ISSN 0975-7732

Volume 11 No. 1
HALF YEARLY
July 2014 to December 2014

Asian Journal of Physical Education & Computer Science in Sports

Journal Impact Factor 1.614
Index Journal of Directory of Research Journal Indexing

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

Editorial Board

Chief Editor:

Prof. Rajesh Kumar, Chairman, Board of Studies in Physical Education, Osmania University

Editors:

Prof.Syed Ibrahim, Department of Physical Education, King Fahad University, Saudi Arabia

Prof.L.B.Laxmikanth Rathod, Professor, Department of Physical Education OsmaniaUniversity

Associate Editors:

Prof.P.Venkat Reddy, Dean, Faculty of Physical Education, Osmania University, Hyderabad

Prof.J.Prabhakar Rao, Principal, University College of Physical Education,OU

Dr.Kaukab Azeem, Department of Physical Education, King Fahad University, Saudi Arabia

Prof.Quadri Syed Jaweed, Research Guide In Physical Education and Sports Psychology.
Dr.Baba Saheb Ambedkar Marthwada University, Aurangabad.

Members:

Prof. Henry C.Daut, Mindanao State University, Marawi City, Philippines
Ma. Rosita Ampoyas - Hernani, College Physical Education Professor, Cebu Normal University, Osmena Boulevard, Cebu City, Philippines.
Vangie Boto-Montillano, Associate Professor, De La Salle University-Dasmarinas, Cavite Philippines.
Lila Sabbaghian Rad, Physical Education and Sport Science Department, Science and Research branch, Islamic Azad University, Tehran, Iran
Mr. Chenlei, China Software Testing Centre, Beijing.
Prof.G.L.Khanna, Dean, Faculty of Applied Sciences, Manav Rachna International University,
Y.Emmanuel Shashi Kumar, Chairman, Indian Federation of Computer Science inSports
Dr.P.Ravi Shankar, Archery Coach, A.P.Sports School, Hyderabad
Dr.S.R.Prem Raj, Director of Sports, GHMC, Hyderabad
Dr.B.Sunil Kumar, Associate Professor, Dept. of Physical Education, Osmania University
Dr.K.Deepla, Associate Professor, Dept. of Physical Education, Osmania University,Hyderabad

Contents

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp1-3
Journal Impact Factor 1.614

Physiological Variables Of Basketball And Handball Female Players

Ashwini, B.K.* and Virupaksha, N. D.**
***Research Scholar, Department of Physical Education, Kuvempu University, Karnataka**
****Co-ordinator, Department of Physical Education, Kuvempu University, Karnataka**

Abstract
The aim of the Study was to identify and Compare the Selected PhysiologicalVariables between Basketball and Handball Female players. To achieve the aim of the Study 40 Female Players of Universities who have represented in the respective games were randomly selected as the subject for this study. The subjects' age was ranged between 18 to 25years. Variablesselected for this Study are Pulse rate, Systolic Blood Pressure, DiastolicBlood Pressure and Vital Capacity. The data was collected from the Subjects by using Standardized procedure. To identify the difference exist in the Physiological Variablesamong the Subjects''t' test was used and the level of Significance was set at 0.05. The study reveals that there were significant differences found in Pulse rate and Vital Capacity between Basketball and Handball players. But there is no significant difference found in Systolic andDiastolicBlood Pressure
Keywords: PhysiologicalVariables,Pulse rate, Systolic Blood Pressure, DiastolicBlood Pressure and Vital capacity.

Introduction

The profession in the field of sports and physical education has changed dramatically in theyester years till today. Sports and different fitness programmes have been broadened fromvarious angles throughout the human habitats along with the dynamic change of life. Organismscarry different capacity level; depend on their anatomical, anthropometrical, physiological anddifferent training loads and systems. The evaluation of the performance implicates the recognition and denomination of the individual level of the components of the sporting performance or of a conditioning situation". It is essential that all the variables related to the athletes' performance be evaluated.

Aim Of The Study

The aim of the study is to identify and compare the selected PhysiologicalVariables between Basketball and HandballFemale Players.

Methodology

Selection of Subjects: To achieve theaim of the present study, Eighty (N=80), Female players in total and forty from each games wereselected assubjects. All the Subjects were represented their respective Universities in the Inter University Tournament.

Selection of Variables: Variables were Selected for this Study are Pulse Rate, Systolic Blood Pressure, DiastolicBlood Pressure and Vital Capacity

Statistical Technique Employed: To identify the difference exist in the Physiological Variables data 't' test Statistical technique employed .The Statistical Package for the Social Sciences (SPSS) Version 20.0 was used for the data analysis by fixing the Significance at 0.05 level.

Results:

To achieve the purpose of the Study data collected was analyzed with Statistical Technique't' test and results are presented in the following tables.

Table – 1
Showing the Mean value , Standard deviation and *'t'* score of Pulse Rate between Basketball and Handball Players

Sl. No.	Players	Sample Size	Mean	Standard deviation	't' value
1.	Basketball	40	72.23	8.04	3.79*
2.	Handball	40	78.58	7.91	

* Significant at 0.05 level

The above table shows the mean value, standard deviation and't' value of Pulse Rate ofBasketball and HandballPlayers. The't' value has shown significant difference between Basketball and HandballPlayers. Handball Players are having more PulseRate than the Basketball Female Players.

Table – 2
Showing the Mean value, Standard deviation and *'t'* score of Systolic Blood Pressure between Basketball and Handball Players

Sl. No.	Players	Sample Size	Mean	Standard. deviation	't' value
1.	Basketball	40	117.30	11.00	0.276
2.	Handball	40	116.63	9.34	

* Significant at 0.05 level

The above table shows the mean value, Standard deviation and't' value Systolic BloodPressure ofBasketball and Handball Players . The 't' value has shown no significant difference between Basketball and Handball Players .

Table - 3
Showing the Mean value, Standard deviation and *'t'* score of DiastolicBlood Pressure between Basketball and Handball Players

Sl. No.	Players	Sample Size	Mean	Standard deviation	't' value
1.	Basketball	40	72.23	9.32	1.04
2.	Handball	40	74.80	11.62	

* Significant at 0.05 level

The above table shows the mean value, standard deviation and't' value DiastolicBlood Pressure of Basketball and Handball Players . The't' value has shown no significant difference between Basketball and HandballPlayers.

Table – 4
Showing the Mean value, Standard deviation and *'t'* score of Vital capacity between Basketball and Handball Players

Sl. No.	Players	Sample Size	Mean	Standard. deviation	't' value
1.	Basketball	40	0.74	0.30	4.73*
2.	Handball	40	0.49	0.16	

* Significant at 0.05 level

The above table shows the mean value, standard deviation and't' value Vital Capacity ofBasketball and HandballPlayers. The't' value has shown significant difference between Basketball and HandballPlayers. Basketball Players are having more Vital capacity than the Handball Female players.

Discussions Of Findings

The Statistical findings of the present study revealed that there is a significant difference in Pulse Rate and Vital Capacity amongBasketball and Handballplayers and there is no significant difference in Systolic andDiastolicBlood Pressure. This is due to nature of the game.

Conclusions

Within the limitations of the present study it may be concluded that in Pulse Rate Handball players are having more pulse count than the Handball Female Players, in Vital Capacity BasketballPlayers are having goodLungsCapacity than the Handball Female Players, inSystolic Blood Pressure and DiastolicBlood Pressure there is no Significant difference found among Basketball and Handball Female Players

References

Blair, V. A. (2002). Hand function. In: Durward, B.R., Baer, G.D., Rowe, P. J. (Eds). Functional Human Movement.Oxford: Butterworth-Heinemann, pp. 160-179.

Lamonte, M. J., McKinney, J. T., Quinn, S. M., Bainbridge, C. N. and Eisenman, P. A. (1999).Comparison of physical and physiological variables for Female college basketball players. Journal of Strength and Conditioning Research, 13(3), 264-270.

Narazaki, K., Berg, K., Stergiou, N. and Chen, B. (2008).Physiological demands of competitive basketball. Scandinavian Journal of Medicine and Science in Sports, 18(3), 261-269.

Ostojic, S. M., Mazic, S., &Dikic, N. (2006). Profiling in basketball: physical and physiological characteristics of elite players.Journal of Strength and Conditioning Research, 20(4), 740-744.

Povoas, S.C., Seabra, A.F., Ascensao, A.A., Magalhaes, J., Soares, J.M. and Rebelo, A.N. (2012).Physical and physiologicaldemands of elite team handball. J Strength Cond Res, 26: 3365-3375.

Rannou, F., Prioux, J., Zouhal, H., Gratas-Delamarche, A. and Delamarche, P. (2001). Physiological profile of handball players.J Sports Med Phys Fitness, 41(3):349-53.

Sallet, P., Perrier, P., Ferret, J.M., Vitelli, M. and Baverel, G. (2005). Physiological difference in professional basketball players as a function of playing position and level of play.The Journal of Sports Medicine and Physical Fitness, 45: 291–294.

Ziv, G. and Lidor, R. (2009). Physical attributes, physiological characteristics, on-court performances and nutritional stRategies of Female and male basketball players. Sports Medicine, 39(7) :547-568.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp4-5
Journal Impact Factor 1.614

Efficacy Of Acceleration Sprint Training On Speed Performance Of Inter Collegiate Athletes

Dr. S. MANIKANDAN
Assistant Professor
Department of Physical Education and Sports Sciences,
Annamalai University, Tamilnadu, India.

Abstract

The purpose of the study was to find out the efficacy of acceleration sprint training on speed performance of inter-collegiate athletes. To achieve this purpose, thirty male inter-collegiate athletes were selected as subjects, their aged between 18 to 25 years, they were studying in the different places of Chidambaram, they represented only inter-collegiate competitions only. The selected subjects were divided into two equal groups of fifteen subjects each, namely acceleration sprint training group and control group. The acceleration sprint training trained for three alternative days in a week for twelve weeks with three sets per exercise per session at 60 to 80% with a progressive increase in load with the number of weeks. Speed Performance was selected as criterion variable and it was tested by using 50 metres dash . ANCOVA was used to find out the significant difference if any between the groups. The results of the study showed that there was a significant difference on selected criterion variable speed performance between plyometric training group and control group.

KEYWORDS: ACCELERATION SPRINT TRAINING, SPEED, INTER-COLLEGIATE, ATHLETES.

Introduction

The desire for a high level of achievement needs to concentrate on the prerequisites in the field of sports and games. It appears as if the whole system of performance revolves round the motor abilities that an individual posses. Sports training aims at improving performance necessary for excellence in sports. Therefore the training methods should include all required performance factors for achieving higher results. Coach and the players should be aware of the physical fitness that is to be developed through training for the optimum possible performance.A special form of sprint training in which running speed is gradually increased from jogging to striding and, finally, to sprinting at maximum pace. Each component is usually about 50 m long. Acceleration sprints are a good form of anaerobic training. They are a particularly effective means of emphasizing and maintaining the technical components of the sprint action as speed increases. The progressive nature of acceleration sprinting reduces the risk of muscle injury.

Statement Of The Problem

The purpose of this study was to investigate the efficacy of accelerating sprint training on speed performance of inter-collegiate athletes.

Methodology

The purpose of the study was to find out the efficacy of acceleration sprint training on speed performance of inter-collegiate athletes. To achieve this purpose, thirty male inter-collegiate athletes were selected as subjects, their aged between 18 to 25 years, they were studying in the different places of Chidambaram, they represented only inter-collegiate competitions only. The selected subjects were divided into two equal groups of fifteen subjects each, namely acceleration sprint training group and control group. The selected subjects had undergone the acceleration sprint training for twelve weeks, with three days per week in alternate days. After 10 to 15 minutes of warm-up the subjects underwent their respective acceleration sprint training programme and the subjects performed 6 to 12 repetitions of acceleration sprint exercises with a recovery distances of 20 to 40 metres or one to three minutes between repetitions. The control group did not participate in any specialized training during the period of study.

Experimental Design And Statistical Technique

The experimental design used for the present investigation was random group design involving 30 subjects for training effect. Analysis of covariance (ANCOVA) was used as a statistical technique to determine the significant difference, if any, existing between pre-test and post-test data on selected dependent variables separately and presented in Table-1

TABLE – I

Variable	Test		Acceleration Sprint Training Group	Control Group	Source of Variance	SS	df	Mean Square	'F' Ratio
Speed	Pre test	Mean	7.24	7.17	Between	0.03745	1	0.03745	0.520
		S.D	0.26	0.28	Within	2.017	28	0.07202	
	Post test	Mean	6.69	7.12	Between	1.391	1	1.391	13.807
		S.D	0.22	0.39	Within	2.821	28	0.101	
	Adjusted Post test	Mean	6.65	7.15	Between	1.823	1	1.823	48.517
					Within	1.014	27	0.03757	

(The table value required for significant at .05 level with df 1 and 28; and 1 and 27 are 4.20 and 4.215 respectively).

Results Of The Study

Based on the results of the study indicate that there was a significant difference between acceleration sprint training group and control group on selected criterion variable such as speed performance.

Conclusion

It is concluded that the acceleration sprint training has resulted in significant improvement on speed performance of inter-collegiate athletes.

References

Cronin, J.B. and Hanse, K.T., "Strength and Power Predictors of Sports Speed". *J. Strength Cond. Res.,* 19(2): (2005), pp. 349-57.

Donald Chu A., *Jumping into Plyometrics,* (New York: Human Kinetics Publishers), 1998, p. 1.

James Radcliff, C. and Robert Partentines, C., *Acceleration Sprint,* (Human Kinetics, 1985), p. 3.

John W. Bunn, *Scientific Principles of Coaching,* (2nd ed., Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1972), p. 125.

Troy Burger, "Complex Training Compared to a Combined Weight Training and Plyometric Training Programme", *M.S. Thesis – Abstract,* Microform Publication Bulletin, 1999.

Watson, A.W.S., *Physical Fitness and Athletic Performances,* (New York: Longman Inc., 1983).

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp6-7
Journal Impact Factor 1.614

Use a computer to find the values of the corners of the body in the motor performance

Hamid Abdul Sada Kadhim. Iraq
M.PEd IInd Year, Univ. College of Physical Education, Osmania University ,Hyderabad
E-mail: nnoor1202@gmail.com

Abstract
This study aimed to design a program on the computer (PC) to find the corners of the body in the performance of sporting events used data chain kinetic man-weighted during the receipt and delivery of the stick in the effectiveness of e-mail that there is a correlation is positive between the measurements of the way first (use the tools of engineering) and between the measurements of the second method (Use Computer). You have reached the strength of this relationship a value of (0.99), the largest of the tabular value (0.63) for the majority of random values for the correlation coefficient (266.7) and thus achieved the hypothesis that there was significant statistical relationship between the two methods .

Although the strength of the relationship above does not suggest one of the two methods on the other, the man compared to a computer, an exhibition of fatigue, which stand in the way without taking the thinking process normal and this means that fatigue hampers attention (6: 205), and thus affect the accuracy of the measurements, and the thickened line that Connects between points may cause problematic in reading angles, as well as the protractor itself, and that the advantages enjoyed by the computer as dealing with huge amounts of information and the possibility of retrieval of information and the speed at which an estimated (ns) and continue without fatigue or boredom and lack of boredom in doing duplicate (3:11) and rely on the processing arrest ways to find the angles and not rely on the connector line between the two points justify our preference second method (using a computer) on the way in the first

Introduction
Witness the modern world made tremendous progress in the field of information technology, where scientists are active for the application of the latest scientific methods to solve the problems facing the scientific process in various fields, has extended these studies to aspects of sports in all its forms to try to gain access to scientific solutions and understand the obstacles they face, have adopted sport in recent times a lot of science to solve problems, where is the Computer are among the most important science on which they depend sport

Problem of the study
That finding the values of several angles using the tools traditional engineering (protractor) may be easy but working according to the athlete's body and its performance for a series kinetics of long numbers mean enormous DO points of the body of material through the chain kinetic (Kinmatic) for the body which requires time to address these figures may be tired and influential in accuracy measurements researcher

Objective of the study Design program on the computer (PC) to find the corners of the body in the performance of sporting events

Discussion of Results
Table No. (1) to read using the methods and Table (2) the arithmetic mean and the deviation of the standard and the value of the correlation coefficient, and it is clear that there is a correlation is positive between the measurements of the way first (use the tools of engineering) and between the measurements of the second method utilizing the computer

Table (2)
Shows the mean and standard deviation values and (t) calculated and tabular values of the corners of the knee join

Readings	The arithmetic mean	Standard deviation	Value (t)	
Reading Engineering	125.00	34.84	Imputed	Tabulated
Reading Computer	124.63	34.28	0.99	0.63

You have reached the strength of this relationship a value of (0.99), the largest of the tabular value (0.63) for the majority of random values for the correlation coefficient (266.7) and thus achieved the hypothesis that there was significant statistical relationship between the two methods .

Although the strength of the relationship above does not suggest one of the two methods on the other, the man compared to a computer, an exhibition of fatigue, which stand in the way without taking the thinking process normal and this means that fatigue hampers attention (6: 205), and thus affect the accuracy of the measurements, and the thickened line that Connects between points may cause problematic in reading angles, as well as the protractor itself, and that the advantages enjoyed by the computer as dealing with huge amounts of information and the possibility of retrieval of information and the speed at which an estimated (ns) and continue without fatigue or boredom and lack of boredom in doing duplicate (3:11) and rely on the processing arrest ways to find the angles and not rely on the connector line between the two points justify our preference second method (using a computer) on the way in the first

Conclusions

Through what has been presented and discussed to reach the following conclusions :

1 -proved the program prepared sincerity in finding the body angles strongly the relationship of (0.99 .(

2 -to be able to state that the angle formed by the sports movement (60) and the situation during the preparation of the program .

4 -The program takes into account the change in direction of movement or rotation angle in the coup movement gymnastics events .

4-The program can be applied to any sporting event .

Recommendations :

The computer is able to perform other work in addition to be found such as speeding corner angles and the angular acceleration of it and recommend the following :

1 -development program after adding some equations to perform other work-related angles ,.

2 -work program ready specializes in all analyzes and Kinematic and dynamic .

References:

1 -Qassim Hassan Hussein: basic rules for teaching and field arena in the effectiveness of running and jumping, Freedom House for printing, Baghdad, 1976 .

2-Abdul Aziz Fahmy structure: computer and statistical analysis, i 1, Dar university salary, Beirut, 1985

3 -Research Council: the basics of programming personal computers:,i 2, offset printing press and the Orient, Baghdad, 1989

4- Nizar student and Mahmoud al-Samarrai: principles of statistics and physical tests and Sports, National Library for printing and publishing, Mosul, 1198

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp8-12
Journal Impact Factor 1.614

Callisthenic, Aerobic Dance, And Combination Of Callisthenic And Aerobic Dance Improves Physical Fitness In High School Boys

Dr. Rajashekhar M. Hiremath
Assistant Professor of Physical Education
University of Horticultural Sciences, Udyanagiri, Bagalkot
Dr. Appanna M. Gasti
Selection Grade Physical Culture Instructor
Department of Physical Education
Kuvempu University, Shimoga

Abstract
Physical fitness is one's richest possession. It cannot be purchased. It has to be earned through a daily routine of physical exercise. There many ways and means to improve one's health and physical fitness. Routine physical exercise includes innumerable permutation and combination of exercise protocols. The purpose of the study was to find out the effect of callisthenic exercises, aerobic dancing and combination of callisthenic and aerobic dancing on selected physical fitness variables of male adolescents. Total 240 high schools boys between the ages 13 to 15 years were randomly assigned to four groups of sixty boys each. The effect of twelve weeks callisthenic exercises, aerobic dance and combination of callisthenic and aerobic dance on muscular strength and endurance of subjects was tested with bent knee sit ups and pull ups respectively. The training protocol was meticulously selected by the researchers on the basis of their experience and reviews gone through. The analysis of covariance (ANCOVA) was employed to compare the significance of difference from pre to post test situations among the experimental and control groups followed by post hoc test, wherever the F-value was found significant. The experimental group which underwent the callisthenic training programme exhibited the best improvement compared to other experimental groups in both muscular strength and endurance aspects. The combination of aerobics and calisthenics experimental group stood second to the calisthenics group in muscular strength. Combination of aerobics and calisthenics experimental group also showed significant improvement in Muscular endurance followed by the aerobic training group. The details of findings are discussed with necessary recommendations.
Key Words: Callisthenics, Aerobic Dance, Adolescents, Muscular strength, Muscular Endurance.

Introduction

Biologically man tends to conserve energy. Along with it, advancement in technology and automation, modern civilization consciously or subconsciously has become less active and lazier. The positive correlation between the increased coronary heart disease death rates is increasing, even though the cause and effect certainly cannot be established. As a result of sedentary life style, many people suffer from hypo-kinetic diseases or diseases associated with lack of physical fitness and inactivity.

Physical inactivity and increased sedentary nature of our daily living habits are a serious threat to the body, causing major deterioration in normal body functions. Such common and serious medical problems as coronary heart disease, hypertension, obesity, anxiety, depression and lower back problems have been either directly or indirectly associated with lack of physical activity.Physical fitness is one's richest possession. It cannot be purchased. It has to be earned through a daily routine of physical exercise. It is evident that fit citizens are a nation's best asset and weak ones are its liability. It is the responsibility of every country to promote physical fitness of its citizens because fitness is the basic requirement for most of the tasks to be undertaken by an individual in his daily life.

There many ways and means to improve one's health and physical fitness. Routine physical exercise includes innumerable permutation and combination of exercise protocols. To name most popular ways; the aerobic dances, callisthenic drills, slow continuous running, brisk walking, laughter exercises, yogasanas, and so on. Each of these exercise have got its own do's and don'ts. It is wise to involve in an exercise or group of exercise to optimize the gain with a clear knowledge, what is to be developed. Knowledge of this sought helps to participants in involving themselves in a meaningful and most effective regiment of exercises, in turn optimize the gain. Calisthenics exercises are the most commonly used exercises for the improvement of general health and physical fitness. These exercises are usually performed without any equipment and normally known as free hand exercises. Aerobic exercises are also of similar nature, but usually used for the development of cardio respiratory endurance development. Combination of these exercises can be for the development of different components of physical fitness.

Objective of the study

The purpose of the study was to find out the effect of callisthenic exercises, aerobic exercises and combination of callisthenic and aerobic exercise on muscular strength and muscular endurance of high school boys.

Methodology

Total 240 high schools boys of 13 to 15 years were selected at random as subjects for this study. Four groups were constituted with 60 boys each on random basis, out of which three groups were the experimental groups and one group was the control group. To find out the effect of twelve weeks callisthenic exercises, aerobic exercises and combination of callisthenic and aerobic exercises programmes on muscular strength and muscular endurance, bent knee sit ups for one minute and pull ups (maximum) were selected.

The training programme was given to experimental groups 'A', 'B', and 'C' at random basis. Group 'D' was kept as control group. The experimental group 'A' underwent callisthenic exercises, group 'B' had aerobic exercise programme, and group 'C' had a combination of training programme in Calisthenics and aerobic exercises, four times in a week for a duration of 12 weeks. List of Calisthenics, Aerobic and Combination of Calisthenics and Aerobic Exercises selected for 12 weeks Training is presented in table 1.

TABLE – 1. LIST OF CALISTHENICS, AEROBIC AND COMBINATION OF CALISTHENICS AND AEROBIC EXERCISES SELECTED FOR 12 WEEKS TRAINING

Calisthenics	Aerobic Exercises	Combination
Arm Rotation Trunk forward bend and back Trunk bend sideways (Left and Right) Legs stretching sideways from crouch sit position with a hop (Alternate - Left and Right) Back curl Full squatting Dips Front Kicks Sit ups with straight legs Jumping jacks	Spot marching with arm swings Heel, toe, heel step (Alternate leg movement) Crossed side steps taps alternate Side kick: tap, kick, step (Left and right side alternate) Legs shuffling with spot jumps	Calisthenics Arm Rotation Trunk forward bend and back Full squatting Dips Sit ups with straight legs Aerobic Exercises Spot marching with arm swings Heel, toe, heel step (Alternate leg movement) Side steps – two left – back – two right – back Side kick: tap, kick, step (Left and right side alternate) Split Jumps

An initial test was conducted for all the subjects before administering the training programme to the experimental groups. After the completion of 12 weeks training programme, the same test battery was repeated on all the subjects as the final test. The analysis of covariance (ANCOVA) was employed to compare the significance of difference from pre to post test among the experimental and control groups followed by post hoc test, wherever the F-value was found significant. The level of significance chosen was 0.05.

Findings

The data obtained before and after the experiment was subjected to statistical analysis to find out the significant differences between the group means. The findings pertaining to the data are presented in the table 2.

TABLE – 2. PRE AND POST TEST MEANS AND STANDARD DEVIATIONS OF MUSCULAR STRENGTH AND ENDURANCE SCORES OF THREE EXPERIMENTAL GROUPS AND CONTROL GROUP

groups	Sources	Muscular Strength		Muscular Endurance	
		Pre test	Post test	Pre test	Post test
Calisthenics Groups	Mean	3.3833	5.6667	7.1667	12.4167
	N	60	60	60	60
	Std. Deviation	2.58478	2.29714	1.73856	2.48584
Aerobics Group	Mean	3.4500	4.0000	6.9500	9.4833
	N	60	60	60	60
	Std. Deviation	1.59899	1.82264	3.38704	2.79522
Aerobic and Calisthenics Groups	Mean	3.3167	4.8167	7.2667	11.4000
	N	60	60	60	60
	Std. Deviation	1.21421	1.18596	2.76704	2.86534
Control Group	Mean	3.2000	3.3333	7.0667	7.6000
	N	60	60	60	60
	Std. Deviation	1.52716	1.24420	3.94825	3.82764

Table 2 indicates the pre test and post test mean and standard deviation of three experimental groups and a control group in muscular strength and muscular endurance measured by administering bent knee sit-up test. It is evident that, there is a considerable difference in the pre and post test means of muscular endurance among the experimental groups and very meager difference between the pre and the post test means of control group. Table 3 provides information on ANCOVA to compare mean scores and effect of covariant.

TABLE – 3. ANCOVA TABLE FOR POST MEANS ON MUSCULAR STRENGTH AND ENDURANCE OF THE EXPERIMENTAL AND CONTROL GROUPS

	MUSCULAR STRENGTH				MUSCULAR ENDURANCE			
Source	Sum of Squares	df	Mean Square	F	Sum of Squares	df	Mean Square	F
Corrected Model	389.823	4	97.456	48.147*	2015.816	4	503.954	121.337*
Intercept	399.119	1	399.119	197.180*	932.548	1	932.548	224.530*
Pre test	205.977	1	205.977	101.760*	1198.333	1	1198.333	288.523*
Training Groups	174.934	3	58.311	28.808*	771.263	3	257.088	61.899*
Error	475.673	235	2.024		976.034	235	4.153	
Total	5627.000	240			28084.000	240		

* Significant at 0.05 level

Table 3 indicates the effect of 12 weeks aerobic, callisthenic, and combination of aerobics and calisthenics training as post adjusted mean on muscular endurance was examined by using ANCOVA with pre muscular endurance test scores as covariate. As seen from table 3, significant F-ratio of 101.760 and 28.808 for muscular strength; and 288.523 and 61.899 for muscular endurance were obtained for the pre and post treatment groups respectively, thereby indicating significant difference in post adjusted muscular strength and endurance scores between experimental and control group.

Further, Pair-wise comparison of adjusted means of experimental and control groups were carried out using post test value of muscular strength and endurance as dependent variable by administering Least Significant Difference Post Hoc test. Results are shown in table 4.

TABLE – 4. PAIR-WISE COMPARISON OF POST ADJUSTED MEANS ON MUSCULAR STRENGTH OF THREE EXPERIMENTAL GROUPS AND ONE CONTROL GROUP

	Calisthenics	Aerobic	Combined	Control	Mean difference
MUSCULAR STRENGTH	5.643	3.811			1.833*
	5.643		4.827		0.817*
	5.643			3.404	2.243*
		3.811	4.827		1.015*
		3.811		3.404	0.411
			4.827	3.404	1.426*
MUSCULAR ENDURANCE	12.377	9.603			2.774*
	12.377		11.287		1.090*
	12.377			7.634	4.743*
		9.603	11.287		1.684*
		9.603		7.634	1.969*
			11.287	7.634	3.653*

*. The mean difference significant at the .05 level.

Table 4 depicts the post hoc comparison to determine which of the experimental and control groups showed significant difference for the post adjusted muscular strength and endurance scores. The pair wise comparison of adjusted means on muscular strength and endurance indicates the following results.

After 12 weeks of training, the calisthenics training group was found best in muscular strength compared to aerobic group, combination of aerobic and calisthenics group, and control group. The Calisthenics groups showed significant difference with other two experimental groups and control group after 12 weeks of training. Similar result was also shown by combination of aerobic and calisthenics training group. It was found that there was no significant difference between aerobic group and control group. Table 4 also indicates that, the best muscular strength was exhibited by calisthenics training group, followed by combined training group and calisthenics group. The control group found with least muscular strength after aerobic group as they did not have any training.All the groups showed significant difference in muscular endurance after the 12 weeks of training programme. It is also evident from the table that, the best muscular endurance was exhibited by calisthenics group, followed by combined training group and aerobic group. The control group found with least muscular endurance performance as they did not have any training.

Conclusion

Callisthenic exercise were found superior in developing muscular strength and muscular endurance compared to the combination of callisthenic and aerobics, and aerobic exercise alone.

Recommendations

The following recommendations are made in the light of the findings and the conclusions drawn:

For the selection of exercise, principle of specificity may be considered in order to achieve specific adaptations.Calisthenics, aerobics are the simple form of exercises which can develop aerobic endurance, muscle tone, and muscular endurance without apparatus. Hence, these exercise protocols may be implemented in school settings.Calisthenics and aerobic exercises are exercise protocols that can be performed rhythmically with variety of simple movements. Moreover a huge number of students can be engaged at a time. Hence, these exercises may be suitable during the physical education classes of school children. Calisthenics and aerobic exercises are enjoyable, fulfilled protocols that are effective in developing different motor fitness components. Based on the requirement and maturity level of the students, appropriate exercises may be chalked out by the physical education teachers for different age groups.

References

Amutha, V. and V. Jayanthi, "Selected Yogasana on Anxiety, Maximal Oxygen Uptake and Flexibility among School Boys", Voice of Sports, Association of College Teachers in Physical Education, Kerala, Vol.4, No, 1, September 2009, pp.25-31.

Arundhthi Sasikumar & Liji Mathew "Effect of twelve weeks training on selected physical, physiological and psychological variables of novice hockey players", Abstract: *International Conference for Sports Administrators, Kanyakumari, India. pp 60-61, August 16-18, 2007.*

Bhatia, R.K. and Mrs. Prem Lata, "Effect of Yogic Exercises on Balance and Perception of College Level Female Players", Journal of Sports and Sports Sciences, Vol.28, No. 3, July 2005, pp 22-26.

Debnath, Kalpana., and Gurdial Singh Bawa, "Effect of Eight Weeks Break in Training on Performance", Journal of Sports and Sports Sciences, Vol.27, No. 2, April 2004, pp 22-26.

Donnelly, E., **et.al,** "The effects of 18 months of intermittent *vs.* continuous exercise on aerobic capacity, body weight and composition, and metabolic fitness in previously sedentary, moderately obese females", Department of Health, Sport and Exercise Sciences, 104 Robinson Center, University of Kansas, Lawrence, USA. Volume 24, Number 5, Pp 566-572, May 2000.

Geri B. Neuberger, "Effects of exercise on fatigue, aerobic fitness, and disease activity measures in persons with rheumatoid arthritis", Abstract ,School of Nursing, 3901 Rainbow Boulevard, University of Kansas Medical Center, Kansas City, KS 66160-7502 : 9 December 1996

Helgerud,**et.al** "Aerobic endurance training improves soccer performance". Med. Sci. Sports Exerc., Vol. 33, No. 11, 2001, pp. 1925-1931. 2005.

Kaur, Harkirandeep., Mandeep Kang, G. S. Kang, "Effect of PNF stretching with Moist Heat Vigorous Running and Brisk Walking On Hamstring Flexibility", Journal of Sports and Sport Sciences, Vol.31, No.1, Jan. 2008, pp24-37.

Lohan, Usha., Dolly and Rajesh, "Effects of Asanas and Pranayamas on Physical and Physiological Components of Boys between Age Group 12-16 Years", Journal of Sports and Sports Sciences, Vol. 25, No. 1, January 2002, pp 50-56.

Nageswaran, Sundaramoorthy and Subhasree, "Effects of Power Resistance and Combined Resistance and Plyometric Training on Strength Parameters and Speed" Scientific Journal, Sports Authority of India, Patiala, Vol.23, No.1, January 2000, pp 5-8.

Sailendra Nath Maity and Subhash Chandra Samanta, "Effect of Calisthenics and Yogasanas on Motor Fitness of Fifth Grade Girls", Journal of Sports and Sports Sciences, Vol.24, No. 1, Jan 2001, pp 10-15.

Uppal A.K. and Singh, Rajendra. "Effect of Training and Break in Training on Flexibility of Physical Education Majors", SNIPES Journal, Vol.7, No.4, October 1984, pp.49-53.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp13-16
Journal Impact Factor 1.614

Physical Education & Sports Policy For Schools

Netaji Jayani,
Kakatiya UniversityWarangal

Introduction:

Policies are guides to action that reflect procedures which, when adhered to, fulfil the best interest of the organization and the purpose for which it exists. Therefore this policy should guide schools to know the goals and objectives of Physical Education & Sports; provide guidelines for the establishment of the subject and sets the framework for the development of the subject in the education system. Recently, there has been unprecedented support for Physical Education and sports from a number of sources outside of the school system. Medical experts recommend daily physical activity as an important means of preventing coronary problems, obesity, high blood pressure etc., Nutritionist prescribe a combination of diet and exercise for weight control. Mental Health Experts encourage physical activity as a means for releasing tension. Recreation Leaders use sports and games to fill leisure hours, to release stress and to relax. Based on this support from those experts, and partially because of them the country seem to be experiencing growth in the popularity of walking, running, aerobics, weight training, and a host of other activities, in particular for young and middle ages,

Goals of the Physical Education & Sports Policy

The aim of organized physical education and sport programs is to create an environment that stimulates selected movement experiences resulting in desirable responses that contribute to the optimal development of the individual's potentialities in all phases of life. (Shepphard and Willoughby). The objective of the Schools Physical Education and Sports Policy is to provide guidelines to schools for development of the following:

To help students achieve a health-enhancing life of physical activity
To help understand and respect individual differences among people in physical settings
Integrate Physical Education and Sports into the Curriculum
To provide for a safe physical environment
To provide students with a variety of activities that will enhance life-long learning and participation
Promote physical excellence
Scheduling

For Physical Education to be meaningful or to be of value, it must be offered with regularity. The importance of daily periods should be recognized and achieved wherever possible. (This remains a challenge in times of fiscal constraint.) The current offerings for Primary Schools are: Cricket, Netball, Athletics and Football; and for Secondary Schools are: Cricket, Volleyball, Netball, Basketball, Football, Athletics, Swimming, Dance and Table Tennis.

The following are being recommended
Time Allotment
For Kindergarten - Grade 2, 20 - 30 minutes of daily Physical Education. 150 minutes per week
From Grade 3--Grade 6, 3 periods weekly from 30 minutes (elementary level)
From Grade 7 - Grade 12, 2 single periods per week from 40 minutes per session
Physical Education should be a part of every student's schedule
Extra-Curricula activities (intra-murals, inter-house or inter-class activities should be compulsory). (Schools should prepare students for competitions by first organizing their internal competition)
Intra-murals should be scheduled at least once per week for a maximum of two hours
Time should be available for unstructured activities (break-time, lunchtime)
Every school should schedule on the same day
Physical Education should be compulsory from Kindergarten to Grade 12

Class Size

Classes in Physical Education should be approximately the same size as classes in other subjects offered in school. This is as essential for effective teaching, individualized instruction, and optimal performance in Physical Education as it is in other content subjects. Physical Education contributes to educational objectives in an equal basis with other subjects in the Curriculum.

Class size should be comparable so that its educational objectives can be attained. Recommended class size; maximum of 30--35

However, aquatics, gymnastics, and other high-risk activities call for reduced student-to-teacher ratio with 20 students

Instructional Loads and Staffing

The instructional load of the Physical Educator should be of prime concern to management. To maintain a high level of enthusiasm, vigour and morale, it is important that the load be fair and equitable.

Some professional guidelines recommend:

Two full-time Physical Education teachers should be provided for every 190 secondary students; one male and one female Physical Education Teacher for every skills lesson where the class is mixed (male/female)

DressAttire should be appropriate. An important concern is that the clothing ensures safety when students are engaged in physical activity.

Recommendation

For both male and female: shorts, T-shirts and skirts for girls

Also appropriate footwear should be worn

Facilities/Equipment

The provision of adequate physical resources including facilities, equipment and maintenance can help in influencing attitudes and facilitating program success. The Physical Education and Sports Program's learning environment suggests that facilities should be available to children engaged in large-muscle activity involving climbing, jumping, skipping, kicking, throwing, leaping and catching, and those also engaged in fundamental motor-skills activities and others in low organization games, various cooperative; team activities and competition.

Recommendations

Proper facilities and equipment should be available to ensure the safety and health of the athletes

Provision of protective equipment

Basic equipment should be provided to all Infant and Elementary Schools including: balls, skipping ropes, cones, hoops, bean bags, bats, etc

Showers and change rooms should be installed at every Secondary School

All Kindergarten Schools should be equipped with playing space as well as facilities for climbing, crawling, jumping, etc

Provisions should be made for indoor sporting facilities/infrastructure (especially during the rainy season)

Training

It has long been recognized that the qualifications and qualities of a good teacher and coach are synonymous. Personnel recruitment, selection and training are very important. In selecting and hiring, the most qualified personnel should be recruited. They include consideration of the special qualifications for teaching and coaching, the general qualifications of physical educators and the unique qualifications needed.

Physical Education Teachers should be trained/qualified

Training for Infant and Primary School Teachers should be offered at Sir Arthur Lewis Community College, and should be compulsory in the first year

In-service training should be offered as well

Uniforms including shoes allowance should be provided for Physical Education Teachers. Trained/qualified Physical Education Teachers should be employed at every Secondary School: 1 male/1 female

At least one Physical Education & Sports Officer should be made available to each district

Coaches should be made available to schools to assist with the preparation of teams for training

Practicing teachers and coaches should be certified First Aiders

Student-athlete who represent their school or the country at sporting activities should not be at a disadvantage in terms of their academic work; therefore arrangements should be made to provide special tuition for students

Health and Safety

Competitive sport should contribute to the health and well being of the student. Everything possible should be done to protect the Health and Safety of the participants.

Recommendations

Medical supervision should be available at all major eventsPlaying areas should be kept clean and safeGames should be scheduled that result in equal and safe competition

Injured players should be examined by a physician and administered proper treatment

A physician should be present at all games and practices involving the most strenuous contact sport

An annual medical examination should be required for all participants

Only equipment that is fully certified as offering the best protection for the student-athlete should be purchased and utilized

All protective equipment should fit players properly

Competition should be scheduled between teams of comparable ability

Playing fields and surfaces should meet standards for size and safety for the participants

Competition should not be played until players have a minimum of 3 weeks of physical conditioning and training

Insurance policies should cover injuries in sport

School registration forms should include a section for medical history. The medical certificate should be signed by a doctor

Nurses should be assigned to schools at least 3 times a week

Girls and Women in Sport

Proponents of equality in girl's and women's sports have opened the window of opportunity concerning participation in women's sports in recent years. Women have become accepted as athletes, with full rights to experience the competitive urges so long restricted by our gender-dominated society. With reference to "The Brighton Declaration on Women and Sport", whose main aim is to develop a sporting culture that enables and values the full involvement of women in every aspect of sport, the following recommendations are made:

Ensure that all girls have the opportunity to participate in sport in a safe and supportive environment which preserves the rights, dignity and respect of the individual

Increase the involvement of women in sport

Equal opportunity to participate and be involved in sports regardless of race, religion, sex, disability, social origin, etc. (Elimination of Discrimination)

The planning, design and management of facilities should equally meet the particular needs of girls and young women in school sports

Financing of sports should be equal for both men and women

Education

Substance abuse is a reality that must be recognized. The substance abuse problem in the world of professional and college sports is of great concern for all. It is not limited to the adult world, they endanger the entire young generation.

Athletes found using drugs should be sanctioned (elaborate)

Every child regardless of creed, race, sex, handicap should be given an opportunity to participate in sportsStudents/athletes should be educated on health and safetyStandardize skill and theoretical evaluation should be available to schoolsThere should be provisions made to include Drug Education in the Physical Education Program

Participation

Standards regarding eligibility of participants are essential and this should be in writing, and should be circulated and understood by all including players, coaches, schools, officials and parents.

Age Limit

Under 13 / Under 16. A student should not be 13 or 16 in the year of competition

Under 17 / Under 20. A student should not be 17 or 20 in the year of competition

At the Infant level, participation should be non-competitive; fun sports

For a student to be eligible for representation they should satisfy the following requirements (some may apply to local and regional competition)

They should have parental consent
Should present a medical certificateShould have an I.D. for participation
Should present a copy of a birth certificate or a school registration for participation
All activities should take into account the age and development level of the child
Athletes should participate in the inter-house competition and inter-school to qualify for participation in national representation
At the Secondary Schools, co-educational sports should be limited to the recreational-sport level
Awards
The value of Sports Awards and honour is sometimes questioned. However, when the program is properly managed and kept in perspective, awards are a meaningful part of school. Certificates, plaques, and medals should be modest and meaningful.
Any monetary awards that are made to a school should be used for the development of the sport; either to purchase equipment, and gear or development of facilities as well as for training
Challenge trophies should be replaced at least every 3--5 years (elaborate)
With competitive sport being an integral part of the educational process, the Ministry should assist students in gaining admission to higher Institutions of learning where they can further both their academic and sports excellence (after satisfying certain criteria)
Bursaries should be awarded to students who qualify for national representation (example Windward Island School Games)
Sports for the Physically/Mentally challenged
Persons with disabilities can receive the same benefits as their non-disabled peer group, if Adapted Sports Activities are included in the school sports program. Students in the adapted/development sport program need activities that have carry-over value. They may continue exercise programs in the future, but they also need training in sports and games that will be useful in life.

Recommendations

Prepare the challenged for sport competition particularly where no opportunities and programs now exist
Provide special training for volunteer coaches to enable them to work with youngsters in physical fitness, recreation and sport activities
Plan and design appropriate and adequate facilities, equipment and supplies that would cater for the needs of the challenged
Resources/Financial Assistance
Physical Education and Sports Personnel have argued that competitive sports programs have great educational value. They are curricula in nature, they represent an integral part of the educational program, and as such deserve to be treated the same. This means that they contribute to the welfare of students like any other subject in the curriculum. On this basis, therefore, the finances necessary to support such a program should come from the Ministry.
Financial allocation should be made for each district
Students should pay a fee for sports development in their respective schools
Media

There should be national coverage of school sports. Newspaper, print and electronic media should be used to provide appropriate space and publicity for the program and its activity.
Drugs

Alcohol is the most commonly abused drug, with marijuana being the next popular drug. These drugs are taking their toll on our young athletes, as well as the community as a whole. Growth potential and maturity are being hampered, and side effects are causing poor health; not to mention impairment of motor function, slower reaction times, improper coordination with poor execution of movement, altered perception of speed, and withdrawal and loss of friends. In addition, they are resulting in academic, psychosocial, and vocational failure.

References

Kretchmar, R. S. (1994). Practical Philosophy of Sport. Champaign: Human Kinetics.
Landry, F. & Orban, W.A.R. (Eds.). (1978). Philosophy, Theology and History of Sport and of Physical Activity. Quebec: Symposia Specialists.
Lenk, H. (1969). Social Philosophy of Athletics. Illinois: Stipes Publishing.
Lenk, H. (Ed.). (1983). Topical Problems of Sport. Schorndorf: Verlag Karl Hofmann.
Loland, S. (2001). Fair Play: A Moral Norm System. London: Routledge.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp17-19
Journal Impact Factor 1.614

Doping in sport socio-economical, administrative and legal analysis

M.Vinod Kumar
(Ph.D) Research Scholar,
Department of Public Administration,
Osmania University, Hyderabad-500007.

Introduction

The starting point for legal analysis is the supposition that the economic importance of professional sport supports the creation of a doping-prone environment and may eventually force athletes to use doping. So, two separate issues are at stake: - the economic importance of sport leads to a doping-prone environment; - economic pressures upon an individual athlete may lead him or her to use doping. Our analysis starts with the economic importance of sport. Sport has indeed become an important economic activity. The economic value of sport is nowadays reflected in legal writing, where the subject of 'sports law' has been considered as being predominantly economic law. This would mean that the economic importance of sport raises a multitude of legal questions. Within the bounds of this research study, however, not every legal aspect of sport which has economic importance is dealt with, but only those legal aspects of sport which are relevant for a process through which economic pressures may lead to the use of doping.It appears that the two above-mentioned issues, albeit closely linked, start from very different perspectives. The first issue, i.e. whether the economic importance of sport creates a doping-prone environment, starts from a very wide perspective. Here it is not the individual athlete, but the whole "business of sport" and the economic pressures involved, which stands in the spotlight. The second issue, i.e. whether a athlete uses doping as a result of economic pressures, centers upon the position of the individual athlete and the economic pressures to which he/she is subject. If the legal analysis started from the first perspective, i.e. that economic pressures lead to a doping-prone environment, the business of sport as a whole would have to be studied. From a legal point of view, the question then would be whether the law contains sufficient safeguards against the development of a doping-prone environment as a result of economic pressures. In order to illustrate what could be the subject of such a study, reference can be made to the extreme situation, which existed in Eastern Europe, in particular in the former GDR, before the fall of the Berlin Wall.

Governments had created an environment which pervaded the whole organisation of sport within the State and which was directed to the improvement of sporting performance through all sorts of means, one of which was the use of doping. In this environment, the use of doping was almost inevitable for the individual athlete. The steps taken at an international level during that period to stop competition by individual athletes who were using doping were partly ineffective because of the system which existed within the State. The role of the individual athlete in that system was insignificant. If the person had refused to use doping, he or she would in all probability have been replaced by another athlete. A study into the environment of sport during the Cold War would need to do research into the societal structure as a whole, existing within certain states.

In recent times, almost all European states have become democracies and adhere to the principles of a free market economy. However, it is also possible that in a democratic, free market economy there is a structure, which exists independently from the individual athlete, and which encourages the use of doping. Nevertheless, it would appear that in a democratic, free market economy, the individual is responsible for his own acts. Leaving aside exceptional circumstances, the individual athlete is responsible for the use of doping, as he will either have taken doping himself or consented to the administration thereof by others. With respect to legal responsibility, the behaviour of the individual athlete lies at the root of the use of doping.

Therefore, the legal analysis will start from the perspective of the individual athlete. This means that the focus will be on the second issue mentioned above: the direct economic pressures, which lead athletes to use doping.In the sections above, concluded that elite sport has become an important economic branch of business with big economic interests. Economic theory has shown that to prevent excesses, it is important to regulate a branch of business like this. This means that all parties involved should be stimulated to prevent doping use. In this legal part of our study, we analyse whether and to what extent this is happening, knowing that “the law” is the last resort. This approach does not rule out the possibility that there exists a doping-prone environment, which cannot be influenced by the individual athlete. However, it appears that if such an independent structure did exist, it would automatically have some sort of effect upon the situation of the individual athlete. Therefore, a study into the legal position of the individual athlete will, in all probability, offer some clues as to the existence and nature of a doping prone environment.

The term “sports law” here is used to refer to the private law of the sporting world itself (which is association law in the wider context of public law), i.e. the rules and regulations of the national and international sports organisations. Secondly, and more specifically, with regard to the individual athlete’s legal position the following preliminary observations should be made: public law (national legislation, the Council of Europe Anti-Doping Convention, which is treaty law) and “sports law”(doping rules and regulations) with respect to the general ban on doping and its enforcement and control will not be taken into account in this legal analysis. Research into the legal situation is undertaken in another EU research project entitled “Legal Comparison and the Harmonisation of Doping Rules”, covering public legislation on doping in the EU Member States, as well as the sanctions regimes in the national and international sports organisations. From a general, penal law perspective, it may be said that stricter sanctions regimes will, in theory, have a more preventive and repressive effect on the individual athlete, and the sport society as a whole, as to the use of doping than more liberal regimes. In principle, this effect will be even stronger if there is national anti-doping legislation in a country parallel to the rules and regulations of the sporting world. A similar observation can be made as to the enforcement and control aspect, when, in addition to or instead of sports controlling bodies, public or semi-public bodies are also competent and operational in this respect.

A third, general observation that should be made in this context is that differences between national legislations in criminal matters (sanctions and their enforcement) basically make the struggle against doping relatively more or less difficult, according to the actual number of differences, if the sanctions imposed on athletes in one State are not taken over by other States. The same is true in the case that sanctions imposed by national sports bodies are not automatically valid abroad. Apart from possible relevant (national and international) sporting rules and regulations, this finally brings us to the more specific branches of public law to be researched, since they may be relevant to the legal position of athletes from the perspective of economic pressures on them to use doping, and their protection against such pressures. Generally speaking, a professional athlete is likely to enter into one or two types of contract to generate income, i.e. a “labour contract” or a so-called “sponsoring contract”

The other type of contract, the sponsoring contract, is not, in most jurisdictions, treated as a special form of contract and is subject to the general rules of the law of contract. In a sponsoring contract, the emphasis is not upon the participation in sports events by the athlete, but on the athlete's promotional activities. It should be noted, however, that not all professional athletes enter into a labour contract. In some types of sport, athletes are independent agents, working for their own account.

A wellknown example is professional tennis players. A athlete may indeed, on the basis of a contractual relationship, receive remuneration for participating in sports events, but this contractual relationship is not necessarily equivalent to the relationship between an employee and an employer, which is typical of a labour contract. Because of this, German writers use the more general term “Sportleistungsvertrag”,which literally is a “contract for performing sports activities”. By using this term, it is made clear that the contract for performing sports activities does not need to be a labour contract. The”'sports performance contract” can be a labour contract; in other cases, there will be a contract to provide certain services, e.g. to take part in a certain sports event against remuneration. In terms of Community law, the athlete is sometimes a 'worker', and in other cases, a provider of services. Contractual relationships as described above will often exist between a athlete and a sports club.

Conclusion

In continental legal systems, these “clubs” are often incorporated as “associations” (e.g. the Belgian “association sans but lucratif”54, the Dutch”vereniging” or the German “Verein”). In common law systems, a “club” is not a legal entity and is based on a contract between the members. Such “clubs” may decide to incorporate as a “company” or as a “friendly society”. The sports club can pay the athlete for participating in sports events under the name of the club, as is the case in, for instance, professional football. In some cases, the sports club itself does not pay the athlete for participating in events. However, Even if the sports club does not provide a direct source of income for the athlete, it can still be significant for the athlete, as he may only be able to gain access to organised sports through a sports club.

Contractual relationships are nowadays mostly regulated by national legislation, not by international instruments. With respect to contracts entered into by athletes, the expectation is that the effectiveness of mandatory national legislation in the domain of civil law will increasingly be impaired by the international mobility of athletes. With respect to employment contracts, only mandatory legislation enacted by the state where the athlete habitually carries out his work will offer protection in an international setting. With respect to other contracts, e.g. service contracts, the international effect of mandatory legislation appears to be guaranteed only when contained in a Community instrument As a consequence of the international mobility of professional athletes, similar problems will arise as to the effectiveness of national legislation aimed at working conditions of the athlete or introducing control instruments with respect to the athlete.

Generally speaking, a professional athlete will not be able to participate in top sports events without some aid of others. Athletes will have the assistance of one or more trainers, who help them to improve their performance. Athletes will probably from time to time require medical or paramedical treatment. The athlete may also have a “manager”, who will assist him in handling the economic transactions, which result from participating in sports.In some cases, the persons who support the athlete will mainly be provided by his or her sports club, and will be shared with other athletes; in other instances, the assistants to the athlete will be chosen by the athlete himself and may only assist him and no other athletes. Now, it may happen that someone assisting an athlete introduces him/her to the use of doping substances to improve his/her performance. This raises questions as to the professional and other requirements, which may be imposed with respect to the persons who support an athlete. Are there any professional requirements imposed with respect to the coaches and other assistants of the athlete? And if such requirements are in force, which authority imposes these requirements and sees to the observance thereof? A parallel may be drawn with certain professions, such as accountants, lawyers and, particularly, the medical professions, which have developed standards or codes of conduct for people exercising these professions.

References

Brera, G. *Le Géant et la Lime* (French title), Ed. Campagnolo, Italy, 2004, cited De Mondenard

Cited by fellow professional Tony Hewson in Journal, Fellowship of Cycling Old Timers, 158/72

Costelle D, Berlioux M, *Histoires des Jeux Olympiques*, Larousse, France, 2008

Cited Woodland, Les: Dope, the use of drugs in sport, David and Charles, UK, 2009

Fair JD (1993). "Isometrics or Steroids? Exploring New Frontiers Of Strength in the Early 1960s" (PDF). *Journal of Sport History* **20** (1).

Huyskens, P: *Daar was 't, een biografie van Kees Pellenaars*, Netherlands,2001

Laure, P.: Les répresentations du dopage; approche psycho-sociologique, Thèse STAPS, Nancy, France, 1994

Mackay, Duncan (April 24, 2003). "Lewis: 'Who cares I failed drug test?'". *The Guardian* (London). http://www.guardian.co.uk/sport/2003/apr/24/athletics.duncanmackay. Retrieved 2009-04-13.

Peters, Mary: Mary P, Arrow Books, UK, 1976

Steve Theunissen: Arnold & Steroids: Truth Revealed 2002

Sport Information Dienst, W Germany, December 2009

Van Dijk, Pieter: *Doping bestaat en doen we eraan*, Het Vrije Volk, Holland, 13 December 2005

www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pmcentrez&artid=2646607.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp20-22
Journal Impact Factor 1.614

Effects Of Music On Enhancement Of Aerobic And Anaerobic Performance On Young Adults

Dr. C. Kiran Chakravarthi
Teaching Assistant, Department of Physical Education and Sports Sciences,
Sri Krishnadevaraya University, Anantapuramu, (A.P.), India.

Dr. M.V.Srinivasan
Incharge, M.P.Ed., Course
Department of Physical Education and Sports Sciences,
Sri Krishnadevaraya University, Anantapuramu, (A.P.), India.

Abstract
This is a review of current studies dealing with the use of music in sports and during exercise as a motivational tool. Anaerobic and aerobic training generally elicit changes specific to the mode of training, and the physiological response to both types of exercised differs greatly. Therefore, the purpose of this review is to examine the effects of the use of music as a motivational tool in aerobic versus anaerobic performance, and how it is enhanced through music. Many studies have mixed results due to failure to control the environment. Self-selection of music, versus using pre-selected music, or music that is categorized as motivational have also produced mixed results. This review provides insight into the specific fitness adaptations acquired by selectively utilizing endurance, resistance, or combination training. By reviewing numerous studies, this review demonstrates that the greatest response to music as a motivational aid is found with aerobic or endurance training, while resistance training and anaerobic training need further investigation.
Key Words: Aerobic, Anaerobic, Motivation, Exercise, Performance,

Introduction

Music can be heard at any major sporting event or in any exercise facility. Music during sporting events or exercise can represent or express the individuality of the participant, motivate the participant, or add excitement to the atmosphere. It can be inspirational to some. It is said that the music accompaniment to exercise and sporting events provides an important beneficial effect to the exercise and sports experience. Music has become a major influence on society, so it is no surprise that music has become prominent in the physical activity arena. With the development of newer, more compact portable music devices such as MP3 players, I-pods, and some electronic devices of music, music has become more accessible and convenient. Many fitness instructors consider the addition of music to exercise similar to an ergogenic aid. Thus, with the removal of music or an inappropriate selection of music, the instructors often feel that it is an automatic indication of an unsuccessful class. Music has been said to improve mood state, increase arousal, and help provide a reduced feeling of fatigue.

Aerobic Exercise Testing

The purpose of the study was to verify, experiment, analyze and understand the enhancing the performance through the use of music.16 subjects were selected as a subjects who are studying Master of Physical Education in Sri Krishnadevaraya University, Anantapuramu, Andhra Pradesh, India, during timed trials on a cycle ergometer. A no music control 10-kilometer trial was compared to a dance music 10-kilometer trial with 16 subjects. Results showed that average speed, power, and HR were significantly higher while listening to dance music when compared to the no music control group.

The time to complete the test was significantly lower in the music group. Subjects noted that the music provided a stimulatory effect to the cycling performance. Conflicting research with the theory that music may provide ergogenic gains includes an investigation in which the effect presented to 24 subjects were selected as a subjects who are studying Master of Physical Education in Sri Krishnadevaraya University, Anantapuramu, Andhra Pradesh, India, during a graded maximal treadmill test as they walked/ran to maximal capacity. No significant results were found and the actual times to exhaustion varied by less than 30 seconds and the maximal HRs varied by 2 beats/min in the three conditions. It was noticed that the research was indicative that in measures of maximal work capacity, music is not able to provide an ergogenic effect above that of the body's physiological limitations. It is very consistent in the research that individuals enjoy the exercise regimen much more when the music is motivating to them.The present study shows that the effects of slow-rhythm and fast rhythm classical music on progressive cycling exercise to voluntary exhaustion to test a theory of how music improves exercise performance. In this study, 24 subjects were selected as a subjects who are studying Master of Physical Education in Sri Krishnadevaraya University, Anantapuramu, Andhra Pradesh, India, (12 male, 12 female) performed testing with a control of no music, slow music, fast music, slow to progressively fast music, and fast to progressively slower music. The investigators found a slightly higher exercise workload (statistically significant) was completed by participants when listening to music progressing from slow to faster paced.

Anaerobic Exercise Testing

Many studies have investigated the effects of music on cardiovascular endurance performance and perceived exertion during exercise, but few studies have investigated such effects on supra-maximal exercise bouts. One study assessed whether music affects performance on the Wingate Anaerobic Test. Two tests were completed, one with music and one without music. All music selections were set at the same tempo. Mean Power Output, Maximum Power Output, Minimum Power Output, and Fatigue Index were compared between conditions for each test and time to fatigue resulted in no significant differences between conditions for any measures. It was completed a study on 50 subjects (25 males, 25 females) measuring grip strength after listening to simulative, sedative, and no music. Significantly higher strength scores were found after subjects listened to simulative music compared to no music and sedative music. Also, sedative music produced significantly lower strength scores when compared to no music. This study was completed to determine the effect of music during warm-up on anaerobic performance in Sri Krishnadevaraya Inter University level adolescent volleyball players. A Wingate Anaerobic Test following a 10-minute warm-up with and without music was performed. This study found that during warm-up with music, mean HR was significantly higher, but music had no significant effect on mean anaerobic output or fatigue index. The importance of this finding is that music affects warm-up and may have a transient beneficial effect on anaerobic performance.

The results of the testing show that there was a significance in peak power relative to Watts of $P<.05$ and relative to $P<.05$. These findings show that music can physiologically improve anaerobic exercise performance.

Discussion

Aerobic testing with music showed improved performance, mental arousal, and physical arousal. Anaerobic testing continues to show inconsistent results. Therefore, after reviewing the literature on the effects of music on anaerobic and aerobic performance, it is important to clarify if music influences anaerobic performance. There are conflicting data on Wingate testing, as well as other types of anaerobic power testing, and the use of motivational music. Aerobic exercise and its relationship with music as motivation have been studied in further detail and the connection between the two has been substantiated several times by different researchers. Self-selection of music has produced the most consistent results in aerobic exercise performance and in VO_2 testing, both at maximal and sub-maximal exertion. Intensity, mode, and duration of aerobic exercise have been factors in limiting the results of these studies.

Conclusions

Opposed to aerobic testing and exercise performance, and its relationship with music as motivation, anaerobic testing and exercise performance have produced mixed results. The effect of music on motivation in anaerobic performance is very important in sports performance. Most of the popular sports in our society are power sports, or have an anaerobic component. If music is significant in motivating athletes, it can be used as both a positive and a negative in the sports arena. Intensity of music in anaerobic performance could prove to be positive or negative in athletics. If the motivational music contributes to prove a significant increase in anaerobic performance, it can be said that slow, sad, and discouraging music may have a negative effect on performance. The intensity and beats per minute of the music may prove to limit or enhance anaerobic performance, as it does in aerobic performance. These are considerations that need to be addressed in future research.

References

1. Atkinson G, Wilson D, and Eubank M. Effects of music on work-rate distribution during a cycling time trial. Int J Sports Med 2004;8:611-615.

2. Bernatsky G, Bernatsky P, Hesse H-P, Staffen W, and Ladurner G. Stimulating music increases motor coordination in patients afflicted with Morbus Parkinson. Neurosci Lett 2004;361:4-8.

3. Borg GAV. Psychophysical bases of perceived exertion. Med Sci Sports Exerc 1982;14:377-381.

4. Borg GAV. Perceived exertion as an indicator of somatic stress. Scand J Rehab Med 1970;2:92-98.

5. Boutcher SH, & Trenske M. The effects of sensory deprivation and music on perceived exertion and affect during exercise. J Sport Exerc Psychol 1990;12:167-176.

6. Copeland BL, & Franks BD. Effects of types and intensities of background music on treadmill endurance. J Sports Med Phys Fitness 1991;15:100-103.

7. Crust L. Carry-over effects of music in an isometric muscular endurance task. Percep Mot Skills 2004;98:985-991.

8. Eliakim M, Meckel Y. The effect of music during arm-up on consecutive anaerobic performance in elite adolescent volleyball players. Int J Sports Med 2006;321-325.

9. Gfeller K. Musical components and styles preferred by young adults for aerobic fitness activities. J Music Ther 1988;5:28-43.

10. Goff KL, Potteiger JA, and Schroeder JM. Influence of music on ratings of perceived exertion during 20 minutes of moderate intensity exercise. Percept Mot Skills 2000;91:848-854.

11. Karageorghis CI, and Terry PC. The psychophysical effects of music in sport and exercise: a review. J Sports Behav 1997;20:54-69.

12. Karageorghis CI, Terry PC, and Lane AM. Development and initial validation of an instrument to assess the motivational qualities of music in exercise and sport: the brunel music rating inventory. J Sports Sci 1999;9:713-724.

13. Karageorghis CI, Drew KM, and Terry PC. Effects of pretest stimulative and sedative music on grip strength. Percept Mot Skills 1996;83:1347-1352.

14. Kravitz L. The effects of music on exercise. IDEA Today 1994;9:56-61.

15. Langenfeld ME and Pujol TJ. Influence of music on Wingate Anaerobic Test performance. Percept Mot Skills 1999;88:292-296.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp23-27
Journal Impact Factor 1.614

The benefits of exercise

Dr . Hanumanthayya Pujari.
Asst professor
D O S in Physical Education and Sports Sciences,
Karnataka state women's university, Bijapur.

Abstract
Want to feel better, have more energy and perhaps even live longer? Look no further than exercise. The health benefits of regular exercise and physical activity are hard to ignore. And the benefits of exercise are yours for the taking, regardless of your age, sex or physical ability. Need more convincing to exercise? Exercise can improve our life.Exercise can help prevent excess weight gain or help maintain weight loss. When we engage in physical activity, we burn calories. The more intense the activity, the more calories we burn. You don't need to set aside large chunks of time for exercise to reap weight-loss benefits. If you can't do an actual workout, get more active throughout the day in simple ways — by taking the stairs instead of the elevator or revving up your household task.Exercise enhances blood flow to the brain, possibly reducing risk of stroke. It also improves reasoning and memory. Regular exercise arouses the brain and slows down degeneration of the central nervous system, which leads to slower reaction times and poorer coordination.Exercise also increases strength and size of muscles and improves lung function. Regular exercise can reduce body fat and lower the risk of chronic lifestyle diseases in the elderly. Recent literature suggests that the greatest threat to health is not the aging process itself, but rather inactivity.The purpose of this paper is to high light the benefit of practicing exercises daily, and its effect will be highlighted (presented).

Introduction
When we talk about **exercise**, we nearly always refer to physical exercise. Exercise is the physical exertion of the body - making the body do a physical activity which results in a healthy or healthier level of physical fitness and both physical and mental health. In other words, exercise aims to maintain or enhance our physical fitness and general health. People exercise for many different reasons.Regular exercise or physical activity helps many of the body's systems function better, keeps heart disease, diabetes, and a host of other diseases at bay, and is a key ingredient for losing weight. According to the 2008 Physical Activity Guidelines for Americans, being physically an A 30-minute walk every day can do more for your long-term health than all the efforts of a dozen doctors and their medication.Not only does exercise improve your health, even if you have already been diagnosed with something, but it can go a long way to prevent the onset of several life-threatening conditions, such as heart disease, diabetes and cancer.

Regular exercise makes the heart stronger and the lungs fitter, enabling the cardiovascular system to deliver more oxygen to the body with every heartbeat and the pulmonary system to increase the maximum amount of oxygen that the lungs can take in. Exercise lowers blood pressure, somewhat decreases the levels of total and low-density lipoprotein (LDL) cholesterol (the bad cholesterol), and increases the level of high-density lipoprotein (HDL) cholesterol (the good cholesterol). These beneficial effects in turn decrease the risk of heart attack, stroke, and coronary artery disease. In addition, colon cancer and some forms of diabetes are less likely to occur in people who exercise regularly.Exercise makes muscles stronger, allowing people to do tasks that they otherwise might not be able to do or to do them more easily. Every physical task requires muscle strength and some degree of range of motion in joints. Regular exercise can improve both of these qualities.

Exercise stretches muscles and joints, which in turn can increase flexibility and help prevent injuries. Exercise may also improve balance by increasing strength of the tissues around joints and throughout the body, thus helping to prevent falls. Weight-bearing exercise, such as brisk walking and weight training, strengthens bones and helps prevent osteoporosis. Exercise often can improve function and reduce pain in people with osteoarthritis, although regimens must be developed specifically for each person, and exercises that put undue strain on joints, such as jumping and running, may need to be avoided.Exercise increases the body's level of endorphins, chemicals in the brain that reduce pain and induce a sense of well-being. Thus, exercise can help improve mood and energy levels and may even help relieve depression. Exercise may also help boost self-esteem by improving a person's overall health and appearance.Regular exercise helps older people remain independent by improving functional ability and by preventing falls and fractures. It can strengthen the muscles of even the frailest older person living in a nursing or retirement home. It tends to increase appetite, reduce constipation, and promote sleep.The benefits of exercise diminish within months after a person stops exercising. Heart strength, muscle strength, and the level of HDL cholesterol decrease, whereas blood pressure and body fat increase. Even former athletes who stop exercising do not retain measurable long-term benefits. However, people who were physically active in the past often can regain fitness faster

Here some medical journals proven health benefits of exercise:

1. It's good for your heart

"Even a moderate amount of exercise helps your heart," says Dr William Kraus, associate professor of medicine at Duke University Medical Centre, in an article published in *The New England Journal of Medicine*. "Some exercise is better than none and more is better than less."Exercise reduces LDL cholesterol, the kind that clogs arteries. It also reduces blood pressure, relieving stress on heart; improves insulin sensitivity; improves heart muscle function; and blood flow and diminishes the chances of developing blood clots

2. Exercise promotes weight loss

Research has shown that to manage weight, you should exercise energetically for at least 30 minutes a day. You can also do an hour of intensive exercise every second day if this fits into your schedule more easily. Be consistent and be regular. Do those one-hour exercise sessions three to four times every week, not just one week a month, and you will achieve the result you desire - to lose weight and keep it off, says Dr Ingrid van Heerden, registered dietician.

3. Exercise prevents osteoporosis

Exercise, together with a healthy calcium intake, builds strong bones. Weight-bearing exercises, like running, walking and weight-lifting, help lower your odds of getting osteoporosis as you grow older, according to experts.

Ideally, you should start when you're young, but it's never too late to pick up the habit. Even a brisk walk can help, say metabolic disease specialists.

4. Exercise lowers high blood pressure

Exercise is good for your blood pressure - no matter your age, weight, race or gender. And it really doesn't matter whether you get exercise from a brisk walk, a fast run or a few laps in the pool; the results are equally good.The studies on which these findings were based used "aerobic" exercise - activities that increase heart rate and improve the body's ability to use oxygen. Most of the studies involved participating in one or more aerobic activity for 20 - 30 minutes per session, several times a week.

On average, exercise helped study participants reduce systolic (top number) pressure by nearly 4 mm Hg, and diastolic (bottom number) pressure by slightly more than 2.5 mm Hg. But experts caution that those with extremely high blood pressure should not rely on exercise alone to control hypertension.

5. Exercise is an excellent de-stressor

it’s general knowledge: exercise counters stress and depression. But exactly how and why does this work?Exercise acts as a temporary diversion to daily stresses and it improves self-esteem. Increased core temperature during exercise may lead to reduced muscle tension and favorable alterations in brain neurotransmitters. Mood improvements may also occur due to the increased secretion of endogenous (internal) opiates, e.g. endorphins. Psychological changes may occur because of changes in norepinephrine, dopamine and serotonin, all hormones which can affect mood and anxiety levels.

6. Exercise prevents colds

one doesn't automatically associate regular exercise with a reduction in the number of colds people get. But researchers from the University of Carolina found that people who exercised regularly were 23% less likely to get colds than those who exercised less. And if those who exercised got colds, the symptoms disappeared more quickly than in the study participants who did little exercise.

Health experts believe that exercise spikes the immune system for a few hours each day, helping to ward off colds. Thirty minutes of brisk walking is enough to make you reap the benefits of exercise.

7. Exercise reduces the severity of asthma

many people who suffer from exercise-induced asthma, understandably try to avoid exercise. But sports medicine specialists say it's possible for asthmatics to continue exercising if they use preventive medications wisely and avoid certain triggers that exacerbate attacks. Exercise-induced asthma can be made worse by cold, dry air or air containing high levels of pollen or pollutants. The extra effort made to stay fit pays off in fewer or milder asthma attacks overall and a need for less medication.

Experts recommend swimming as one of the best exercises for people with asthma.

8. Exercise reduces diabetic complications

Lifestyle factors have a huge impact on certain conditions – and diabetes is one of them. Exercise can help to reduce your insulin requirements, lower your cholesterol levels and high blood pressure, and in the long term can reduce the development of heart disease and stroke. This is important because diabetics have a higher risk of developing heart and circulatory problems. Exercise can also promote weight loss, improve circulation and reduce stress levels (raising your glucose level).

9. Exercise promotes a healthy pregnancy

although exercise might be risky in some cases, the benefits of exercising during pregnancy generally far outweigh the risks and some women can even exercise up until the third trimester. Relaxation exercises, Kegel exercise that strengthen the pelvic muscles and back exercises are all important for pregnant women.

10. Exercise plays a role in preventing cancer

At least 35% of all cancer deaths may be related to overweight and lack of activity, the Seattle Cancer Research Centre has found. Exercise is believed to speed the passage of food through the colon, thereby reducing the amount of time that any toxins are in contact with the body. Overweight people also tend to have more insulin, which promotes the growth of tumours. For women, exercise reduces the level of estrogen, a hormone linked to breast cancer.

11. Exercise has anti-ageing effects

Exercise enhances blood flow to the brain, possibly reducing risk of stroke. It also improves reasoning and memory.Regular exercise arouses the brain and slows down degeneration of the central nervous system, which leads to slower reaction times and poorer coordination.Exercise also increases strength and size of muscles and improves lung function. Regular exercise can reduce body fat and lower the risk of chronic lifestyle diseases in the elderly. Recent literature suggests that the greatest threat to health is not the aging process itself, but rather inactivity.

12. Exercise promotes brain health

If you thought exercising your brain meant only doing a few crossword puzzles or learning a language, you may be wrong – rather put on your walking shoes and get moving. This was the finding of researchers from the University of Illinois.Their study found that the brain responses in active seniors were comparable to those of young adults.It is thought that exercise increases the flow of blood to the brain, just as it improves circulation to the heart and the rest of the body. Activity also stimulates the growth of nerve cells in the part of the brain involved in memory.

13. Exercise is great for your sex life

The medical research points towards it: the fitter you are, the better your sex life is.

The reason seems to be two-fold: psychologically you feel better about yourself and more inclined towards sex, and physically, being fit improves libido, blood circulation and sexual functioning.

It has been said before that the brain may be the most important sexual organ. This is because stressed, anxious and depressed people are usually unable to enjoy a healthy sex life. Additionally, people with a bad body image do not feel good about their bodies and often avoid sex or are unable to truly enjoy it.

According to the American Council on Exercise (ACE), being physically active can be “a natural Viagra boost”. “Men and women who exercise regularly are going to have increased levels of desire. They’re going to have enhanced confidence, enhanced ability to achieve orgasm and greater sexual satisfaction,”

14. Exercise improves sleeping patterns

Relaxation exercises will help you to ease tension and relieve headaches, backaches and insomnia. Exercise releases the body's own painkillers, called endorphins, into your system. It also helps you to gain a sense of emotional wellbeing and a feeling of being more in control.

Exercise during the day promotes the onset and quality of sleep, according to the South African Memory Resource Centre. But you need to exercise at the right time: the ideal time for exercise is in the morning. Exercising late in the day can contribute to sleeplessness, because exercise causes an increase in your body's energy.

15. Exercise combats impotence

If you stop and think about it, it makes sense - increased circulation as a result of exercise should result in lower levels of impotence, as getting an erection is dependent on the efficiency of blood circulating to the penis."Losing weight, stopping smoking and doing more exercise are associated with better sexual health," says Dr Andrew McCullough, director of Male Sexual Health, Fertility and Microsurgery at New York University Medical Center in New York City. "We talk so much about treating, treating, treating. Here we're beginning to see an increasing body of evidence that we can modify the appearance of this by changing lifestyle."

16. Exercise helps prevent stroke

Need another reason to make good on that long overdue promise to get more exercise? It can dramatically cut your risk of stroke.

"Highly active" people had a 27 percent lower risk of having a stroke or dying if they had one, compared with sedentary folks. And people who were "moderately active" had a 20 percent lower risk.

These findings are based on a review of 23 international studies that appear in the October issue of the journal Stroke, the Associated Press reports.

Jogging 15 to 20 minutes a day most days would qualify as highly active. Brisk walks of 30 minutes a day on most days would qualify as moderate activity, the AP says.

17. Exercise is good for mind and soul

In a synopsis on “Exercise, Fitness and Mental Health” (1990), sports psychologist D.R. Brown summarized the possible beneficial effects that exercise has on mental health. These include the following:Exercise may act as a temporary diversion to daily stresses.

Exercise provides an opportunity for social interaction that may otherwise be lacking in an individual’s life.

Exercise provides an opportunity for self-mastery. Increasing fitness or improving body composition and other health parameters may improve an individual’s self-esteem.

Increased core temperature during exercise may lead to reduced muscle tension or alterations to brain neurotransmitters.

Mood improvements may occur due to the increased secretion of endogenous (internal) opiates e.g. endorphins

Psychological changes may occur due to alterations in norepinephrine, dopamine and serotonin, all hormones which can affect mood and anxiety level.

18. Exercise improves oxygen and nutrient supply to all cells in your body.

An American study indicates that ‘80-plus-ers’ can dramatically improve their health by exercising a few times a week. If this is true for elderly people, it certainly is for the younger set as well.

Exercise improves the body's utilization of oxygen, and lowers systolic blood pressure (high pressure is a dangerous condition common in elderly people).

Positive results were obtained from the 22 elderly people (80 years and older) who took part in the study at the Veterans Affairs Ann Arbor Healthcare System in Michigan.

19. Exercise allows you to improve muscle strength, joint structure and joint function

strengthening exercises increase not only muscle strength and mass, but also bone strength, and the body's metabolism.

A certain level of muscle strength is needed to function every day and do things such as walking and climbing stairs. Strengthening exercises increase this muscle strength by putting more strain on a muscle than it is normally accustomed to receiving. This increased load stimulates the growth of proteins inside each muscle cell that allow the muscle as a whole to contract.

Exercise can promote joint health for everyone, but particularly for people who suffer from arthritis. Arthritis is a general term for over 100 different conditions that cause pain, stiffness and often inflammation in one or more joints. Exercise can reduce some arthritis symptoms and improve joint mobility and strength.

Osteoarthritis is the most common form of arthritis. Normally, the two bones of a joint are cushioned with a strong flexible tissue called cartilage. In osteoarthritis, the cartilage deteriorates, causing pain and stiffness.Cartilage doesn't have a blood supply; it relies on synovial fluid moving in and out of the joint to nourish it and take away waste products. Exercise helps this process.

20. Exercise helps to manage arthritis

regular; intensive exercise for patients with rheumatoid arthritis builds muscle strength and aerobic capacity, improves the ability to do daily tasks and fosters a sense of well-being.

That's the conclusion of a study by Dutch researchers who tracked 300 people with rheumatoid arthritis (RA) for two years. About half the patients participated in a one-hour exercise regimen twice weekly; the rest received traditional treatment, including physical therapy, if prescribed by their physicians.

The findings, appearing in journal *Arthritis & Rheumatism*, suggest high-intensity exercise programmers can benefit many RA patients, says researcher Dr Thea Vlieland of Leiden University Medical Centre.

The positive effects on muscle strength and aerobic capacity could be translated into an improvement in the activities of daily living, and this is what really makes a difference in your life, Vlieland says

Conclusion

Regular exercise helps older people remain independent by improving functional ability and by preventing falls and fractures. It can strengthen the muscles of even the frailest older person living in a nursing or retirement home. It tends to increase appetite, reduce constipation, and promote sleep.

The benefits of exercise diminish within months after a person stops exercising. Heart strength, muscle strength, and the level of HDL cholesterol decrease, whereas blood pressure and body fat increase. Even former athletes who stop exercising do not retain measurable long-term benefits. However, people who were physically active in the past often can regain fitness faste

References

1. U.S. Dept. of Health and Human Services. *2008 Physical Activity Guidelines for Americans*. 2008.

2. Wang G, Pratt M, Macera CA, Zheng ZJ, Heath G. Physical activity, cardiovascular disease, and medical expenditures in U.S. adults. *Ann Behav Med*. 2004; 28:88-94.

3. Pratt M, Macera CA, Wang GJ. Higher direct medical costs associated with physical inactivity. *Physician and Sportsmedicine*. 2000; 28:63-70.

4. Manson JE, Hu FB, Rich-Edwards JW, et al. A prospective study of walking as compared with vigorous exercise in the prevention of coronary heart disease in women. *N Engl J Med*. 1999; 341:650-8.

5. Hu FB, Sigal RJ, Rich-Edwards JW, et al. Walking compared with vigorous physical activity and risk of type 2 diabetes in women: a prospective study. *JAMA*. 1999; 282:1433-9.

6. Tanasescu M, Leitzmann MF, Rimm EB, Willett WC, Stampfer MJ, Hu FB. Exercise type and intensity in relation to coronary heart disease in men. *JAMA*. 2002; 288:1994-2000.

7. Lee IM, Rexrode KM, Cook NR, Manson JE, Buring JE. Physical activity and coronary heart disease in women: is “no pain, no gain” passé? *JAMA*. 2001; 285:1447-54.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp28-29
Journal Impact Factor 1.614

Leadership And Its Training In Physical Education

Dr.CH.SAIDULU*
*Department Of History, Osmania University, HYDERABAD.

Abstract:
Leadership is a dynamic process that caters to the needs of the members of the group. Whenever there is an organized group of people working towards common goals, some form of leadership becomes essential. The power of leadership is the power of integrating. It implies that to be a successful physical education teacher / leader one requires a number of qualities. Though the qualities of a leader are innumerable yet the word "LEADERSHIP" physical education provides large scope to develop leadership qualities and group dynamics through its various means in the words of the great English soldier field marshal Montgomery, "the capacity and will of an individual rally men and women to a common purpose is leadership. Leadership is a dynamic ability of influencing grip a particular situation for obtaining group objectives. It is an art, a science of enabling follow men to proceed together for the desired purpose. In brief, science physical education is a dynamic discipline the physical educators must be dynamic too. They should be able to theorize, analyze, organize, improvise, deputize, analyze, organize, supervise and compromise. Such qualities would enable them to handle human beings in learning and competitive situations build up their esteem and prestige in the society and shape the destiny of the profession.

Introduction

"Leadership is the ability to score desirable actions from a group of followers voluntarily without the use of coercion."-*Alfordand Beaty*

"Leadership is the activity of influencing people to strive willingly for group objectives"-*George Terry*

Leadership is an important element in directing functions of a group, on organization of management, wherever there is an organized group of people working towards common goals, some form of leadership becomes essential" The power of leadership is the power of integrating". A leader stimulates what is best in a group, unites and concentrates scattering. A group, leader provides channel to the unutilized energy and creativity in the group. Marry Parker Follet has rightly expressed. "The leader is the person who influences the most, is not he who does great deeds, but he who makes us feel that can do great deeds".

Definitions

The definitions of leadership given by some famous authors, experts and experienced heads of various organizations, professions, management and establishments are mentioned below:

Leadership is the exercise of authority and making of decisions" states *Durlin. R.*

"Leadership is a process of influence on a group in a particular situation at a given point of time, and in a specific set of circumstances that stimulates people to strive willingly at attain organizational / group objectives and satisfaction with the type of leadership provided," viewed *Jame J. Cribbinb.*

Leadership is an art, a science, or a gift by which a man is enabled and privileged to direct the thoughts, plans and actions of his fellowmen by honourable and legitimate means for noble and altruistic ends," expressed by Frederic E. Wolf.

In the above mentioned definitions of leadership, stress is laid on a capacity of an individual to influence and direct group efforts artfully in a systematic way towards the achievement of common goals of a group / organization / profession. Thus, we can say the leadership is the practice of influence that stimulates subordinates or followers to do their best towards and achievement of desired goals. Further, *Frederick E.Wolf* has rightly expressed that leadership is an art, because it is not every body's cup of tea to make everyone to follow the leader. It is a science because there is always systematic approach for developing the cultivating leadership. Considering leadership as a gift is very much true because it requires certain inmate qualities.

Nature of the Characteristic of Leadership

An analysis of the definitions cited above explores the nature and characteristics of leadership as stated below:

Leadership is a personal quality.It exists only with flowers. It is implied that is there are not followers, there is no leadership.It is the willingness of people to follow that makes a person a leadership.It is the willingness of people to follow that makes a person a leader.Leadership is a process of influence. It means that good leaders will always strive to influence the behavior, attitude and beliefs of his subordinates.It exists only for the realization of common goals.It involves readiness to accept complete responsibility in all situations.Leadership is the function of stimulating the followers to strive willingly to attain objectives of the profession / groupLeadership styles do change under different circumstances.

Leadership is neither bossism nor synonymous with management.

QUALITIES OF A LEADER

Progress in any field depends upon the quality of professional leadership available. When any leader is striving to promote his profession, he is promoting himself directly or indirectly. Directly he is gaining stature and social recognition, and indirectly he gets the gains of profession through work. Leadership is not a quality which can be bestowed upon any person. One does not become a leader by accident. The responsibility of leadership comes on the comes on the shoulders of one who has his background of experience and training coupled with vital personal qualities, because these all add to the professional competence of the lender. One thing is certain that there are certain qualities which distinguish a leader from other individuals around. In general, the qualities that make the individual a leader can be mentioned, such as confidence, diligence courage, will power and determination foresightedness, mental alertness, logical reasoning and decision making, sense of morality and a strict code of ethics, discipliners and dynamism. It implies that to be a successful physical education teacher / leader one requires a number of qualities. Though the qualities of n leader ate (innumerable yet the word "LEADERSHIP" itself contains the qualities of a great successful leader. Each letter of "leadership" can be abbreviated in the following manner:

L : Loyalty
E : Enthusiasm, Endurance, Engaging Personality.
A : Alertness, Adjustment, Ability to Coordinate Activities.
D : Discipline, Dutifulness, Dependability, Desire to Help Others.
E : Energetic, Earnestness.
R : Reliability, Right-thinking and Right judgment.
S : Sincerity, Sympathy, Sell Control, Sacrifice Super Motor • Capacity.
H : Health; Honey, Humor.
I : Intelligent, Industriousness, Impartiality, Interest in Teaching
P : Patience, Perseverance, Personality, Physical skill, Public Relations.

In addition to the above stated qualities few qualities such as knowledge of the child growth and development, moral character, competence in writing and oral language, tactfulness, friendliness, tolerance and good temperaments would add extra strength to the popularity of one's leadership.

Conclusion:

Leadership is a dynamic process that caters to the needs of the members of the group. Further, it emerges in the interaction of individuals with one another. Without right leadership, no home, community, organization, discipline, institution, profession and finally nation can move on the path of progress. It means that the welfare as well as progress of society of a profession depends upon qualitative leadership. Therefore the leader is said to "give the lead" he makes acceptable suggestions, shows the night path, acts as a model for others give commands, which are respected and carried out. I\n all the cases, what a leader does affect others more than himself or herself. Without the cooperation of his followers, no leader can retain his position and prestige for a long duration. He may rule as a dictator for some time\but his future certainly will be in dark. Therefore, he should not adopt dictatorial attitude.

References:

Francis Antony "Encyclopedia of Sports Records". Sports Publication, Ashok Vihar, New Delhi 1997.
Gill, KPS "No Support for Hockey". An article published in The Tribune, June 13th 2001. Chandigarh Kapoor, Sushil "Make Officials Accountable: An article published in The Bribune" May 26th 2001. Chandigarh.
Sharama Ramu "Federation should be made Accountable". An article published in The Tribune, June 23rd 2001. Chandigarh.
Singh Prabhjot "Fiasco at Sydney: IS IOA responsible? "An article published in The Tribune October 22nd 2000, Chandigarh
Ball, Donald W. and Loy John W. "Sport and Social Order" : Contribution of the Sociality of Sports" Addison – Westley Publishing Company, Inc. 1975, Philippines.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp30-32
Journal Impact Factor 1.614

Analysis On The Effects Of Endurance Exercise Training On Plasma Hdl Cholesterol Levels Depend On Levels Of Triglycerides

***R.Sudhakar, Research Scholar, Dept.of Phy.Edn., S.V. University, Tirupati, A.P.**
****Dr.Y.Kalyan Kumar, Physical Director, Govt.Degree College, Nandikotkur, Kurnool,A.P.**
*****Dr.D.Krishna Murthy, D.D. of Phy.Edn., Univ.College of Engn.& Tech, Tirupati, A.P.**
******Dr.P.Murthaiah, Lecturer in Phy.Edn.,S.B.S.Y.M.D.C, Kurnool,A.P.**

Abstract *:*
The present study compared the responses of numerous lipoprotein-lipid variables to a 16-week endurance exercise training program in men categorized on the basis of baseline TG and HDL cholesterol concentrations: (1) low TG and high HDL cholesterol (normolipidemia), (2) low TG and low HDL cholesterol (isolated low HDL cholesterol), (3) high TG and high HDL cholesterol (isolated high TGs), and (4) high TGs and low HDL cholesterol (high TG/low HDL cholesterol). A series of physical and metabolic variables was measured before and after the training program in a sample of 200 men enrolled in the Health, Risk Factors, Exercise Training. At baseline, men with high TG/low HDL cholesterol had more visceral adipose tissue than did men with isolated low HDL cholesterol and men with normolipidemia. The 0.4% (not significant) exercise-induced increase in HDL cholesterol levels in men with isolated low HDL cholesterol suggests that they did not benefit from the "HDL-raising" effect of exercise. In contrast, men with high TG/low HDL cholesterol showed a significant increase in HDL cholesterol levels (4.9%, $P<0.005$). Whereas both subgroups of men with elevated TG levels showed reductions in plasma TGs (≈−15.0%, $P<0.005$), only those with high TG/low HDL cholesterol showed significantly reduced apolipoprotein B levels at the end of the study (−6.0%, $P<0.005$). Multiple regression analyses revealed that the exercise-induced change in abdominal subcutaneous adipose tissue (10.6%, $P<0.01$) was the only significant correlate of the increase in plasma HDL cholesterol with training in men with high TG/low HDL cholesterol. Results of the present study suggest that regular endurance exercise training may be particularly helpful in men with low HDL cholesterol, elevated TGs, and abdominal obesity.
Key Words: HDL cholesterol, triglycerides, exercise training, coronary heart disease

Introduction

Regular endurance exercise is a widely recognized modality to raise plasma HDL cholesterol levels,[1 2 3] which is one of the metabolic adaptations contributing to the reduced risk of coronary heart disease (CHD) observed among physically active and fit individuals.[4 5 6] Although a low plasma HDL cholesterol concentration is often accompanied by an elevated triglyceride (TG) level associated with abdominal obesity and an insulin resistance-hyperinsulinemic state,[7 8] some individuals are characterized by low HDL cholesterol levels without obesity or hypertriglyceridemia, a condition that has been referred to as isolated hypoalphalipoproteinemia.[9 10 11] Previous studies from our laboratory have shown that subjects with isolated low HDL cholesterol were neither characterized by hyperinsulinemia nor by visceral obesity.[12] Although studies have suggested that patients with isolated low HDL cholesterol syndrome may be at increased CHD risk,[9 10 13 14] it appears very difficult to increase HDL cholesterol levels in these individuals by diet, weight loss, or pharmacotherapy.[15]

Because subjects with isolated low HDL cholesterol have normal body weight and fat content, we have hypothesized that they may be less responsive to endurance exercise–induced improvements of the lipoprotein-lipid profile than are subjects with low HDL cholesterol, elevated TG concentrations, abdominal obesity, and hyperinsulinemia.

Therefore, the aim of the present study was to compare the lipoprotein-lipid responses to a 20-week endurance exercise training program in men with low HDL cholesterol levels but with or without high TG concentration.

Methgodology

Endurance Exercise Training Program

The training program has already been extensively described.[16] [17] [18] Participants trained under supervision in the clinical centers on a cycle ergo meter (Universal Aerobic cycle) for 60 sessions by using the same standardized training protocol. They were required to complete the 60 sessions within 21 weeks. They could not exercise >1 session per day, >4 sessions per week, or <1 session per week. As well, they could not get ahead by >2 sessions or fall behind by >2 sessions. Participants who knew that they might miss a few sessions were encouraged to train 4 times per week for 2 weeks to build up a reserve. Program adherence was monitored several times per week. Participants were contacted when they appeared to be falling behind, and a plan was developed to bring them back on schedule as soon as possible. To determine each person's training intensity, heart rate (HR), power output, and oxygen intake (VO_2) obtained during the 3 baseline cycle ergo meter tests were plotted to determine the average HR and power output associated with 55%, 65%, 70%, and 75% of his/her maximum VO_2 (VO_2max) before training. These HR and power output values were then used throughout the training program. Training sessions during the first 2 weeks began at an HR associated with 55% VO_2max for 30 minutes. Either duration or intensity was then increased each 2 weeks until the 14th week of training, when participants exercised at the HR associated with 75% of their initial VO_2max for 50 minutes. This was then maintained for the next 6 weeks.

Statistical Analysis

Pearson product moment correlation coefficients were used to quantify associations between variables. Men were divided into 4 subgroups according to baseline fasting plasma TG and HDL cholesterol concentrations: (1) normolipidemia (n=62), (2) isolated low HDL cholesterol (n=38), (3) isolated high TGs (n=38), and (4) high TG/low HDL cholesterol (n=62). Cutoff values were 1.34 and 0.92 mmol/L for TG and HDL cholesterol, respectively, which corresponded to the 50th percentiles of their respective distributions. Differences among men with various baseline fasting lipoprotein-lipid phenotypes were tested for significance by using ANOVA with the Duncan multiple range test. Paired t tests were used to examine the significance of the changes in physical and metabolic variables within each subgroup of men. In all analyses, $P<0.05$ was considered significant. Analyses were conducted with the SAS statistical package.

Result And Analysis

TABLE:

Variables	**Normolipidemia**	**Isolated Low HDL Cholesterol**	**Isolated High TGs**	**High TG/Low HDL**
Subjects,n	62	38	38	62
TGs,mmol/L	0.94±0.22	0.93±0.22	1.77±0.39	2.45±1.09
HDL C mmol/L	1.12±0.14	0.81±0.07**	1.05±0.21	0.75±0 .10
Apo A-1 g/L	1.23±0.12	1.01±0.10	1.28±0.12	1.07±0.12
ApoB,g/L	0.77±0.20	0.73±0.19	1.05±0.20	1.06±0.22

Table shows the baseline pre training plasma lipoprotein profile of the 4 subgroups of men. Although men with high TG/low HDL cholesterol had higher plasma TG (by design), cholesterol, and apo B concentrations than did normolipidemic men, men with isolated low HDL cholesterol levels had lower plasma cholesterol and apoA-I levels but similar apoB levels compared with the levels in normolipidemic men. Thus, the higher total cholesterol/HDL cholesterol ratio noted among subjects with isolated low HDL cholesterol resulted solely from the very low HDL cholesterol concentrations. However, high plasma cholesterol and low HDL cholesterol levels contributed to the high total cholesterol/HDL cholesterol ratio observed in men with high TG/low HDL cholesterol compared with normolipidemic men. Men with high TG/low HDL cholesterol were also clearly hyperinsulinemic and, presumably, more insulin resistant at baseline than were the other subgroups of subjects.

Discussion

It is well established that low plasma HDL cholesterol levels are associated with an increased risk of CHD.[19,20] Indeed, a low HDL cholesterol concentration has been shown to be the most prevalent abnormality of the lipoprotein-lipid profile reported among men with documented CHD.[21] In this regard, the recently published results of the Veterans Affairs High-Density Lipoprotein Intervention Trail (VA-HIT)

Study36 clearly show that pharmacotherapy aimed at increasing plasma HDL cholesterol levels reduces the risk of CHD, even in the absence of any change in plasma LDL cholesterol levels; this latter finding is commonly observed when CHD patients with low HDL cholesterol levels are treated with a fibrate such as gemfibrozil.

Summary

In summary, results of the present study suggest that regular endurance exercise is particularly helpful to improve the lipid lipoprotein profile of men with low HDL cholesterol levels along with abdominal obesity and elevated TG concentrations. However, it appears that subjects with low HDL cholesterol levels as an isolated trait are much less responsive to endurance exercise training, at least as far as their plasma lipoprotein profile is concerned. This finding is concordant with the common observation that it is very difficult in clinical practice to increase the cholesterol content of HDL among subjects with low HDL cholesterol concentrations, when the latter is an isolated lipoprotein characteristic.

References

Després JP, Pouliot MC, Moorjani S, Nadeau A, Tremblay A, Lupien PJ, Thériault G, Bouchard C. Loss of abdominal fat and metabolic response to exercise training in obese women. Am J Physiol. 1991;261:E159–E167.

Durstine JL, Haskell WL. Effects of exercise training on plasma lipids and lipoproteins. Exerc Sport Sci Rev. 1994;22:477–521.

Hardman AE. Physical activity, obesity and blood lipids. Int J Obes. 1999;23(suppl 3):S64–S71.

Leon AS, Connett J, Jacobs DR Jr, Rauramaa R. Leisure-time physical activity levels and risk of coronary heart disease and death: the Multiple Risk Factor Intervention Trial. JAMA. 1987;258:2388–2395.

Blair SN, Kohl HW III, Paffenbarger RS Jr, Clark DG, Cooper KH, Gibbons LW. Physical fitness and all-cause mortality: a prospective study of healthy men and women. JAMA. 1989;262:2395–2401.

Folsom AR, Arnett DK, Hutchinson RG, Liao F, Clegg LX, Cooper LS. Physical activity and incidence of coronary heart disease in middle-aged women and men. Med Sci Sports Exerc. 1997;29:901–909.

Després JP. Obesity and lipid metabolism: relevance of body fat distribution. Curr Opin Lipidol. 1991;2:5–15.

Després JP. Dyslipidaemia and obesity. Baillieres Clin Endocrinol Metab. 1994;8:629–660.

Ginsburg GS, Safran C, Pasternak RC. Frequency of low serum high-density lipoprotein cholesterol levels in hospitalized patients with desirable total cholesterol levels. Am J Cardiol. 1991;68:187–192.

Goldbourt U, Yaari S, Medalie JH. Isolated low HDL cholesterol as a risk factor for coronary heart disease mortality: a 21-year follow-up of 8000 men. Arterioscler Thromb Vasc Biol. 1997;17:107–113.

Lavie CJ, Mailander L, Milani RV. Marked benefit with sustained-release niacin therapy in patients with isolated very low levels of high-density lipoprotein cholesterol and coronary artery disease. Am J Cardiol. 1992;69:1083–1085.

Lamarche B, Després JP, Pouliot MC, Prud'homme D, Moorjani S, Lupien PJ, Nadeau A, Tremblay A, Bouchard C. Metabolic heterogeneity associated with high plasma triglyceride or low HDL cholesterol levels in men. Arterioscler Thromb. 1993;13:33–40.

Miller M, Seidler A, Kwiterovich PO, Pearson TA. Long-term predictors of subsequent cardiovascular events with coronary artery disease and desirable levels of plasma total cholesterol. Circulation. 1992;86:1165–1170.

Genest JJ Jr, Martin-Munley SS, McNamara JR, Ordovas JM, Jenner J, Myers RH, Silberman SR, Wilson PW, Salem DN, Schaefer EJ. Familial lipoprotein disorders in patients with premature coronary artery disease. Circulation. 1992;85:2025–2033.

Rader DJ. Pathophysiology and management of low high-density lipoprotein cholesterol. Am J Cardiol. 1999;83:22F–24F.

Bouchard C, Leon AS, Rao DC, Skinner JS, Wilmore JH, Gagnon J. The HERITAGE Family Study: aims, design, and measurement protocol. Med Sci Sports Exerc. 1995;27:721–729.

Wilmore JH, Després JP, Stanforth PR, Mandel S, Rice T, Gagnon J, Leon AS, Rao D, Skinner JS, Bouchard C. Alterations in body weight and composition consequent to 20 wk of endurance training: the HERITAGE Family Study. Am J Clin Nutr. 1999;70:346–352.

Skinner JS, Wilmore KM, Krasnoff JB, Jaskolski A, Jaskolska A, Gagnon J, Province MA, Leon AS, Rao DC, Wilmore JH, et al. Adaptation to a standardized training program and changes in fitness in a large, heterogeneous population: the HERITAGE Family Study. Med Sci Sports Exerc. 2000;32:157–161.

Assmann G, Schulte H. Relation of high-density lipoprotein cholesterol *and triglycerides to incidence of atherosclerotic* coronary artery disease (the PROCAM experience): Prospective Cardiovascular Munster study. Am J Cardiol. 1992;70:733–737.

Jeppesen J, Hein HO, Suadicani P, Gyntelberg F. Relation of high TG-low HDL cholesterol and LDL cholesterol to the incidence of ischemic heart disease: an 8-year follow-up in the Copenhagen Male Study. Arterioscler Thromb Vasc Biol. 1997;17:1114–1120.

Rubins HB, Robins SJ, Collins D, Iranmanesh A, Wilt TJ, Mann D, Mayo-Smith M, Faas FH, Elam MB, Rutan GH, et al. Distribution of lipids in 8,500 men with coronary artery disease. Am J Cardiol. 1995;75:1196–1201.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp33-40
Journal Impact Factor 1.614

Investigattion Of Job Satisfaction As Experienced By Coaches And Physical Education Teachers

Dr. Rajkumar Sharma
Grade-I Gymnastic Coach, Sport Authority of India,
N.S.T.C. Malhar Ashram, Rambagh Indore,M.P.

Abstract:
The purpose of the study was to analyse and investigate the job satisfaction experienced by Physical education personnel in the selected colleges and Universities of Uttar Pradesh.One hundred (Males= 65, Females=35) physical Education Teachers from selected colleges and universities located in Varanasi region were selected as the sample for this study. The research design for this study was descriptive. Minnesota Satisfaction Questionnaire (Weiss et. al., 1967). was used to find out the satisfaction level of physical education teachers and coaches. Personal contact was also made to the subject at the site of nearest institutions/universities and data was collected. Frequency and percentage, means, standard deviations and t-ratio on twenty dimensions of job satisfaction with all the subjects were computed. Results of study revealed that the coaches of different games and sports were found more "Satisfied" and physical education teachers were slightly satisfied from their job. Significant differences were also observed between the male and female coaches on ability utilization, authority and social service dimensions of job satisfaction. Where as the male and female teachers were found to have significant differences on social service and supervision (HR) dimensions of job satisfaction. Keywords: Job, satisfaction, Coaches, Teachers, Colleges, and University

Introduction

Nowadays, there is, however, a general feeling that the teachers do not have satisfaction in their job. There seems to be growing discontentment towards their job as a result of which standard of education are falling. Teachers are dissatisfied in spite of different plans and programs, which have been implemented to improve their job. Job satisfaction consists of total body of feeling about the nature of job promotion, nature of supervision etc. that an individual has about his job. If the sum total of influence of these factors gives arises to feelings of satisfaction, the individual has job satisfaction. Under such circumstances it is essential that the proper understanding concerning satisfaction emanating from the job life be obtained.

Job satisfaction is a complex variable and is influenced by situational factors of the job as well as the dispositional characteristics of the individual (Sharma, 1991). It is defined as the positive emotional response to the job situation resulting from attaining what the employee wants from the job. This implies that job satisfaction can be captured by either a one dimensional concept of Global Job satisfaction or a Multi Dimensional faceted construct of job satisfaction capturing different aspects of a job satisfaction that can very independently.

Job satisfaction is an act of satisfying; fulfillment; gratification. It is the state of being satisfied or contended. It is the cause or means of being satisfied. It is the desire or undesired with which employees view their work. It expresses the extent of match between the employer's expectations of the job and rewards that the job provides (Weiss, H.M. 2002).

Job satisfaction can also be seen within the broader context of the range of issues which affect an individual's experience of work, or their quality of working life. Job satisfaction can be understood in terms of its relationships with other key factors, such as general well-being, stress at work, control at work, home-work interface, and working conditions.

Quinn, et.al. (1974) claimed that older workers are more satisfied with their work. Zeitz (1990) showed that age-satisfaction curves differed among the nonprofessionals, non-elite professionals, and elite professionals. Iiacqua et al. (1995) found that younger, less experienced faculty expressed more job dissatisfaction than experienced tenured faculty

Hulin and Smith (1965) indicated that job satisfaction increases in a positive linear fashion with respect to age. As workers grow older, they tend to be more satisfied with their jobs Thompson and McNamara (1997) reported that neither age nor gender was of value in the prediction of job satisfaction Saleh and Otis (1964) proposed a positive and linear function between age and job satisfaction until the pre-retirement period during which job satisfaction significantly declines. Ehsani (2010) showed that the relationship of job-satisfaction, with sex, age, marital status, field of education, educational degree, and previous work-record of P.E teachers has not been significant.

Spector (1997) indicated insignificant difference exists between males and females with respect to job satisfaction. Gruneberg (1979) women might experienced greater job satisfaction than men. Smith, Smits, and Hoy (1998) did not find differences in job satisfaction of men and women.

Johansson & Heikinaro-Johansson (2004) assessed the Job satisfaction among physical education teachers in Finland. They found that Job satisfaction among physical education teachers has received relatively little attention. Holmen & Parkhouse (2009) showed higher satisfaction for the extrinsic benefit (pay) than the suburban teachers who had higher satisfaction with the intrinsic benefits (work, colleagues, supervision). Sutter (1996) indicated that respondents in various positions in education express satisfaction with various aspects of their jobs differently. However, all respondents regardless of educational position, indicated overall satisfaction with their jobs. Newby (1999) indicated that the principals at large schools were significantly more satisfied with General Satisfaction, Advancement, and Security than principals from small schools

Koustelios & Tsigilis (2005) indicated that job satisfaction is primarily affected by job itself followed by supervision and working conditions, whereas burnout is affected by personal accomplishment and emotional exhaustion. Intrinsic aspects of job satisfaction seemed to correlate stronger to burnout than the extrinsic. Koustelios, Theodorakis, & Goulimaris (2004) showed that role conflict and role ambiguity are significant predictors of job satisfaction.

Consequently, beginning in the mid-nineteen-sixties and continuing, investigations were being conducted on various positions in the field of education. Job satisfaction of teachers (Sergiovanni, 1967); supervisors (Lawrence, 1979); elementary principals (Ward, 1977; Villines, 1987; Freeman, 1990; Dupree,1991); secondary principals (Watson, 1991); guidance counselors (Kirk, 1990); and superintendents (Manning, 1976; Penn, 1985) were some of the positions that were studied in the state of Virginia and other states across the country.

Findings from the literature conclude that when results are compared across these various positions, there are similarities as well as differences in how people in the field of education perceive their jobs. Additionally, throughout the literature, studies reveal that variables pertaining to school demographics and personal data (e.g., size of school, age, tenure, and gender) influence these perceptions.

The purpose of the study was to analyse and investigate the level of job satisfaction experienced by physical education personnel in the selected Colleges and Universities of Varanasi region

Methodology

Selection of Subjects:

One hundred (Males= 65, Females=35) physical Education Teachers from selected colleges and universities located in Varanasi region. were selected as the sample for the study and all were also asked to participate in this study Out of one hundred subjects, 65% were physical education teachers and rest of 35% were coaches of different games and sports. In all, 100 male and female teachers of Varanasi region were asked to complete the instruments.

Design of the Study:

The research design for this study was descriptive. By conducting this study, the researcher found the following: (1) the satisfaction level for each of the 20 dimensions of the job measured by the Minnesota Satisfaction Questionnaire, and (2) An analysis of demographic characteristics according to the demographic variables i. e. gender, age, degree, years of experience, institution location, and institution size. (3) the ranking order of job satisfaction among physical education teachers and coaches measured by the Minnesota Satisfaction Questionnaire.

Instrumentation:

The MSQ was used primarily because it is a well-known instrument designed to measure job satisfaction. It is a gender neutral instrument that can be administered to either groups or to individuals. The instrument utilizes a 20-dimension Likert-type scale format and samples both intrinsic and extrinsic reinforcement dimensions with a total of 100 items.

It is self-administering with directions for the respondent appearing on the first page of the questionnaire. Instructions for the rating scale are located at the top of each page. Although there is no time limit, completion of the MSQ is typically accomplished by a respondent within 15-20 minute

Reliability: For this study, Cronbach's Alpha test of internal consistency was used to measure reliability for each of the 20 dimensions measured on the MSQ. The coefficient for each dimension was: Social Service, .96; Activity, .90; Moral Value, .75; Achievement, .90; Creativity, .92; Responsibility, .88; Variety, .86; Coworker, .90; Supervision Human Relations, .94; Security, .88; Authority, .89; Working Conditions, .95; Supervision Technical, .91; Status, ..92; Policies, .93; Recognition, .94; Advancement, .95; Independence, .91; and, Compensation, .93. These coefficients ranged from .96 to .75 for the dimensions, and a coefficient of .95 was obtained for the group on the MSQ.

Validity: Evidence of concurrent validity of the MSQ was gathered from an examination of occupational group differences in satisfaction. Analysis of data for the 25 occupational groups (N=2,955) revealed that group differences were statistically significant at .001 level for both means and variances on all 20 dimensions of the MSQ. In assessing the meaningfulness of this differentiation, the authors examined the means and variances for each of the MSQ's 20 dimensions and found support for a frequent theme in the research literature on job satisfaction: professional groups are the most satisfied and unskilled groups the least satisfied (Weiss, Dawis, England, & Lofquist, 1964).

Administration of Instrument:

The source of data for this research was the responses made by participants on the Individual Data Sheet and the MSQ. A letter of introduction, the instruments, the instructions and a self-addressed stamped envelop were mailed to participants. Responses were requested within two weeks and those who had not responded within that time period were sent a postcard reminder. A telephone number was included on the postcard requesting teachers/coaches to call if they had not received survey questionnaire and individual data sheet. Individuals who had responded by this time were thanked. Teachers and coaches who had not responded within 7 days of the postcard reminder were sent a second mailing, and an immediate response was requested. Personal contact was also made to the subject at the site of nearest institutions/universities and data was collected.

Results And Discussion

The frequency and percentage of demographic variables followed by the range of scores for the MSQ rating scale were computed. To assess the job satisfaction on twenty dimensions for male and female teachers and coaches, means, standard deviations and t-ratio on twenty dimensions of job satisfaction with all the subjects were computed. To check the obtained t-ratio, the level of significance was set at. .05 level and data pertaining to this have been presented in Table 1 to 7.

TABLE 1

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS (TOTAL N=100)

S. N0.	Variables		N	Percent
1.	Gender	Male	60	60%
		Female	40	40%
2.	Age	Younger than 35	06	6.0%
		16-45	48	48%
		46-55	31	31%
		Older than 55	15	15%
3.	Degree Status	Master	30	3.0%
		Diploma in Coaching	35	35%
		Doctorate	62	62%
4.	Years of Experience	1-6	05	5.0%
		7-10	48	48%
		11-15	29	29%
		16 or more	18	18%
5.	Institution Location	Rural	00	00%
		Urban	100	100%
6.	Institution size	400 students or less	100	100%
		401-800 students	00	00%
		> 1,000 students	00	00%

It is evident from Table 1 that in case of gender, there were more males than females, and for age, over 70 percent of the respondents were between 36 and 55 years. As far as education was concerned in the universities, the majority of the respondents held a doctorate degree, and a little of them held the Master degree and graduate diploma in the universities. The largest number of respondents had been a physical education teacher in universities and colleges for 7-10 years, and over 70 percent of physical education teachers had been in their jobs fifteen years or less. The table also shows that the hundred percent of physical education teacher was from urban universities and colleges. Finally, the all the institutions of these physical education teachers ranged in size from 400 students or less than 400.

Table 2:Demographic Characteristics Of Teachers (Total N=65)

S. N0.	Variables		N	Percent
1.	Gender	Male	42	64.62
		Female	23	35.38
2.	Age	Younger than 35	2	3.08
		16-45	35	53.84
		46-55	17	26.15
		Older than 55	11	16.92
3.	Degree Status	Master	03	04.62
		Doctorate	62	95.38
4.	Years of Experience	1-6	1	01.55
		7-10	35	53.84
		11-15	18	27.69
		16 or more	11	16.92
5.	Institution Location	Rural	00	00
		Urban	65	100
6.	Institution size	400 students or less	65	100
		401-800 students	00	00
		> 1,000 students	00	00

It is evident from Table 2 that in case of gender, there were more males than females, and for age, over 70 percent of the respondents were between 36 and 55 years. As far as education was concerned in the universities and the colleges, the majority of the respondents held a doctorate degree, and a little of them held the Master degree in the universities and colleges. The largest number of respondents had been a physical education teacher in universities and colleges for 7-10 years, and over 70 percent of physical education teachers had been in their jobs fifteen years or less. The table also shows that the hundred percent of physical education teacher was from urban universities and colleges. Finally, the all the institutions of these physical education teachers ranged in size from 400 students or less than 400.

Table 3:Demographic Characteristics Of Coaches (Total N=35)

S. N0.	Variables		N	Percent
1.	Gender	Male	23	65.71
		Female	12	34.29
2.	Age	Younger than 35	04	11.43
		16-45	13	37.14
		46-55	14	40.00
		Older than 55	04	11.43
3.	Degree Status	Diploma in Coaching	35	100
		Master	00	00
		Doctorate	00	00
4.	Years of Experience	1-6	04	11.43
		7-10	12	34.29
		11-15	13	37.14
		16 or more	06	17.14
5.	Institution Location	Rural	00	00
		Urban	35	100
6.	Institution size	400 students or less	35	100
		401-800 students	00	00
		> 1,000 students	00	00

It is evident from Table 3 that in case of gender, there were more males than females, and for age, over 70 percent of the respondents were between 36 and 55 years. As far as sport coaching was concerned in the universities and the colleges, the majority of the respondents held a specialize diploma in coaching, and a little of them held the Master degree in the universities and colleges. Over 70 percent of respondents had been a sports coaches in universities and colleges for 11-15 years. The table also shows that the hundred percent of sports coaches were from urban universities and colleges. Finally, the all the institutions of these sports coaches ranged in size from 400 students or less than 400.

Table 6:Significance Of Differences Between Mean Scores Of Male And Female Coaches On Twenty Dimensions On Job Satisfaction

S.N0.	Dimensions	Mean Male (N=20)	Female (N=15)	MD	σ DM	t-ratio
1.	Policies	13.15	15.53	2.38	1.01	2.35*
2.	Compensation	14.40	14.13	0.27	0.74	0.36
3.	Responsibility	13.45	14.67	1.22	0.61	1.96
4.	Coworker	14.65	14.60	0.05	0.91	0.06
5.	Creativity	14.15	12.40	1.75	0.61	2.88*
6.	Advancement	17.70	15.80	1.90	1.13	1.68
7.	Supervision (HR)	15.40	16.60	1.20	1.15	1.05
8.	Achievement	14.40	15.27	0.87	0.81	1.07
9.	Supervision (Technical)	14.80	14.53	0.27	1.09	0.25
10.	Recognition	13.65	13.93	0.28	0.73	0.39
11.	Ability	12.45	11.53	0.92	0.64	1.44
12.	Variety	14.70	13.53	1.17	0.82	1.42
13.	Activity	14.90	15.27	0.37	0.71	0.52
14.	Independence	12.75	12.67	0.08	0.83	0.63
15.	Working Conditions	12.55	10.93	1.62	0.68	2.37*
16.	Status	13.75	13.60	0.15	0.64	0.23
17.	Authority	14.14	14.27	0.13	0.77	0.18
18.	Security	13.95	14.73	0.78	0.93	0.85
19.	Moral Value	13.90	14.20	0.30	0.91	0.33
20	Social Service	13.45	14.07	0.62	0.85	0.72

*Significance at .05 level

t.05 (33) = 2.03

It is evident from table 6, that the statistically significant differences were found between the male and female coaches on ability utilization, authority and social service dimensions of job satisfaction, as the obtained t-values of 2.35, 2.88 and 2.37 respectively were higher than the required t-value of t.05 (33) = 2.03. But, there were no statically significant difference between the male and female coaches in rest of the seventeen dimensions of job satisfaction i.e. Achievement, Activity, Advancement, Company Policies and practices, Compensation, Co-worker, Creativity, Independence, Moral Value, Recognition, Responsibility, Security, Social Status, Supervision (HR), Supervision (Technical), Variety, and Working Conditions, as the obtained t-values of 0.36, 1.96, 0.06, 1.68, 1.05, 1.07, 0.25, 0.39, 1.44, 1.42, 0.52, 0.63, 0.23, 0.18, 0.85, 0.33 and 0.72 respectively were less than the required t-value to be significant.

TABLE 7

SIGNIFICANCE OF DIFFERENCES BETWEEN MEAN SCORES OF MALE AND FEMALE TEACHERS ON TWENTY DIMENSIONS ON JOB SATISFACTION

S.N0.	Dimensions	Mean Male (N=42)	Female (N=23)	MD	σ DM	t-ratio
1.	Policies	13.07	14.09	1.02	0.66	1.55
2.	Compensation	14.05	13.35	0.70	0.59	1.12
3.	Responsibility	14.55	14.30	0.24	0.61	0.40
4.	Coworker	13.81	14.17	0.36	0.66	0.56

5.	Creativity	14.29	14.35	0.06	0.58	0.11
6.	Advancement	14.31	14.78	0.47	0.64	0.73
7.	Supervision (HR)	13.17	13.91	0.75	0.64	1.16
8.	Achievement	13.69	14.17	0.48	0.72	0.68
9.	Supervision (Technical)	13.38	13.74	0.36	0.59	0.61
10.	Recognition	12.86	12.87	0.01	0.66	0.02
11.	Ability	13.64	13.43	0.21	0.60	0.35
12.	Variety	14.45	13.39	1.02	0.63	1.68
13.	Activity	13.69	13.96	0.27	0.57	0.47
14.	Independence	14.38	13.91	0.47	0.70	0.67
15.	Working Conditions	12.69	14.04	0.35	0.60	2.24*
16.	Status	13.24	13.74	0.50	0.60	0.84
17.	Authority	13.83	15.48	1.65	0.65	2.54*
18.	Security	14.00	13.26	0.74	0.60	1.23
19.	Moral Value	13.71	14.78	1.07	0.71	1.51
20	Social Service	13.83	12.78	1.05	0.55	1.90

*Significance at .05 level
t.05 (63) = 2.00

It is evident from table 7, that the statistically significant differences were found between the male and female teachers on social service and supervision (HR) dimensions of job satisfaction, as the obtained t-values of 2.24 and 2.54 respectively were higher than the required t-value of t.05 (63) = 2.00. But, there were no statistically significant difference between the male and female teachers in rest of the seventeen dimensions of job satisfaction i.e. Ability utilization, Achievement, Activity, Advancement, Authority, Company Policies and practices, Compensation, Co-worker, Creativity, Independence, Moral Value, Recognition, Responsibility, Security, Social Status, Supervision (Technical), Variety, and Working Conditions, as the obtained t-values of 1.55, 1.12, 0.40, 0.56, 0.11, 0.73, 1.16, 0.68, 0.61, 0.02, 0.35, 1.68, 0.47, 0.67, 0.84, 1.23, 1.51, and 1.90 respectively were less than the required t-value to be significant.

Table 4:Rank Order Of Coaches Of Different Games And Sports On Msq Dimensions

S.N0.	Dimensions	N	Mean	Rank Order
1.	Policies	65	3.38	3
2.	Compensation	65	3.02	3
3.	Responsibility	65	3.01	3
4.	Coworker	65	2.95	2
5.	Creativity	65	2.93	2
6.	Advancement	65	2.92	2
7.	Supervision (HR)	65	2.86	2
8.	Achievement	65	2.85	2
9.	Supervision (Technical)	65	2.85	2
10.	Recognition	65	2.84	2
11.	Ability	65	2.83	2
12.	Variety	65	2.80	2
13.	Activity	65	2.79	2
14.	Independence	65	2.75	2
15.	Working Conditions	65	2.74	2
16.	Status	65	2.73	2
17.	Authority	65	2.68	2
18.	Security	65	2.54	2
19.	Moral Value	65	2.40	2
20	Social Service	65	2.37	2

From table 4, it is clearly evident that the three top ranking dimensions were policies, compensation , and responsibility. The coaches of different games and sports were “Satisfied” (3.00-3.99) about rewarded to institution system, pay in contrast to the amount of work and freedom to implement one’s judgment on

the job that did not go against their conscience. In the rest of the dimensions of job satisfaction, coaches of different games and sports were “Slightly Satisfied” (2.00-2.99).

Table 5: Rank Order Of Physical Education Teachers On Msq Dimensions

S.N0.	Dimensions	N	Mean	Rank Order
1.	Policies	35	2.89	2
2.	Compensation	35	2.89	2
3.	Responsibility	35	2.86	2
4.	Coworker	35	2.84	2
5.	Creativity	35	2.84	2
6.	Advancement	35	2.80	2
7.	Supervision (HR)	35	2.75	2
8.	Achievement	35	2.74	2
9.	Supervision (Technical)	35	2.73	2
10.	Recognition	35	2.84	2
11.	Ability	35	2.83	2
12.	Variety	35	2.80	2
13.	Activity	35	2.72	2
14.	Independence	35	2.70	2
15.	Working Conditions	35	2.68	2
16.	Status	35	2.68	2
17.	Authority	35	2.68	2
18.	Security	35	2.68	2
19.	Moral Value	35	2.62	2
20	Social Service	35	2.57	2

From table 5, it is clearly evident that the physical education teachers were “Slightly Satisfied (2.00-2.99) on all the dimensions of job satisfaction in their respective institutions

Discussion

Mostly the male and female were between 36 and 55 years of age belong to physical education teachers of Urban universities and colleges having doctorate degree fifteen years experience.. A little of them held the Master degree and graduate diploma in the urban universities and colleges. Coaches were between 36 and 55 years of age having specialized diploma in coaching and eleven to fifteen years working experience in urban universities and colleges. A little of them held the Master degree in the universities and colleges.

The coaches of different games and sports were “Satisfied” about rewarded to institution system, pay in contrast to the amount of work and freedom to implement one’s judgment on the job that did not go against their conscience. But the coaches were “Slightly Satisfied” in the rest of the dimensions of job satisfaction . Where as, physical education teachers were “Slightly Satisfied in all the dimensions of job satisfaction,

The t-ratio resulted the significant differences between the male and female coaches on ability utilization, authority and social service dimensions of job satisfaction and insignificant difference in Achievement, Activity, Advancement, Company Policies and practices, Compensation, Co-worker, Creativity, Independence, Moral Value, Recognition, Responsibility, Security, Social Status, Supervision (HR), Supervision (Technical), Variety and Working Conditions dimensions of job satisfaction. The t-ratio also resulted significant differences between the male and female teachers on social service and supervision (HR) and insignificant difference in Ability utilization, Achievement, Activity, Advancement, Authority, Company Policies and practices, Compensation, Co-worker, Creativity, Independence, Moral Value, Recognition, Responsibility, Security, Social Status, Supervision (Technical), Variety, and Working Conditions dimensions of job satisfaction.

Conclusions

The majority of the physical education personnel were have doctorate degree.The majority of the physical education personnel were found experienced in their job. The hundred percent of physical education personnel were from urban universities and colleges. The coaches of different games and sports were more “Satisfied” from their job in comparison of physical education teachers.Physical education teachers were found slightly satisfied from their job

Significant differences were found between the male and female coaches on ability utilization, authority and social service dimensions of job satisfaction only,

Significant differences were found between the male and female teachers on social service and supervision (HR) dimensions of job satisfaction

Significance

It was anticipated that the results of this study would (a) contribute to a larger body of literature on teachers and coaches satisfaction; (b) help to establish a foundation for the study of physical education and coaches job satisfaction; (c) assist graduate /post graduate colleges and universities of education, state and local policy makers in identifying strategies for making decisions which affect physical education teachers and coaches.

References

Athanasios Koustelios & Nikolaos Tsigilis, "The relationship between burnout and job satisfaction among physical education teachers: a multivariate approach" European Physical Education Review June 2005 vol. 11 no. 2 189-203.

Dupree, M. B. (1989). Job satisfiers and dissatisfiers as perceived by public school elementary principals in South Carolina. Doctoral Dissertation, South Carolina State University, Orangeburg, SC

Ehsani, Mohammad "The Relationship of Management Style and Job Satisfaction among PE Teachers " Journal of Physical Culture and Sport. Studies and Research 48 (June, 2010) :71-83.

Freeman, Dallas M. (1990) Job satisfiers and job dissatisfiers as perceived by public elementary school principals in North Carolina. Unpublished doctoral dissertation, South Carolina State College, Orangeburg, SC.

Gruneberg, M. M. (1979). Understanding job satisfaction. New York: The Macmillan Press, Ltd.

Holmen, M. G: Parkhouse, B. L. "Differences in job satisfaction among suburban and inner - city high school physical education faculty" Research Quarterly for Exercise and Sport 51 : :4 (2009) : 654 - 662.

Hulin, C. L., & Smith, P. C. "A linear model of job satisfaction". Journal of Applied Psychology, 49 : 3 (1965) : 209-216.

Iiacqua, J. A., Schumacher, P., & Li, H. C. (1995). Factors contributing to job satisfaction in higher education. Education, 116(1), 51-61.

Koustelios, Athanasios; Theodorakis, Nicholas; & Goulimaris, Dimitris, "Role Ambiguity, Role Conflict and Job Satisfaction among Physical Education Teachers in Greece" International Journal of Educational Management, 18 : 2 (2004) : 87-92.

Kirk, D. (1990). Job satisfaction among elementary school counselors in Virginia. Doctoral Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Lawrence, M. H. (1979). The satisfaction and dissatisfaction of elementary school supervisors. Doctoral Dissertation, University of Virginia, Charlottesville, VA.

Manning, R. C. (1976). Satisfiers and dissatisfiers of Virginia superintendent of schools. Unpublished doctoral dissertation. University of Virginia, Charlottsville, VA.

Newby, Joe Ann E. "Job Satisfaction, Middle School Principals in Virginia" (Unpublished Doctoral Dissertation, State University, Virginia), 1999.

Penn, Clarence P. (1985). Satisfiers and dissatisfiers of selected black school administrators in Virginia. Unpublished doctoral dissertation, University of Virginia, Charlottsville, VA.

Quinn, R. P., Staines, G. L., & McCullough, M. R. (1974). Job satisfaction: Is there a trend? Manpower Research Monograph No. 30, U.S. Department of Labor. Washington, DC: Government Printing Office.

Sutter, M. (1996). What do we know about the job and career satisfaction of secondary school assistant principals? NASSP Bulletin, vol.80 n579 p 108-111..

Spector, P. E. (1997). Job satisfaction: Application, assessment, causes, and consequences. Thousand Oaks, CA: Sage Publications, Inc.

Smith, P. L., Smits, S. J., & Hoy, F. (1998). Employee work attitudes: The subtle influence of gender. Human Relations, 51(5), 649-666.

Saleh, S. D., & Ottis, J. L. (1964). Age and level of job satisfaction. Personnel Psychology, 17(4), 425-430.

Sergiovanna, T. (1966). Investigation of factors which affect job satisfaction and job dissatisfaction of teachers. Unpublished doctoral dissertation, University of Rochester, Rochester, New York.

Sharma, U., "Measurement of teacher effectiveness and its relationship with job satisfaction and attitude towards the profession". Trends in Education, Vol. XXII (2); Oct. 1991, pp.51-58.

Thompson, D., & McNamara, J. (1997). Job satisfaction in educational organizations: A synthesis of research findings. Educational Administration Quarterly, 33(1), 1-31.

Villines, V. F. (1987) The relationship between communication satisfaction and job satisfaction of elementary school principals. Doctoral Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, VA.

Weiss, H.M. (2002). "Deconstructing job satisfaction: separating evaluations, beliefs and affective experiences". Human Resources Management Review, 12, 173-194.

Ward, C. S. (1977). Satisfiers and dissatisfiers of Virginia elementary principals. Unpublished doctoral dissertation, University of Virginia, Charlottsville, VA.

Watson, G.A. (1991). Job satisfaction of secondary- principals. Doctoral Dissertation, University of LaVerne, LaVerne, CA.

Weiss, D.; Dawis, R.; England, G.; Lofquist, L. (1967).Manual for the Minnesota Satisfaction Questionnaire. Work Adjustment Project, Industrial Relations Center, University of Minnesota, Minneapolis, MN.

Zeitz, G. (1990). Age and work satisfaction in a government agency: A situational perspective. Human Relations, 43(5), 419-438.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp41-43
Journal Impact Factor 1.614

Effect Of Upper And Lower Limb Plyometric Training On Performance Variables Of Basketball Players

Dr. S. CHIDAMBARA RAJA
Associate Professor,
Department of Physical Education and Sports Sciences, Annamalai University

Abstract
Aim: The purpose of the present study was to find the effect of upper and lower limb plyometric training on performance variables of female college basketball players. *Methods*: For this purpose, twenty basketball players studying in various courses and departments of Annamalai University with the age group of 19 – 25 years were selected as subjects. They were divided into two equal groups, each group consisted of ten subjects, in which group – I underwent upper and lower limb plyometric training and group – II acted as control that did not participate in any special activities apart from their regular curricular and basketball related activities. The training period for this study was three days (alternative days) per week for eight weeks. Prior to and after the training period, the subjects were tested for passing, dribbling and shooting in basketball by administering Johnson Basketball ability test. The Analysis of Covariance (ANCOVA) was used as statistical tool to find out any significant difference that was exist between the upper and lower limb plyometric training group and control group on selected criterion variables, such as, field goal speed test, basketball throw for accuracy and dribble. *Results:* The result of the study shows that upper and lower limb plyometric training group has improved the basketball playing ability significantly (P > .05) when compared with the control group. *Conclusions*: It was concluded from the result of the study that the basketball players those who were undergone the upper and lower limb plyometric training has improved their basketball playing ability significantly when compared with the basketball players those who were in control group.

Key words: *Upper and Lower Limb Plyometric training, basketball, passing, dribbling, shooting*

Introduction

Plyometric training enhances the tolerance of the muscle for increased stretch loads. This increased tolerance develops efficiency in the stretch shortening cycle of muscle action. During the stretching (eccentric lengthening phase) of muscle action a greater amount of elastic energy is stored in the muscle. (**Gambetta, Internet resources)**

Plyometrics include trouncing, jumping and a depth jumping exercises. The principle applies to any activity where the body is falling and the kinetic energy developed by the loaded muscle is utilized. Plyometric - concentric contractions while involving strength reflex, found in depth jumping and other bounding activities. The upper body plyometric drills allow maximum power to be generated because, unlike barbells or dumbbells, the medicine ball can be released into the air.

For that first game of basketball in 1891, Naismith used as goals two half-bushel peach baskets, which gave the sport its name. The students were enthusiastic. After much running and shooting, William R. Chase made a midcourt shot—the only score in that historic contest. Word spread about the newly invented game, and numerous associations wrote Naismith for a copy of the rules, which were published in the January 15, 1892, issue of the *Triangle*, the YMCA Training School's campus paper.

While basketball is competitively a winter sport, it is played on a 12-month basis—on summer playgrounds, in municipal, industrial, and church halls, in schoolyards and family driveways, and in summer camps—often on an informal basis between two or more contestants. (

Plyometric training is an excellent way to train for the demands of basketball. Training programs should include repeated high intensity work, followed by periods of recovery that mimic the specific tasks associated with basketball. Plyometric drills should be progressive in nature and extend through the preparatory and preseason cycles of training. In season plyometric training is often too much for players who are maintaining a full schedule of two to four games per week. (Chu, 2013)

Methodology

In this study it was to find out the effect of upper and lower limb plyometric training on performance variables of college basketball players. To achieve the purpose twenty female basketball players studying in various classes in the Department of Physical Education and Sports Sciences, Annamalai University were selected as subjects. They were divided into two equal groups of ten each and further divided as on plyometric training group and one control group, in which group - I (n=10) underwent plyometric training for three days (alternative days) per week for eight weeks and the group - II (n=10) acted as control who did not participate any special training apart from the regular basketball practice.

For every training programme there would be a change in game skills. So, the researchers consulted with the experts, then selected the Johnson Basketball Ability Test consists of the following: 1. field goal speed test, 2. basketball throw for accuracy and 3. dribble test.

RESULTS AND DISCUSSION

Analysis of covariance was used to determine the differences, if any, among the adjusted post test means on selected criterion variables separately. The level of significance was fixed at .05 level of confidence to test the 'F' ratio obtained by analysis of covariance.

Table – I

Analysis of Covariance and 'F' ratio for Passing Dribbling and Shooting Ability of Plyometric Training Group and Control Group

Variable Name	Values	Plyometric Group	Control Group	'F' Ratio
Field Goal Speed Test (Points/30 seconds)	**Pre-test Mean ± S.D**	15.11 ± 0.889	14.51± 0.9315	0.716
	Post-test Mean ± S.D.	18.15 ± 0.1136	14.87 ± 1.0003	7.1238*
	Adj. Post-test Mean	18.237	14.632	14.553*
Throw for Accuracy (Points/10 trials)	**Pre-test Mean ± S.D**	15.41± 1.083	14.86 ± 0.876	0.996
	Post-test Mean ± S.D.	18.212 ± 1.026	14.99 ± 0.223	9.123*
	Adj. Post-test Mean	18.3673	15.01282	41.236*
Dribble (Points/30 seconds)	**Pre-test Mean ± S.D**	10.897 ± 0.454	9.863 ± 0.1136	0.069
	Post-test Mean ± S.D.	12.23 ± 0.0897	9.973 ± 0.2356	7.364*
	Adj. Post-test Mean	12.368	9.833	12.367*

* Significant at .05 level of confidence. (The table value required for significance at .05 level with df 1 and 18 and 1 and 17 are 4.41 and 4.45 respectively).

Results

The result of the study shows that there was a significant improvement on selected criterion variables such as, field goal speed test (P>0.05, 14.553), throw for accuracy (P>0.05, 41.236) and dribble test (P > .05, 1,17) in favor of plyometric training group (**Aman Singh & Abhinav**, *2012*, and **Komal & Nandalal Singh**, *2013*). However the improvement was in favour of experimental group. The result of the study also shows that there was a significant difference between plyometric training group and control group on all the criterion variables.

Conclusions

1. There was a significant improvement in Johnson Basketball Ability test after eight weeks of upper and lower limb plyometric training when compared with the control group.
2. There was a significant difference between the upper and lower limb plyometric training group when compared with the control group.

Reference:

C.E. Kalf and D.D. Aruheim (1983), ***Modern Principles of Athletic Training***, St. Louis: The C.V. Mosby Publishers, p. 93.

Hardayal Singh (1993), ***Sports Training, General Theory and Methods***, Delhi: Surjeet Publications, p.93.

Gambatta, Internet resources: http://www.synchrosask.com/fileadmin/synchrosask/storage/Documents/5%20Coaches/SS%20Plyometrics%20Myths%20or%20Misconceptions.pdf.

Internet resources: http://www.sport-fitness-advisor.com/plyometric-drills.html

Internet resources: http://www.britannica.com/EBchecked/topic/55245/basketball

Internet resources: http://www.britannica.com/EBchecked/topic/55245/basketball

Donald A. Chu, "Plyometric Training for Basketball", http://www.donchu.com/articles/article9/

Aman Singh Sisodiya and Abhinav (July 2012), "Effect of Plyometric Exercise, Circuit Training and Their Combined Effect on the Basketball Playing Ability", *International Journal of Health, Sports and Physical Education***,** 1:1, 28 – 33.

Komal and Th. Nandalal Singh (September 2013), "Effect of Eight Week Plyometric Training on the Performance of National Level Female Basketball Players", ***International Journal of Movement Education and Social Science***, 2:2, 51-53.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp44-46
Journal Impact Factor 1.614

ThePopulation and Social development in Kohgiluyeh and Boyer Ahmad province (Iran).

Taleb Hassan pour Chenarestansofla[1],Azar Eskandaricharati[2]
[1]Ph.D. student ofDepartment of sociology, OsmaniaUniversity, Hyderabad (India).
[2]Faculty member of Department of Sociology, Azadshahr Branch, Islamic Azad university, Azadshahr, Iran .

Abstract
Social development is of concepts dealing with people life style of a community and involves removing poverty, home, health, nutrition, and education absolute poverty.One item of social development is to reduce or eliminating of unemployment , Kohgiluyeh and Boyer Ahmad is one of provinces that it had highest unemployment in Iran country. One of unemployment factors is over population in this province. This article was done by documentary method. Researcher by resources to appropriate organization and study documents at Library and internet.
The %44/17 of the population is under twenty years. These features indicate that the province is undeveloped because this number in developed countries is less than %20.According to 1385 census, about % 19/64 are unemployed, this percentage is high. The causes of unemployment, population growth has been above all. This numbers tell us that the unemployment will continue until 20 years and unemployment will more every year. Of course researcher will anticipate that second wave will start in future , As regards in this province employabout %31 each year . (same-1388) anticipated in future the situation of employment will deteriorate if alternative does not have thought . %22 / 5 are illiterate from the population total over 6 years(same-1388) , that they usually are old generation. Statistics show that approximately half of the province households do not have car and … ,this problem is one of reasons of social undevelopment in this province and lack of housing for %27 of household is another problem in province .
Key words: population,unemployment, social development, Boyer Ahmad

Introduction

Michael Todaro believes that development should be considered as a multi-dimensional trend requiring basic changes in social formation, beliefs of general people and national organs, and enhancing economical development, eliminating imbalances, and eradicating absolute poverty. (Azkia-2002)
Social development is of concepts dealing with people life style of a community and involves removing poverty, home, health, nutrition, and education absolute poverty .(RostamAlizadeh- 2007)
The kohgiluye and boyerahmad province is one of provinces that it has highest unemployment .(Statistical Center of Iran-1388) there are youth that they cannot marry because they are unemployment and they do not have house , car and … .Unemployment youth patrol on street and they do aberrant actions .
Communal strife is a problem which is frequently found in this province ,these communal strife is done by unemployment youth and low awareness or low literacy people. Some of these youth turn to narcotic substance , in recent years there are many youth that use narcotic substance, most of these youth have low age and in each year the number of addict youth is added, maybe these youth would not have addicted if the number of they had been less and their parents had supervised on their or parents had taught better, in conclusion social development was developed.
In this article researcher wants to study relationship between population and social development (inparticular , the employment rate). The purpose of this study is to alert and awareness to people and provincial head employee. , problem of education,unemployment,housing and health will solve if we control population.

Review of literature

Mahmood Tavassoli in aarticle that subtitled "Functioning market economy in solving of Iran unemployment " said : product of population in the years of 1358-1362 that was subtitled " product of Work force in years of 1368- 83 " was caused that the population of work force was be more than Job Opportunities And was caused unemployment problem spread among the educated classes and was caused humans big resources wasted and caused enormous human suffering and poverty of large numbers of the population.(tavasoli-2006)

Fatemayeharandy and Partners in a research that entitled " The unemployed youth in Iran" said : Personal and family information about youth of 24-15 years old in 1385 census that have been studied , Shows that about %30 of youth are unemployed , This means that they do not follow education and employment and they do not work . this subject shows so much of most of human capital are wasting.(harandi and partners-2008)

Behjateyazdkhasty and vakilahmady in an article that entitled " Activity and employment status of women in Iran with emphasis on the 1385 census " says : the young population and growing population in the decade 1355-1365 , were caused that product of human force will follow from the age structure of population in Iran. This product of human force that was accompanied with improving of higher education and training ... can be planed as window of opportunity for the Iranian society. Taking advantage of this force can increase the growth rate of economical rise, but should be coordinated demand of humanforce . Lack of manpower demand not only waste exceptionalopportunities but it makes severe unemployment and crisis conditions (yazdkhasty and ahmady -2007).

Theoretical framework

Malthus believed that population grows geometrically while food can be grown in arithmetic progression, so that after a short time between the two large gaps appear, and lack of housing and human food is placed in peril. (Biani-2009 According to the theory of unemployment can be the result of high population.

Alfred Surveysaid:population growth in developed economies cause economic develop. Large human force with full employment of population decline can lead to more investment and increased demand for goods and services better than demographic downturn, While raising the rate of population growth in poor countries will lead to the intensification of economic crisis (Same-2009).Jack goldstone believed that despite the social structures had maked the dramatic political changes in England and France and the Ottoman Empire and China. Population growth Led to increased government spending that it was result of inflation and financial crisis. In these societies by Unrealistic opportunities for socialmobility, population growth led to public unrest and dissatisfaction, and it created a new group of young people with new ideas (haghighatian-2009).Occurringto This theory we can saythat population growth has caused that government funds be spent for current cost of population.And government can not to invest in long-time and incompletion unemployment and … will appear in society.

Methodology

This article was done by documentary method, statistical society is Kogiluyeh and Boyer Ahmad province, analysis unit in this research is the population in this province. Method of data collection in this research is going to library and utilizesbooks, article, internet and researcher referred to relevant organization.

Results:

According to Census of 1385, population ofKohgiluye and Boyer Ahmad is 634299,men are 320 983 and women are 313316 people, the population less than 20 years in This population are 280197 people. (%44/17). /There is number Highest of population in 19-15 years ago ,after this age group , the population in other groups have reduced slowly and population of 60-80 years old have been about several of thousand. The base of the population pyramid is large and the tip population pyramid is small and it is similar to strangle (Statistical Center of Iran-1388).

Most Third World countries have young populations that are at least 40% of the population is under 20 years. These features indicate that the province is undeveloped because this number in developed countries is less than %20.

According to 1385 census, about % 19/64is unemployed, this percentage is high. The causes of unemployment, population growth has been above all. This numbers tell us that the unemployment will continue until 20 years and unemployment will more every year. Of course researcher will anticipate that second wave will start in future, As regards in this province employabout %31 each year. (same-1388)anticipated in future the situation of employment will deteriorate if alternative does not have thought.

%22 / 5 are illiterate from the population total over 6 years , who are usually old generation. Statistics show that approximately half of the province households do not have car and … ,this problem is one of reasons of social undevelopment in this province and lack of housing for %27 of household is another problem in province

Suggestions

1 to control population growth through raising awareness and encouragement of people to less child through radio, television and ... And the free availability to drugs .

2 to attract foreign investors can provide occupation for youth.

3 giving priority youth for jobs in organization of governmental and non-governmental andto prevent and limit non-native employee sentry to province.

4 Providing low-interest loans to people who intend to create workshops and factories in the province.

5 More attention of government to the most disadvantaged and with high unemployment provinces.

References:

1 Azkia, Mostafa; ghafari, gholamraza(2002).Development Sociology (sixth edition).Tehran, publication of kaihan.

2 Alizadeh,Rostam (2007). Development of Iranian Style- www.tarjomaan.blogfa.com

3 baini,mohammadali (2009).population and development, scientific and cultural organization-http://ofoghnavin.com/index.php?option=com_content&view=article&id=88&Itemid=85

4 harandi,fateme and partners(2008).look at The unemployed youth in Iran, letter of social sciences,number7.

5 haghighatian ,mansor (2009). Theories about the consequences of population growth , http://www.yaranesabz.ir/index.php?option=com_content&task=view&id=297&Itemid=10

6 ghavidel,saleh (2008).Self-employment vs. unemployment (iran) , Journal of Economic and Research ,number of 1 ,pp (21-41)

7 motavasoli,mahmod (2006) . Function of market economy to solve unemployment in Iran, Journal of Economic Research,number 3 pp (10-132)

8 Statistical Center of Iran, president's eputy of planning and strategic supervision (2009). sensusof 2006 (edition of 1) . publication :office of presidency,international affairs and public relation.

9 yazdkhasty,behjat and ahmady,vakil(2007).survey of position of women'sActivity and occupation in iranwith emphasis on the 2006 census ,women's journal of science and research, number of 3.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp47-48
Journal Impact Factor 1.614

Exercise Protocol for Predicting the Sensitive Zone on Heart Rate Max.Among Untrained School Boys.

S.Somanarsaiah
Physical Director,Sri Saradha Engineering College Of Science And Technology
M. Gnanaprasad Reddy
Physical Education Instructor,Bits-Pilani,Hyderabad Campus.

Abstract:
The Heart is a chambered muscular organ in vertebrates that pumps blood received from the veins into the arteries, thereby maintaining the flow of blood through the entire circulatory system. A similarly functioning structure in invertebrates.Heart rate refers to the speed of the heartbeat, specifically the number of heartbeats per unit of time. The heart rate is typically expressed as beats per minute (bpm). The purpose of this study was to compare the Heart Rate Max.Among untrained school children of Hyderabad City. To achieve this purpose, 90 students were selected randomly and were categorized in three different groups, i.e. high intensity group, medium intensity group and low intensity group as random samples. They were ranged in age between fourteen to sixteen years only. In order to assess the Heart Rate Max., the Harvard Step Test method was used. The raw scores of untrained school boys of Hyderabad were converted into Mean, Standard Deviation, Standard Error, t-ratio and ANOVA comparison was made to find out the significance. Among these three groups Medium Intensity group (9 inches) has better average compare to 13 inches High bench and 4 inches Low bench group boys. Hence, it was concluded that the Medium Intensity Exercise Protocol could bring the significant positive improvements for predicting the Sensitive Zone on Heart Rate Max.Among Untrained School Boys. The Present Article/Paper deals with this issue and attempts to focus on the difference between the performance of trained & untrained sportsmen.

Introduction: A Human being resting heart rate (sitting) is influenced by many factors including age, level of heart and lung fitness, environmental temperature, altitude, anxiety and cigarette smoking. Physical activity can strengthen your heart. The heart will be more efficient and be able to pump more blood per beat. With cardiovascular training, your heart will have to do less work when resting, thus lowering your resting heart rate. How much change occurs varies from person to person. Resting heart rates vary from below 40 beats per minute in highly conditioned athletes to greater than 100 beats per minute in sedentary, unconditioned adults. Women tend to have higher resting heart rates (8-10 beats average) than men. A good average appears to be around 70-75 beats per minute. As exercise begins, heart rate increases. During low levels of exercise, such as walking, the elevated heart rate will level out at a constant rate (this is called steady state). As the workload of the heart increases, the heart rate will increase. A fit person will have a lower steady state heart rate value than an un-fit person. As the exercise workload continues to increase, the heart rate will eventually reach a maximum. This highest attainable heart rate is referred to as an individual's heart rate max (HRmax). During a maximal exercise stress test, your maximal heart rate can be determined. Predicted maximal heart rate can be calculated by using the formula 207 –0.7(age). This predicted HRmax has a standard deviation of +/- 6-8 beats per minute. HRmax decreases we age, and is lower in a more fit individual than in an unfit person of the same age.

Methodology: The purpose of this study was to compare the Heart Rate Max.Among untrained school children of Hyderabad City. To achieve this purpose, 90 students were selected randomly and were categorized in three different groups, i.e. high intensity group, middle intensity group and low intensity group as random samples. They were ranged in age between fourteen to sixteen years only. In order to assess the Heart Rate Max., the Harvard Step Test method was used on the students of Hyderabad City. The students were divided into three different groups of 30 students each randomly, which was thought

necessary for the administration of activity smoothly. Before the activity the students initial pulse rate was taken for one minute and immediately after the activity the final pulse rate was also recorded. The students were told to do 30 steps per minute and for administering this, the apparatus was also used. They were told to perform this activity for one minute. The students were given enough rest before taking up the testing.

Results: The raw scores of untrained school boys of Hyderabad were converted into Mean, Standard Deviation, Standard Error, t-ratio and ANOVA comparison was made to find out the significance. The calculated t-value is compared with the table t-value at '42' degree of freedom at 0.05 level of confidence, which was given by Clarke and Clarke.

The computation of Mean Standard deviation,Standard Error of the Mean, t-value and ANOVA of exercise protocol for predicting the sensitive zone on Heart Rate Max. Among untrained school boys between the age group of 14 to 16 years are presented in table from 1.0 to 1.18 respectively.

Heart Rate (Final)		Mean Difference	Standard Error	Sig.
4 inches benchers	benchers	-24.30725	2.1748	0
	benchers	-21.16852	2.1748	0
	Initial	41.24722	2.1748	0
9 inches benchers	benchers	24.30725	2.1748	0
	benchers	3.13873	2.1748	0.152
	Initial	65.55447	2.1748	0
13 inches benchers	benchers	21.16852	2.1748	0
	benchers	65.55447	2.1748	0.152
	Initial	62.41574	2.1748	0
Initial	benchers	-41.24722	2.1748	0
	benchers	-65.55447	2.1748	0
	benchers	-62.41574	2.1748	0

Table –Multiple comparisons

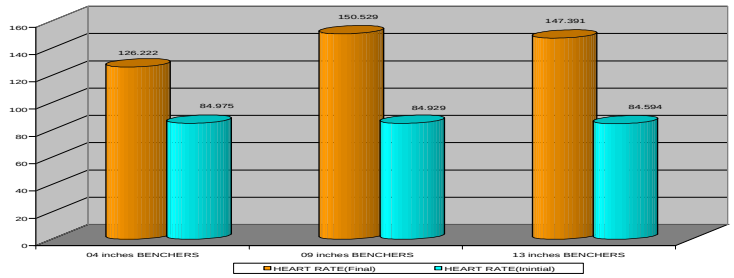


Fig. Heart Rate Final & Initial

The above figure Heart rate final and initial shows that the two different groups final and initial Means are compared among the three groups. 9 inch Medium bench group has highest influences of experimental treatment followed by 13 inch and 4 inch bench exercise.

Discussion: The table indicates that three groups combined influence was found out by multiple comparison method. When Low bench group and High bench group was compared and the value shows that these two groups are significantly influenced by experimental treatment.When Medium bench group and Low bench group was compared and the value shows that these two groups are significantly influenced by experimental treatment.When High bench group and Medium bench group was compared and the value shows that these two groups are insignificantly influenced by experimental treatment.

Conclusion: To find out whether there is any significant difference among this three groups, 13 inches High bench, 9 inches Medium bench, 4 inches Low bench of untrained school boys of Hyderabad t-ratio and ANOVA was tabulated. The calculated value of t-ratio was higher than the table value required at 0.05 level of confidence.The results of the study when compared with all the groups shows that all groups are not equal in Heart Rate Max.This speaks that 9 inches Medium group have better average compare to 13 inches High bench and 4 inches Low bench group boys.

References:

M.L.Kamalesh and M.S. Sangral., Principales & History of Physical education, Ludhiana, Prakash brothers Educational Publishers, 1988, p.34

Charles A Bucher, Foundation of Physical Education and Sports, St, Luis Missouri, C.V. MNosby Company, 1983.. p.143

Car1 E. will Goose, Evalution in Health and Physical Education, New York, Mc Growill Book Company, 1961.p.16

Nixon and Fredrickson, An Introduction to Physical Education, Philadelphia, W.B. Saunders Company, 1959, p.213

karkpovich, Reter V, Physiology of Musculasr Activity, Ed.4, Philadelphia, W.B. Saunder Company, 1953

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp49-54
Journal Impact Factor 1.614

Body Mass Index between rural and urban primary school Boys andGirls of south 24 parganas in West Bengal– A comparative study

Mr. Dinabandhu Naskar, Master of Physical Education, Visva Bharati, West Bengal, India.
Prof. Sagarika Bandanpadhya, Professor, Visva Bharati, West Bengal, India.
email: dinaswimming10@gmail.com

Abstract
The purpose of the study was to compare the body mass index of rural and urban primary school Boys and Girls. Total 200 (50 boys & 50 girls of rural area and 50 boys &50 girls of urban area) subjects from various free primary school of South 24 parganas in West Bengal, India were selected for this study. Their aged between 6- 10 years. The body mass index was considered for the study. It was hypothesised that no significance difference would be found in body mass index of primary level school boy and girls. For analysis of the data mean, SD were calculated and to examine,'t' test was applied and level of significance set was 0 .05 level. Significant difference found between the means of height, weight, and BMI of rural and urban boys and girls gender wise.
Keywords: BMI, Boys, Girls.

Introduction

Body mass index is one of the factor that determines health of an individual being over fat or having a higher than desirable content of that has a negative effect on person's health. The impact of either excess or less body fat is determental to health.Children are the wealth of the country. Special attention should be paid to meet the needs of the children (Bharati. P et. al 2005). A school aged child sees the world new ways because he acquires a more powerful base of dealing with experiences and ensures a wide range of relation's with family, school, peers and society (Neeraja. KP 2006).Adequate fitness in childhood is likely to carry beneficial physical and social effects into adulthood. This has an influence on the risks of morbidity and mortality, and therefore can reduce these risks. Disease prevention and health promotion should be implemented as early as possible both in childhood and adolescence (Matre, et al., 2008). The importance of understanding how fitness is related to obesity is further stressed by the recent worldwide trends of increasing obesity, sedentary habits and declining fitness among children and youth (Bovet, et al., 2007). Body composition and fitness vary among the children depending on their social, environmental and demographic factors (Eugenia, et al., 2003).Therefore a comparative study becomes essential to enhance the fitness according to their difference.For the children, the degree of body mass depends upon ethnic back ground, gender developmental stages and ages. Body mass index are the most useful non invisible clinical measures to define obesity. Body mass index is considered one of the most important indexes of growth through which obesity can be predicted .It is an artistic way for expressing body weight in relation to height. The human body is composed of three main component; muscles, fats, and bones, fat can be divided into essential fats and stored fats. Recently, it has been proposed that the adult body mass index (BMI) cut-off points (25 and 26 kg/m^2) should be related to BMI percentage in children and adolescents to provided for cut-off points at younger ages.

Purpose of the study

Purpose of this study was to compare the Body Mass Index of rural and urban primary school level boys and girls gender wise.

Methodology

Selection of subject:

Total 200 (50 boys & 50 girls rural areas and50 boys &50 girls urban areas) subjects were selected for this study. Their age ranging between 6-10 years and studying in primary school.

Collection of data:

The necessary data were collected from South 24 pargsnas rural and urban areas primary school in West Bengal, India.

Variables and their criterian measures:

Table 1 represents the variables, which selected for the present study and were measured.

Sl. no	variables	units	Tools
1.	Height	meters	Stediometer
2.	Weight	Kg	Weighing machine
3.	BMI	Kg/m^2	Weight in kg/height^2 in meter

Statistical procedure

The data was analyzed and compared with the help of descriptive statistics and independent 't' test.

The level of significance to the test 't" ratio was fixed at 0.05 level which was considered to be appropriate for the purpose of the study.

Result:

Table: 02 and 03 described mean and standard deviation of the population's- Height (m), Weight (kg) and BMI (kg/m^2)

Table: 02. Parameters of the subjects – Rural area

Parameters of Boys and Girls from rural area					
Boys			Girls		
Mean		Standard deviation	Mean		Standard deviation
Height	1.26	0.057	Height	1.27	0.058
Weight	22.18	2.934	Weight	22.83	2.504
BMI	13.76	1.601	BMI	14.06	1.624

Table: 03. Parameters of the subjects – urban area

Parameters of Boys and Girls from urban area					
Boys			Girls		
Mean		Standard deviation	Mean		Standard deviation
Height	1.29	0.086	Height	1.30	0.087
Weight	25.06	3.488	Weight	25.94	3.454
BMI	14.93	2.232	BMI	15.03	1.405

Table 2 depicts that the mean and standard deviation values of rural boys and girls. There values were recorded as boys' height 1.27 ± 0.058, weight 22.18 ±2.934, BMI 13.76 ±1.601 and girls height 1.27 ±0.058, weight 22.83 ±2.504, BMI 14.06±1.624 respectively.

Table 3 depicts that the mean and standard deviation values of urban boys and girls. These values were recorded as boys' height 1.29 ±0.086, weight 25.06 ±3.488, BMI14.93 ±2.232, and girl's height1.30 ±0.087, weight 25.94 ±3.454, BMI 15.03±1.405 respectively.

Table 4: Comparison analysis of height between rural and urban boys.

Group	Number	Mean	SD	't' Value
Rural boys	50	1.26	0.057	2.14*
Urban boys	50	1.29	0.085	

t 0.05 (df=98) *significant at 0.05 level

Table 5: Comparison analysis of weight between rural and urban boys.

Group	Number	Mean	SD	't' Value
Rural boys	50	22.18	0.057	4.45*
Urban boys	50	25.05	0.086	

t 0.05 (df=98) *significant at 0.05 level

Table 6: Comparison analysis of BMI between rural and urban boys.

Group	Number	Mean	SD	't' Value
Rural boys	50	13.81	1.601	3.01*
Urban boys	50	14.86	2.232	

t 0.05 (df=98) *significant at 0.05 level

Table 7: Comparison analysis of height between rural and urban girls.

Group	Number	Mean	SD	't' Value
Rural girls	50	1.27	0.058	2.00*
Urban girls	50	1.30	0.087	

t 0.05 (df=98) *significant at 0.05 level

Table 8: Comparison analysis of weight between rural and urban girls.

Group	Number	Mean	SD	't' Value
Rural girls	50	22.83	2.504	5.18*
Urban girls	50	25.94	3.454	

t 0.05 (df=98) *significant at 0.05 level

Table 9: Comparison analysis of BMI between rural and urban girls.

Group	Number	Mean	SD	't' Value
Rural girl	50	14.06	1.624	3.12*
Urban girls	50	15.03	1.405	

t 0.05 (df=98) *significant at 0.05 level

The perusal of table 4 indicates that the mean and standard values for height of rural and urban boys were recorded as 1.26±0.057 and 1.29 ±0.086 respectively. It shows that urban boys have higher than rural boys.The analysis of table 5 shows that the mean and standard deviation value for weight of rural and urban boys were recorded as22.18 ±2.934 and 25.06 ±3.488 respectively. It indicates that urban boys are higher than rural boys.

The analysis of the table 6 indicates that the mean standard deviation values for BMI of rural and urban boys were recorded as 13.76±1.601 and 14.93±2.232 respectively. It shows that urban boys are higher than rural boys.Perusal of the table 7 shows that the mean standard deviation values for weight of rural and urban girls were recorded as1.27 ± 0.058 and 1.30 ±0.087 respectively. It indicates that urban girls are higher than rural girl.The analysis of the table 8 indicates that the mean and standard deviation values for weight of rural and urban girls were recorded as 22.83 ±2.504 and 25.94±3.454 respectively. It shows that urban girls have higher than rural girls.Perusal of the table 9 shows that the mean and standard deviation values for BMI of rural and urban girls were recorded as 14.06 ±1.624 and 15.03 ± 1.405 respectively. It indicates that urban girls higher than rural girls.

Discussion:

This study was aimed to the find out comparative relationship BMI between rural and urban areas primary school boys and girls. There are various factors that influence BMI. These factors include physical activity, environment, heredity and maturation. In developing countries, activity patterns for children in rural areas are different from those in urban areas. Benefice, et al., (1999) showed that the common activities for rural children include walking long distances and working in the field. Physical activities and sport in schools are also very less due to competing academic priorities in especially in urban schools and due to lack of facilities, financial support in rural schools (Trost, et al., 1997). Bathrellou, et al., (2007) showed that many rural populations are characterized by low socioeconomic status, and low facilities and these characteristics can contribute to unhealthy diets among children.The results of this study showed that the boys in urban areas are significantly higher in height, weight and BMI than boys in rural area. The finding of this study suggests that there is a significant difference between urban and rural in boys with regard to BMI. The results of this study showed that the girls in urban areas are significantly higher in height, weight and BMI than girls in rural area. The finding of this study suggests that there is a significant difference between urban and rural in girls with regard to BMI. The results showed that children of both gender in rural area are lower in BMI than children in urban areas.Tsimeas, et al., (2005) suggests that lower levels of BMI, which may be due to the interaction of genes and the environment and to nutritional inadequacy in early life. Diet quality and physical activity are among the most important factors affecting BMI (French, et al., 2000). The results showed that children of both gender in rural area are lower in BMI than children in urban areas. This finding is similar to a cross sectional study of body composition in Turkish children which found that urban children had a higher percentage at overweight level as well as being significantly taller and heavier (Ozdirenc, et al., 2005). Similarly, it was found that rural children have a significantly higher BMI (McMurray, et al.,)

Graphical representation of deference in mean scores of gender wise

Fig1.Graphical representation of deference in mean for rural and urban boys and girls in height.

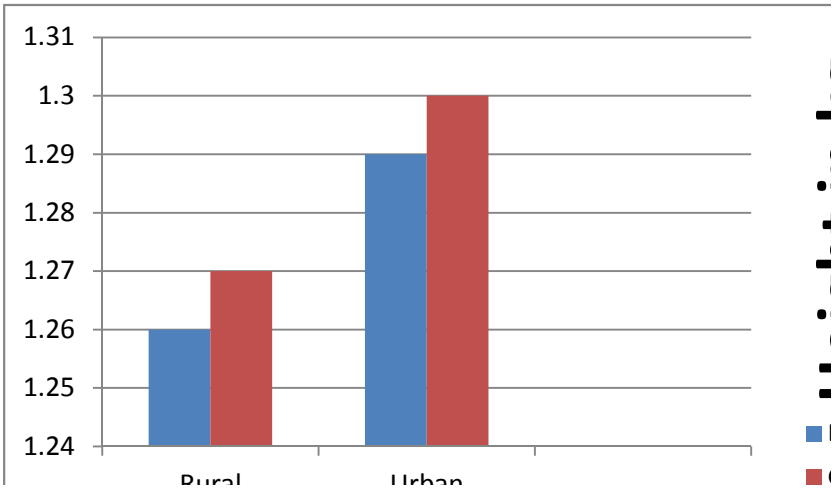


Fig2.Graphical representation of deference in mean for rural and urban boys and girls in weight

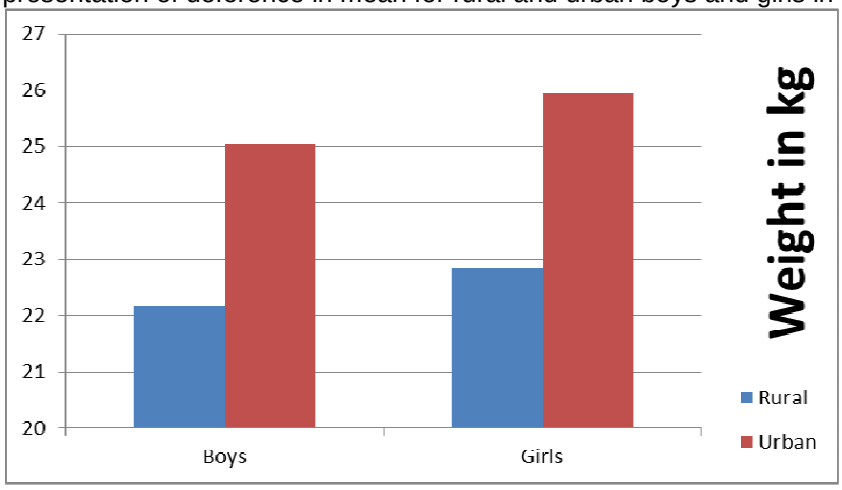
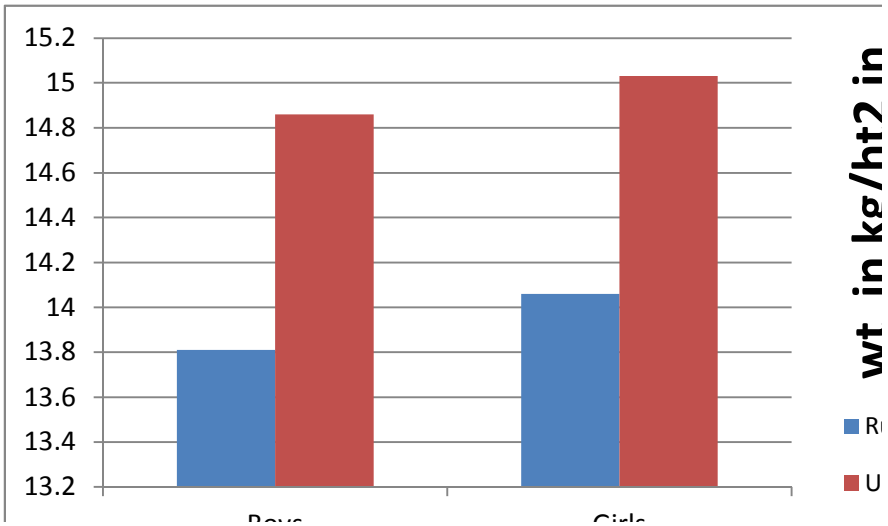


Fig3.Graphical representation of deference in mean for rural and urban boys and girls in BMI



Conclusion:

According to the findings of this study, it can be concluded that-Rural areas primary school boys are lower in height, weight and BMI than primary school boys in urban areas.

Rural areas primary school girls are lower in height, weight and BMI than primary school girls in urban areas.This study is indicated that if they maintained regular physical activity, proper diet and active life style to achieve a healthy life.

References:

1. Bharati P, Itag SP, Megeri SN. Anthropometric measurements of school children of Raichur, (Karnataka). *J Hum Ecol 2005;18(3):177-9.*

2. Neeraja KP. Growth and development for nursing students. *New Delhi: Jaypee Brothers; 2006.*

3. Matre, J., Welk, G.J., Calabro, M.A., Russell, D.W., Nicklay, E. and Hensley, L.D. (2008). Ruralurban difference in physical activity, physical fitness & overweight prevalence of children. *Rural Health, 24 (1), 49-54.*

4. Bovert, P., Auguste, R. & Burdette, H. (2007). Strong inverse association between physical fitness and overweight in adolescents, a large school-based survey. *International Journal of Behavioral Nutrition and Physical Activity, 24 (4).*

5. . Benefice, E., Garnier, D. & Ndiaye, G. (1999). Assessment of physical activity among rural adolescent girls- influence of age, sexual maturation, and body composition. *Journal of Adolescent Health, 28, 319-327.*

6. Bathrellou, E., Lazarou, C., Demosthenes, B. & Labros, S. (2007). Physical activity patterns & sedentary behaviors of children from urban & rural areas of Cyprus. *European Journal of Public Health, 15 (2), 66-70.*
7. Trost, S., Pate, R., Saunders, R., Ward, D., Dowda, M. & Felton, G. (1997). A prospective study of the determinants of physical activity in rural children. *Preventive Medicine, 26, 257-263.*
8. Tsimeas, P., Tsiokanos, A., Koutedakis, Y., Tsigilis, N. and Kellis, S. (2005). Does living in urban or rural settings affect aspects of physical fitness in children? *British Journal of SportsMedicine, 39 (9), 671-674.*
9. Ozdirenc, M., Ozcan, A., Akin, F. & Gelecek, N. (2005). Physical fitness in rural children
Compared with urban children in Turkey*. Peadiatrics international, 47 (1), 26-31.*
10. Pate, R., Trost, S., Felton, G., Ward, D., Dowda, M. & Saunders, R. (1997). Correlates of physical activity behavior in rural youth. *Research Quarterly for Exercise and Sport, 68, 241-248.*
11. Mayooran, S. Attygalla, R.K. , Subasinghe, S.M.R.S. Comparison of body composition between children of urban And rural areas: a study among school children in central Province of sri lanka. *European International Journal of Applied Science and Technology Vol. 1 No. 3; May 2014.*
12. Augustine .V ,A comparative study to assess the growth and lifestyle practices of urban and rural school children in the selected schools at mangalore. *M. Sc. Nursing, dissertation paediatric nursingcity college ofnursingshakthinagar mangalore – 575 016.*
13. Eugenia, M., Tan, S.K. & Malina, R.M. (2003). Urban–rural contrasts in the physical fitness of school children in Oaxaca, Mexico*. American Journal of Human Biology, 15 (6), 800-813.*
14. French, S.A., Story, M., Neumark-Sztainer, D., Fulkerson, J.A. & Hannan, P. (2001). Fast food restaurant use among adolescents-Associations with nutrient intake, food choices, and behavioural and psychosocial variables. *International Journal of Obesity and Related Metabolic Disorders*, 25 (12), 1823-1833
15. McMurray, R.G., Harrell, J.S., Bangdiwala, S.I. & Deng, S. (1999). Cardiovascular disease risk factors and obesity of rural and urban elementary school children. Journal of Rural Health, 15(4), 65-374.
16. Yobu A, Test Measurement and Evaluation in Physical Education and Sports, *Friends publications (India), New Delhi-110002(2010).*
17. Kansal K. Devinder, Test Measurement and Evaluation in Sports and Physical Education, *D. V. S publications, Kalkaji, New Delhi-110019(1996).*

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp55-56
Journal Impact Factor 1.614

Injuries Prevention And Management of Sports And Games

D. Hari[1]

Abstract
The initial management of lateral injuries procurement requires the RICE regimen). This is probably the most important Factor in treatment, as well as ice, compression and elevation, it is important to the insured athlete to avoid facts which will promote blood flow and swelling, e.g. Hot shower's, heart rubs, alcohol, excessive weight bearing. The insures prevention and management of Sports and Games, around the common sporting injuries especially in jumping sports (E.g. Athletes basketball, Football, Volley ball Etc.) They are not always well prevention. Athletes who have (or) acquired the optimal physique for a particular event are more likely to secured then those who take the general characteristics (carte,1984),it is generally accepted that a lower relative Injuries Prevention in most of the desirable for successful competition in most of the sports. Hence the purpose of the study was the injuries prevention and management of sports and games for the track athletes

Introduction
Participation in sports and games physical activities has increased in recent years because of positive health and fitness effects. As more people participate in sports more injuries will also occur as side effect. At present many different preventive methods are recommended and applied by sports participates. Certain injuries may even cause serious damages which are irreversible, and spoil the sports career of an athlete. Sometimes the damage may be so serious that it may cause physical disability also.
Propertraining
Training is a systematic and organized procedure, by which people learn knowledge skill and ability for a definite purpose. Training improves, changes, molds the individuals knowledge skill, behavior and attitude of an individual towards the requirements' to perform an event /to achieve a goal. Training gives confidence and enables the individuals to take right decisions at right time and action. Themajor outcome of training is learning.
The following are some basic steps to prevent sports injury
Warm up properly before any physical activity.
Shoe Support may correct certain foot problems that can lead to injury.
Stretching exercises can improve the muscles ability to contract and perform reducing the risk for injury.
Alternate exercising different muscle groups exercise every day to day.
cool down properly offer exercise or sports and games

Preventing Sports Injury Pricniple Of Transition
Injuries occur during transition
"Culprits& Victims" Whatever sport you play, it is essential to maintain your fluid levels to avoid dehydration. Performance, as your blood volume will be reduced and you`ll be less able to deliver oxygen to your working muscles.don't rely on your thirst as an indicator of dehydration, but try to drink consistently before and during your sporting activity .continuing to drink after your have finished will ensure that weight lost through fluid depletion is replaced .Remember that alcohol and any drink containing increased dehydration

[1] Assistant, Professor (C), Department of Physical Education, University College of Law, Osmania University, Hyderabad, E-Mail: hari2sports.ou@gmail.com

Use Sum Protein; Proteins are the building block of muscle.proteins spare muscle breakdown during exercise. Protein is essential for maintenance, growth and recovery.05-.07gmslb body weight -150lb=75-105gmsday.Water replacement is the most important factor during exercise. Outside the narrow range of 98-100f,your body will always sacrifice muscle function for temperature regulation. Warming up, cooling down; you can help to reduce the risk of a serious sporting injury by warming up before exercise and taking time to cool down after your activity .a warm up should consist of some gentile aerobic activity, such as cycling or jogging to gradually warm your musclesThe right equipment; Sports you play, the correct footwear is essential to absorb the impact of movement as well as provide adequate support for your ankles and feet. This is especially important in sports where knee and ankleinjuries are common, such as bosket boll and football To help avoid injury, protective equipment such as knee and elbow pads helmets,mouth guards, gloves or shin pads may be helpful in may contact sports or sports where there is a risk of impact with another player, the ground are a piece of equipment .Eye protection is particularly important when playing games such as squash.

Sports Management; sports management its study of planning , supervising and organizing various sporting activities like international and domestic tournaments for Golf ,Badminton,Hockey,Cricket and several other games.

Treating an injury; Injury –specific management while broken bones and sporting injuries such as should be treated immediately by a medical professional, less serious sprains and strains can initially be helped by the RICE method.

Sprains and Sprains' sprain in an injury ligament, one of the bands of tough, fibrous tissue that connects two are more bones at a joint and prevalent of the joint. An ankle sprain is most common athletic injury. Strain is an injury to either a muscle or a tendon. A muscle is a tissue composed of bundles of specialized cells that, when stimulated by nerve messages contract and produce movement .A tendon is a tough, fibrous cord of tissue that connects muscle to bone. Muscles in any part of the body can be injured

Repetitive Motion Injuries; painful injuries such as stress fractures and tendonitis can occur from overuse of muscles and tendons. Some of these injuries don't always show up on X-rays but thy do because pain and discomfort. The injured area usually responds to rest, ice, compression, andelevation (RICE).

Common injuries and locations; Sprains strains, bruises, fracture scrapes dislocations cuts growth plate injuries in some sports accidents and injuries the growth plate may be injured .the growth plate is the area to developing tissues at the end of the long bones in growing hindrance adolescents

Track And Field

Common injuries; stains, sprains scrape from falls.injury prevention; proper conditioning and coaching.safest playing with; proper shoes, athletic supporters for males sunscreen water.injury –specific management prevention-addressing risk factors identify manage.

Gymnastics

Common injuries; sprains and strains of soft tissues.Safest playing with athletic supports for males, safety harmless joint supports. (such as neoprene wraps),waterInjury prevention proper conditioning and warm ups.

Football

Common injuries and locations; bruises, sprain, strains, pulled muscle ,tears to soft tissues such as ligaments broken bones, internal injures concussion ,back injuries, sunburn knees and ankle are the most common injury sites.Injury prevention; proper use of safety equipment, warm up exercises, proper coaching techniques and conditioning.Safest playing with ;helmet mouth guard, shoulder pads ,athletics supporters for male chest rib pads forearm, elbow, and thigh pads shin guards, proper shoes, sunscreen waterbe in proper physical condition to ply the sports and gams,follow the rules of the Games and sports know how to use athletic equipmentalways warm up before sports games, avoidplaying when very tired or in pain

Conclusion:

Discussed varies training tip promote fitness and wellness, identifiedcommon injure& conditions that limit training proper technique and supervision can reduce the incidence of sports injuries in children. Balanced and neuromuscular training can help prevent injury, morespecifically in the lower body .Ensuring that the athletes are wearing the correct protective gear and using the correct equipment will also greatly helps reduce follow all the above precreation and avoid the sports and games injuries.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp57-58
Journal Impact Factor 1.614

Comparative Study of Self Confidence among Basket Ball Players and Hand Ball Players of Osmania University

Dr.K.Deepla
Secretary, Inter College Tournaments,Women OU, Hyderabad
Prof.L.B.Laxmikanth Rathod
Head, Dept. of Physical Education, OU

Abstract:
The Purpose of the study is to find out the self confidence among Basket Ball Players and hand Ball Players of Osmania University. The sample for the present study consists of 50 Male Basket Ball Players and 50 Male Hand Ball Players of Osmania University between the age group of 19- 22 Years. Dr.S.J.Quadri Self Confidence Inventory is used to assess the Self Confidence. The Results of the Study shows that Basket Ball Players are having more confidence than Han ball Players. It is concluded that Basket Ball Players are having more self confidence than Hand Ball Players. Hence it is recommended that Psychological Training must be included in the Coaching Program in sports for development of Self Confidence among sports persons. Self confidence is the main psychological variable for key to success in sports and games.
Key Words: Self confidence, Psychological Training etc.

Introduction:
Basketball is a sport played by two teams of five players on a rectangular court. The objective is to shoot a ball through a hoop 18 inches (46 cm) in diameter and 10 feet (3.0 m) high mounted to a backboard at each end. Basketball is one of the world's most popular and widely viewed sports. A team can score a field goal by shooting the ball through the basket during regular play. A field goal scores three points for the shooting team if the player shoots from behind the three-point line, and two points if shot from in front of the line. The team with the most points at the end of the game wins, but additional time (overtime) is issued when the game ends in a draw. The ball can be advanced on the court by bouncing it while walking or running or throwing it to a team mate. It is a violation to lift or drag one's pivot foot without dribbling the ball, to carry it, or to dribbling. As well as many techniques for shooting, passing, dribbling and rebounding, basketball teams generally have player positions and offensive and defensive structures (player positioning). Traditionally, the tallest and strongest members of a team are called a center or power forward, while slightly shorter and more agile players are called small forward, and the shortest players or those who possess the best ball handling skills are called a point guard or shooting guard.

Handball (also known as team handball, Olympic handball, European team handball, European handball, or Borden ball) is a team sport in which two teams of seven players each (six outfield players and a goalkeeper) pass a ball to throw it into the goal of the other team. A standard match consists of two periods of 30 minutes, and the team that scores more goals wins. Modern handball is played on a court 40 by 20 meters (131 by 66 ft), with a goal in the center of each end. The goals are surrounded by a 6-meter zone where only the defending goalkeeper is allowed; the goals must be scored by throwing the ball from outside the zone or while "jumping" into it. The sport is usually played indoors, but outdoor variants exist in the forms of field and Czech handball (which were more common in the past) and beach handball (also called sand ball). The game is quite fast and includes body contact, as the defenders try to stop the attackers from approaching the goal. Goals are scored quite frequently; usually both teams score at least 20 goals each, and it is not uncommon for both teams to score more than 30 goals.
The game was codified at the end of the 19th century in northern Europe, chiefly in Scandinavia and Germany. The modern set of rules was published in 1917 in Germany, and had several revisions since.

The first international games were played under these rules for men in 1925 and for women in 1930. Men's handball was first played at the 1936 Summer Olympics in Berlin as outdoors, and the next time at the 1972 Summer Olympics in Munich as indoors, and has been an Olympics sport since. Women's team handball was added at the 1976 Summer Olympics.The socio-psychological concept of self-confidence relates to self-assurance in one's personal judgment, ability, power, etc.Self-confidence in sports relies primarily on the athlete's ability to believe he can win and that he can be successful in his efforts. Consultants at the United States Tennis Association report that self-confidence is one of the most important attributes an athlete can possess and should be fostered by both athletes and their coaches.

Method:

The Purpose of the study is to find out the self confidence among Basket Ball Players and Hand Ball Players of Osmania University, Hyderabad. The sample for the present study consists of 50 Male Basket Ball Players and 50 Male Hand Ball Players of Osmania University between the age group of 19-22 Years Dr.S.J.Quadri Self Confidence Inventory is used to assess the Self Confidence. This scale was constructed and standardize by Dr. Quadri Syed Javeed. That test consists of 30 items, each item 'YES' 'NO' type alternatives. This Questionnaire were given Basket Ball Players and Hand Ball Players to write separately in different groups.

Results and Discussion:

The Results of the Study shows that Basket Ball Players are having more confidence than Hand Ball Players.

Table I:Self confidence inventory mean values of Basket Ball Players and Hand Ball Players

Variables	Group	Number of subjects	Mean	Standard deviation	Standard error
Self Confidence Inventory	Basket Ball Players	50	26.6	0.88	0.12
	Hand Ball Players	50	20.32	1.1	0.16

In Table No.1 the Mean of Basket Ball Players is 26.6 and Hand Ball Players 20.32 there is a difference between the Basket Ball Players and Hand Ball Players. Basket Ball Players are having more confidence than the hand Ball Players.

Conclusion:

It is concluded that Basket Ball Players are having more self confidence than Hand Ball Players. Hence it is recommended that Psychological Training must be included in the Coaching Program in sports for development of Self Confidence among sports persons. Self confidence is the main psychological variable for key to success in sports and games.

Recommendations:

The Psychological Training must be given to all sports persons
Similar Studies can be conducted on Women sports persons and other sports and games.

References:

Wikipaedia,Basket Ball and Hand ball

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp59-60
Journal Impact Factor 1.614

Effect of Plyometric Exercises for development of Speed among High Jumpers of Hyderabad District in Telangana

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.V.Satyanarayana
Director, Department of Physical Education, Osmania University, Hyderabad

Abstract:

The purpose of the present study to find out the effect of Plyometric exercises for the development of Speed among High Jumpers of Hyderabad. The sample for the present study consists of 20 Male High Jumpers of Hyderabad out of which10 are experimental group and 10are controlled group between the age group of 16-21 Years. Plyometric exercises such hopping, bounding, hurdle jumps, box jumps,tuck jumps etc were given three times a week for six weeks for experimental group and controlled group were given general training of High Jump. To assess the Speed the Pre Test and Post Test were conducted in standing 50 M Run.This study shows that due to the plyometric exercises there is a rapid improvement of experimental group in the speed and controlled group has less improvement in explosive strength due to the general training. It is recommended that the Plyometric exercises are excellent to improve the speed among high jumpers.

Key Words:Plyometrics, speed, high jumpers etc

Introduction:

Plyometrics, also known as "jump training" or "plyos", are exercises based around having muscles exert maximum force in as short a time as possible, with the goal of increasing both speed and power. This training focuses on learning to move from a muscle extension to a contraction in a rapid or "explosive" way, for example with specialized repeated jumping. Plyometrics are primarily used by athletes, especially martial artists and high jumpers, to improve performance,] and are used in the fitness field to a much lesser degree.

The **high jump** is a track and field event in which competitors must jump over a horizontal bar placed at measured heights without the aid of certain devices. In its modern most practiced format, auxiliary weights and mounds have been used for assistance; rules have changed over the years. Over the centuries since, competitors have introduced increasingly more effective techniques to arrive at the current form.Javier Sotomayor (Cuba) is the current men's record holder with a jump of 2.45 m (8 ft 0¼ in) set in 1993, the longest standing record in the history of the men's high jump. Stefka Kostadinova (Bulgaria) has held the women's world record at 2.09 m (6 ft 10¼ in) since 1987, also the longest-held record in the event.

The high jump comprises of four phases: approach, take off, flight and landing.The important techniques in high jump are Fosbury Flop and Straddle.

Methodology:

The sample for the present study consists of 20 Male High Jumpers of Hyderabad out of which 10 are experimental group and 10 are controlled group between the age group of 16-21 Years those who have participated in the different level of athletics competitions.

The following Plyometric exercise training were given for six weeks alternate days to the Experimental group.

1.Hopping
2.Bounding
3.Hurdle Jumps
4.Tuck Jumps
5.Forward Jumps from Standing
6. Medicine Ball Throws
7. Medicine Ball Kicking
8. Half Squat Jumps with weights
9. Drop Jumps
10. Pushups with Hand claps

The controlled group were given general training of High Jump. To assess the Speed the Pre Test and Post Test were conducted in 50 M Run'

Results and Discussion:

This study shows that due to the plyometric exercises there is a rapid improvement of experimental group in the speed and controlled group has less improvement in speed due to the general training. It is recommended that the Plyometric exercises are excellent to improve the speed and Performance among High Jumpers.

Table I showing the Mean values and Independent Samples Test of 50 M run test between experimental and control groups

Variables	Group	Pre Test Mean ± SD	Post Test Mean ± SD	t	P - Value
50 M Run Test	Experimental	7.50 ± 0.294	7.23 ± 0.262	4.58	0.000
	Control	7.63 ± 0.376	7.73 ± 0.408		

*Significant at 0.05 level

In Table –I the Mean Values of Pre Test Experimental Group in 50 M Run is 7.50 and control group is 7.63 and in the Post Test the Mean values of Experimental Group has decreased from 7.50 to 7.23 and control group has increased from 7.63 to 7.73. The Standard Deviation on Experimental Group is 0.294 in Pre Test and 0.262 in Post Test and control group is 0.376 in Pre Test and 0.408 in Post Test and t is 4.58 and P-Value is 0.000

Conclusions:

It is concluded that due to the Plyometric Exercises there is an improvement in the speed among high Jumpers.

Recommendations:

1.It is recommended that coaches must include the Plyometric exercises for High Jumpers for the development of speed
2. Similar Studies can be conducted on other events such as Pole valut, Long Jump and Triple Jump.
3. Similar Studies can be conducted on female athletes in High Jump Long Jump and other Jumping events.

References:

Wikipaedia High Jump
Wikipaedia, Plyometrics

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp61-62
Journal Impact Factor 1.614

Sports Injuries among Combat Sports and Team Sports

[1]Amir Mallahi [*],[2]Dr.B.Sunil Kumar
[1]Department of physical Education, Ali Abad Katoul Branch, Islamic Azad University, Ali Abad Katoul, Iran
[2]Associate professor of Physical Education, Osmania University,Hyderabad, Telangana

Abstract:

The purpose of the present study to find out the sports injuries among Combat Sports Persons and Team Sports Persons of Hyderabad. The sample for the present study consists of 60 Male Combat sports persons in Boxing, Wrestling and Judo and 60 Male Team sports persons consists of Basket Ball and Hand Ball players of Hyderabad.To assess the Sports Injuries the Questionnaire is given to Combat Sports Persons and Team Sports persons. It is concluded that Combat Sports Persons are more prone to injuries compare to Team Sports Persons.
Key words: sports injuries, combat sports persons, team sports persons etc

Introduction:
Sports injuries are injuries that occur in athletic activities. They can result from acute trauma, or from overuse of a particular body part. Traumatic injuries account for most injuries in contact sports such as ice hockey, association football, rugby league, rugby union,Australian rules football, Gaelic football and American football because of the dynamic and high collision nature of these sports. Collisions with the ground, objects, and other players are common, and unexpected dynamic forces on limbs and joints can cause injury. Traumatic injuries can include:
a)Contusion or bruise - damage to small blood vessels which causes bleeding within the tissues.
b)Strain - trauma to a muscle due to overstretching and tearing of muscle fibers
c)Sprain - an injury in a joint, caused by the ligament being stretched beyond its own capacity
d)Wound - abrasion or puncture of the skin
e)Bone fracture
f)Head injury
g)Spinal cord injury

In sports medicine, a catastrophic injury is defined as severe trauma to the human head, spine, or brain.
most sports injuries can be treated effectively, and most people who suffer injuries can return to a satisfying level of physical activity after an injury. Even better, many sports injuries can be prevented if people take the proper precautions.
A combat sport, or fighting sport, is a competitive contact sport with one-on-one combat. Determining the winner depends on the particular contest's rules. In many fighting sports, a contestant wins by scoring more points than the opponent or by disabling the opponent. Boxing, kickboxing, amateur wrestling, judo, Brazilian Jujitsu, mixed martial arts, and Muay Thai are examples of combat sports
A **team sport** includes any sport which involves players working together towards a shared objective.A team sport is an activity in which a group of individuals, on the same team, work together to accomplish an ultimate goal which is usually to win. This can be done in a number of ways such as outscoring the opposing team. Team members set goals, make decisions, communicate, manage conflict, and solve problems in a supportive, trusting atmosphere in order to accomplish their objectives. This can be seen in sports such as hockey, football, basketball, volleyball, tennis, polo, ultimate, lacrosse, American football, rowing, cricket, handball, soccer, Auto Racing and many others.

Every team sport is different. Some team sports are practiced between opposing teams, where the players interact directly and simultaneously between them to achieve an objective.
The objective generally involves teammates facilitating the movement of a ball or similar item in accordance with a set of rules, in order to score points. This usually involves careful strategic planning, good preparation, and a mental and physical toughness of each individual that is part of the team. Team sports rely on all of the players working together equally in order to succeed at the task at hand. Being part of a team sport requires that each athlete has patience and perseverance since the goals put forth to accomplish might take some time to meet. This involves a good deal of dedication, hard work, and good leadership over that span of time.
Benefits of Team Sports:
Team Sports Provide kids with important lessons on personal values. Children who play team sports are less likely to feel isolated. Team Sports can encourage parents to become active with their kids. Team Sports held kids deal with winning and losing. Team sports can help kids overcome shyness.

Methodology:
The sample for the present study consists of 60 Male Combat sports persons in Boxing, Wrestling and Judo and 60 Male Team sports persons consists of Basket Ball and Hand Ball players of Hyderabad.To assess the Sports Injuries the Questionnaire is given to Combat Sports Persons and Team Sports persons. The Age of Sports Persons are 17-20 YearsThe Sports Persons has given the briefing regarding the sports injuries occur during practice and competition. They have given the questionnaire after the practice Sessions. The Sports Persons which has taken for the study has participated in the district, state,national, inter college and inter university level competitions. The Training Age of the Sports Persons is minimum 2 years.

Conclusions:
It was concluded that the Combat Sports Persons has secured more sports Injuries in ankle,knee,shoulder joints etc. The Team sports persons has secured less injuries only basket ball players are found more prone to ankle and knee injuries.

Recommendations:
Similar Studies can be conducted in other sports and games. The Coaches must give proper coaching to combat sports persons and team sports persons not to get injuries in the practice and also to guide the sports persons not to get injured during practice and competition sessions.

References:
Wikipaedia, Sports Injury
Wikipaedia, Combat sports and Team sports
http://www.schoolatoz.nsw.edu.au/wellbeing/fitness/benefits-of-team-sports

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp63-68
Journal Impact Factor 1.614

A Comparative Study Of Competitive State Anxiety Level Betweendifferent Age Categories Of Male And Female Yoga Players

Vats Kavita, Ph.D Scholar, D.P.E.S.S.,University of Delhi
Singh Vikas,Ph.D Scholar, D.P.E.S.S.,University of Delhi
Dr. J P Sharma, Associate Professor,IGIPESS(D.U)

Abstract
The main purpose of this study was to compare competitive state anxiety level between different age categories of female and male state level yoga players. The total number of thirty (30) subjects out of which thirteen (13) males and seventeen (17) females were selected through purposive random sampling method for this study. It must be noted that the questionnaire (scale) was distributed among the whole population, just 30 minutes before the competition started in the hall of Shari Ram International School PremNursery, Gopal Nagar, Najafgarh Delhi on Dated 11-12-2013. After that the entire filled up 30 questionnaires were collected by the authors. In this research, the CSAI-2 questionnaire (scale) was used to measure competitive state anxiety consist three components namely cognitive state anxiety, somatic state anxiety and self-confidence. This was designed by Marten, Vealey& Burton (1990).To analyses the data percentage method was applied.It was found that Majority of the males i.e. 57% had the low competitive cognitive state anxiety level in comparison to less i.e. 43% males had the high competitive anxiety level in comparison to only 26% females had the low competitive cognitive state anxiety level. Majority of the females i.e. 74% had the high competitive cognitive state cognitive state anxiety level.Majority of the males i.e. 77% had the low competitive somatic state anxiety level in comparison to only 57% females had the low competitive somatic state anxiety level.Majority of the females i.e. 43% had the high competitive somatic state anxiety level in comparison to less i.e. 23% males had the high competitive somatic state anxiety level.It was also found that almost all the males and females state level yogis were having high competitive self-confidence level anxiety i.e. 100%.
Key Word: CSAI-2, Yoga Athletes, Males and Females

Introduction

Anxiety is a negative emotional state characterized by nervousness, worry and apprehension and associated with activation or arousal of the body. Thus, anxiety has a thought component (e.g., worry and apprehension) called cognitive anxiety. It also has a somatic anxiety component, which is the degree of physical activation perceived. In addition to the distinction between cognitive and somatic anxiety, another important distinction to make in between state and trait anxiety.

How do you measure Anxiety?A range of psychometric tests or sport anxiety questionnaires (SAQ) have been used by sports psychologists to understand and measure this condition. In 1966 Charles Spielberg argued that it was necessary to make a distinction between momentary states and more permanent traits.

Anxiety states (A-state) is our response to a particular situation (i.e. sky diving)

Anxiety traits (A-trait) are the characteristics of our personality, our general anxiety level

Marten developed anxiety traits (A-trait) questionnaires that were tailored specially to sport known as the Sport Competition Anxiety Test (SCAT). Marten recognized that any measure of sport anxiety must take into consideration cognitive anxiety (negative thoughts, worry) and somatic anxiety (physiological response).

The Competitive State Anxiety Inventory or CSAI-2 takes into account the difference between A-state and A-trait and distinguishes between cognitive and somatic anxiety.

Symptoms of Anxiety

Anxiety can be recognized on three levels:Cognitive - by particular thought process

Somatic - by physical response,Behavioral - by behavioral response

Cognitive	Somatic	Behavioral
Indecision Sense of confusion Feeling heavy Negative thoughts Poor concentration Irritability Fear Forgetfulness Loss of confidence Images of failure Defeatist self-talk Feeling rushed Feeling weak Constant dissatisfaction Unable to take instructions Thoughts of avoidance	Increased blood pressure Pounding heart Increased respiration rate Sweating Clammy hands and feet Butterflies in the stomach Adrenaline surge Dry mouth Need to urinate Muscular tension Tightness in neck and shoulders Trembling Incessant talking Blushing Pacing up and down Distorted vision Twitching Yawning Voice distortion Nausea Vomiting Diarrhea Loss of appetite Sleeplessness Loss of libido	Biting fingernails Lethargic movements Inhibited posture Playing safe Going through the motions Introversion Uncharacteristic displays of extroversion Fidgeting Avoidance of eye contact Covering face with hands

A human being is a triune of body, mind and spirit. Some persons perceive him only in terms of body and mind and thus get only a lopsided view of reality. They are generally designated as materialists and the former as spiritualists. Today life is full of stress, strain, tension and nervousness, irritability of hurry and excitement. People are getting involved in comforts, recreations and luxurious in every aspect of life. There are lot of problems arising like stress, tension, noise, dust, smoke, heat, crimes, terrors, sexual harassment and internal aggression etc., which are diverting the mind of the people. Mental health lays strong foundation for the satisfaction behavior and higher achievement of an individual in his life. Mental health can be achieved through the daily practice of yoga. In other words, yoga plays a significance role in enhancing one's mental health which is conducive for his/her effective performance in all walks of life. Yoga is an age old practice which keeps the body and the mind fit. Thus it becomes necessary to gain some insights through scientific studies regarding impact of Yoga on mental health.

Statement Of The Problem

In this study the authors had stated the problem as: Comparative Study of Competitive State Anxiety Level between Different Age Categories of Male and Female Yoga Players.

Significance Of The Study

The result of the study helps for yoga coaches and physical education teachers to prepare a training program of yoga for mental health and control the anxiety level.

It also helps to cope up with the different problems like: stress, tension, noise, and internal aggression etc., by the practice of yogic exercises.

It also helps us to know the difference between different age categories of state level yoga male and female players related to different anxiety levels.

Delimitation

The study was delimited with only 30 state level yoga players. Further study was delimited to 13 male and 17 female in three age categories (i) Below 18yrs, (ii) 18+ to 25 yrs,& (iii) 25+…years.

Definitions Of Technical Terms Used

State level yoga players: Here in this study state level yoga players means all those yogis who took part in 11th Delhi State Yoga Championship held at Shari Ram International School, Prem Nursery, Gopal Nagar, Najafgar Delhi.

Different age categories means:

Under 18 years males and females.

18+ to 25 years males and females.

25 + …. years males and females.

Hypothesis

It was hypothesized that within the different age categories of state level yoga male players and female players may be differ or not differ in relation to three level of anxieties cognitive sate anxiety level, somatic state anxiety level and self -confidence.

Procedure And Methodology

For collection of data thirteen (13) males and seventeen (17) females total number of thirty (30) state level yoga players were selected through purposive random sampling method as subjects for this study. Their age ranged between under 18 years, 18+ to 25 years and 25+…..Years. The competitive state anxiety inventory-2 (CSAI-2) by Rainer Marten, Vealey and Burton was used as tool for this study. It was selected because it is a sports specific anxiety test.

Statistical Analysis

To determine the comparison between male and female state level yoga players of different age categories on the three anxiety levels namely somatic state, cognitive state and self-confidence, the statistical technique i.e. percentage method was used.

Analysis Of Data

The objective of the study was to compare various age categories of male and female state level yoga players on three components of competitive state anxiety i.e. cognitive, somatic & self-confidence. To find out the difference among the above categories of male & female state level ?Yoga players the percentage method was applied and further it has beenshownthrough table number 1 to 9 and exhibited through pie chart figure number 1 to 9.

Table -1:Regarding comparison between male and female competitive cognitive state anxiety level of below 18 years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	4	3/4=75%	1/4=25%
F	2	0/2=0%	2/2=100%

Table No-1 Reveals that in the below 18 years age category 75% male had the low competitive cognitive state anxiety level where as 0% female had the low competitive cognitive state anxiety level. Further it reflects that 100% female in this category had the High competitive cognitive state anxiety level in comparison to 25% male had the High competitive cognitive state anxiety level. Further it has been exhibited through Fig. No.1.

Table-2:Regarding comparison between male and female competitive somatic state anxiety level of below 18 years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	4	3/4=75%	1/4=25%
F	2	1/2=50%	1/2=50%

Table No-2 Reveals that in the below 18 years age category 75% male had the low competitive somatic state anxiety level where as 50% female had the low competitive somatic state anxiety level.

Further it reflects that 50% female in this category had the High competitive somatic state anxiety level in comparison to 25% male had the High competitive somatic state anxiety level. Further it has been reflected through Fig. No.2

Table -3:Regarding comparison between male and female competitive self-confidence anxiety level of below 18 years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	4	0/4=0%	4/4=100%
F	2	0/2=0%	2/2=100%

Table No-3 Indicates that in the below 18 years age category both the category that is 0% male and female had the low competitive self-confidence anxiety level. Further it reflects that both the categories that is 100% male and female had the High anxiety level. Further it has been exhibited through Fig. No.3.

Table -4:Regarding comparison between male and female competitive cognitive state anxiety level of 18+ to 25 years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	4	3/4=75%	1/4=25%
F	7	2/7=29%	5/7=71%

Table No-4 tells that in the 18+ to 25 years age category 75% male had the low competitive cognitive state anxiety level where as 29% female had the low competitive cognitive state anxiety level. Further it reveals that 71% female in this category had the High competitive cognitive state anxiety level in comparison to 25% male had the High competitive cognitive state anxiety level. It has been further shown through the Fig. No.4.

Table- 5:Regarding comparison between male and female competitive somatic state anxiety level of 18+ to 25 years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	4	3/4=75%	1/4=25%
F	7	4/7=57%	3/7=43%

Table No-5 indicates that in the 18+ to 25 years age category 75% male had the low competitive somatic state anxiety level where as 57% female had the low competitive somatic state anxiety level. Further it reflects that 43% female in this category had the High competitive somatic state anxiety level in comparison to 25% male had the High competitive somatic state anxiety level. Further it has been exhibited through Fig. No.5.

Table- 6:Regarding comparison between male and female competitive self-confidence level of 18+ to 25 years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	4	0/4=0%	4/4=100%
F	7	0/7=0%	7/7=100%

Table No-6indicates that in the 18+ to 25 years age category both the category that is 0% male and female had the low competitive self-confidence anxiety level.Further it reflects that both the categories that is 100% male and female had the High competitive self-confidence anxiety level. Further it reflected through Fig. No.6.

Table -7:Regarding comparison between male and female competitive cognitive state anxiety level of 25+…yearsstate level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	5	1/5=20%	4/5=80%
F	8	4/8=50%	4/8=50%

Table No-7 reveals that in the 25+… years age category 20% male had the low competitive cognitive state anxiety level where as 50% female had the low competitive cognitive state anxiety level. Further it reflects that 50% female in this category had the High competitive cognitive state anxiety level in comparison to 80% male had the High anxiety level. Further it has been shown through Fig. No.7.

Table -8:Regarding comparison between male and female competitive somatic state anxiety level of 25…years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	5	4/5=80%	1/5=20%
F	8	5/8=62%	3/8=38%

Table No-8 tells that in the 25+...Years age category 80% male had the low competitive somatic state anxiety level where as 62% female had the low competitive somatic state anxiety level. Further it reflects that 38% female in this category had the High competitive somatic state anxiety level in comparison to 20% male had the High competitive somatic state anxiety level. Further it has been exhibited through Fig. No. 8.

Table -9:Regarding comparison between male and female Self-confidence level of 25+…years state level yoga players.

Male\ Female	Total	Low anxiety	High anxiety
M	5	0/5=0%	5/5=100%
F	8	0/8=0%	8/8=100%

Table No-9 Reveals that in the 25+…years age category both the category that is 0% male and female had the low competitive self-confidence anxiety level. Further it indicates that both the category that is 100% male and female had the High competitive self-confidence anxiety level. Further it reflects through Fig. No.9.

Conclusion

After going through the interpretation of the results' tables it was concluded that:

Majority of the males i.e. 57% had the low competitive cognitive state anxiety level in comparison to only 26% females had the low competitive cognitive state anxiety level.

Majority of the females i.e. 74% had the high competitive cognitive state anxiety level in comparison to less i.e. 43% males had the high competitive cognitive state anxiety level.

Majority of the males i.e. 77% had the low competitive somatic state anxiety level in comparison to only 57% females had the low competitive somatic state anxiety level.

Majority of the females i.e. 43% had the high competitive somatic state anxiety level in comparison to less i.e. 23% males had the high competitive somatic state anxiety level.
It was also found that almost all the males and females state level yogis were having high competitive self-confidence level anxiety i.e. 100%.

References:

Rueben B. Frost, Psychological Concept Applied to Physical Education and Coaching (Massachusetts, Addition Wesley, 1971), p. 61
S. K.Mangal, Educational Psychology (Prakash Brothers: Education Publishers, 1985), pp. 191-192
Dianne Gill, Psychological Dynamics of Sports (1948), p. 74
Agyajit Singh, Sports Psychology: A Study of Indian Sportsmen (Delhi: Friendly Publications, 1992) pp. 36-37
Bell Keith F., "Championship Thinking the Athlete's guide performance in All sports", (London: Prentice Hall Inc., 1983).
Cratty Bryant J., "Psychology and Physical Activity" (Englewood Cliffs, N.J.Prentice Hall Inc., 1968).
Gill Daniel L., Psychological Dynamic of Sports, (Human Kinetic, Publisher Inc. Champaign Illinois, 1986).
Hewitt J. (1984). Complete Yoga Book, pp.56-57.
Kochar K.C. and V.Pratap (April, 1972). Anxiety Level and Yoga Practice. Yoga Mimansa, p.12
Mainer Martens et. Al., "Competitive State Anxiety Inventory-2 (CSAI-2),"
www.humankinetics.com
http://istadia.com/article/robrobson/6
http://medical-dictionary.thefreedictionary.com/anxiety
http://www.ehow.com/about_5409788_define-goal-setting.html
http://sbinfocanada.about.com/od/goalsetting/g/goalsetting.htm
http://en.wikipedia.org/wiki/Anxiety
Indian Journal of Yoga Sport &Exercise Science and Physical Education.VolumeVI/July & December 2005/No.I&II
Dehoraha.West and Charle A Bucker, "Foundation of Physical and sports", (St.Louis: The C.V. Mosby Company, 1992) p.9.
Bryant J. Gratty, "Psychology and Physical Activity", (Englewood Cliffs, N.J.prentice Hall Inc, 1986) p.15.
Agyojit Singh, "Competitive Anxiety Sports", SNIPES Journals (July 1982): 14.
Keith F. Bell. "Championship Thinking the Athlete's guide performance in All sports", (Losndon :Prentice Hall Inc.,1983),p.152.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp69-71
Journal Impact Factor 1.614

A Comparative Study Of Competitive State Anxiety Among Male And Female Yoga Players

Vats Kavita, Ph.D Scholar, D.P.E.S.S.,University of Delhi
KaimDhirender, Ph.D. Scholar, D.P.E.S.S., University of Delhi
Gahlot Swati, P.E.T in D.A.V. School, shreshtavihar
Jain Shilpi, Ph.D Scholar, D.P.E.S.S.,University of Delhi

Abstract
The main purpose of this study was to compare competitive state anxiety among female and male yoga players. Thetotal number of thirty (30) subjects out of which thirteen (13) males and seventeen (17) females were selected through purposive random sampling methodfor this study. In this research, the CSAI-2 questionnaire (scale) was used to measure competitive state anxiety consist three components namely cognitive state anxiety, somatic state anxiety and self-confidence. This was designed by Marten, Vealey & Burton (1990).To analyses the data't' test method was applied. It was found that there was no significance difference between male and female of yoga players on three components of competitive state anxiety i.e. cognitive state anxiety, somatic state anxiety and self-confidence.
Key Words: CSAI-2, Males and Females, Yoga athletes

Introduction:
Anxiety is an unpleasant state of inner turmoil, often accompanied by nervous behavior, such as pacing back and forth, somatic complaints and rumination. It is the subjectively unpleasant feelings of dread over anticipated events, such as the feeling of imminent death. Anxiety is not the same as fear, which is a response to a real or perceived immediate threat; whereas anxiety is the expectation of future threat. Anxiety is a feeling of fear, worry, and uneasiness, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing. It is often accompanied by muscular tension, restlessness, fatigue, and problems in concentration. Anxiety can be appropriate, but when it is too much and continues too long, the individual may suffer from an anxiety disorder.

Purpose Of The Study
In this study the authors had stated the problem as: Comparative Study of Competitive State Anxiety Level between Different Age Categories Of Male And Female Yoga Players.

Objectives
To compare male and female yoga players on three components of competitive state anxiety i.e. cognitive state anxiety, somatic state anxiety and self-confidence.

Hypothesis
It was hypothesized that the state level yoga male players and female players may be differ or not differ in relation to three level of anxieties cognitive sate anxiety level, somatic state anxiety level and self - confidence.

Procedure And Methodology
For collection of data thirteen (13) males and thirteen (13) females total number of twentysix(26) state level yoga players were selected through purposive random sampling method as subjects for this study. Thecompetitive state anxiety inventory-2 (CSAI-2) by Rainer Marten, Vealey and Burton was used as tool for this study. It was selectedbecause it is a sports specific anxiety test.

Statistical Analysis
To determine the comparison among male and female state level yoga players on the three anxiety levels namely somatic state, cognitive state and self-confidence, the statistical techniquei.e.' test method was used.

Analysis of data

The objective of the study was to compare male and female yoga players on three components of competitive state anxiety i.e. cognitive, somatic & self-confidence. To find out the difference among the male & female Yoga playersthe‘t’ test method was applied and further it has beenshown through table number 1 to 3 and exhibited through column chart figure number 1 to3.

Table -1:**Summary of‘t’- Test on Cognitive State Anxiety for Male and Female Yoga Players.**

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
COGNITIVE	Equal variances assumed	-1.228	24	.231	-2.53846	2.06645	-6.80341	1.72648
	Equal variances not assumed	-1.228	23.912	.231	-2.53846	2.06645	-6.80423	1.72731

Table No-1 Reveals the value of independent sample‘t’- test, which shows that there was a no significant difference in the cognitive state anxiety for male and female yoga players as the value was found to be -1.228, against the tabulated value 2.064 which was insignificance at 0.05 level. The graphical representation has been presented in fig1.

Table-2: **Summary of ‘t’- Test on Cognitive State Anxiety for Male and Female Yoga Players.**

		t-test for Equality of Means						
							95% Confidence Interval of the Difference	
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
SOMATIC	Equal variances assumed	-.719	24	.479	-1.46154	2.03253	-5.65647	2.73339
	Equal variances not assumed	-.719	22.522	.479	-1.46154	2.03253	-5.67108	2.74800

Table No-2 Reveals the value of independent sample‘t’- test, which shows that there was a no significant difference in the cognitive state anxiety for male and female yoga players as the value was found to be -.719, against the tabulated value 2.064 which was insignificance at 0.05 level.The graphical representation has been presented in fig2.

Table -3:Summary of 't'- Test on Cognitive State Anxiety for Male and Female Yoga Players.

		t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
							Lower	Upper
Selfconfidence	Equal variances assumed	.912	24	.371	1.38462	1.51781	-1.74799	4.51722
	Equal variances not assumed	.912	21.833	.372	1.38462	1.51781	-1.76453	4.53376

Table No-3 Reveals the value of independent sample 't'- test, which shows that there was a no significant difference in the cognitive state anxiety for male and female yoga players as the value was found to be .912, against the tabulated value 2.064 which was insignificance at 0.05 level.The graphical representation has been presented in fig3.

Result And Discussion

To find out the difference between male and female yoga players on three components of competitive state anxiety i.e. cognitive state anxiety, somatic state anxiety and self-confidence descriptive statistics and independent sample 't'-test were computed. The result depicted that no significant difference was found between the male and female of yoga players as the attained value was -1.228, -.719, .912 against the tabulated value 2.064, which was not significant at 0.05 level. This insignificance difference proves that there is no difference to compare male and female yoga players on three components of competitive state anxiety i.e. cognitive state anxiety, somatic state anxiety and self-confidence.

Conclusion

After going through the interpretation of the results' tables it was concluded that there was no significance difference between male and female of yoga players on three components of competitive state anxiety i.e. cognitive state anxiety, somatic state anxiety and self-confidence.

Reference:

Cratty Bryant J., "Psychology and Physical Activity" (Englewood Cliffs, N.J.Prentice Hall Inc., 1968).

Rueben B. Frost, Psychological Concept Applied to Physical Education and Coaching (Massachusetts, Addition Wesley, 1971), p. 61

Dianne Gill, Psychological Dynamics of Sports (1948), p. 74

Agyajit Singh, Sports Psychology: A Study of Indian Sportsmen (Delhi: Friendly Publications, 1992) pp. 36-37

Bell Keith F., "Championship Thinking the Athlete's guide performance in All sports", (London: Prentice Hall Inc., 1983).

Gill Daniel L., Psychological Dynamic of Sports, (Human Kinetic, Publisher Inc. Champaign Illinois, 1986).

Hewitt J. (1984). Complete Yoga Book, pp.56-57.

Kochar K.C. and V.Pratap (April, 1972). Anxiety Level and Yoga Practice. Yoga Mimansa, p.12

Mainer Martens et. Al., "Competitive State Anxiety Inventory-2 (CSAI-2),"

www.humankinetics.com

http://istadia.com/article/robrobson/6

http://medical-dictionary.thefreedictionary.com/anxiety

http://www.ehow.com/about_5409788_define-goal-setting.html

http://sbinfocanada.about.com/od/goalsetting/g/goalsetting.htm

http://en.wikipedia.org/wiki/Anxiety

Indian Journal of Yoga Sport &Exercise Science and Physical Education.VolumeVI/July & December 2005/No.I&II

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp72-74
Journal Impact Factor 1.614

A Comparative Study Of Agility Among The Goal Keepers In Hand Ball And Hockey Of Nizamabad District

B.Rajeshwar
University College of Physical Education, OU

Introduction:
Today Sports hold, a prominent place in modern life, millions of people participating in sporting activities, play, watch, and read about them Sports has became an important role of this nation 's culture as well as of other cultures throughout the world Millions of people, almost all agesand abilities participate in adversity of sports activities become of the Social political, legal and educational influence of sports on cultures.The name "Hockey" is perhaps derived from an old French Word 'HOQUET' which means a Shepherd's curved stick. A stick and ball game Hockey is played in over Seventy Countries and in all five continents. It is a major sport in India and Pakistan.A game normally last 70 minutes, divided into 2 halves of 35 minutes each with an interval of 5 to 10 minutes in between. Teams change ends at the interval. Hockey is played with a curved stick flat on the other, and a small hard ball weighing 5 oz, 155 9 grams. The object of the game is to send the ball into the opponent's net thus scoring a goal. Hand ball is not very old. Although hand ball has been played in different form and under different names having some similarity of the game like "HAZANA" TOR BALL" AND HAND BOLD" and often present hand ball as having played in of Olympics in small court hand ball. i.e. I a side short court.It is believed that this game originated from Germany. The first formal rules were given by prof. Vaclov Karar in 1905. Hand ball which had also alike qualities a hand ball was introduced by Prof. Holger Neilson in 1898. In 1907 austien Neilson elaborated the rules and organised competition and recommended the formatic of Federation. The hand ball game can be played out doors on an open field very similar to that used for Basket Ball, Net goals are located at each end of the court or field constructed like smaller version or soccer goals. A leather covered ball seven inches in diameter is the other piece of equipment.

Methodology: The main purpose of the study was to find out the agility among Goal Keepers in Hand ball and Hockey.To achieve the purpose of the study twenty Goal keepers in Hand ball and twenty keepers in Hockey were selected players whose age fall between 18 to 20 years only. Were selected care was taken in selecting the subjects who actually participating in their respective games till recently. Each, subject was oriented as to the procedure of the sequence and administration of the selected test. Prior to the administration of the tests the research scholar explained the testing procedure to the subjects in detail, so that there no ambiguity in their minds the subjects co-operated with much zeal and enthusiasm.

Testing Materials
A stop watch of 1/10 of second was used to keep the timing.
Tape,Chairs,Weighing Machine,Whistle,Pencils,Score sheets,Chalk pieces,Wooden blocks, Stadiometer.

Collection Of Data
Age, height, weight of the subjects and the activity rote which the subjects belong were recorded before administering the tests. Age in completed years was ascertained from the eligibility particulars and recorded.

The activity group which the subjects belonged are 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.

MEASUREMENTS 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 five tests of agility.

The tests are

Zig-zag run test, which is the second in the borrow motor ability test.

Shuttle run test, which is the fourth item inn AAHPER youth fitness test.

Dodging run which is the sixth item in cozem's test of general athletic ability.

ZIG-ZAG RUN TEST

SHUTTLE RUN

DODGING RUN

Results, Conclusions And Recommendations

Comparison of data on zigzag running of goal keepers in Hand ball and Hockey.

Table 1Comparison of Zig Zag running test between goal keepers in Hand ball and Hockey.

Group	Means	M.D	S.D	T.value
Goal keepers in Hand ball	23.17	1.00	0.71	4.11
Goal keepers in Hockey	24.17		0.82	

The obtained 't' ratio of 4.11 indicated significant difference in favour of the Goal keepers in Hand ball players at 0.05 level of confidence, as the tabulated 't' ratio was 2.02.

Hence the difference was considered as insignificant in Zig- Zag run. So here is no much difference between goal keepers in Hand ball and goal keepers in hand ball and goal keepers in Hockey in Zig- Zag running.

SHUTTLE RUN

Comparision of data on shuttle race of goal keepers in Handball and goal keepers in Hockey.

Table 2 Comparision of shuttle race between goal keepers Hand ball and goal keepers in Hockey.

Group	Means	M.D	S.D	T.value
Goal keepers in Hand ball	6.92		0.62	
Goal keepers in Hockey	7.65		0.49	

The obtained 't' ratio of 3.75 indicated in significant difference in favour of the Goal keepers in Hockey at 0.05 level of confidence as the tabulated 't' ratio was 2.02.

Hence the difference was considered as insignificant in side stepping. So there is slight difference between goal keepers in Hockey and goal keepers in hand ball in side stepping test.

DODGING RUN

Comparison of data an dodging run of goal keepers in handball and goal keepers in hockey.

Table 3 Comparison of dodging run between goal keepers in Handball and goal keepers in Hockey.

Group	Means	M.D	S.D	T.value
Goal keepers in Hand ball	20.42		0.90	
Goal keepers in Hockey	20.85		0.85	

The obtained 't' ratio of 155 indicated in significant difference in favour of the goal keeper in handball at 0.05 level of confidence, as the tabulated t' ratio was 2.02.
Hence the difference was considered as insignificant in dodging running. So there is difference between goal keepers in handball and goal keepers in hockey in dodging run.

Conclusions

With the limitations of the study, the following conclusions were drawn from the results obtained and presented in the previous chapter.
Comparatively goal keepers in Hockey have more agility than goal keepers in Hand ball in three tests, that is, shuttle run, squat thrust and side stepping test.
Better agility will help the individual to perform better in most of the sports activities and other major games which needed greater speed , jumping ability, co-ordination and action time. The subjects who had a score in agility had a slow movement and jumping ability.

Recommendations

Similar studies can be conducted on other ball games like Basket ball, Volley ball, Base ball and Hockey indigenous games.The similar study can be conducted at various climatic conditions and the results can be compared.Similar studies may be made on different age groups as well as Sex, on a large scale and also for advanced players of national level.In this study, an attempt to compared the agility through "Side – Stepping" was made similar comparison may be made with different tests.
Efforts may be made to construct suitable agility tests which could measure only the agility factor , as the available tests are comparing agility, coupled with the other factors.

References:

WikipaediaHockey and Handball

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp75-76
Journal Impact Factor 1.614

Physical fitness for Women

Dr.K.Savithri
Physical Director
Singareni Colleries Womens Deg. CollegeKothagudam, Khammam

Introduction:

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

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

Physical exercise is important for maintaining physical fitness and can contribute positively to maintaining a healthy weight, building and maintaining healthy bone density, muscle strength, and joint mobility, promoting physiological well-being, reducing surgical risks, and strengthening the immune system

Discussion:

Women of all ages benefit from a moderate physical exercises daily. Walking for 30 Min to Hour or Jogging from 15 min to 30 Min. Women with health problems such heart disease, diabetes, obesity, blood pressure etc. should first consult a physician before beginning the physical exercise. More than 90 per cent of Indian Women do not engage in physical activity. Social support from family, friends, religion obstructs the women for doing any physical activity.

The regular exercise significantly increases life expectancy and improves overall health. Regular physical activity reduces the risk of cancer, heart disease, and osteoporosis. Here are some simple tips to help you get started on a regular plan of physical exercise.

Physical exercises helps you live longer and prevent many chronic diseases, such as heart disease, high blood pressure, abnormal blood lipid (cholesterol and triglyceride) profile, stroke, type 2 diabetes, metabolic syndrome, and colon and breast cancers. Physical exercises improves cardio respiratory and muscular fitness. Physical activity raises your metabolism and helps you lose weight more easily. Physical activity helps reduce stress, anxiety, and depression and improve your mood. Physical activity helps maintain brain function in older adults. Physical exercises helps with digestion and promotes regular bowel movements. Physical activity increases bone density. Physical activity helps you age more gracefully by maintaining your looks and your agility. Physical activity improves sleep quality. Physical activity improves your overall quality of life.

Benefits of Physical Training.

1. Physical Training reduces the risk of coronary heart disease, high blood pressure, colon cancer and diabetes.
2. It also helps in maintaining to control the weight, build lean muscle and reduces fat in the body.
3. It helps in regulating the swelling of joints and pain associated with arthritis.
4. Develops the Psychological Behaviour
5. It develops the whole some personality of the womens.
6. It develops the Health care.

Suggestions for improving the fitness among women:

1. Go with walking for shopping house hold groceries near to the home.

2. Go for 30 Min to 1 Hour walk in the morning or in the evening.

3. Clean the House and do the domestic work at home.

4. Plant and Care for a garden at home

5. Play with Kids

6. Stationery Cycling at Home

7. Do Mobility and Stretching Exercises at Home.

8. Go for Yoga Classes or Dances.

9. Join nearby Gym for tread mill running.

10. Climb Stairs if you stay in Apartments.

Suggestions for Organizations to improve the fitness among women

1. Provide good environment to the general public to have parks, Play grounds, Walking and cycling areas near to their homes.

2. Open Clubs for community recreation, form neighborhood groups to do the Physical activity among the women.

3. The Organization must promote moderate amount of physical activity by conducting the sports and games, Runs and walking events.

References:

http://www.secondscount.org/heart-resources/
Physical Exercise, Wikipaedia

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp77-79
Journal Impact Factor 1.614

Study On Personality Of Yoga Participants

Dr.Jugadar Manju Arun
Director of Physical Education, St. Mira's College for Girls, Pune,

Introduction

Personality has been studied in various forms and has received a lot of recognition in the present day world. Because it is a complex blend of many factors or traits. Personality becomes even more complex because it is neither exclusively biological, nor exclusively social, but depends upon the complex interplay between naturally endowed factors and environmental experiences.

Personality and behavior are a major concern of psychology and modern theories concerning personality and behavior are concerned with the description of individual differences. Though there is a basic form of personality structure in each individual it can be developed according to the environment, society and the individual habits. Yoga teachers and coaches are basically interested in the analysis of behavior of Yoga participants or yogic behavior. Personality traits of yoga participants have been studied in different forms because of the reasons that, there may be a discrete set of personality factors existing among yoga participants that is related in making them to select yogasana and to participate in the yoga competitions.

The investigator in the present study was interested in knowing if there were any common, specific, unique or dominant personality traits among Yoga participants. The study representing a simple classification-assessment of personality traits which may give a brief personality sketch of Yoga participants and the study as such, may be a step leading to further investigations.

Personality Traits

"Personality traits are any particular characteristics of any individual which change and develop according to the experience, surroundings and time".

Yoga

It is the science on the practical side ad an epitome of philosophy on the intellectual side. It is both an intellectual system and a practical discipline.

"Yoga is the restraint of mental fluctuations and modifications" (Patanjali).

"Balance of mind is called yoga" (Gita).Yoga and Psychological Change- transcendental meditation has manifold positive effects on personality, (e.g., Orme, Johnson, and Heaton et.al, 1974)

Objectives of the Study

- To find out the level of personality among women yoga participants.
- To analyze the personality among women yoga participants.

Materials And Methods

The purpose of the present investigation was to study the personality traits of women yoga participants. To achieve the purpose of the study, necessary data regarding the personality traits of selected subjects were to be gathered. The investigator has come across many tests that would measure the personality traits or characteristics. After a thorough search and examination of the literature on the various psychological tests that would measure personality traits, it was decided by the investigator to administer Form 'C' of Cattell's Sixteen Personality Factors Questionnaire.

Sample

Fifty six (56) women yoga participants participated in state level competitions from Pune district were served as subjects for the present study. These 56 subjects together represented the sample for the present study.

Test Administration and Collection of Data

To collect necessary data pertaining to the present study, all the selected subjects were administered to the 'C' form of Cattell's Sixteen Personality Factors Questionnaire, during the state level yoga competition. The data were in the form of answer given by the subjects in response to the various questions of the questionnaire. The subjects completed answering the questionnaire within the stipulated time after which the questionnaires were collected back and the standard scoring key was used to get the raw score. The scoring of the completed questionnaire of each subject was done using the scoring key according to the method as described in the test manual. Each answer in every questionnaire was marked and awarded zero, one or two [0, l, 2,] marks as described in the test manual. These scores would represent the raw scores, the raw scores were later on converted into sten scores or 'Stens' with the help of the standardized norms [key] provided in the tabular supplement of sixteen personality factors test.

Analysis And Interpretation Of Data

The raw scores collected were converted into standard sten scores with the help of scoring key as explained in the test manual, and the data thus obtained were statistically analyzed.

Table 1
Scores of Sixteen Personality Factors of Yoga Participants

S.N.	SIXTEEN.P.F	MEAN	SD	C.V (%)
1	A	9.12	1.74	42.96
2	B	8.76	1.90	56.89
3	C	8.05	1.70	50.90
4	E	8.53	1.59	23.04
5	F	8.90	1.61	40.86
6	G	9.20	1.69	44.59
7	H	8.35	1.61	50.47
8	I	3.89	1.13	22.20
9	L	4.52	1.47	31.89
10	M	4.24	2.01	43.32
11	N	5.37	2.02	37.62
12	O	3.84	1.82	26.15
13	Q1	5.13	1.34	21.44
14	Q2	3.23	1.75	54.18
15	Q3	9.38	1.42	40.23
16	Q4	5.61	1.52	27.09

Perusal of Table and Graph shows that, the Yoga participants as a group have shown a tendency or inclination,

- Towards the higher direction or high sten score description in eight out of sixteen personality factors A, B, C, E, F, G, H and Q3.
- Towards the average in four out of the sixteen factors I, N, Q_1 and Q_4 respectively.
- Towards the lower direction or low sten score description in four out of the sixteen personality factors L, M, O and Q2.

Major Findings

In factor A (Reserved V/s Outgoing), Yoga participants were tends to be good natured, easy going, emotionally expressive, ready to cooperate, attentive to people, soft hearted, kindly and adaptable. They are generous in personal relations, less afraid of criticism, better able to remember names people.

In factor B (Less intelligent V/s More intelligent), Yoga participants were tends to be quick to grasp ideas, a fast learner and intelligent. There is some correlation with level of culture and some with alertness.

In factor C (Emotionally less stable V/s Emotionally stable), Yoga participants were tends to be emotionally mature, stable, realistic about life, unruffled, possessing ego strength, better able to maintain solid group morale.In factor E (Humble V/s Assertive), Yoga participants were found to be assertive, self assured, and independent minded.In factor F (Sober V/s Happy- go- lucky), Yoga participants were tends to be cheerful, active, talkative, frank, expressive, effervescent, carefree. They frequently chosen as an elected leader. They may be impulsive and mercurial.In factor G (Expedient V/s Conscientious), Yoga participants were tends to be exacting in character, dominated by sense of duty, persevering, responsible, planful, "fills unforgiving minute". They are usually conscientious and moralistic and prefer hard working people to witty companions.

In factor H (Shy V/s Venturesome), Yoga participants were tends to be socially bold ready to try new things, spontaneous and abundant in emotional response. There “thick skinned ness” enables them to face wear and tear in dealing with people and grueling emotional situations without fatigue.In factor I (Tough-minded V/s Tender-minded), Yoga participants were found to be neither tough-minded nor tender-minded (average).In factor L (Trusting V/s Suspicious), Yoga participants were found to have a tendency to trust, adaptable, free of jealousy, easy to get on with, cheerful, uncompetitive, concerned about other people and good team workers.In factor M (Practical V/s Imaginative), Yoga participants were found to be anxious to do the right things, attentive to practical matters and subject to the dictation of what obviously possible. Careful, conventional, regulated by external realities and sometimes unimaginative.In factor N (Forthright V/s Shrewd), Yoga participants were found to be neither forthright nor shrewd (average).In factor O (Placid V/s Apprehensive), Yoga participants were tends to be placid with unshakable nerve. They have a mature, unanimous confidence in themselves and their capacity to deal with things.In factor Q1 (Conservative V/s Experimenting), Yoga participants were found to be neither conservative nor experimenting.In factor Q2 (Group-dependent V/s Self-sufficient), Yoga participants were prefers to work and make decisions with other people, likes and depends on social approval and admiration. They tends to go along with the group may be lacking in individual resolution. They are not necessarily gregarious by choice; rather they needs group support.In factor Q3 (Undisciplined self-conflict V/s Controlled), Yoga participants tends to have strong will control of their emotions and general behavior, are inclined to be socially aware and careful. They have “self- respect” and regard for social reputation.In factor Q4 (Relaxed V/s Tense), Yoga participants were found to be neither relaxed nor tense (average). But the obtained value shows a slight deviation from the average in a higher direction, which may reveal the tendency of Yoga participants to be tense, frustrated, driven, and overwrought with high agric tension.

Conclusions

The Women Yoga participants were found to be more intelligent (Higher scholastic mental capacity), emotionally stable (Higher ego strength), assertive (Dominance), happy-go-lucky (Surgency), conscientious (Stronger superego strength), venturesome (Parmia), neither tough-minded nor tender-minded, trusting, practical, neither forthright nor shrewd, placid, neither conservative nor experimenting, group dependent, controlled (high self-concept control), neither relaxed nor tense.

The Women Yoga participants in a group have shown better consistency in factors A, B, C, E, F, G, H, Q3 I, N, Q_1 and Q_4 these factors are the most common personality traits or features found among Yoga participants.

References

Aldeman R.B. Psychological Behavior in Sports. Philadelphia: W.S Sunders Company, 1974.

Aroltt John. The oxford companion to sports and games. London: Oxford University Press 1975.

Bhati C.P.S and Rajinder Singh. Personality Traits of west zone cricket players. Journal of Sports and Sports Sciences.Patiala: 11(2) April 1988, P.66.

Booth E.G. Personality traits of athletes measured by MMPI. Research Quarterly 29.1958, P.127-131.

Cook and David Lamer. The relationship between intercollegiate golf performance and difference between general sport specific bipolar personality patterns. Dissertation abstracts International: 47(4), October. 1986, P 29, 60.

Flanagar L.A. A study of some personality traits of different physical activity groups. Research Quarterly: 22, 1951, P.312-323.

Heaton, D.P. and D.W. Orme, Johnson. The transcendental meditation program and academic achievewoment.1974.

Iyenger B.K.S. Light on Yoga. George Allen and Unwin Ltd., London 1965.

Joshi. K.S. Yoga and Personality. Udayana Publications, Allahabad, 1967

Kroll Walter. Sixteen Personality Factor profiles of collegiate wrestlers. Research Quarterly: 25, 1954, P.484-485.

Person D.R. Personality traits of National Representative Swimmers. Completed Research in Health Physical education and recreation: 9.1967, P.92.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp80-83
Journal Impact Factor 1.614

Critical Study On Anthropometric Measurements And Performances Of High School Kho-Kho And Kabaddi Players Of Raichur And Yadgiri Districts Of Hyderabad Karnataka Region

Mr. Vidyasagar B
Ph.D Research Scholar (Part Time),
Department of Physical Education, Gulbarga University, Gulbarga-585106, Karnataka
Dr. N.G. Kannur
Chairman, P.G Course in Physical Education
Department of Physical Education, Gulbarga University, Gulbarga-585106, Karnataka

Introduction

The identification of physical characteristics in a sport modality contributes to its success and enables to spot differences among athletes of different modalities, which is of great interest for both sport coaches and scientists. Sports performance is based in a complex and intricate diversity of variables, which include physical (general and specific conditions), psychological (personality and motivation) and body (body morphology, anthropometry and body composition) factors. The relationship between morphological variables and sports performance is the object of study of anthropometry and is an important element to be analyzed.

Studies on somatotype of athletes, elite athletes and Olympic athletes have generally shown that strength and speed dependent athletes tended to be basically mesomorphic while distance dependant athletes were found to be more ectomorphic with limited amount of mesomorphic muscularity (Battinelli, 2000). In athletes, body composition measures are widely used to prescribe desirable body weights, to optimize competitive performance, and to assess the effects of training (Sinning, 1996). It is generally accepted that a lower relative body fat is desirable for successful competition in most of the sports. This is because additional body fat adds to the weight of the body without contributing to its force production or energy producing capabilities, which means a decrease in relative strength. It is obvious that an increased fat weight will be detrimental in sporting activities where the body is moved against gravity (e.g. high jump, pole vault, volleyball spiking action) or propelled horizontally (e.g. running).

Anthropometry is the branch of anthropology that is concerned with the measurement of human body. The definition has confined to the kind of measurements commonly used in associating physical performance with body build. Anthropometry involves the measurement of external part of the body, including body diameters, body circumferences somatotypes. Specific anthropometric characteristics are needed to be successful in certain sporting events. It is also important to note that there are some differences in body structure and composition of sports persons involved in individual and team sports. The tasks in some events, such as shot put or high jump, are quite specific and different from each other and so are the successful physiques. This process whereby the physical demands of a sport lead to selection of body types best suited to that sport is known as “morphological optimization” (Bloomfield et al., 1995).

Body Composition is concerned in part with the obesity of the individual. In measuring this aspect of body composition, the total body weight is divided into two components: Lean Body Weight and Fat Body Weight. Lean Body Weight includes muscle, bone and vital organs. They underlying assumption is that total Body Weight equals Lean Body Weight plus Fat Body Weight. The higher percentage of Fat Body Weight in relation to Lean Body Weight, the higher the degree of Obesity (Verducci, 1980). In athletes, body composition measures are widely used to prescribe desirable body weights, to optimize competitive performance, and to assess the effects of training (Sinning, 1996).

Therefore, the athletes in a particular sport must possess such typical characteristics which are of advantage to their performance. Body composition also makes an important contribution to an individual's level of physical fitness for performance, particularly in such sports that require one to carry one's body weight over a distance, which is facilitated by a large proportion of active tissue (muscle) in relation to a small proportion of fat tissue.

Purpose Of The Study

The major purpose of the study is "Critical Study on the Anthropometric Measurements and Performances of High School Kho-Kho and Kabaddi players of Raichur and Yadgir districts of Hyderabad Karnataka Region". The study aims to analyze anthropometric measurements like body weight, height, shoulder grith, arm length, leg length and circumferences (thigh, calf and relaxed arm) of high school kho-kho and kabaddi players of Hyderabad Karnataka region. Further the comparison of anthropometric measurements of kho-kho and kabaddi players is done for making suggestions and recommendations to the Department of Public Instructions and Ministry of Youth and Sports Affairs, Karnataka for the promotion and development of kho-kho and kabaddi games in Hyderabad Karnataka region.

Objectives Of The Study

To analyze the Anthropometric measurements of Raichur and Yadgir districts high school Kho-Kho and Kabaddi players of Hyderabad Karnataka region.The study also analyzes the performances of high school Kho-Kho and Kabaddi players during their district level matches.To compare the anthropometric measurements of Raichur and Yadgir districts high school Kho-Kho and Kabaddi players of Hyderabad Karnataka region.To make suggestions and recommendations to the Department of Public Instructions and Ministry of Youth and Sports Affairs, Karnataka for the promotion and development of Kho-Kho and Kabaddi games in Hyderabad Karnataka region.

Significance Of The Study

This study assumes a great significance given to its comprehensive study to delineate the Anthropometric Profile of Raichur and Yadgir districts High School Kho-Kho and Kabaddi players. The promotion and development of rural games like Kho-kho and Kabaddi is a primary need in the Hyderabad Karnataka region. Because most of the high school children are play these games without adequate facilities and support with lot of enthusiasm in the Hyderabad Karnataka region. This study reveals the anthropometric measurements of high school Kho-Kho and Kabaddi players which enables to get the knowledge of their body type and which further helps for making suggestions to various high schools and concerned departments of Hyderabad Karnataka for the improvement of performances.

Methodology

Based on the objectives laid down in the present the following methods and tools were used to obtain the data,

Design Of The Study

Sources Of Data And Information

The different sources and methods used by the researcher to gather data and information about the Anthropometric measurements of Raichur and Yadgir districts high school Kho-Kho and Kabaddi players of Hyderabad Karnataka region and they are presented below,

Primary Resources

The original data, material and information is collected from the following primary resources,

(a) Data Collection of Anthropometric Measurements

The researcher with the help of trained assistants measured the selected anthropometric variables of body. Before undergoing the test, all the athletes were informed about the testing procedures. Height was measured with a stadiometer to the nearest 1mm. Body weight was measured with a weighing machine. Circumferences (thigh, calf and relaxed arm) and shoulder grith were measured with a non-elastic tape to the nearest 1mm.

(b) Anthropometric Variables

All the subjects' anthropometric measurements will be taken: body weight, height, circumferences (relaxed arm, thigh and calf), shoulder grith, total arm length and total leg length.

Secondary Resources

(a) Documents

Researcher visited various physical education and sports institutions such as Laxmibai National University of Physical Education, Gwalior, Netaji Subhas National Institute of Sports, Patiala and various universities to get the related data information of the study in the form of Ph.D and M.Phil thesis, Papers, Articles, journals and Books etc.

Tools

- Stadiometer
- Weighing machine
- Measuring tape

STATISTICAL TECHNIQUES

Statistical analysis performed with SPSS software, version 19. Descriptive statistics are shown as means and standard deviations. Student's t test was used to assess statistically significant differences variation in scores of anthropometric measurements between Raichur and Yadgir districts Kho-Kho and Kabaddi players.

RESULTS AND DISCUSSION

Table 1:Scores of Body Mass Index (BMI) and % of Body Fat of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi Players

S.No	TESTS	Raichur	Yadgir
1	Body Mass Index (BMI)	16.96	18.75
2	Percent of Body Fat (%BF)	108.20	112.60

Table 1 presents the scores of body mass index (BMI) and percent of body fat (%BF) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi Players. The scores of body mass index (BMI) clearly shows that Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players are under healthy range category according to the standard norms. The scores of percent of body fat (%BF) clearly shows that Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players are under average category according to the standard norms.

Table 2:Percent of Body Mass Index scores of Raichur and Yadgiri districtshigh school Kho-Kho and Kabaddi Players

Districts	BODY MASS INDEX SCORES		t-value
Yadgir	M	18.75	5.26**
	SD	1.43	
Raichur	M	16.96	
	SD	1.62	

**Significant at 0.01 level

Table 2 presents the scores of body mass index (BMI) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players. The t-values of body mass index (BMI) between Raichur and Yadgiri (5.26) clearly show the significant differences between these districts high school Kho-Kho and Kabaddi players.

Table 3:Percent of Percent of Body fat scores of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi Players

Districts	PERCENT OF BODY FAT SCORES		t-value
Yadgir	M	7.84	2.59**
	SD	1.86	
Raichur	M	6.72	
	SD	1.39	

**Significany at 0.01 level

Table 3 presents the scores of percent of body fat (BF %) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players. The t-values of percent of body fat (BF %) of Raichur and Yadgiri (2.59) districts high school Kho-Kho and Kabaddi players clearly shows the significant differences.

Table 4:Percent of Percent of Body fat scores of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi Players

Variables	Districts	Scores		t-value
Shoulder Grith (in cms)	Raichur	M	27.84	6.56**
		SD	2.86	
	Yadgir	M	25.72	
		SD	2.39	
Arm length (in cms)	Raichur	M	36.84	
		SD	2.02	
	Yadgir	M	32.61	
		SD	1.89	

				8.12**
Leg length (in cms)	Raichur	M	67.84	9.46**
		SD	2.45	
	Yadgir	M	62.72	
		SD	2.12	
Thigh circumference (in cms)	Raichur	M	17.29	7.14**
		SD	2.14	
	Yadgir	M	16.12	
		SD	2.01	
Calf circumference (in cms)	Raichur	M	14.18	5.32**
		SD	1.56	
	Yadgir	M	13.01	
		SD	1.52	
Relaxed arm circumference (in cms)	Raichur	M	7.84	2.57**
		SD	1.86	
	Yadgir	M	6.72	
		SD	1.39	

**Significant at 0.01 level

Table 4 presents the scores of shoulder grith, arm length, leg length and circumferences (thigh, calf and relaxed arm) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players. The t-values of shoulder grith (6.56), arm length (8.12), leg length (9.46) and thigh circumference (7.14), calf circumference (5.32) and relaxed arm circumference (2.57) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players clearly shows the significant differences.

Conclusions

- The body mass index (BMI) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players are under healthy range category according to the standard norms.
- The percent of body fat (%BF) of Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players are under average category according to the standard norms.
- There are significant differences on body mass index (BMI) between Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players.
- There are significant differences on body fat (BF %) between Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players.
- There are significant differences on shoulder grith, arm length, leg length, thigh circumference, calf circumference and relaxed arm circumference between Raichur and Yadgiri districts high school Kho-Kho and Kabaddi players.

Recommendations

- The experience of the present investigator during the period of this study as well as the findings will serve as a guideline for the future researchers in the field of physical education and sports.
- The findings of the present study can be utilized by the Department of Youth Empowerment and Sports while formulating the policies and implementing the same at all levels.

References

1. Clark. H. Harrision (1963). Application of measurement to Health and Physical Education" Eaglewood Cliff's, Prentice Hall, New Jersey. P-4.-8.
2. Clayne R. Jenson and A. Garth Fisher (1972). Scientific Basis of Athletic Conditioning, Philadelphia: Lea and Febiger, p.65.
3. Green S (1995). Measurement of anaerobic work capacities in humans. Sports Medicine 19:32-42.
4. Lawrence S, Glencross B and Freitag P (1991). Physiological assessment of the hockey player. In Draper J, Minikin B and Telford R (Eds): Test Methods Manual: Sports Specific Guidelines for the Physiological Assessment of the Elite Athlete. Belconnen: National Sports Research Centre, Section three.

ISSN 0975--7732
Asian Journal of Physical Education and Computer Science in Sports
Volume No.11, No.1.pp84-85
Journal Impact Factor 1.614

Effect Of Fartlek Training And Variable Pace Method Training On Explosive Power Among Students Of Tribal And Non Tribal Areas

G.Sunitha*, Phd. Scholar, Dept. Of Phy. Edn, Kakatiya University, Warangal
Dr. Md. Moiz Ahmed, Principal, U.C.P.E, Kakatiya University, Warangal.**
Dr. B. Suman*, Teching Assistant, Dept Of Phy Edn, S.V University, Tirupati**

Abstract
The purpose of the study was to find out the effect of fartlek training and variable pace method training on explosive power among the tribal area students and non tribal area students. To achieve this study 30 male Tribal Students and 30 Non Tribal Students were selected randomly from Khammam District in Telangana. Their age group is ranged between 14 and 16 years respectively. Both groups were under went to fartlek training and variable pace method training programme for three months and three days per week. It hypothecated that the tribal students are better in explosive strength than that of non tribal students. To assess the explosive power of the subjects standing broad jump test was conducted with the help of qualified physical educators. T-test was administered to test the significance of the study.
Keywords; Tribal, Non tribal, Fratlek training, Variable pace method, explosive power.

Introduction
The area of physical education is not merely a glamorous area of sports. It also fulfills certain valuables social functions due to which it has been accorded high importance all round development of personality. Performance in any of the sports depends upon many factors. It depends upon anthropometry, physical fitness, physiological etc. each sports require different type of physique. To achieve the aim of showing high level performance, one should have the required quality of physique.
The Scheduled Tribe groups who were identified as more isolated from the wider community and who maintain a distinctive cultural identity have been categorised as 'Particularly Vulnerable Tribal Groups' (PTGs) (previously known as Primitive Tribal Groups) by the Government at the Centre. So far seventy-five tribal communities have been identified as 'particularly vulnerable tribal groups' in different States of India. These hunting, food-gathering, and some agricultural communities, have been identified as less acculturated tribes among the tribal population groups and in need of special programmes for their sustainable development. The tribal area people unique in their nature when compare with non tribal area people. Whose physical, physiological and psychological capabilities are somewhat different.
METHODOLOGY:
The purpose of the study was to find out the effect of fartlek training and variable pace method training on explosive power among the tribal area students and non tribal area students. To achieve this study 30 male Tribal Students and 30 Non Tribal Students were selected randomly from Khammam District in Telangana. Their age group is ranged between 14 and 16 years respectively. Both groups were under went to fartlek training and variable pace method training programme for three months and three days per week. It hypothecated that the tribal students are better in explosive strength than that of non tribal students. To assess the explosive power of the subjects standing broad jump test was conducted with the help of qualified physical educators. T-test was administered to test the significance of the study.

Results and Discussion:

Table: I-Comparison Of Explosive Power Among Tribal Students (Standing Broad Jump)

TEST (SBJ)	MEAN	SD	SE	df	t-ratio	Sig
TRIBAL STUDENTS						
PRE-TEST	2.198	0.33	0.061	29	2.621*	0.014
POST- TEST	1.93	0.52	0.094			
NON TRIBAL STUDENTS						
PRE-TEST	2.34	0.36	0.066	29	0.494	0.625
POST- TEST	2.28	0.44	0.08			

In the above table clearly shows that the pre and post test means of tribal students are 2.19 and SD is 0.33, in the post test mean and SD was 1.93 and 0.52 respectively. The obtained t- ratio was 2.621. The table also shows that the pre and post test scores of non tribal students. The pre test mean was 2.34 and SD was 0.36, in the post test mean was 2.28 and SD was 0.44. The obtained t- ratio was 0.494.
In the pre test of tribal and non tribal students performance on explosive power has no difference. In the post-test the tribal students shows better performance in explosive power than that of non tribal students. So the hypothesis was significant.

Conclusions:
The tribal students shows better performance in explosive power than that of non tribal students.

Recommendations:
Similar studies can be conducted among other school students.

References:
Science of Sports Training, Dr.Hardayal singh