen: IWGIA. Available online at <http://www.iwgia.org>
- Brody, Hugh. 2000. "Taking their words from their mouths". Indigenous Affairs, Hunters and Gatherers, 2/2000:4-9. Copenhagen: IWGIA. Available online at <http://www.iwgia.org>
- Champagne, Duane. 2007. Social Change and Cultural Continuity among Native Nations. Lanham, New York; Toronto; Plymouth, UK: Altamira Press.
- Daes, Erika-Irene. 1995. Draft principles and guidelines for the protection of the heritage of indigenous peoples. Elaborated by the Special Rapporteur for the Sub-Commission on the Promotion and Protection of Human Rights. UN Doc. E/CN.4/Sub.2/1995/26, Annex.

Relationship of Lower Limb Length to the Agility of Athletes

M.Srinivas Reddy
Physical Director, Vignana Bharathi Institute of Technology, Aushapur(V).
Ghatkesar,Telangana
Joji Reddy
Asst. Prof. of Physical Education, JNTU, Anathapur, A.P.
Prof.Y.Gopi Krishna
Dept. of Physical Education, JNTUH, Sultanpur, Hyderabad

Introduction

A highly systematized type of Physical Education, sports and games is basically a product of modern historical era. In primitive times some sports, games, dancing, and the different types of physical activity, we know today, we all in evidence. But they were practiced in a highly disorganized form. People in the different cultures and societies have involved in these activities with different purposes. Many of the physical activities, which were practiced in highly disorganized forms during the early times, have been modified into modern sports and games.

Today physical education, sports and games in their diversified forms have become a part of the curriculum in schools, colleges and universities. Professionalism has entered sports and games demanding the athletes of a very high level of performance. The improvement of performance of physical skills in the field of physical education, sports and games, depends upon the various aspects of the individual such as the physical characteristics, mental characteristics, the emotional set up, etc. The performance also depends upon the personality traits, body build, age, mental age, and the training age of the individual. This vigor or vitality is demonstrated through physical performance. The performance in physical skills on the most part depends upon, how the various components of physical fitness are developed. The different components of physical fitness are strength endurance, speed, agility, flexibility, co-ordination, power, balance, reaction time and accuracy.

Concerned with the present study agility as one of the main components of physical fitness, is considered important. Agility is the ability of man to co-ordinate his movements and to synchronize them according to the requirements of changing conditions. In sports distinguish between general and specific agility. General agility is expressed by the ability of a person to perform any moment from the entire versatile range of sporting activities in a functional and resourceful manner, specific agility to develop in accordance with the nature of the body moments of particular competition event. Essentially, specific agility is the ability to vary the technique of the selected exercises.

Agility is important in all activities involving quick changes in positions of the body and its parts. Fast starts and stops and changes in direction are fundamental to good performance in practically all court games, such as basketball, tennis, badminton, and volley-ball, and in many field games, such as soccer, speedball, and baseball. These games require running agility. Gymnastics and diving also depend largely upon rapid movements and quick changes in body positions. Skiing, figure skating, and certain forms of dance require rapid adjustments in position and quick changes in direction.

Several factors influence agility. Amongst them most important ones are somatotype, age and sex type, over weight and fatigue. Mesomorphs and Meso-ectomorphs tend to be fairly agile while ectomorphs and endomorphs tend to be less agile.

It is a matter of common sense that agility varies from one game or one athletic event to another. The lower limb length of athletes which is great decisive factor in performance in many physical activities also varies from individual to individual because of individual differences. Agility is most vital to good performance in any game or activity and it may be regarded as a most single attribute.

In certain other activities strangely enough, agility is not of vital importance.

The linear measure of body parts are of importance in the study of human movement, because they describe the various lever components of the body. These measures are highly affected by the bony framework of the body. The length of the lower limb, for example, cannot be any shorter or any longer than the length of the tibia and fibula (leg length) and the femur (thigh length).

Since most of the levers of the body are of the third class in which the lever arm of the resistance equals the entire length of the lever, long limbs would be an advantage in those activities in which emphasis is upon velocity and range of motion and a disadvantage in which strength and equilibrium are emphasized.

Methodology

The purpose of the study was to find out the relationship of lower limb length to the agility level of athletes.

Procedure

To achieve the purpose of the study one hundred and twenty five male athletes were selected who participated in the Karnataka State Inter-University Tournament which was held at Dharwar, while the present study was on. The subjects represented their respective universities in different games and sports. All the subjects under study were selected at random. Athletes whose age fall between in the subjects who actively participated in their respective games till recently.

Testing Materials

A Stop watch of 1/10 of a second was used to keep the timing. Tape, Chairs, Stadiometer, Avery weighing machine, Whistle, Pencils, Score sheets, Chalk pieces and Wooden blocks

Testing Place

Karnataka University Gymnasium Hall.

Collection of Data

Age, height and weight of the subjects and the activity and University to which the subjects belonged were recorded before administering the tests. Age in completed years was ascertained from the eligibility particulars and recorded. The activity group and the University to which the subjects belonged were ascertained from the eligibility particulars. The weight of the subjects was measured in kilograms using the Avery weighing machine. The subjects were weighed in athletic costume and bare foot. The height which is the vertical dimension was measured in centimetres using the stadiometer.

Measurement of lower limb length

The lower limb length was measured from the anterior superior iliac spine to the medial malleolus, using the measuring tape. The length measured was recorded in centimetres.

Their mean Age, Height and weight are given in Table I

Table – I

Table showing mean Age, Height and Weight

Subjects	Age in yrs & Month	Height in Centimetres	Weight in Kilograms
125	21.8	170.46	58.92

Measurement of agility

Measurement of agility factor was done by administering the different tests of agility on all the selected subjects. The investigator was of the opinion that only one test of agility was not sufficient to achieve the purpose of the study. The investigator felt that performance in only one type of agility test may be influenced by a particular body type or characteristic of the selected subjects. Therefore, the investigator decided to administer the following four tests of agility. The tests are :Side-stepping test, which is the second item in the North Carolina fitness test.

Zigzag run Test, which is the second item in the Barrow Motor ability test Shuttle run test, which is the fourth item in AAHPER youth fitness test. Side step test, which is the fourth item in the New York State Physical Fitness test.

Analysis And Interpretation Of Data

The purpose of the present study was to find out the relationship of lower limb length to the agility level of athletes. The raw scores of the lower limb length of the selected subjects was collected as explained in methodology.

Results and Discussion

The mean score of lower limb length of selected athletes, and the mean scores of the performance of the athletes on the different selected tests of agility, mean score of age, height and weight of the athletes was calculated using the formula.

$$M = \frac{\sum X}{N} \text{ Where, } \sum X \text{ is the total of all raw scores}$$

N is the number of subjects

The Standard Deviation for the above mentioned variable was calculated using the formula

$$\sigma = \sqrt{\frac{\sum d^2}{N}} = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$$

Where

x is the raw score \bar{x} is the mean

d is the deviation of x from \bar{x} , that is, $x - \bar{x}$

The method of correlation was adopted to find whether the lower limb length has any bearing or relationship to agility. For this the four tests scores were taken to find the coefficient of correlation between each test scores and the lower limb length. Karl Pearson's Product Moment coefficient of correlation formula was adopted as suggested.

$$\frac{\sum (x - \bar{x})(A - \bar{A})}{N \sigma_x \sigma_A} = r_1$$

Where

X is the raw score, N is the number of subjects, \bar{x} is the mean of lower limb length

\bar{A} is the mean of side stepping test σ_x is the Standard Deviation of lower limb length

$$= \sqrt{\frac{\sum x - \bar{x}^2}{N}}$$

σ_A is the Standard Deviation of side stepping test

$$= \sqrt{\frac{\sum (A - \bar{A})^2}{N}}$$

To calculate r_{xA} the coefficient of correlation between "X" the lower limb length and "A" the side stepping test score, the following procedure was adopted. Score x , its mean and standard deviation were calculated at first by the following formulae.

$$\text{Mean} = \bar{x} = \frac{\text{Total of } x}{\text{Total number}} = \frac{\sum x}{N}$$

$$\text{Standard deviation of } x = \sigma_x = \sqrt{\frac{\sum (x - \bar{x})^2}{N}}$$

Similarly, the mean \bar{A} and standard deviation of A namely σ_A was calculated

$$\text{Mean} : = \bar{A} = \frac{\text{Total of } A}{\text{Total number}} = \frac{\sum A}{N}$$

$$\text{Standard deviation of } \frac{\sum (x - \bar{x})(A - \bar{A})}{N \sigma_x \sigma_A}$$

As a further step, the coefficient of correlation between x and A was computed by using the formula.

$$r_{x^A} = \frac{\sum (x - \bar{x})(A - \bar{A})}{N \sigma_x \sigma_A}$$

Similar procedure was followed to find out the coefficient of correlation between x=lower limb length and B, C, and D, the Zig Zag run, the Shuttle Run, the Side Step Test scores namely

$$t = r \sqrt{\frac{N-2}{1-r^2}} \text{ respectively.}$$

To test the significance of the correlation between a set of paired observations namely lower limb length and performance of the athletes in each selected test of agility, was calculated using the formula

$$t = r \sqrt{\frac{N-2}{1-r^2}}$$

Where

r is the coefficient of correlation

N-2 is the degree of freedom.

Conclusions:

On the basis of the figures obtained in the present study, it was concluded that lower limb length has either a negative relationship or a low and insignificant positive relationship to the agility level of athletes, as assessed through the performance of the subjects in the selected tests or agility. The correlation between lower limb length and agility was not significant, or that the relationship of lower limb length to the agility of athletes is insignificant.

Recommendations:

The present study revealed that the relationship of lower limb length to agility is insignificant. Therefore, lower limb length may not be taken into consideration while assessing an individual's agility level and placing them in various sports and games demanding agility.

Similar studies may be undertaken with different agility tests being administered.

Similar studies may be conducted on non-athletes.

Similar studies may be conducted on athletes and non-athletes of different age groups.

Similar studies may be conducted on women subjects.

Similar studies may be conducted on a larger number of subjects or a larger sample to get tangible results.

Benefits Of Physical Training

Miss Kavitha.M

Ph.D Scholar Department of Physical Education, Andhra University, Visakhapatnam

Dr. R.L.V.N Ratnakara Rao

(Senior Faculty), Department of Physical Education, Andhra University, Visakhapatnam

Prof.M.Syam Babu

(H.O.D) , Department of Physical Education, Andhra University, Visakhapatnam

Introduction:

Yoga has gained tremendous popularity in the last few years; it is the most rapidly growing health movement despite it was developed thousands of years ago. Age, religion, caste; sex is no bar with breathing and meditation techniques. There are many types of yoga and it may be hard for the beginners which yoga type he or she wants to do. The important benefit of yoga is the physical and mental therapy, the very essence of yoga lies in attaining mental peace, improved concentration power and a relaxed state of living.

Physical benefits from yoga:

There are many health benefits from yoga; studies have shown that yoga can relieve many common and life threatening illness such as arthritis, chronic fatigue, diabetes, AIDS, asthma high blood pressure, back pain, weight education, obesity common cold, constipation epilepsy, skin problems and respiration problems. Yoga also helps in rehabilitation of new and old injuries.

Psychological benefits from yoga:

Regular yoga practice creates mental clarity and calmness, increase body awareness, relives stress patterns, relaxes the minds and sharpens concentration. Yoga provides tools through which one can cope with the pain and helps counter with the feeling of helplessness and depression. Yogic breathing and stretching exercises have been seen to result in better mental and physical energy and improved mood. The mental performance also increases with yoga and doctors suggest that yoga can enhance cognitive performance

Spiritual benefits from yoga benefits:

When you achieve that yogic spirit you can begin knowing yourself at peace. If one succeeds in achieving skills which provide health and self confidence, one can justly raise his self esteem simply by observing himself living the improved result as an achieved fact. Yogic therapy leads to increase self knowledge, this is not just the practical knowledge this includes knowledge pertaining to grasping something

Aerobics in modern Sports training

Media is relentlessly flashing the negative outcomes of a sedentary life style and the net result is: people are slowly but steadily coming to realize the value of a fit and healthy lifestyle. Nothing can

help you more effectively than aerobic exercises to help you stay fit and healthy through your busy and demanding life style.

The gym in modern sports training

In late modern societies, the body has become a project. The reflexivity of the self also gradually extends to the body; the body is, therefore, drawn into the narcissistic pursuit of the self. The body is cultivated in different places, such as the gym, which is the focus of this study. Young people who spend considerable time in the gym form a sort of subculture; that is, they develop a certain style, taste and a specific way of relating to the body. Subsequently, aerobics and weight training should not merely be regarded as physical activities, but as elements of a more general lifestyle phenomenon.

Recommendations:

Exercise can help prevent excess weight gain or help maintain weight loss. When you engage in physical activity, you burn calories. The more intense the activity, the more calories you burn. You don't need to set aside large chunks of time for exercise to reap weight-loss benefits.

The regular physical training can help you prevent or manage a wide range of health problems and concerns, including stroke, metabolic syndrome, type 2 diabetes, depression, certain types of cancer, arthritis and falls.

Exercise and physical activity deliver oxygen and nutrients to your tissues and help your cardiovascular system work more efficiently. And when your heart and lungs work more efficiently.

Physical activity stimulates various brain chemicals that may leave you feeling happier and more relaxed. You may also feel better about your appearance and yourself when you exercise regularly, which can boost your confidence and improve your self-esteem.

Regular physical activity can help keep your thinking, learning, and judgment skills sharp as you age. It can also reduce your risk of depression and may help you sleep better. Research has shown that doing aerobic or a mix of aerobic and muscle-strengthening activities 3 to 5 times a week for 30 to 60 minutes can give you these mental health benefits. Some scientific evidence has also shown that even lower levels of physical activity can be beneficial.

References:

www.Mayoclinic.org
<http://www.cdc.gov/physicalactivity/everyone/health/>

Infrastructure for Sport and Physical Education in Universities

Prof.Rajesh Kumar
Chairman, Board of Studies in Physical Education, Osmania University, Hyderabad
Prof.J.Prabhakar Rao
Principal, University College of Physical Education, Osmania University, Hyderabad
Prof.L.B.Laxmikanth Rathod
Head, Department of Physical Education, Osmania University, Hyderabad
Dr.K.Deepa
Secretary, Inter College Tournaments for Women, O.U. Hyderabad
Dr.B.Sunil Kumar
Secretary, Inter College Tournaments for Women, Hyderabad

Introduction:

Sports Infrastructure plays a crucial role in achieving excellence in the global arena of sports. It not only helps in producing sports of international repute, but also encourages the youth population of a country to participate in sporting activities to create a physical culture of sports in country. In India the standard of sports infrastructure is not at satisfactory level for a number of reasons. The lack of infrastructural facilities is one of the major impediments in the process of development of sports in India. Sports infrastructure will be made readily available to the public at large so that it can participate in various activities. Various State and nongovernmental organisations will need to be encouraged to build infrastructural facilities. The creation of infrastructure at district and tehsil levels will be the responsibility of the State Governments. There will be maximum utilisation of the existing facilities. Proper coordination, joint effort and congruence of objectives are required to get the maximum output. For this purpose it is necessary to do a detailed analysis and prioritization of schemes. Youth constitute the most creative segment of any society. Their role and contribution are vital to all societies and more so in a country like India with wide social, cultural and other demographic diversities. Youth constitute about 34% of the total population of India. The need and importance of physical education for health and physical fitness with a view to increasing individual productivity, and the value of sports as a means of recreation and with a potential for promoting social harmony and discipline are well recognised.

India has a tradition of sports and physical fitness. In recognition of the importance of sports, a separate department was set up in 1982, prior to the commencement of the 9th Asian Games. Subsequently, the first ever National Sports Policy was announced in 1984. The Ministry of Human Resource Development was set up in 1985, with the objective of integrating efforts for development of human potential in the areas of Education, Women & Child Development, Arts and culture, Youth Affairs & Sports through its constituent departments.

The Sports Authority of India (SAI) was established in 1984 as a registered society in pursuance of a Government of India resolution. Its main objectives include the effective and optimum utilization of various sports facilities and all matters pertaining to sports promotion and sports management. The Sports Authority of India is contributing towards development of sports through its various programmes viz.

The PYKKA scheme provides for strengthening the sports infrastructure in schools and linking the community sports as an integration of physical education and sports with school education. School playgrounds are given overriding priority in the selection of PYKKA playfields for promotion of community sports beyond school hours. More than 75% of the PYKKA playfields are located in schools.

Sports competitions are conducted annually at block/district, state and national level wherein the participants are mainly from the schools. Under the USIS, Government colleges and Universities are provided grants-in-aid to develop sports infrastructure facilities. Sports promotion is primarily the responsibility of the various The role of the Government is to create the infrastructure and promote capacity building for broad-basing sports, as well as for achieving excellence in various competitive events, at the national and international levels. All schemes are geared towards achieving these objectives. The growing role of sports has made participation and winning of medals in competitive sports a matter of great significance. In recognition of this fact, many states have set up national training academies- External website that opens in a new window and specialized centres- External website that opens in a new window of sports excellence which offer an opportunity for exceptionally talented young children to train under experts for long duration with modern training aids.

Several central/state universities also impart physical and sports education at graduate and post graduate levels. Besides, almost every state government has a department dedicated to promoting sports and youth affairs Sports play an important role in shaping up the personality and fitness of a person

Review of Related Literature

Beijing Sport University (BSU) founded on November 1, 1953, has contributed greatly to the sustainable development of Chinese sport and physical education and has enjoyed the fame as one of the key sport universities in China.

In the past five decades, over 30,000 students of sports-related majors have graduated from BSU. There is a wide range of academic courses and majors studies, and the number of master and doctoral positions ranks the first among its counterparts in China.

Currently, BSU consists of seven colleges, two elite sports schools and has a large number of qualified teachers, among whom 227 are professors and associate professors. Its excellent staff and facilities can satisfy the needs of teaching, training and scientific research. BSU has established friendly cooperative relations and intercollegiate relations with 28 universities and tens of non-governmental organizations in 16 countries.

Beijing Foreign Studies University Gymnasium covers 7600 square meters and is a comprehensive, multi - functional gymnasium, equipped with swimming pools, sports hall, cardio and weight training facilities, and a chess and card room. Students are also welcome to relax at the leisure bar and coffee shops, or pick up some sports equipment in the merchandise department. The gymnasium has two indoor swimming pools, both filled with natural hot springs geothermal water. Changing rooms are easily accessible from the swimming pools and are equipped with secure lockers and hot showers. Membership fees for the gymnasium vary according to the selected facilities and period of membership PE course is the main form of PE in educational institutions of different types and at different levels. It is a compulsory course from primary school to the second year of undergraduate program in institutions of higher learning with 2 or 3 class hours per week in institutions of higher learning. Some schools even have PE class every day. Starting from the third year in institutions of higher learning, PE course is offered selectively. In schools with PE course as compulsory, students must attend the class. If a student fails to do so for one-third of the total class hours in one semester, he will not be given final scores for this course, and not be regarded as reaching the National Standards for PE Qualification of Students. On graduation, he can only receive learning certificate, which will not qualify him for education of higher level. In recent years, PE course has been listed as one for test of entrance to senior secondary schools. Since 1954, PE course syllabi were compiled and issued successively for educational institutions at different levels. In order to meet the needs of educational reform and development, since the founding of the People's Republic of China, the syllabi have undergone revision and re-compilation for several times. The current syllabi are for use nationwide.. They define the teaching contents of PE as including basic PE and health education knowledge and sports events

such as track and field, gymnastics, games, ball games, artistic gymnastics and dances, training games to develop student body and traditional sports events of national minorities. The structure of the syllabi consists of both unified teaching contents and selective ones compiled based on local situation. Events such as swimming and skating are listed as selective because of their dependence on location and climate. In the PE syllabi for 9-year compulsory education.

Discussion

In India the Universities infrastructure is very important for promotion of Physical Education, Sports, Health and Competitiveness among the Students of the Country.

A good university will ensure that there are facilities in place for students to exercise their bodies as well as their minds. This is a bonus for high-level athletes (college sports are a multi-million dollar industry in the US) and those who just want to play a game with friends alike – and, of course, those who just want to stay fit. We award points for swimming pools, gyms, indoor sports courts, outdoor sports courts, outdoor sports pitches, athletics tracks, stadiums and full-time staff.

(a) Scheme of Grants for Creation of Sports Infrastructure

This scheme has been in operation in the Department for more than 25 years. Under this scheme, State governments, state sports councils, U.T. administrations, local statutory bodies and registered voluntary organizations can avail assistance for creation of various kinds of sports infrastructure like play fields, indoor and outdoor stadia, swimming pools, velodrome and sports hostels. Grants for establishment of SPDA centres, district level sports complexes and State sports training complexes are admissible only to State Governments. The grant admissible is 50% of the estimated cost subject to stipulated ceilings. The maximum grant for a State level training complex is Rs. 2 crore.

(b) Grant to Rural Schools for Playfields & Sports Equipment

This is a sub scheme of the main Scheme of Grants for Creation of Sports Infrastructure. Under this scheme, a Secondary and Senior Secondary School, fulfilling the prescribed conditions and located in a rural area, is entitled to claim a one time maximum assistance of Rs.1 lakh for development of a play field or purchase of nonconsumable sports equipment or for both. There is no matching contribution against the grant released, either from the State Government's side or the School. Only one school, per block is being initially assisted. However, there is provision for giving grant to two schools located in tribal/hilly areas.

(c) Laying of Synthetic Tracks/Artificial Hockey and other Surfaces

des a sports field with running track, tennis courts and basketball courts, a fully equipped gymnasium is also available to students.

With the motto of Healthy mind lives in the healthy body, a massive drive was initiated in 2001 – 2002 to develop state-of-the-art Recreation & Wellness Centers with facilities of Gymnasium, Aerobics and Yoga. Every student is expected to attend these activities and adequate incentives are given so that students take part in these activities voluntarily.

d) Grants for Sports Infrastructure in Universities/Colleges

All colleges/universities can avail assistance for creation of sports infrastructure upto 75 per cent of the estimated cost subject to given ceiling through the University Grants Commission. The lumpsum grant is placed annually at the disposal of the Commission by the Department. The grant is sanctioned directly by the Department in favour of technical/medical/agricultural colleges/universities

In India also Many Universities are having good facilities for promotion of sports and games along with the fitness of the students.

Recommendations

The following infrastructure is recommended for the Promotion of sports and games and Health and fitness of the students.

1. Athletics Track
2. Foot Ball Ground
3. Cricket Ground
4. Hockey Ground
5. Basket Ball Courts
6. Gymnasium Halls
7. Badminton Courts
8. Table Tennis Halls
9. Boxing Hall
10. Volley ball Courts etc.

References:

The Sports Digest. Com
The Sports India
Beijing Sports University, Wikipaedia

The Sociology of Sports in India: A beginning and Future Challenges

Sanjay Tewari
BSc, LLB, MA(Sociology), MBA-HR,UGC-NET, PhD Candidate(Sociology)
Director, UP Athletics Association
Email: sanjay.tewari@yahoo.co.in
Dr. BN Mishra
Assoc.Professor (Sociology),LN Mithila University, Darbhanga

Abstract

Despite the potential of sport development to highlight broader social complexities, sociologists in India remain disinterested in the area (and sport generally) as avenues of legitimate study. Yet, sport development programs provide sociologists opportunities to know and engage with body politics, questions of structure & agency, and social transformation. Accordingly, in this paper I draw on Bourdieu (1992; 1993) & Giddens (1990; 2009) to understand the construction and consequences thereof, sport development projects and the broader processes to which they are a part. I discuss my research with youth in two Indian states, and, consider how sport development agendas are often confounded by tensions, negotiations, and resistances contours of the local context.

Introduction

Over the past decade, UN agencies, international sport federations, international and national non-governmental organizations (NGOs) and national governments have been using sport as a tool for development. The rationale that can be attributed to this belief is documented from studies that under appropriate conditions physical health benefits of sport such as prevention of diseases, lessening of likelihood of unhealthy practices (such as illegal drug use and unsafe sex), potential to positively influence social integration and inclusion of people with disabilities, women & girls, enhancement of self-worth etc. contribute to the social fabric of our society. Perhaps when we talk of development, more pervasively there should be a talk of Sport. Sport implies to all kinds of physical activities that contribute to physical fitness, psychological well-being and social interface, such as structured or competitive sport, play, recreation, and aboriginal sports and games (European Charter 2001).As I intend to study the sociological perspective of sport through which the development mechanism can be generated, it would be appropriate to apprehend it in a broader sense. This field should be concerned with the descriptions and explanations of the interrelations between sports and other social components...the unique feature about the sociological approach to sport, as distinct that from psychology has been a focus about sport in its function as a component of social organization (Edwards, Harry: 1973). The sociological perception of sports is based on three fundamental themes; sport is a social institution worthy of sociological examination like the more traditional institutions of politics, religion, economy, marriage/family, law, health/medicine education, and science; sport is a microcosm of the larger society and as such reflects and reinforces the foremost philosophy; and several institutional links between sport and other societal institutions make it impossible for changes in one sphere not to have deep effects in all spheres. Bourdieu's social approach to the study of sport, the sub discipline of Sport Sociology, and the scope it offers to those inquiring into the social dimensions of sport and physical education have been widely recognized (Clement, 1995; Jarvie & McGuire, 1994; De France, 1995). His sociology has inspired many publications on 'sport studies' (Clement, 1995) and Clement (1995) and argues that it is the relevance of the bodily dimensions

(which I talk of as the mind set) of sport that makes Bourdieu's approach attractive. He does not offer a social set of principles as much as a sociological method and a set of analytical tools through which culture and society can be understood and examined.

His notion of habitus in particular, suggests a means of understanding how bodily engagement in day to day practice and in the practice of sport and other institutionalized physical activity function to symbolize the interacting dynamics of culture, class and gender. However, when I try to collaborate Giddens structuration with what I intend to do, I do find a symmetry. The structuration approach does not focus on the individual actor or societal totality but social practices ordered across space and time. Agency, as Giddens calls, is human action. To be human is to be an agent, although not all agents are human beings. The agency, according to Giddens, can lead to both the reproduction and the transformation of society. Practices are produced in a context of the duality of structure and agency (Rob Stones, 2005, Structuration Theory, pp.4-5) and are not themselves simply agency. It is the practices that reproduce social structures and these social structures can develop the mind set of the very vast populace of India, in particular the youth, by driving them in to the main stream of national development. With the given potential and India developing as a youth nation in the forth coming 15 years, there are dream projects by which I intend to draw schedule as to why we have still to move ahead in this area of sports, despite that other big nations are already on the pace of development far more than us.

Importance of the Proposed Topic and Objectives of the Research

The sports culture in India is one prime issue which needs to be analyzed. The sociological mindset of parents towards sports which visualizes it only as a recreational activity (that too in very less number of cases) and not as a career growth prospect, the educational curriculum which puts more emphasis on academics leaving behind sports are some of the concerns which require investigation. Research directed at the relationship between parents and their children is important in that the behavior and approach of parents may impact the players' desire to continue playing sports. With this background, it is trusted that this study shall contribute towards a better understanding of the sociological factors which can be instrumental in promotion of sports, development of the youth and the nation.

Literature Review

By naming 2005 The International Year of Sport and Physical Education, the United Nations did much to broaden the analysis of sport, and child and youth development, globally, and to increase the acceptance of sport as both an end and a means to aspects of international development, such as the Millennium Development Goals (Van Eekeren, 2006, p.19). Although much of the literature reviewed in this document uses definitions, concepts and evidence from high-income countries, such as Canada, the United States, the United Kingdom and Australia, a great deal of international attention is being paid to the potential utility of sport for child and youth development in Lower Middle Income Countries (LMICs). Recently, scholars have argued for the need to conduct prolonged, critical and empirical analyses of the utility of sport for child and youth development in LMICs, although this literature is only now emerging, and evidence of the success (or failure) of sport and child/youth development interventions in LMICs is scarce at this time (Auweele et al., 2006, p.15). With context to India, there is almost no research work done in this area, particularly with reference to the sociological measurements pertaining to growth and development of the children and youth through sports practices. As such, reliance on a single type or source of data (statistics, case profiles, and interviews with stakeholders and/or participants) will fail to capture the complexities of the relationship between sport and child/youth development and many studies need to be reflected upon, apart from evidence based research.

Research Methodology

The data drawn upon in the present study has a sample size of 500 interviews, spread over the two big States of Uttar Pradesh (U.P.) and Bihar. 350 interviews have been conducted from Uttar Pradesh and 150 interviews from Bihar. The States of U.P. and Bihar had been chosen due to reasons of their population percentile (U.P. being the most populated and Bihar the third most populated state of India) (Census, India 2011), and due to their lagging behind in the human index of development. A choice of these states helped me in assessing the virtual impact of sociological development through sports. Geographically, districts (both empowered and underpowered were selected) from both the states were selected for interviewing, so as to get a

mix of the sample and spatial classification method was used. Urban, Semi-urban and rural areas were given due consideration in my study, so as to make it more pragmatic and meaningful. For each interview, the questionnaire was bifurcated.

The first part imbibed questions which were put up to the parents of the children (students) and the other part for the children (students). The age group of students interviewed ranged from 15 to 24 years. Prior to this, the first phase considered data collection for recruitment of families. Some initial questions relating to interviewee's sporting habits, what sports they ever did, or what sports will they be doing, how often they did these sports, who with, where they did them, and how they become involved in them were common to both. Furthermore, both interviews included questions regarding the parents' behaviors and beliefs in relation to the child's sports participation, thus shedding light on the children's socialization into sport. Children's sports activities, their schoolings, hobbies, interests towards other social activities, their inclination towards sports and which sport in particular, facilities in their schools or colleges and back at home, availability of telecommunication facilities such as mobile phones, internet etc., their experiences after playing, their level of satisfaction at the end of the day after playing, etc. were recorded. Gender consideration was given while interviewing the children. The parents interview scheduling consisted of their occupations, socio-economic background, whether they too hail from a sportive cultural background, and if yes, then whether they have tried to provide opportunities for their children, their views about national and international sports events and inclinations, their opinion about sport as a sociological tool for their children's development and growth, or sport as a leisure time activity, sport as a career objective, sport as a feel of patriotism, role of government in promoting sports, etc. Some interviews were recorded also. Marks in a point scale from 0 to 100 in groups of 0-10, 10-20, 20-30...were assigned for each question thereby quantitatively classifying the data. Frequency distribution was ascertained thereafter.

Results & Conclusion

It has been analyzed that the inclination of parents given their socio-economic background towards putting their children in sports activities shows a declining trend (i.e. 27% and 24% in the 1 – 1.25 lac bracket) in both the States. The meager enhancement of 1% (i.e. 29% in 0.75 – 1 lac bracket) in the State of U.P. but again a dip in the same bracket in Bihar shows the disinclination. The overall percentage of inclination of the parents, who had been thoroughly questioned, is dismal. The mindset of these parents towards sports and social development is read as less impacting. Involvement and attainment in a 'field' are based on a combination of one's habitus and cultural capital and those groups that possess the most capital can dictate the legitimate means of access to the 'field'. The proletariat class suffers. The Socio-Cultural scenario is somewhat different, with some healthy factors. The parents were discussed about their social and cultural backgrounds, with not only sports but regarding participation in other co-curricular activities, such as indoor games, meetings in societies, attending panchayats, fairs, exhibitions, traditional dancing, singing and other such activities which make them and their children more vibrant and active. The results at Table 2 show that with the rise of income level, the inclination towards cultural activities and sports does increase. In many ways sport represents a social 'field' (Bourdieu, 1990), a structured space of positions that impose specific determinations on those who enter it and this has been tested. The observations given by the respondents establish that geographical location plays a vital role towards educating the mindset of the people. It is evident that the state of Uttar Pradesh takes lead in comparison to the state of Bihar. It was assessed that the per capita income of the state of UP is higher in relation to Bihar. Moreover, the various districts covered in the state of UP, pose the advantage that people take over. A good geographical location, which envisages the desired infra structure, helps in aiding and enhancing the outlook of the parents and children/youth both. The parents informed that the availability of infra structure somewhat incited them to send their children to playgrounds. However, in the state of Bihar, despite the less percentile in comparison to UP, we observe that there is increase in the percentage and involvement, and this goes to establish somewhat that geographical location does play a role in changing social awareness and belongingness towards sports. The knowhow of Government Sports policies is very less, and as such there is no follow up in this regard from the participants. These policies are yet to make inroads, and therefore it becomes imperative for the Government of India to judicially exercise its authority and ensure that the sports development

programs do reach its destination so as to benefit the populace at large. Observations on gender participation were heartening.

Out of the income brackets shown, the percentile of women increases with the enhancement of income. It were the women which had been interviewed, and they were of the opinion that sports does change the mindset of children and youth. They compared sports with the physical work which they were doing at home, and stated that this keeps them mentally and physically healthy. Naturally, the increase in income level provided them with more able opportunities. However, it was informed that female participation was less in comparison to male, and many factors such as environment, economic background, etc. were attributed, besides the male hierarchical approach. Rather than simply enhancing individual freedom and opportunity, sport-based intervention programs also serve as a form of social control and regulation. Basic education is important for gaining foothold in sports in order to think of social neoliberalism. Sport (organizations) can be viewed as a vehicle for generating different forms of capital, most notably economic, cultural, social and symbolic capital (Bourdieu,1986), from which certain benefits can be derived that enable social agents to improve or maintain their social position. The social environment, geographical conditions, educational arrangements and the regional economy determine to a large extent if personal development and ambition are able to flourish. The role of schools and colleges in promoting sports activities and social involvements is meager. Rather than simply enhancing individual freedom and opportunity, sport-based intervention programs also serve as a form of social control and regulation. Basic education is important for gaining foothold in sports in order to think of social neoliberalism. Sport (organizations) can be viewed as a vehicle for generating different forms of capital, most notably economic, cultural, social and symbolic capital (Bourdieu,1986), from which certain benefits can be derived that enable social agents to improve or maintain their social position. The social environment, geographical conditions, educational arrangements and the regional economy determine to a large extent if personal development and ambition are able to flourish. The role of schools and colleges in promoting sports activities and social involvements is meager

Expected contribution of the research

The potentials that exist within sport are those that can help with fundamentally different views of the world perhaps based upon opportunities to encourage trust, obligations, redistribution and respect for sport in a more socially orientated humanitarian world. A broader discussion relates to the capacity of sociology to address multiple publics (Burawoy, 2005). This issue is as relevant to the activities of sociologists of sport as it is to other sociologists and, indeed, to all university teachers and researchers, particularly those who are involved in the social sciences. In India, the Sociology of Sports is yet to make a route. No work at all for the study of a sociological impact of sports on the development perspective has been carried out. References, books, bibliographies etc. in the fraternity of sports sociology in India are rare, to say, negligible. Studies such as the present one or for that sake leading to study of sociological interests in the field of sports are not present. With the given youth potential of India, its young population, achievements in the field of sports, advancement in the area of Indian Sociology, advancement of the Indian Economy, and other co-related factors, the need and interest in the area of sports sociology and studies has risen. It was indeed a challenging assignment, as references from western countries can only be taken in to account. It is in this more detailed analysis that the power of Bourdieu's theory, and the importance of sports, will become most apparent.

The value of this work embarking on the problems will be important above all due to the need to awaken and develop "a sociological imagination" in Indian society, a humanistic approach to matters related to sport, and also to formulate future hypotheses that would be useful for more advanced empirical studies. Despite the growing number of actors and actions promoting sporting activity, it remains true that few of the young people are used to sports practices in India. To address the use of sports practices by the children and youth and inculcate a habit of indulging in to physical activities, this study visualizes those reasons which may prove to be of assistance in garnering their resources. The socio-political situation of the States of U.P. and Bihar is responsible for the underestimation of sports developmental trends in families. This study will for sure contribute towards this direction in understanding the reasons for underdevelopment in sports.

Bibliography & References

1. Rowe, David and Gilmour, Callum, 2010, 'Sport, Media, and Consumption in Asia: A Merchandised Milieu, American Behavioral Scientist
2. Scheerder John, Vanreusel Bart and TaksMarijke, 2005, 'Stratification Patterns of Active Sport Involvement Among Adults, International Review for the Sociology of Sport
3. Burdsey, Daniel, 2006, 'If I ever Play Football, Dad, Can I Play for England or India? British Asians, Sports and Diasporic studies', Sociology
4. Spaaij, Ramon, 2009, 'Sport as a vehicle for social mobility and regulation for disadvantaged urban youth, Lessons from Rotterdam', International Review for the Sociology of Sport
5. Jarvie, Grant, 2007, 'Sport, social change and the public intellectual', International Review for the Sociology of Sport
6. Krawczyk Barbara and Krawczyk Zbigniew, 1989, 'Sociology of Sport in Scotland', International Review for the Sociology of Sport
7. XiongHuan, 2007, 'The Evolution of Urban Society and Social Changes in Sports Participation At the Grassroots in China', International Review for the Sociology of Sport
8. Davis, Nicholas W and Duncan, Margaret Carlisle, 2006, 'Sports Knowledge is Power Reinforcing Masculine Privilege through Fantasy Sport League Participation', Journal of Sports and Social Issues
9. Coakley, J. (2001) Sport in Society: Issues & Controversies. New York: McGraw-Hill
10. Bourdieu, P. (1986) Distinction: A social critique of the judgement of taste. London: Routledge
11. Bell, B, 2009. Sport Studies. Exeter: Learning Matters
12. Collins, M, 2009. Examining Sports Development. London: Routledge
13. Holt, N, 2008. Positive Youth Development through Sport. London: Routledge

A Comparative Study On The Personality Traits Among The Coaches Of Individual Games”

*Mayank Aggarwal (Ph. D. Research Scholar)¹,

Department of Physical Education and Sports Sciences, University of Delhi.

** Madhavi Pathak (Ph. D. Research Scholar)²

Department of Physical Education and Sports Sciences, University of Delhi.

***Rekha Aithani (Research Scholar M.P.Ed)³

Indira Gandhi Institution of Physical Education & Sports Sciences, B-Block Vikaspuri
University of Delhi, DELHI (INDIA)

Abstract

The purpose of the study was to find out the difference of the personality traits between the coaches of individual games, so the problem was stated as, “A Comparative Study on the Personality Traits among The Coaches of Individual Games”. A Total 70 coaches were selected from individual games with the help of purposive sampling, of which coaches of the individual games were selected from Athletics, Archery, Badminton, Gymnastics, Judo, Swimming, & Tennis. The age of the subjects ranged from 18 to 60 years with minimum experience of 3 years coaching in their respective sport. Five factors model of personality traits such as Openness, Contentiousness, Extraversion, Agreeableness, and Neuroticism, were selected. Data was collected by administering the BFI (John 1999) for Five Factors Model of Personality. Descriptive Statistics and One-way Anova test were employed as statistical techniques. Results revealed that significant difference was found only in Openness and no significant differences were found in Neuroticism, Contentiousness, Extraversion, and Agreeableness.

Key words: Coaching, Individual Games, Personality, Big Five, Openness etc

Introduction

Personality is the particular combination of emotional, attitudinal, and behavioral response patterns of an individual. Prince (1927) defined personality as a “Sum total of all the biological innate disposition, impulses, tendencies and instincts of the individual and disposition and tendencies, acquired by experiences”. Personality impulses our social behavior, they are meant to effect as well as be affected. Personality is a characteristic way of thinking, feeling, and behaving. Until the 1980s the majority of research on personality especially on workplace outcomes concluded that personality did not matter (Barrick, et. al., 2001). This view changed with the emergence of the five factor model of personality (FFM), which grouped and classified traits into five independent and universal personality traits; extraversion, agreeableness, conscientiousness, openness, and neuroticism (Barrick et al., 2001). Personality, as seen in the light of the *Big Five taxonomy*, is established in five universal dimensions. Each dimension in turn, entails several personality traits. The magnitude of traits one individual possesses within each dimension can vary, and so can the degree to which a person’s traits are on the higher or lower level of the continuum of each dimension (Goldberg, 1992). One particular set of global dimensions used to examine personality is known as the *Big Five personality traits*. Lounsbury and Gibson (2009, p. 5). In relation to sports, in spite of the increasing popularity of coaching, little is known about what contributes to an effective coaching experience, particularly from a psychological perspective.

Procedure And Methodology

The subjects were selected through purposive random sampling, a total of seventy (70) coaches (both male and female) belonging to individual games were selected from Athletics, Archery, Badminton, Gymnastics, *Judo, Swimming, & Tennis*. The age group of the subjects ranging from

18 to 60 years and the average age was 25 years, with minimum experience of 3 years coaching in their respective sport. All the subjects were of Indian origin.

Keeping in mind feasibility aspect and importance of psychological aspects, *Big Five Personality trait inventory (BFI)* developed by John, O. P., & Srivastava, S. (1999) was used as the criterion measure for the study for the assessment of (i) Openness, (ii) Conscientiousness, (iii) Extraversions, (iv) Agreeableness, & and (v) Neuroticism.

Collection of Data

The data was collected through purposely selected a total of 70 coaches of Individual games of Delhi & Haryana (India), by administrated through the Big Five Personality Inventory (John 1999). The questionnaire consists of forty four (44) questions for the five variables that are Openness, Conscientiousness, Extraversions, Agreeableness, & Neuroticism. The response of the subjects in the questionnaires was computed through the test manual of the BFI (John1999). Standardized protocol for filling up the questionnaire was adopted. Detailed instruction pertaining to filling up the questionnaire was thoroughly explained to them. They were asked to give their genuine response to each question and were ensured of confidentiality of their responses.

Results & Discussions

After collecting the data from the subjects the responses were computed through the scoring was of the BFI test manual, for the selected variables named Openness, Conscientiousness, Extraversions, Agreeableness, and Neuroticism of the coaches of Individual Games, the *Descriptive Statistics* and *One-way Anova* were applied. The finding pertaining to the data has been presented as following;

Table no. 1

Descriptive Statistics and One-way Anova of the Individual Game Coaches for Extraversion Variables of BFI

Variables of BFI	Games	N	Mean	SD	df	F	Sig
Extraversion	Archery	10	28.20	3.458	6/63	1.571	.170
	Athletics	10	25.90	3.929			
	Badminton	10	28.00	4.243			
	Gymnastics	10	29.00	6.182			
	Judo	10	30.90	4.606			
	Swimming	10	26.20	3.048			
	Tennis	10	26.40	5.461			

"F" (df = 6/63) 2.25 at 0.05

* The 'F' value is significant at the .05 level in tabulated table

Table No.1, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable extroversion, which shows that the mean and Standard deviation values of the variable extroversion for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 28.20 ± 3.458 , 25.90 ± 3.929 , 28.00 ± 4.243 , 29.00 ± 6.182 , 30.90 ± 4.606 , 26.20 ± 3.048 , and 26.40 ± 5.461 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable extroversion, as the 'f' value is found to be 1.571 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. The Graphical representation has been shown in fig.no.1.

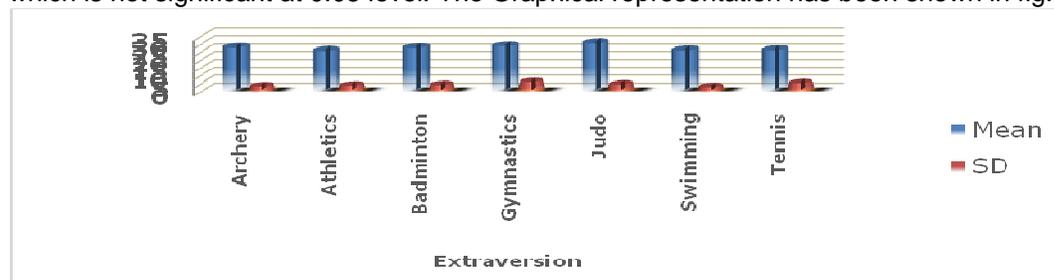


Fig no. 1: Mean and Standard Deviation of the Extraversion of Individual Game Coaches

Table no. 2: Descriptive Statistics and One-way Anova of the Individual Game Coaches for Agreeableness Variables of BFI

Variables of BFI	Games	N	Mean	SD	df	F	Sig
Agreeableness	Archery	10	33.60	5.854	6/63	.522	.789
	Athletics	10	32.70	5.078			
	Badminton	10	32.50	3.274			
	Gymnastics	10	34.00	5.812			
	Judo	10	33.40	4.274			
	Swimming	10	31.80	5.371			
	Tennis	10	30.70	4.832			

"f" (df = 6/63) 2.25 at 0.05

Table No.2, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable agreeableness, which shows that the mean and Standard deviation values of the variable extroversion for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 33.60 ± 5.854 , 32.70 ± 5.078 , 32.50 ± 3.274 , 34.00 ± 5.812 , 33.40 ± 4.274 , 31.80 ± 5.371 , and 30.70 ± 4.832 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable agreeableness, as the 'f' value is found to be 0.522 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. The Graphical representation has been shown in fig.no.2.

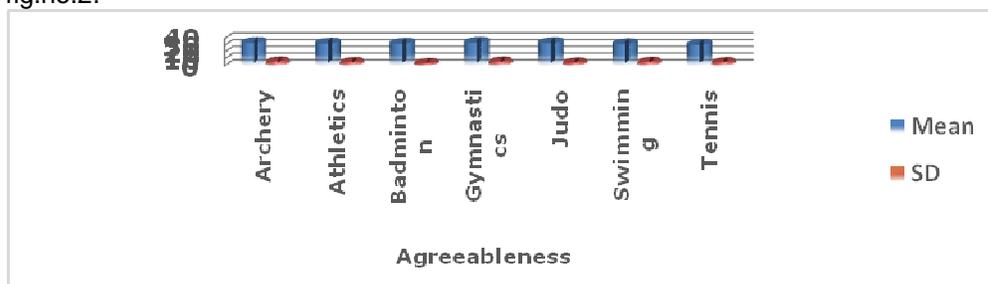


Fig no. 2: Mean and Standard Deviation of the Agreeableness for Individual Game Coaches

Table no. 3: Descriptive Statistics and One-way Anova of the Individual Game Coaches for Conscientiousness Variables of BFI

Variables of BFI	Games	N	Mean	SD	df	F	Sig
Conscientiousness	Archery	10	34.00	3.682	6, 63	1.958*	.085
	Athletics	10	31.70	5.250			
	Badminton	10	31.60	2.547			
	Gymnastics	10	34.70	4.900			
	Judo	10	37.30	4.057			
	Swimming	10	33.10	5.507			
	Tennis	10	33.60	4.195			

"f" (df = 6/63) 2.25 at 0.05

Table No.3, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable extroversion, which shows that the mean and Standard deviation values of the variable conscientiousness for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 34.00 ± 3.682 , 31.70 ± 5.250 , 31.60 ± 2.547 , 34.70 ± 4.900 , 37.30 ± 4.057 , 33.10 ± 5.507 , and 33.60 ± 4.195 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable conscientiousness, as the 'f' value is found to be 1.958 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. The Graphical representation has been shown in fig.no.3.

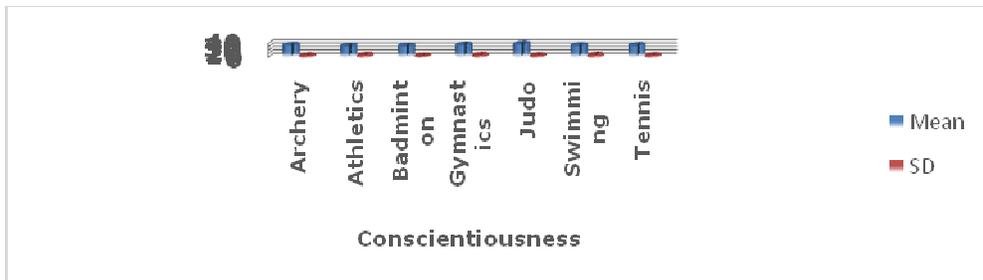


Fig no. 3: Mean and Standard Deviation of the Conscientiousness for Individual Game Coaches
 Table no. 4 Descriptive Statistics and One-way Anova of the Individual Game Coaches for Neuroticism Variables of BFI

Variables of BFI	Games	N	Mean	SD	Df	F	Sig
Neuroticism	Archery	10	26.10	3.725	6, 63	2.195*	.055
	Athletics	10	21.60	4.551			
	Badminton	10	25.70	3.093			
	Gymnastics	10	27.30	6.767			
	Judo	10	20.90	1.853			
	Swimming	10	25.40	8.809			
	Tennis	10	24.90	3.247			

"f" (df = 6/63) 2.25 at 0.05

* The 'F' value is significant at the .05 level in tabulated table

Table No.4, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable extroversion, which shows that the mean and Standard deviation values of the variable neuroticism for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 26.10 ± 3.725 , 21.60 ± 4.551 , 25.70 ± 3.093 , 27.30 ± 6.767 , 20.90 ± 1.853 , 25.40 ± 8.809 , and 24.90 ± 3.247 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable neuroticism, as the 'f' value is found to be 2.195 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. The Graphical representation has been shown in fig.no.4.

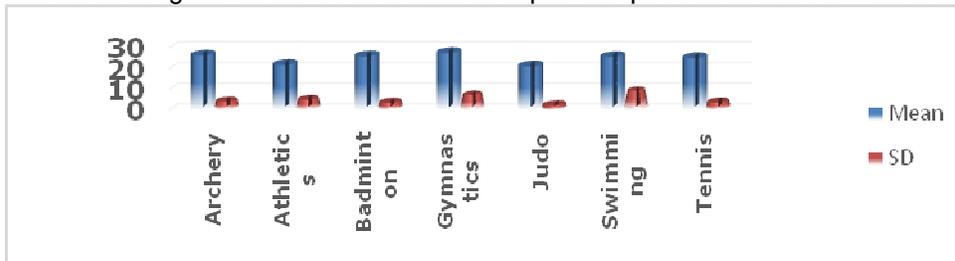


Fig no. 4: Mean and Standard Deviation of the Neuroticism for Individual Game Coaches
 Table no. 5 Descriptive Statistics and One-way Anova of the Individual Game Coaches for Openness Variables of BFI

Variables of BFI	Games	N	Mean	Std. Deviation	df	F	Sig
Openness	Archery	10	41.70	3.433	6/63	3.582*	.004
	Athletics	10	33.00	4.447			
	Badminton	10	38.70	6.308			
	Gymnastics	10	40.40	5.337			
	Judo	10	36.90	4.175			
	Swimming	10	35.10	5.820			
	Tennis	10	39.00	5.395			

"f" (df = 6/63) 2.25 at 0.05

* The 'F' value is significant at the .05 level in tabulated table

Table No.5, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable openness, which shows that the mean and Standard deviation values of the variable extroversion for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 41.70 ± 3.433 , 33.00 ± 4.447 , 38.70 ± 6.308 , 40.40 ± 5.337 , 36.90 ± 4.175 , 35.10 ± 5.820 , and 39.00 ± 5.395 respectively. Further the table also shows that there is a significant difference is observed among the players from the selected sports for the variable Openness, as the 'f' value is found to be 3.582 against the tabulated value of 2.25 at df 6/63, which is significant at 0.05 level.. The Graphical representation has been shown in fig.no.5.

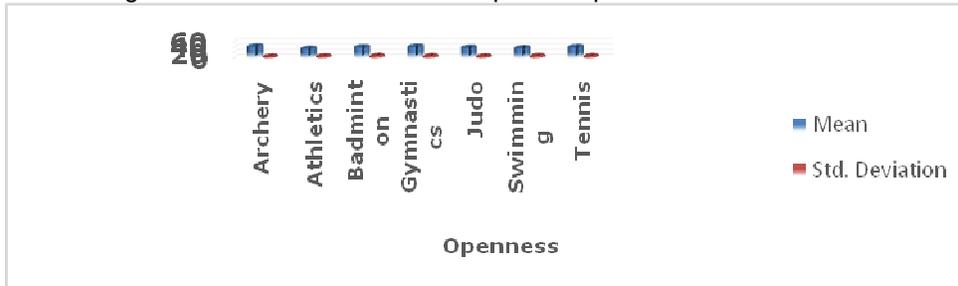


Fig no. 1: Mean and Standard Deviation of the Team & Individual Game Coaches

Table no. 5: Post Hoc Tests of Individual Games Coaches for Openness Variables of BFI

Dependent Variable	Group (1)	Group (2)	Mean Difference (1-2)	Std. Error	Sig.
OPENNESS	Archery	Athletics	8.700*	2.269	.000
		Badminton	3.000	2.269	.191
		Gymnastics	1.300	2.269	.569
		Judo	4.800	2.269	.038
		Swimming	6.600	2.269	.005
		Tennis	2.700	2.269	.239
	Athletics	Badminton	-5.700*	2.269	.015
		Gymnastics	-7.400*	2.269	.002
		Judo	-3.900	2.269	.091
		Swimming	-2.100	2.269	.358
		Tennis	-6.000*	2.269	.010
	Badminton	Gymnastics	-1.700	2.269	.457
		Judo	1.800	2.269	.431
		Swimming	3.600	2.269	.118
		Tennis	-.300	2.269	.895
	Gymnastics	Judo	3.500	2.269	.128
		Swimming	5.300*	2.269	.023
		Tennis	1.400	2.269	.540
	Judo	Swimming	1.800	2.269	.431
		Tennis	-2.100	2.269	.358
Swimming	Tennis	-3.900	2.269	.091	

* The mean difference is significant at the .05 level

Discussion

Table No.1, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable extroversion, which shows that the mean and Standard deviation values of the variable extroversion for the coaches of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and

Tennis is found to be 28.20 ± 3.458 , 25.90 ± 3.929 , 28.00 ± 4.243 , 29.00 ± 6.182 , 30.90 ± 4.606 , 26.20 ± 3.048 , and 26.40 ± 5.461 respectively. Further the table also shows that there is no significant difference is observed among the coaches from the selected sports for the variable extroversion, as the 'f' value is found to be 1.571 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. Table No.2, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable Agreeableness, which shows that the mean and Standard deviation values of the variable agreeableness for the coaches of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 33.60 ± 5.854 , 32.70 ± 5.078 , 32.50 ± 3.274 , 34.00 ± 5.812 , 33.40 ± 4.274 , 31.80 ± 5.371 , and 30.70 ± 4.832 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable Agreeableness, as the 'f' value is found to be 0.522 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. Table No.3, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable Conscientiousness, which shows that the mean and Standard deviation values of the variable conscientiousness for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 34.00 ± 3.682 , 31.70 ± 5.250 , 31.60 ± 2.547 , 34.70 ± 4.900 , 37.30 ± 4.057 , 33.10 ± 5.507 , and 33.60 ± 4.195 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable Conscientiousness, as the 'f' value is found to be 1.958 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. Table No.4, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable Neuroticism, which shows that the mean and Standard deviation values of the variable neuroticism for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 26.10 ± 3.725 , 21.60 ± 4.551 , 25.70 ± 3.093 , 27.30 ± 6.767 , 20.90 ± 1.853 , 25.40 ± 8.809 , and 24.90 ± 3.247 respectively. Further the table also shows that there is no significant difference is observed among the players from the selected sports for the variable Neuroticism, as the 'f' value is found to be 2.195 against the tabulated value of 2.25 at df 6/63, which is not significant at 0.05 level. Table No.5, depicts the values for descriptive analysis and One Way ANOVA for the BFI's variable Openness, which shows that the mean and Standard deviation values of the variable openness for the players of Archery, Athletics, Badminton, Gymnastics, Judo, Swimming, and Tennis is found to be 41.70 ± 3.433 , 33.00 ± 4.447 , 38.70 ± 6.308 , 40.40 ± 5.337 , 36.90 ± 4.175 , 35.10 ± 5.820 , and 39.00 ± 5.395 respectively. Further the table also shows that there is a significant difference is observed among the players from the selected sports for the variable Openness, as the 'f' value is found to be 3.582 against the tabulated value of 2.25 at df 6/63, which is significant at 0.05 level. Table no. 6 depicts the values for post hoc analysis among different sports for the variable openness, which shows that a significant difference has been found between Archery and Athletics (8.700), Archery and Judo (4.800), Archery and swimming (6.600), Athletics and Badminton (5.700), Athletics and Gymnastics (7.400), Athletics and Tennis (6.000), and Gymnastics and Swimming (5.300)

Conclusions

On the basis of the analysis and finding of the study it was concluded that there is significant difference observed among the coaches from the selected sports for the psychological variable like Conscientiousness, Neuroticism, and Openness. But this significance is found to be more in Openness as compared to other psychological variables in individual games.

References

- Barrick, M. R., Mount, M. K., & Judge, T. A., "Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *Personality and Performance*", 9(1-2), (2001) pp. 9-30.
- Barrick, M. R., Stewart, G. L., & Piotrowski, M. "Personality and job performance: Test of the mediating effects of motivation among sales representatives" *Journal of Applied Psychology*, 87(1), (2002) pp. 43-51.
- Biddle, S. "European perspectives in exercise & sports psychology" *Human kinetic publishers & Inc.* (1995).
- Goldberg, L. R. "The development of markers for the Big-Five factor structure. *Psy. Assessment*", 4(1), (1992) pp26-42.
- John, O. P., & Srivastava, S. "The Big Five trait taxonomy: History, measurement, and theoretical perspectives" In L. A. Pervin, & O. P. John (Eds.), *Handbook of personality: Theory and research* (1999), pp. 102-138 New York: Guilford
- Lounsbury, J.W. & Gibson, L.W., "Personal Style Inventory: A personality measurement system for work and school settings". Knoxville, TN: Resource Associates, Inc. (2009)
- Lounsbury, J.W., Levy, J.J., Park, S., Gibson, L. W., & Smith, R. (2009). "An investigation of the construct validity of the personality trait of self-directed learning". *Journal of Learning and Individual Differences*, 19, (2009) pp411-418

Yoga Therapy For Peak Athletic Performance

**Dr.K.G.ESWAR NAIK, Physical Education Director,
Govt. First Grade College, Vijayanagar, Bangalpre-560104**

Introduction

Yoga, an ancient science, is becoming an integral component in contemporary athletic training. The scientific research of the use of yoga as a therapy in developing psychological skills and physical training for sports, and the effects of meditation, breath control and yoga postures in the enhancement of increased athletic performance. Yoga is a holistic system that teaches skills many athletes seek, such as control over the mind, control over the body, good breathing habits, relaxation under pressure, highly developed concentration skills and the ability to focus on the present. In competition, athletes at all ability levels tend to have a fear of losing, of other competitors, or of developing mental deterrents to excellent performance. Meditation is useful in overcoming these problems.

Need and Importance of the Yoga Therapy

Athletes can be powerful enhancement in regular training exercise. Adding yoga in a routine training programme helps develop strength, flexibility, and range of motion, concentration, cardiovascular health, stress, tension, and tightness etc. The most significant benefit of players, adding yoga to be a training programme is its effect on performance and goals.

Yoga therapy holds that a person's health condition depends on himself. It lays emphasis on physical, mental and emotional balance and development of sense of harmony with all of life.

Yoga therapy endeavors to re-establish inner balance through a variety of ways, ranging from the gross to the subtle. Yoga therapy that knowledge comes the ability to more easily accept and adapt to change, resulting in enhanced well-being in body, mind, heart and spirit.

Yoga may enhance whole-brain function. Studies indicate that when the brain was vibrated in the alpha state, subjects relaxed until they attained an alert state of awareness. The more aware the athlete is of body and mind, the greater his or her opportunity to prevent or control injuries. The body and mind can only cope with a certain amount of stress before breakdown occurs, producing illness and injury. The three aims of yoga are: physical tone and awareness, controlled breathing and controlled concentration.

The consequence of this deep relaxation (or alpha) state for the Meditator is increased mind-body coordination, faster reaction, more effective interaction with the environment, increased intelligence, increased ability and decreased anxiety. Psychological investigations suggest that yoga improves mood, reduces anxiety and develops willpower, which helps eliminate psychological barriers. Yoga uses awareness, relaxation, visualization, and willpower techniques, which have been found over thousands of years of experience to be effective in remolding the mind and body.

Hatha Yoga (Physical Postures for Flexibility, Strength and Recovery)

The most pertinent form of yoga to athletes is hatha yoga, characterized by holding passive physical positions, relaxing the mind and body, and focusing attention. Yoga asanas, or postures, are similar to passive stretching before or after competition or training. Asanas help develop flexibility, an easily recognized benefit. These also help develop an awareness of the body to maintain good 'tone and tension of specific muscles. Hatha yoga practices are not designed to increase the fitness of the individual as measured by traditional fitness tests.

However, according to Gharote, after administering several tests of physical fitness before and after a three-week programme of yoga training, the results showed a statistically significant positive change in the overall fitness index of those tested. Asana is a relaxation technique that

athletes find accessible. It can be easily incorporated into an athlete's competition/preparation schedule.

Mental concentration is of great benefit to all athletes. The development of concentration occurs because when one is in an asana, one focuses the mind on one aspect of the body position. Any extraneous thoughts that pass through, interrupting the flow of concentration, are allowed to pass through with one's attention always returning to the point of focus. The aim of all yoga is to focus the mind on the present and the present only.

Application of Asanas

Asanas are both static and dynamic. They are designed to relax and strengthen both body and mind. They are not gymnastically exercised requiring strain and effort, or even muscle development. Instead, asanas afford relaxation and increased energy, and they help one gain more out of meditation. There is an important distinction between physical exercise and yoga asanas. Exercise is derived from *exercere*, a Latin word roughly meaning "to drive forth"; hence, to employ, to set to work. Exercise connotes exertion of the muscles and limbs. Exertion, in turn, requires vigorous action or effort. Asana, on the other hand, literally means "sitting positions or posture." As used by Patanjali, it refers to the attainment of a steady and comfortable posture for the practices of pranayama (breath control) and dyana (meditation). Asanas are composed of meditative sitting postures and the non-meditative asanas that promote general physical well-being. When practiced correctly in conjunction with mental concentration and breath control awareness, homeostasis is the beneficial result. Pasek and others conducted experiments that point to increased input to the brain from the various sensory receptors during asana practice. This occurs because of increased pressure on particular muscle and organ groups while the muscles remained relaxed. Simultaneously, there is increased blood flow and oxygen to the brain, liver, and other organs combined with excitation of certain centers within the brain through mental concentration. This increases tissue health through a massaging effect on the affected muscles and external organs. This stimulation to the brain registers relaxation and reduces tension, which increases energy within the body.

Yoga Therapy for Athletes

Yoga recognizes that a healthy, aligned spine is conducive to better health. As we already know, by freeing the energies of the spine, the tissues of the entire body are better controlled by the higher centers of the brain. The organs of the body benefit, and their internal function is synergistically enhanced. Yoga philosophy are based on a holistic view of the universe, in which the mind and body are seen as one organ functioning as an expression of a universal intelligence that manifests itself as our human innate intelligence. Yoga can be aligned to clinically enhance health and well-being to all athletes. The „sports persons may want to include yoga as a personal lifestyle/philosophy and practice to enhance and improve mental and physical relaxation and concentration.

Through asana, pranayama and dyana or meditational techniques as self-help methods to maintain an aligned position and a more relaxed nervous system, athletes can learn to improve their concentration and refocus techniques for peak performance enhancement. Relaxation and mental concentration techniques provided by yoga asanas, breathing and meditation to enhance athletes' ability to learn how to dive deep within themselves and find the cause of their imbalances, pain, or tension, etc. as well as to discover their inner peace and harmony.

Conclusion

Scientific investigations on the main components of yoga have concluded that yoga improves mind-body coordination by increasing physical tone and awareness while improving mind and breath control, which are necessary components for better performance in competition. Meditation has been proven to reduce anxiety, stress and muscular tension, and it aids in the process of focusing and refocusing on an object, which is essential to athletic performance.

References

- Horsley C. The use of yoga in psy. skills training for sports, Australian Institute of Sport. 1997.
- Iyengar B.K.S. Light on Yoga, London: Unwin Hyman Limited, 1976.
- Krueger K. The Neuropsychology of Sports Excellence, Los Angeles: The Institute of Sports Psychology, 1998.
- Kuvalayananda V. Yogic Therapy, New Delhi: Ministry of Health, Government of India, 1963.
- Saraswati SS. The Effects of Yoga on Hypertension, India: Bihar School of Yoga, 1994.

Impact of the use of certain devices and tools to assist in the development of physical abilities special skill accuracy correction of high jumping for handball

Prof. Dr.Abdul-Wahab Ghazi Hamoudi,College of Physical Education, Baghdad University,Iraq
Amin ThanonAhmad,Teacher, Dept. of Sports and Art, Technology University Hadeel Taleb Mohammed, College of Physical Education, Baghdad University, Iraq

1-1Introduction research and its importance

Learning the basic skills handball be faster when compared to other sports that play ball, because of the player to use his hands since childhood in basic movements, such as hold, flinging, drag, pivot and others, and the innovation and the use of instruments and means of assisting working on reducing the time and effort to deliver the vocabulary skills to the learner and the trainee, one of the important thing sought by organizers of sporting events to serve the game and its development..

Research objectives

1- Identify the impact of the use of certain devices and tools to assist in the development of physical abilities among private players Specialist National Center for Giftedness sports handball ages (14-16 years) for the sports season 2014 members of the research sample.2- Identify the impact of the use of certain devices and tools to assist in the development of skill accuracy correction of high jump at the players of the National Center for Giftedness Specialist sports handball members of the research sample.

3-Identify the differences between the tests before and after the special physical variables and the skill of accuracy correction of jumping high among members of the experimental group and the control group members of the research sample.4-Identify the differences between the posterior tests before between the experimental group and the control group in the research variables under study.

1-4-Hypotheses-the researcher guess-

1-4-There is a positive effect of the use of certain devices and tools to assist in the development of physical abilities and skill for the correction of the high jump at the players of the National Center for Giftedness sports handball ages (14-16 years) for the sports season 2014 members of the research sample3-Research methodology and procedures, field

3-1-Research Methodology

And the use of the experimental method in a manner experimental and control groups equal to the suitability of the nature of the problem to get the information and the results of a sound and accurate "and experimentation, a deliberate change and tuned to the conditions specified for the accident and note what changes resulting in the same incident and interpretation

And that the design of experimental and control groups with pre and post tests to measure any two groups before and after the experiment.

3-2-Community and the research sample

Sample was selected search way intentional class youngsters aged (14-16 years) within the National Center Specialist for the Gifted handball for the sports season (2014) 's (50) player out of (60) players by up to 0.833 % were divided way randomized into two equal groups (control group and experimental) for each group (21) as a player and a rate of 0.42% were excluded (8) players for the purpose of conducting the experiment exploratory and we enter the variable demo which used special exercises on according to some of the tools and equipment to help the experimental group , while the left members of the control group to train with their handlers note

that the main part of the curriculum will be agreed upon between the trainers and researchers with different means and exercises used by the researchers placed.

3-3-Methods, tools and equipment used in the search

Search Tools: It is "the means by which the researcher can collect data and problem-solving to achieve the objectives of the research, whatever those tools.

Tools and assistive devices that have been the preparation and implementation of exercise on your accordingly:-

1-Balls hands of legal type ((kempa)) of different sizes and weights.

2- Device Development Movement wrist movements in several different directions marcy))

3-Rubber ropes of different lengths fists hand movement for the development of the technical performance of the Ba straighten arms to prove the stairs gymnastics on the wall or colleague.

4-Glove game gymnastics for men to talk to the development of new movements, jumping to the skill of the correction of the high jump.

5-Wooden chairs different heights for the development of the movement of the two men jump to correction of the high jump.

6-Balls medical different weights and oceans for the development of high-performance technical skill for the correction of high jumping.

7-Trampoline to jump to the development of the movement to jump high.

3-4-Determine the capacity and the tests used in the research

Name of test	changes	numbers
Test based front payment status for a period of (10) seconds	The ability of speed-strength of the arms	1
Test Partridge (20) seconds for maximum distance with the man on the switch limits Stadium Handball	The ability of speed-strength of two men	2
Measuring accuracy correction of high jump	The accuracy of the correction of high jump	3

Test:- "is a measure of an individual's ability to perform certain work according to the guidelines :3-4-1-Tests for special physical capabilities with handball players.3-4-2-The scientific basis for the tests used in the research

3-5-Exploratory experiment

It is "an initial pilot study carried out by the researcher on a small sample before carrying out his research with the aim of testing research methods and tools"

3-5-1-The first exploratory experiment

It was an experiment exploratory first for the purpose of knowing the mechanism for implementing the tests adopted to search on 14/02/2014 Friday according to the time domain of research and on a sample of ((8 players from the research community of 50 player)) and the amount of increase of 0.16% were excluded this sample from the research community.

3-7-Tribal tests to search

The researchers set a date testing Tribal among members of the research sample experimental and control groups on Monday, which falls on 17/18/19/2/2014 at four in the afternoon on according to the special period in the field of research temporal, and then do the researchers have installed all the right conditions and the right to conduct these tests and recording the data and two experimental and control groups, and has over three days and a dedicated cadre assistant under the supervision of researchers in the inner hall at the National Center for the care of the talent in sports Handball / Baghdad / Zayouna.

3-8-The application of the special vocabulary exercises according to the means and the equipment and tools to helpThe implementation and application of field experience in of Friday 22/05/2014 on according to field temporal your experience key members of the experimental group and by four units per week and by ((32 units over 8 weeks)) and a time ranging from 20 to

40 minutes to the length of the application of field experience which is the main part of the unit training along the specified period. In addition the method of determining and training methods adopted to achieve the objectives of the research hypotheses set a special table was set with all details of the times own experience in the field.

3-9-Posteriori tests used to search: After implementing the field experience and apply vocabulary exercises Applied to sample individuals and end on time for the field of temporal own was implemented posttests to search for members of the experimental group and the control group at day 16,17,18 Thursday, Friday and Saturday / 5/2014 and over the course of three days and taking into account implement the same before testing conditions. 3-10-Statistical methods used to search: Has been the use of means and methods and statistical laws that are on the program in the bag ready Statistical Social Sciences ((spss)) and will apply the laws to serve the search. 3-11-View and analyze and discuss the results of field: After making steps for the implementation of testing for research, the researchers managed to get the raw scores for the tests and that "access to the raw scores is not difficult, but the difficulty lies in balancing these grades total vocabulary test and that the different means of measurement of the test to another. The researchers have arranged the results of the research and treatment of this data statistically and then put this data in the form of tables, illustrations. 4-View and analyze and discuss the results of the post tests and a posteriori tests of the physical capabilities of the special skill and accuracy correction of the high jump between the experimental group and the control group. 4-3-View and analyze and discuss the results of the tests before and after the tests own physical abilities and skill accuracy correction of jumping high among members of the experimental group

When the level of significance 0,05	Value T Tabulated	Value T Calculated	posttest			pretest		Statistical treatments tests	ت
			X+	-	SD	X+	-SD		
Moral	2.09	5.669	1.013	18.25		1.490	14.50	Test based front with 10 seconds	1
Moral	2.09	6.812	62.45	1.066		55.30	1.335	Partridge test two men with 20 seconds	2
Moral	2.09	3.563	1.032	9.50		6.25	1.48	The accuracy of the correction of high jump	3

When the degree of freedom (n - 1 equal to 21-1 = 20) and at the level of significance (0.05) 4-4-View and analyze and discuss the results of the tests before and after the tests to own physical abilities and skill accuracy correction of jumping high among members of the control group.

When the level of significance 0,05	Value T Tabulated	Value T Calculated	posttest		Pretest		Statistical treatments tests
			X+	-SD	X+	-SD	
moral	2.09	3.419	17.25	1.078	13.50	1.356	Test based front with 10 seconds
Non moral	2.09	1.9 87	56.60	1.234	54.70	1.277	Partridge test two men with 20 seconds
Non moral	2.09	1.870	1.410	6.25	5.50	1.422	The accuracy of the correction of high jump

When the degree of freedom ($n - 1$ equal to $21 - 1 = 20$) and at the level of significance (0.05)

5-Conclusions and Recommendations

Conclusions:-

After the results were treated in the laws of statistical processing extract them appropriate outcome of the objectives and hypotheses identified by researchers researchers concluded the following conclusions:-

1-of Applied exercises were carried out in accordance with the application to the hardware and tools by the sample positive influence in the development of physical abilities own which is reflected in the performance of the skill of accuracy correction of high jumping.2-That the process of organizing according to a method of exercise and careful programmer and entrepreneur with a vocabulary designed for coaches working helped the emergence of differences between pre and post tests and in favor of a posteriori to the experimental group and all the variables under consideration.3-To identify duplicates of the exercises according to the modules that have been implemented by the sample and have contributed to these differences between the experimental group and the control group accurate appearance.4-Exercise contributed for the development of the capabilities of the players of the arms and legs clearly the results of the tests posteriori.5- Programming the importance of exercise in accordance with the scientific method correctly determine the appropriate period within the preparation phase or stage of your numbers for the competition and during the competition is very necessary to develop the capacity.6- Emergence of obvious importance to determine which group exercise care with special physical capabilities handball players in the overall training curriculum at the level of these samples.

5-2-recommendations:-

After that was determined according to the most important conclusions on the results that came out of the researchers recommend their search this group 's recommendations public and private research , including:-

1- Attention by all trainers working in the field of competence of handball in the training and preparation of the players and that includes Mfirdataathm special exercises according to the devices and utilities because of their importance and that we got to this study.2-contain training curricula own team vocabulary bother capabilities kinetic and physical , including exercises speed-strength movements , arms and legs because of their importance in the development and reflection developed on the movements of defense and attack , including the skills of the correction of jumping high and this is what Zhryva discussed this.3-determine an appropriate period for the development of capacity because these variables have a positive effect was clearly evident in this research.4-increased occurrences of Applied exercise correctly according to the hardware and utilities and calculate grades density between duplicates and identify Cdd appropriate.5-diversify the exercises and the use of different forms of exercise and a new search for the thrill and to get away from the boredom of application exercises and one in the overall curriculum.6-make a research and other studies take these variables that have been applied in this research and apply them to other samples to see the results you get these samples and conduct a comparative study.

References:

- Mohamed SobhiHassanein: adequacy physical model, Cairo: Dar Al Arab Thought 1985
Hassanein Mohamed Sobhi, Ahmed Kesri. Encyclopedia of Sports Training Applied i 1, Cairo, the center of the book and publishing 0.1998
Suleiman Ali Hussein. Entrance to the science of training, Mosul, Directorate University Press, 1983.
RisanKahribt Majid Ali and Turkish Musleh. Theories of strength training, Baghdad.2002
Mohammed Saleh Mohammed. Methodology the proposed training with weights to develop muscular strength and influence in some of the offensive skills of individual and composite basketball, PhD thesis, Physical Education College, University of Baghdad 0.1999
Saad Mohsen Ismail. The impact of training methods for the development of the explosive power of the legs and arms in the accuracy of the correction term by jumping high in handball. PhD thesis, Physical Education College, University of Baghdad, 1996
Abul-Ela Ahmed Abdel Fattah and Mohamed SobhiHassanein. Morphology and physiology of sport and measurement methods for evaluating Dar Arab Thought
Mufti Ibrahim. Modern sports training, Cairo, Dar of the Arab Thought, the first edition 0.1998
Qassim Hassan Hussein, the foundations of sports training, Wael Press, 367 pp. Jordan in 1998
Albeck Ali. Basis of preparation The football player and the mass games, Cairo: Dar Al of the Arab Thought 0.1992
Mohammed Khaled Abdel Qader Mohammed Yasser, offensive in handball (Cairo Debeb Groupof 1995
Yasser Mohammed Hassan Dabbour, handball Modern (Alexandria, facility Knowledge 1995(
Munir Abraham Gerges, handball for all (Cairo, Dar ATF, 2004) p 106

A Comparative Study of Speed among Foot Ball Players and Hockey Players of Rayalaseema University

M.Venkateshwarlu
Physical Director
GVSU Govt Degree College, Dhone

Introduction:

Speed is not just how fast someone can run (or cycle, swim etc.), but is dependent on their acceleration (how quickly they can accelerate from a stationary position), maximal speed of movement, and also speed maintenance (minimizing deceleration). Movement speed requires good strength and power, but also too much body weight and air resistance can act to slow the person down. In addition to a high proportion of fast twitch muscle fibers, it is vital to have efficient mechanics of movement to optimize the muscle power for the most economical movement technique.

Association football, more commonly known as **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. The game is played on a rectangular field with a goal at each end. The object of the game is to score by getting the ball into the opposing goal.

Players are not allowed to touch the ball with their hands or arms while it is in play, unless they are goalkeepers (and then only when within their penalty area). Other players mainly use their feet to strike or pass the ball, but may also use their head or torso. The team that scores the most goals by the end of the match wins. If the score is level at the end of the game, either a draw is declared or the game goes into extra time or a penalty shootout depending on the format of the competition. The Laws of the Game were originally codified in England by The Football Association in 1863. Association football is governed internationally by the International Federation of Association Football (FIFA; French: *Fédération Internationale de Football Association*), which organises World Cups for both men and women every four years.

Hockey is a sport in which two teams play against each other by trying to maneuver a ball or a puck into the opponent's goal using a hockey stick. Field hockey is played on gravel, natural grass, or sand-based or water-based artificial turf, with a small, hard ball approximately 73 mm (2.9 in) in diameter. The game is popular among both males and females in many parts of the world, particularly in Europe, Asia, Australia, New Zealand, South Africa, and Argentina. In most countries, the game is played between single-sex sides, although they can be mixed-sex.

The governing body is the 126-member International Hockey Federation (FIH). Men's field hockey has been played at each Summer Olympic Games since 1908 except for 1912 and 1924, while women's field hockey has been played at the Summer Olympic Games since 1980.

Modern field hockey sticks are constructed of a composite of wood, glass fibre or carbon fibre (sometimes both) and are J-shaped, with a curved hook at the playing end, a flat surface on the playing side and a curved surface on the rear side. All sticks are right-handed – left-handed sticks are not permitted.

The Purpose of the Study is to find out the speed among foot ball and Hockey players of Rayalaseema university.

Methodology

The sample for the present study consists of 20 Male Foot Ball Players and 20 Male Hockey Players between the age group of 18-22 Years of Rayalaseema University. To assess the speed the 50 M Run were conducted among Foot Ball Players and Hockey Players by the well qualified Testers.

Discussion

This study shows that Foot Ball players are having the better speed compare to Hockey players. The Mean Values of 50 M Run of Foot Ball Players is 7.20 and Compare to Hockey Players is 7.70

Table-I: Mean values and Independent Samples Test of 50 M Run between Foot Ball Players and Hockey Players

Variables	Group	Mean	SD	t	P - Value
50 M Run	Foot Ball Players	7.20	0.262	4.58	0.000
	Hockey Players	7.70	0.408		

*Significant at 0.05 level

In Table –I the Mean Values of 50 M Run of Foot Ball Players is 7.20 and Hockey Players is 7.70

Conclusion:

It is concluded that Foot Ball players are having better speed than Hockey Players. This study also helps the physical educators and coaches to improve their training regime to excel in Foot Ball and Hockey

Recommendations:

It is recommended that Motor qualities development coaching must be given by Coaches to promote speed, endurance, strength, agility etc. among the basket ball and hand ball players. Similar studies can be conducted among female players and in other sports and games. This study also useful to develop the speed among foot ball and Hockey Players.

References:

Wikipaedia foot Ball and Hockey