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Effect of Aerobic Training on Selected Physiological Hematological and Psychological Variables of Pre and Post Menstrual Cycle Among Middle Aged Women

Dr.R.Venkatesan, Assistant Professor, Department of Exercise Physiology and Nutrition, Tamil Nadu Physical Education and Sports University, Tamil Nadu, Chennai – 600 006.

Aerobic Training: The Mechanics of aerobic exercise require that oxygen be brought in by the lungs and transferred to the blood vessels oxygen rich blood is then pumped by the heart to the muscle. The muscles utilize oxygen for contraction through routine aerobic activity the body becomes efficient at processing oxygen. Examples of an activity include, running, jogging, biking.

MENSTRUAL CYCLE: Female humans produce gametes in monthly cycles (average 28 days) normal range 24-35 days. These cycles commonly called menstrual cycle, otherwise called menstruation. The menstrual cycle is described according to changes that occurs in follicles of the ovary (ovarian cycle) and in the endometrial lining of the uterus (uterine cycle). Hormonal and morphological changes that take place during a typical menstrual cycle. The ovarian cycle is divided in the three phases.

1. Follicular phase
2. Ovulation phase
3. Luteal phase

PHYSIOLOGICAL CHANGES ON PRE AND POST MENSTRUAL CYCLE: Women experience some symptoms before period (called pre menstrual symptoms) due to all hormone changes that are happening. They can include.

1. Feeling bloated and heavy
2. Cramping pains, the lower abdomen in the legs.
3. Getting more pimples than usual.
4. Feeling tense, irritable, sensitive emotional tired.
5. Breathing becoming a little bigger and tender.
6. Hair becoming more greasy women.
7. Women can experience a variety sensation before, during or after their menses.
8. Common complaints include, pain in inner thigh, nausea headache.
9. Uterine cramping is one of the most common uncomfortable sensations women may have during menstrual cycle. There are two kinds of cramping.

Psychological changes on during Pre and Post Menstrual cycle: For about a week before a period many women have menstrual symptoms. Feel tense or angry stress, depression, or anxiety, fatigue, irritability, memory loss, a problem with concentration, mood disturbances, poor quality sleep, and light sleep insomnia.

Reason for the selection of the study: The research scholar special interest in exercise physiology as she was an exercise physiology student and keen interest to study was physiological variables may affect the day to day activities. Though the number of studies has been under taken on physiological, hematological and psychological variables no attempts have been made to find out the effect of aerobic training on pre and post menstrual cycle of middle aged women.

Selection of Variables:

Physiological Variables: Heart rate, Blood Pressure **Hematological**

Variables: Red blood cells, White blood cells, Hemoglobin **Psychological**

Variables: Stress, Anxiety

Independent Variables: Walking

Experimental Design: For this study thirty middle aged women were selected and they were divided in to two groups namely experimental group and control group. Each group consists of fifteen subjects. The initial and final tests on the selected variables such as heart rate, blood pressure, hemoglobin, red blood cells, white blood cells, stress, anxiety, were administered for experimental group and control group. The aerobic training were given to the selected subjects on alternate days for a period of 6 weeks between 5.30pm to 6.30pm. The experimental group consisted of fifteen middle aged womens. During the training period, the experimental group underwent walking program for a period of six weeks for all days (7 days). The following table shows the training schedule and the duration of the training.

Statistical Technique: The collected data on the two group's namely experimental group and control group. Were statistically analyzed usings' test.

Result and Discussions: Result of Heart Rate

Table – I – "t" ratio for heart rate (score in minutes)

S.No	Group	Mean		S.D		Obtained value	Tablevalue
		Pre	Post	Pre	Post		
1	Control Group	109.93	113.73	9.07482	6.43	2.861	2.145
2	Exp. Group	114.53	109.00	10.31	9.88	11.14	

*Significan, at 0.05 level of confidence, df=(14) at 0.05 level=2.145

Result of systolic pressure

Table – II "t" ratio for systolic (score in mmhg)

S.No	Group	Mean		Standard		Obtained value	Tablevalue
		pre	post	pre	post		
1	Control group	4.74	4.77	.58	.54		2.145
2	Exp.group	4.80	4.92	.54	.54	4.532*	

*significant, at 0.05 level of confidence, df=(14)at 0.05 level=2.145

Hence the experimental group was significant at 0.05 level of confidence. The result indicated that the walking had significantly influenced on heart rate due to influence of six weeks of training period among middle aged women.

Discussion on findings: The result indicated that the walking had influenced significantly on diastolic pressure among middle aged women.

Table – IIIThe "t" ratio for diastolic pressure (score in mmhg)

S.No	Group	Mean		Standard		Obtained value	Tablevalue
		pre	post	pre	post		
1	Control group	11.04	11.66	2.81	1.16	2.510	2.145
2	Exp.group	13.02	14.66	2.33	3.17	4.910*	

*significant, at 0.05 level of confidence, df=(14)at 0.05 level=2.145

Discussion on findings: The result indicated that the walking had influenced significantly on hemoglobin among middle aged women.

Table – IVThe "t" ratio for hemoglobin (score in mumm)

S.No	Group	Mean		Standard		Obtained value	Tablevalue
		pre	post	pre	post		
1	Control group	71.40	73.53	8.79	8.82	1.38	2.145
2	Exp.group	68.13	64.00	8.79	8.22	4.05*	

*significant, at 0.05 level of confidence, df=(14)at 0.05 level=2.145

Discussion on findings: The result indicated that the walking had influenced significantly on red blood test among middle aged women

Table – VThe "t" ratio for red blood test (score in mumm)

S.No	Group	Mean		Standard		Obtained value	Tablevalue
		pre	post	pre	post		
1	Control group	53.5	53.00	4.99	5.00		2.021
2	Exp.group	51.2	42.00	4.89	4.86	2.93	

*significant, at 0.05 level of confidence, df=(14)at 0.05 level=2.021

Discussion on findings: The result indicated that the walking had influenced significantly on anxiety among middle aged women.

Table – VI The “t” ratio for red blood test (score in points)

S.No	Group	Mean		Standard		Obtained value	Tablevalue
		pre	post	pre	post		
1	Control group	14.92	14.096	12.40	12.53	20.1	2.021
2	Exp.group	13.17	12.86	13.00	12.13	1.19	

*significant, at 0.05 level of confidence, df=(14) at 0.05 level=2.021

Discussion on findings: The result indicated that the walking had influenced significantly on stress among middle aged women.

Table – VII The “t” ratio for red blood test (score in points)

S.No	Group	Mean		Standard		Obtained value	Tablevalue
		pre	post	pre	post		
1	Control group	69.06	70.06	6.21	5.61	1.139	2.145
2	Exp.group	71.33	70.60	7.50	8.05	0.306	

*significant, at 0.05 level of confidence, df=(14) at 0.05 level=2.021

CONCLUSION

Within the limitation of the study following conclusion were drawn, In this study, there was no change in the heart rate and blood pressure, but the training were maintaining the the physiological value of heart rate and blood pressure. Aerobic training had significantly influenced and increases the value of White blood cells, red blood cells, hemoglobin blood, in middle aged women during pre and post menstrual cycle. Due to influence of aerobic training period were confidently reduced the Stress and anxiety at the end of six week training period among middle age women.

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The effect of plyometric training on the competitive swimming block start

Dr.G.L. Moghe Director, Physical Education, Maharashtra College, Nilanga
Maharashtra

Dr. P.N.Deshmukh Dean, Faculty of Physical Education, S.R.T.M. University,Nanded.
Maharashtra

INTRODUCTION: There have been many starting styles used in past years. The circular backswing method has now been replaced by the grab start. Shins Groppe (1984) reported that in the early 1970's the conventional arm swing start lost its popularity to the grab start. The grab start technique is performed by gripping the front edge of the starting block with the hands while in the set position. Hanauer introduced this start in the late 1960's and although there has been some dispute, over which starting technique is most effective, the grab start is and widely used method of starting at all levels of competition.(Gairmuraes and Hay, 1995, meglischo,1993).Plyometrics were developed in the mid 1960's as a training method to relate muscular strength and power (Adams 1985). Although researches articles define "plyometrics" some what differently, Despains and Chevertle (1987) point out that most agree the term refers to exercises that are characterized by powerful muscular contractions in response to rapid , dynamic loading or stretching of the involved muscles. This loading or stretching of the involved muscles is an another advantage is that plyometrics are also performed at higher velocities than traditional weight training methods, increasing their specificity to competitive performance (Young 1991).

STATEMENT OF THE PROBLEM: Due to the explosive nature of the swimming block start and the movement pattern requiring the leg extensor muscle to product fast and forceful contractions, plyometric training could be seen as a means of developing the performance of this skill. The determination of the practical use of plyometric exercises, and their effect on a skill such as the swimming block start, could be profoundly invaluable for swimming coaches and trainers. Plyometric exercises may be incorporated justifiably, into dry-land strength and conditioning programs for swimmers in the attempt to improve starting ability and performance. Plyometrics could also then be foreseen as a possible means of improving swimming turn ability and performance.

METHODOLOGY: Fourteen male subjects between the ages of 15 to 25 years, with at least six years of competitive swimming experience, volunteered to participate in the study. Importantly, the subjects were competent and well practiced in the swimming "grab" start technique. In other words, be able to demonstrated consistent performance in a standard two-foot starting technique. Subjects were split into two groups, an experimental group performing plyometric training (PG)and a control group (C) who continued their normal training patterns. Plyometric training was conducted 3 time weekly over a 6-week period. The type of training was low to moderate intensity, to reduce the risk of injury, and involved jump activities that progressed over the course of the study. Testing was conducted both pre and post training using high-speed video analysis of subjects swim start characteristics. Vertical jump performance was also measured both per and post training. In order to ensure validity of result the control group was monitored with respect to start to practice, to ensure control.

Starting Procedure: Starting procedure followed competition protocol. The subject was instructed whilst on the block to "take your marks". Once subject was observed to be stationary the starting signal was activated. On activation of the starting signal the subject executed a race start swimming through a 5-meter mark.

High-Speed Video Analysis: A high-speed video camera was positioned above, and 5-meters, from the subject and the pool and Subject performed three trial race start that were filmed at a rate of 200Hz. The most consistent of these trial start were averaged and analyzed. The kinematic parameters measured from the video data include: Block time (BT)- the time from starting stimulus until take-off from the block: Start time(ST) – the time from starting stimulus until the first contact of the swimmer with the water, and; 5m time (5m T): the time from starting stimulus until the swimmers' head reaches the 5m mark.

Vertical Jump Test (VJ): Vertical jump performance was measured to assess the explosive strength of the subjects' lower body. Subjects performed three trials and the highest of these trials was recorded.

RESULTS AND DISCUSSION: Results of both pre and post VJ, BT, ST, and 5mT are presented in Table 1. The results showed that there was a significant difference between PG pre and post VJ. This significant increase shows that the plyometric training helped develop lower body explosive strength.

Table 1: Mean results for two groups showing both pre and post VJ test and video analysis

	VJ (cm)		BT(sec)		ST(sec)		5mT(sec)	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
(PG)	39.7	44.2*	0.83	0.812	1.139	1.115	1.809	1.74
(C)	33.9	34.4	0.864	0.849	1.166	1.137	1.826	1.829

(* significant pre to post score $p < 0.05$).

There were no significant changes in PG and C for pre and post BT, ST, and 5mT. Subjects in PG were not required to practice race start over the 6-week period, which could suggest a lack of transfer to skill performance. There is possibility for future research to look at this. Subjects in PG were novices at plyometric training. Therefore, the training was light to moderate in intensity to reduce injury. Such training is non-specific to the times during which force is expressed in swimming starts. Force production in swimming starts appears to be expressed relatively over a larger range of time (ie 400-500ms) compared to that of plyometric exercises (160-200ms). Possibly more intensive plyometric exercises need to be used to elicit results, or, a longer training study need to be adopted.

CONCLUSION: It can be concluded that moderate intensive plyometric exercises do not have a significant effect on the swimming block start performance. This support other research, which suggests that plyometric training will not product better turn performance compared to normal training time spend in the water. Future research should look at longer training periods, and combining plyometrics with start specific practice.

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New Era of Physical Education and Sports - An Essential Creative Feature in Over All Education

Research Article

By

Syed Farooq Kamal, Lecturer in Physical Education, ST.Francis College for Women

E.Jyothi, Phy.Education Teacher, Nasr Girls High School, Hyderabad

INTRODUCTION: Physical Education and Sports is one of the important yardsticks and also integral part of education for any country at any point of time. Thus each country should try to set out a framework of action plan for promotion and development of Physical Education and Sports Paradoxically, sports is witnessing a spectacular boom in the media spotlight all over the world including India while it is being seriously neglected within the educational system. Physical Education act as well as the provision of resources for the nation and in the construction of evaluation system in education developments and it proms the development physical education in a country.At present compare to earlier years and now we can come across the decline of physical education in education compare to present is one needs to overcome the hurdles and battles to improve the structure and infrastructure status in around to develop the overall discipline in physical education and sports.

Present Status of Physical Education and Sports in New Era.

Despites efforts by member state to promote and develop Physical Education and Sports with international cooperation; its distinctive nature and importance to education remains a constant source of concern. Physical Education and Sports proved alarming (particularly within educational system), which given the social importance and media-coverage of sports. Its impact may be seen in the shift by Physical Education and Sport Public authorities towards high performance and high media friendly sports (at a national level, across the public and private system). A significant example in the absence of clear separation between the Ministries of Youth Affairs and Sports and Ministries of Education.

The status of Physical Education and Sports convened the Physical Education World Summit in Berlin this initiative was promoted by reports revealing the increasing critical situation of Physical Education and Sports in many countries. A world wide comparative study collect data and literature for nearly 120 countries came out with following significant findings.

- a. Reduced time devoted to Physical Education in Educational Programme.
- b. Reduced budgets plus inadequate financial, material and staff resources.
- c. The subject suffers from low status.
- d. In many countries teachers are not properly trained.
- e. Existing Physical Education guidelines are not properly applied.

Creative Mind and Thoughts which bring out the Role of Physical Education and Sports in the Present Globalization:

The Physical Education and Sports preserves the vital clue that exists between Physical Education and Sports. The reciprocal guarantee highlighted the provisions of as such it is necessary to consider Physical Education and Sports as an intrinsic part of education in all schools and colleges in a country, where sports should be compulsory right from elementary school level to till college level. In fact, quality education involves the dispensing the essential requirements of life skills i.e. learning to (i) act in an autonomous way, (self-motivation, creativity and problem solving), (ii) Use interactive tools (communication, physical and IT) (iii) To join and live with in sociality divers groups. all these Board- based life skills are precisely what Physical Education and Sports can develop. Therefore, it goes without saying that Physical Education and Sports must be actively promoted by International organizations, state governments, local authorities. The field of education must coordinate and streamline these efforts to defend the cause of Physical Education and Sports. This will include helping to redress the balance of Physical Education and sport in Education in its drive to improve the situation of Physical Education and Sports worldwide.

AIMS AND OBJECTIVES :

The aim is to meet the educational requirements stipulated by Education of All, notably to address the challenge of a quality education in which Physical Education and Sports play a significant role. The objectives include –

- i. To provide school syllabuses and enhance the status of Physical Education and Sports, providing better basic and advanced training.
- ii. To meet the standards for Physical Education and Sports, ensuring the fair access and absence of any discrimination based on gender, capacity/aptitude, culture race, creed or social/ ethnic group while ensuring the acquisition of values, knowledge and skills required to improve quality of life.
- iii. To expand the various facets of sports and traditional games.

To understand the knowledge and effects to achieve above status and aims and objectives, the following guidelines should be adopted

- i. The drive to expand Physical Education and Sports in educational establishment to boost the priority of Physical Education and Sports, to improve learning process and standard of education and also to ensure a better quality of educational programs.
- ii. A standard rule for defining the threshold of acceptability for the qualification of Physical Education and Sports curriculum.
- iii. Creation of a teacher training blue print-this will require help from universities, research institutes and other academic and scientific establishments capable of contributing to the promotion of Physical Education and Sports in Education.
- iv. Develop a communication policy - advocating the promotion of Physical Education and Sports in Educational System using available information channels.

Inventing projects that develop the scenario to improve the system of Physical Education and Sports.

- i. To promote Physical Education and Sports as an integral part of— a policy to support youth via sports,
- ii. To mobilize youth via Physical Education and Sporting activities and to boost awareness of HIV/AIDS related problems.
- iii. To help to promote ethical and moral values(outlined in the international charter of Physical Education and Sports) related to information-education and training to combat doping in sports.
- iv. To promote traditional games and sports and to publish World Encyclopedia of traditional games and sports

The overcome of downing street on the line of an ongoing Independent survey lines system to monitor the progress achieved by the campaign to promote Physical Education and Sports.

Such a system should be able to monitor the status of Physical Education and Sports by pooling information and measurable results. It should also be properly equipped to act as a decision making tools and help promote Physical Education and Sports in Education system. This will involve supplying the relevant information to decision makers and member states, providing pertinent indicator to help them successfully address the challenges confronting physical Education and Sports in the field of education.

CONCLUSIONS:

It goes without saying that implementing a drive to promote Physical Education and Sports in Educational System requires resources where the Govt. should take the appropriate decision to improve the infrastructure facilities in physical education department in all the schools & colleges level

1. One should know how important that the physical education place vital role.
2. Now UGC has come into existing to help the colleges for NAAC accreditation and helping and hand to hand to improve the infrastructure facilities in the colleges going for NAAC accreditation for allotting the high level budget to improve the facilities in the private institutions and the institutions of the management to overcome the burden of individual implementing the whole.
3. Also the ministry of external affair Govt. of Sports Ministry should look into the decision of sports personalities by awarding marks for the International, National, South Zone, South West Zone and All India Inter Zonal and All India Inter University Level Medal Winners for encouraging and motivating the talent of the young achievers to get laurels for Country.

Work Values
A Study of Executives Response
By
Dr.N.Raji Reddy
Rajendra Prasad

INTRODUCTION: Value is the worth or excellence or the degree of worth to objects or a class. Values, therefore is a standard or yardstick to guide action, attitudes, evaluations and justifications of the self and others. Value may be of two different types (George 1974).

1. Instrumental values and
2. Terminal Values

Instrumental Values	Terminal Values
1. Honesty	1. Job satisfaction
2. Competence	2. Personal achievement
3. Discipline	3. Justice / Self reliance
4. Loyalty	4. Organizational growth
5. Creativity	5. Independence / Self reliance
6. Courage	6. Protection
7. Ambition	7. Personal enlightenment

The most widely used approach classifies work values as intrinsic, extrinsic and concomitant [Eliginberg (1951)].

Intrinsic values are satisfaction derived from activity it self.

Extrinsic values are the return a job provides.

Concomitant values are those aspects of work that are part of the task situations.

Director, SIIM , Affiliated by Osmania Universit

Definitions of work values:The value pertaining to work acquired long before enter work situation are enduring beliefs. They guide actions, attitudes, judgment beyond immediate goals to more ultimate goals in work situation (Rao & Rao 1973).Work value in special usage of the general concept of value and may be defined as the conations of what is preferable from among the alternative modes of conduct or end states, with respect to one's work activity.Work values can be defined as a person's attitudes to work in general rather than his feeling about a specify about a specific job (Smith 1971).

1. Be creative
2. Earn money
3. Take challenges
4. Serve others
5. Have good working conditions
6. Have a stable and secure job
7. Be independent
8. Have good colleagues
9. Enjoy prestige and statu

An understanding of the various levels of values are:-

- Individual values which influence actions
- Group values influencing the behavior of members of groups and organization matters.
- Organization values which are held by the organization
- Cultural values which are held by the organization

Rokeach (1973) believes that values are criteria for guiding action and maintaining attitudes towards relevant objects and situations for justifying one's own and other's action and attitudes for morality, judging, self others for comparing one self with others.

Some important research about Wofford values: A considerable conceptual and empirical research has been carried out in the area of values and wofford values especially in the organization and industrial context in many countries. Findings by Blood (1969) concerning relationships of work values to employee effective response. Investigation was carried out were 131 hourly employee of a manufacturing firms. Further, significant relationship were found between wofford values indices and employee perceptions of task characteristics and of leader behaviors. Robey (1974) used 60 undergraduates to the test the hypothesis that job satisfaction and performance are effected by the interactions of task design and wofford values, affects work satisfaction. A glance at the results of the various analysis show that by and large, majority of the executives studies exhibit terminal values and moralistic orientates in their instrumental values. A social orientation is also present where as competence is not significant as an instrumental value orientation.

Studies of work values in India: The educated urban middle class & the industrial labour were socialized in some of the work values of industrialism. The new values of scientific spirit, rationalism, and merit based on achievement, hard work, and sincerity were appreciated and imbedded with in the traditional cultural pattern (Srivastava 1966). Values and value system play a central role in executive motivation and inter personal communications and dissonance between corporate values can pose hurdles in motivation, communication, commitment, satisfaction. **Hypothesis of the study:** Executives will differ in their scores on work values.

Sample and the research design: The present study intends to analyses the prevailing nature of work values in two select industries perceived by their executives.

Sampling: In this study the researcher intended to collect data from such organizations namely (CPSE) Central Public Sector Enterprise and (SPSE) State Public Sector Enterprises. Further it was also decides to conduct the study on the management representing three levels top, middle and lower. During the preliminary visit to the area of study the researcher came to know that the total respondents belonging to managerial cadre were 2544 in number at CPSE where as 600 at SPSE. Ten percent of universe in both the organizations was decide to select for further study. 256 managerial respondents at CPSE & 60 respondents at SPSE. After repeatedly reminding & constantly persuading 150 managers at CPSE have returned the questionnaires where as 50 in SPSE. Further the questionnaires were scrutinized.

Characteristics of the sample

S.no	Characteristics	CPSE(n=150)		SPSE(n=50)	
		Mean	SD	Mean	SD
1	Age	43.23	7.02	44.80	5.26
2	Service	18.68	6.38	20.38	4.90
3	No.of production	3.50	1.40	3.96	1.17
4	No.of dependents	3.40	1.60	3.62	1.12

Qualitative characteristics of samples

S.NO	Characteristics	CPSE	SPSE
1	Marital Status		
	• Unmarried	14(09.3)	1(02.0)
	• Married	136(90.07)	49(98.0)
2	Educational Qualification		
	• Diploma	16(10.6)	04(08.0)
	• Graduates	77(51.4)	15(30.0)
	• Post Graduates	57(38.3)	31(62.0)
	Present Position		
	• JM	44(29.3)	06(12.0)
	• MM	88(58.7)	43(86.0)
	• TM	18(12.0)	01(02.0)

Methods & Tools of Data Collection:The questionnaire method was utilized. A 21 items work values scales developed by Blood (1969) is adopted for measuring the work values profile of responsibilities.

Inter-organization differences in work attitude:The hypothesis executives will differ in their attitudes towards work related aspects according to the ownership of their organization is tested by computing mean scores on all the effective components responded by executives in the organization

Inter organization differences in mean score on work attitudes & F values

S.No	Work Attitude Dimensions	CPSE	SPSE	F	Probability
1	Pay	28.16	27.28	1.563	0.213
2	Supervision	25.18	24.62	0.695	0.406
3	Co-worker	15.68	14.83	2.863	0.092
4	Work itself	12.30	12.38	0.068	0.795
5	Overall satisfaction	11.87	11.48	0.743	0.390
6	Work Values	58.09	58.21	0.001	0.978

Above table reveals that executives at both the compares have scored not much differently on all work related attitudes. Since none of the means differences reached statistical significance the hypothesis is related.

Conclusion:Values & value systems play a central role in executive motivation and inter personal communication and dissonance between corporate values and individual values can pose hurdles in motivation, communication, commitment, satisfaction and productivity. Executives in a business may strongly believe that profitability to the organization should decide any issue or it may be consumer satisfaction or personal achievement. The organization itself is said to have certain values so also the person who work in it.

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4. Rokeach, 1973

Effect of Resistance Endurance Training and Combined Training on Selected Physical Fitness Variables

Mr. M. Seenimurugan* and Dr. V. Jeyaveerapandian**

Abstract: The purpose of the study was to find out the effect of resistance training, endurance training and combined training on selected physical fitness variables. Sixty male students aged between 17 and 22 years were selected for the study. They were divided into four equal groups, each group consisting of fifteen subjects in which Group I underwent resistance training, group II underwent endurance training, group III underwent combination training, three days per week for twelve weeks and group IV acted as control, which did not participate in any training. The subjects were tested on selected criterion variables such as leg strength, back strength and cardio-respiratory endurance at prior to and immediately after the training period. For testing the leg strength and back strength, the dynamometer was used and to test the cardio-respiratory endurance, the Cooper's 12 minutes run/walk test was administered. The analysis of covariance (ANCOVA) was used to find out the significant difference if any, between the experimental groups and control group on selected criterion variables separately. Since there were four groups involved in the present study, the Scheffé S test was used as post-hoc test. The selected criterion variables such as leg strength, back strength and cardio-respiratory were improved significantly for all the training groups when compared with the control group and the leg and back strength were improved significantly for combined training group and resistance training group, and in cardio-respiratory endurance, the endurance training group and combined training groups were significantly improved.

Key Words: Resistance training, endurance training, physical fitness, leg strength, back strength and cardio-respiratory endurance.

* M. Seenimurugan, Director of Physical Education & Research Scholar, Vivekananda College, Tiruvedakam West, Madurai District-625 514

**Dr. V. Jeyaveera Pandian, Associate Professor & Research Supervisor, Department of Physical Education, Madurai Kamaraj University, Madurai.

INTRODUCTION: Physical education or gymnastics is a course taken during primary and secondary education that encourages psychomotor learning in a play or movement exploration setting. The term physical education is most commonly used to denote Physical Exercises or Games or Sports in which the students to have participated in the subject area rather than studied it. Physical training is one of the most important ingredients in training to achieve high performance. The objectives of physical training are to increase the athlete's physiological potential and to develop biomotor abilities to the highest standards (Tudor O. Bompa, 1999). Sports training is a process of athletic improvement, which is conducted on the basis of scientific principles and which, through systematic development of mental and physical efficiency, capacity and motivation, enables the athletes to produce outstanding and record breaking athletic performances (Dietrich Harre, 1982). While planning the dynamics of training, consider these aspects, referred to as the variables of training according to the functional and psychological characteristics of a competition. Throughout the training phases preceding a competition, define which component to emphasize and achieve the planned performance objective (Vladimir M. Zatsiorsky, 1995). Resistance training has two different meanings. A broader meaning that refers to any training that uses a resistance to the force of muscular contraction (better termed strength training), and elastic or hydraulic resistance, which refers to a *specific type* of strength training that uses elastic or hydraulic tension to provide this resistance (www.wikipedia.org). Resistance training - sometimes called weight training or strength training - is a "specialized method of conditioning designed to increase muscle strength, muscle endurance and muscle power," according to the American Sports Medicine Institute (ASMI) (Edward G. Mcfarland, www.google.com). Endurance is a term widely used in sport and can mean many different things to many different people. In sports it refers to an athlete's ability to sustain prolonged exercise for minutes, hours, or even days. Endurance requires the circulatory and respiratory systems to supply energy to the working muscles in order to support sustained physical activity (www.busywomenfitness.com). Leg strength plays a vital role in the daily activities of man. It is an essential factor for including in almost all games and sports. There is an old saying that an athlete will go only as long as his legs will carry him. Cardio-respiratory endurance is the ability to work close to

one's maximum aerobic capacity for a prolonged period of time. To increase one's endurance is to depend upon increasing the ability to work at high, relative work load for extended periods of time.

Methods:In this study it was aimed to find out the effect of resistance training and endurance training and combined training on leg strength, back strength and cardio-respiratory endurance. To achieve the purpose sixty male students from various faculties of Vivekananda College (Residential and Autonomous), Tiruvedakam West, and Tamil Nadu were selected as subjects at random from the total population of 275 students. They were divided into four equal groups of fifteen each and further divided as three experimental groups and one control group, in which the group I (n=15) underwent resistance training, group II (n = 15) underwent endurance training and group III (n = 15) underwent the combination training for three days per week for twelve weeks, and group IV (n=15) acted as control which did not participate in any special training apart from the regular physical education programme of the curriculum. For every training programme there would be a change in various structure and systems in human body. So, the researchers consulted with the experts and then selected the following variables as criterion variables: 1. Leg strength, 2. Back strength and 3. Cardio-respiratory endurance.

Analysis of the Data:Analysis of covariance was used to determine the differences, if any, among the adjusted post test means on selected criterion variables separately. Whenever the 'F' ratio for adjusted post test mean was found to be significant, the Scheffé S test was applied as post-hoc test. 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 Leg Strength, Back Strength and Cardio-respiratory Endurance of Resistance Training Group, Endurance Training Group and Combined Training Group and Control Group

Variable Name	Group Name	Resistance Training Group	Endurance Training Group	Combined Training Group	Control Group	'F' Ratio
Leg Strength	Pre-test Mean ± S.D.	74.60 ± 2.324	75.20 ± 3.256	73.13 ± 3.114	74.33 ± 3.109	1.279
	Post-test Mean ± S.D.	78.60 ± 2.694	76.67 ± 3.155	74.80 ± 2.651	74.53 ± 3.335	6.055*
	Adj. Post-test Mean	78.333	75.833	75.917	74.518	38.63*
Back Strength	Pre-test Mean ± S.D.	65.13 ± 1.552	64.47 ± 1.807	64.13 ± 2.560	64.87 ± 2.356	0.654
	Post-test Mean ± S.D.	71.93 ± 2.434	66.13 ± 2.10	66.00 ± 2.591	64.87 ± 2.031	28.74*
	Adj. Post-test Mean	71.506	66.295	66.456	64.675	70.125*
Cardio-respiratory Endurance	Pre-test Mean ± S.D.	1596.67 ± 45.93	1598.67 ± 68.02	1626.00 ± 40.32	1626.00 ± 73.659	1.167
	Post-test Mean ± S.D.	1618.67 ± 41.725	1742.67 ± 59.217	1696.00 ± 35.817	1624.67 ± 71.00	18.40*
	Adj. Post-test Mean	1630.76	1753.17	1684.70	1613.37	82.605*

* Significant at .05 level of confidence. (The table value required for significance at .05 level of confidence with df 3 and 56 and 3 and 55 were 2.77 and 2.78 respectively).

Table - II
Scheffé S Test for the Difference Between the Adjusted Post-Test Mean of Leg Strength Back Strength and Cardio-respiratory Endurance

Adjusted Post-test Mean for Leg Strength					
Resistance Training Group	Endurance Training Group	Combined Training Group	Control Group	Mean Difference	Confidence Interval at 0.05 level
78.333	75.833			2.5*	1.0438
78.333		75.917		2.416*	1.0438
78.333			74.518	3.815*	1.0438
	75.833	75.917		0.084	1.0438
	75.833		74.518	1.315*	1.0438
		75.917	74.518	1.399*	1.0438
Adjusted Post-test Mean for Back Strength					
71.506	66.295			5.211*	1.4364
71.506		66.456		5.05*	1.4364
71.506			64.675	6.831*	1.4364
	66.295	66.456		0.161	1.4364
	66.295		64.675	1.62*	1.4364
		66.456	64.675	1.781*	1.4364

* Significant at 0.05 level of confidence

Adjusted Post-test Mean for Cardio-respiratory Endurance					
Resistance Training Group	Endurance Training Group	Combined Training Group	Control Group	Mean Difference	Confidence Interval at 0.05 level
1630.76	1753.17			122.41*	28.1677
1630.76		1684.703		53.943*	28.1677
1630.76			1613.37	17.39	28.1677
	1753.17	1684.703		68.467*	28.1677
	1753.17		1613.37	139.8*	28.1677
		1684.703	1613.37	71.33*	28.1677

* Significant at 0.05 level of confidence.

Results: Table – I shows that there was a significant difference among resistance training group, endurance training group, combined resistance and endurance and resistance training group and control group on leg strength, back strength and cardio-respiratory endurance. Table – II shows that the Scheffé S Test for the difference between adjusted post-test mean of resistance training group and endurance training groups (2.5), resistance training group and combined training group (2.416), resistance training group and control group (3.815), endurance training group and control group (1.315) and combined training group and control group (1.399, which were significant at .05 level of confidence. But there was no significant difference between endurance training group and combined training group (0.084) on leg strength after the training programme. Table – II also shows that the Scheffé S Test for the difference between adjusted post-test mean difference in back strength between resistance training group and endurance group (5.211), resistance training group and combined training group (6.831), resistance training group and control group (1.62) combined training group and control group (1.781) were significant at .05 level of confidence. But there was no significant difference between endurance training group and combined training groups (0.161) on back strength after the training programme. Table – II shows that the Scheffé S Test for the difference between adjusted post-test mean difference in cardio-respiratory endurance between resistance training group and endurance group (122.41), resistance training group and combined training group (53.943), endurance training group and combined training group (68.467), endurance training group and control group (139.8) combined training group and control group (71.33) were significant at .05 level of confidence. But there was no significant difference between resistance training group and control group (17.39) on cardio-respiratory endurance after the training programme.

Conclusions

1. It was concluded from the results of the study that the leg and back strength have improved significantly after the respective training programme. But in the cardio-respiratory endurance, resistance training group has not improved significantly.
2. When compared with the control group, all the training group has significantly differed in both the criterion variables, except in cardio-respiratory endurance, the resistance training has not differed from the control group significantly.
3. It was also concluded that the resistance training group has improved their leg and back strength better than the endurance training group and combined training group significantly. But the endurance training group and combined training group have also improved their performance significantly.
4. There was no significant improvement in cardio-respiratory endurance for the resistance training group when compared with the control group. But all the remaining training groups have improved on cardio-respiratory endurance significantly.

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Integrating Language in Sports

Naine Samuel Babu, Ph.D.
Assistant Professor-in-English
Hamelmallo Agricultural College, Keren, Eritrea, N.E. Africa
e-mail: samresearch.bob@gmail.com

ABSTRACT:As globalization, mobility and communications are bringing the world together; ever more urgent is the need to be competent in linguistic skills. Using games and sports is a good way of integrating most complex language skills. Physical Education Teachers are in a unique position to provide good language skills. Idiomatic expressions can make students to put the things in an impressive and succinct manner.

Key Words: Language skills, Physical Education classes, Idioms.

INTRODUCTION:Language skills can blossom in Physical Education classes. Physical education settings are the ideal place for the development of language and speech (Connor-Kuntz & Dummer, 1996). As a child matures, the vocabulary develops rapidly from several hundred words to several thousand by age six. Expressive vocabulary doubles by this age along with notable increases in receptive-vocabulary (Owens, 2001). Using games and sports that include increasingly complicated rules, skills, and equipment is a good way of integrating more complex development of speech-language skills and mature motor patterns (Dummer, Connor-Kuntz, & Goodway, 1995; Sherrill, 1998).Scholars have found a myriad of speech delays affecting preschoolers with gross and fine motor-coordination deficits (Cermack, Ward, & Ward, 1986; Reeves, 1997, 1998; Sommers, 1988). Likewise, research shows that there is a high correlation between a child's linguistic ability and motor development (Sommers, 1988; Powell & Bishop, 1992). Clearly, there is a need to examine the relationship between the development of speech-language skills and motor skills so as to determine the best means of intervention (Reeves, 1998). Shephard, R. J., Volle, M., Lavallee, H., La Barre, R., Jequier, J., and Rajie, M. (1984),Shephard, R. J., Jequier, J. C., LaBarre, R., and Rajie, M. (1980) and others investigated the academic benefits of physical education.Given the relationship between speech and motor development, physical education teachers are in a unique position to provide the training necessary for both motor skill development and language augmentation. Wanska, Bedrosian, and Pohlman (1986) reported that strategies used by speech-language pathologists can be used by physical education teachers to augment language concepts. One of the best areas for language development can be traced back to teaching of idiomatic language to the students involved in sports. People use **idioms** to make their language richer and more colorful and to convey subtle shades of meaning or intention. Idioms are used often to replace a literal word or expression, and many times the idiom better describes the full nuance of meaning. Idiomatic expressions can be more precise than the literal words, often using fewer words but saying *more*. The following are a few fascinating commonly used idioms where the students could be exposed to know their own body and its language:

1. As a reformer he **set his face against** (sternly opposed) globalization.
2. He **turned a deaf ear to** (disregard) my advice.
3. Throughout his speech the audience was **all ears** (deeply attentive).
4. That fellow sets everybody **by the ears** (a mischief maker).
5. Do not **give ear to** a tale -bearer (listen to).
6. This is more than **flesh and blood** (human nature) can endure
7. I have it at my **fingers ends** (know it thoroughly).
8. It is said that he has **finger in the pie** (something to do with the affair/issue).
9. He **burnt his fingers** (got himself into trouble) by interfering in his neighbor's affairs.
10. I'm doing my driving test tomorrow. Keep your **fingers crossed** for me. (hope something will be successful)
11. He always keeps **his foot on the ground** (continues to act in a sensible and practical way).
12. Where discipline is concerned I put **my foot down** (take a resolute stand).
13. People say that he is **on his last legs** (on the verge of ruin).

14. He told us all that he was leaving, and then he came back ten minutes later with his **tail between his legs**. (guilty & ashamed).
15. She really **put her foot in her mouth** when she mentioned the housewarming party - Filo hadn't been invited!" (Say something that offends, upsets or embarrasses someone else.)
16. Many people in the world live **from hand to mouth** (without any provision for future).
17. That young man was born **with a silver spoon in his mouth** (born in wealth & luxury).
18. He can turn his **hand to** (adapt/ apply) to anything.
19. He **is hand and glove** (on very intimate terms) with my cousin.
20. It is reported that some ruffians **laid hands on** (assaulted) him while he was returning home.
21. What you say has no bearing on the subject **in hand** (Under discussion or consideration).
22. I **wash my hands** of the whole matter (refuse to have anything more to do with it).
23. Just now my **hands are full** (am very busy)
24. He strained **every nerve** (used his utmost efforts) to get his friend elected.
25. You have **hit the nail on the head** (said or done exactly the right thing).
26. Success has **turned his head** (made him quite vain).
27. I can make neither **head nor tail** (nothing) out of it
28. The directors of the company put **their heads together** (consulted one another) to formulate a new programme.
29. He is **overhead and ears** (deeply) in love/debt.
30. He appears to have **an old head on young shoulders** (to be wise beyond his years)
31. He **took his heart** (deeply affected by) the death of his wife.
32. He's always got his **head in the clouds** - he makes all these impossible plans."(dream)
33. He was disappointed, but he **took his heart** (cheered himself up) and tried again.
34. He took **this failure to heart** (felt it deeply; grieved over it)
35. When she needs to **pour her heart out** to someone, she goes to visit her grandmother. (express your feelings and troubles freely)
36. He has his **heart in the right place** (kindly and sympathetic disposition)
37. He is not a great orator but he has the **gift of the gab** (a talent for speaking).
38. We shall fight **tooth and nail** (with all our powers) for our rights.
39. While he spoke, the audience **hung on his lips** (listened eagerly to his words).
40. When she heard the bad news, she **kept a stiff upper lip** (do not let other people see their feelings.)
41. I don't expect him **to see eye to eye** (in complete agreement) with me on that question.
42. He refused to **be led by the nose** (to follow submissively).
43. He always wishes to keep **his nose clean** (from criticism).
44. Don't **thrust your nose** in to my affairs (meddle with).
45. He is such an absent-minded fellow that he does not know what **passes under his nose** (in his very presence).
46. When he discovered that he wasn't on the invitation list, which really put **his nose out of joint** (Upset, embarrassed or offended by somebody or something).
47. Ms. Raj is **hard-nosed**. If you plagiarize, you fail the course. (firm, tough; refusing to lower his price or standard).
48. He is **under the thumb** of his wife (completely under the influence of).
49. She's the **apple of her father's eye** (to be loved by someone very fondly).
50. The speech was so touching that I had a **lump in my throat**. (a tight feeling such as sadness or gratitude).

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Teaching Science Through Experimental Method – A Study

Dr. D.Balaramulu, Ph.D
Sr.Associate Professor-in-Education
IASE, Osmania University, Hyderabad, India.

ABSTRACT:Experimental methods would enhance scientific temper among the students. Unawareness of experimental methods leads to many repercussions, finally it make the student a solitary reaper to comprehend the usefulness of this method.

Key Words: Experimental method, scientific temper,

INTRODUCTION: Experimental methods are commonly held as the paradigm for testing hypotheses. But not all scientific hypotheses can be tested in the laboratory. Historical hypotheses that postulate particular past causes for currently observable phenomena provide good examples. All experiments involve manipulation of one or more independent variables, and observing the effect on some outcome (dependent variable). Experiments can be done in the field or in a laboratory. They can involve human or animal subjects. What distinguishes the type of experiment is the degree to which the experimenter can assign subjects to conditions. Three types are described here: True, Quasi- and Single-subject experiments. C.Hellingman(1982);Carol.E.Cleveland(2001); Yammoto Katsurhio (2003);M.Bulla &S.Holec (2004); Steven.D.Levitt & John A.List (2006);R.T.Bottle (2007); Lata.L.Pujur etal (2008);Zafer (2008) and many others have brought out the significance as well as inevitability of experimental method in teaching Science. As the experimental teaching of science is in nascent stage, this less-trodden area was selected for investigation.

OBJECTIVES:

1. To appraise the significance of experimental method in teaching science.
2. To investigate the perceptions of students on the relevancy of Experimental method in teaching Science.
3. To find out the usefulness of science teaching through experimental methods among students.

METHODOLOGY The universe of the present study consists of Hyderabad District in the State of Andhra Pradesh. The sample constitutes ten Government schools with ten students from each school.A questionnaire was developed for the students, which consist of two parts- Part-A, is nothing but the profile of students which includes certain aspects to test the perceptions of the students. Part-B was designed to test the knowledge of students on Experimental method.

MAJOR FINDINGS:

1. A good majority (56%) of the respondents opted for '**Always**' for the statement- **teacher demonstrations**.
2. A majority of the sample (54%) opined '**Always**' with regard to the statement '**Carrying out experiments following a pre-determined protocol**'
3. In respect of **making observations**, a large majority (64%)opted for '**Always**'
4. **Proposing experimental protocols in response to defined objectives** was viewed as '**Always**' by 54%, of the sample.
5. A good majority (48%) have chosen '**Always**' for **verifying a scientific law through experiment**.
6. As per the statement - **formulating and testing hypothesis**, nearly half of the sample 42% perceived as '**Always**'.
7. Regarding the **presenting and communicating procedures and results**, a good number of respondents (48%) pronounced '**Always**'.
8. **For knowledge of scientific concepts/laws/theories**, a good majority

- of the respondents (64%) opined 'Yes'.
9. A major (56%) chunk of the sample agreed to the statement that the
Ability to resolve problems formulated in theoretical terms.
 10. More than half of the sample (58%) said '**Yes**' to the statement
'Ability to frame a problem in scientific terms'.
 11. A majority (52%) of the respondents opted '**Yes**' for the statement
'Ability to select appropriate apparatus and equipment.
 12. A majority (56%) of the sample said 'Yes', to the statement-
'Knowledge of experimental/investigative techniques' .
 13. A majority (44 %) of the respondents '**disagreed**' to the statement
'Ability to formulate scientific hypotheses'.
 14. Nearly half of the sample (44%) opined '**Yes**' to the statement
Ability to propose/discuss experimental protocols in response to defined objectives'.
 15. A good majority of the respondents (48%) opted 'Yes' to '**the ability to summarize and present results and data**'.
 16. A great majority (58%) **agreed** to the statement that students have the
'Knowledge of and ability to apply basic skills'.

DISCUSSION:Research Question: 1. How far teaching science through experimental method enhances scientific temper among students?Undeniably, the research established that there were a lot of contributing factors towards how experimental method would enhance scientific temper among the students. Scientific temper can be described an attitude which involves the application of logic and the avoidance of bias and preconceived notions. The studies and researches undertaken around the globe especially Hellingman(1982); Carol.E.Cleveland (2001) speaks voluminous about the problem on hand. A true scientist follows two cardinal rules. He is never unwilling to accept the worth of evidence, howsoever damning to the most favourite of his theories. Second, and perhaps more important, for want of evidence, he withholds comment. This is evident from the fact that a majority of the students expressed that the experimental method they have learnt is of great little use. It is also evident from the research a good majority of the sample agreed to the fact that experimental method would reduces the complexity of learning and it results in knowing the theory and practice at a time.

Research Question: 2. Are the students fully aware of the significance of experimental method?

The results of the study demonstrates ample evidence that most of the students are not aware of the significance experimental method that would enhances their efficacy. It's a good sign most of the students in the beginning got confused, but later on they developed that competency to gauge the matter and to a large extent the science students confessed that they could understand the significance of experimental method that would make them to participate and active learning could take place.

Research Question 3: What are the perceptions of the students on teaching science through experimental method?

The study exposed many factors that would enhance the student's caliber to pursue experimental method. *Their positive learning experiences varied greatly.* Whenever they are involved in the experimental method they could glean an extraordinary wisdom from the experimental method. The investigation had ample scope to instil in the students the right attitude and finally one can say they it could develop a positive attitude among the students toward the experimental method. Finally the study shows quantifiable evidence to support the view that experimental method in teaching science certainly contribute for the inculcation of scientific temper among the students, bearing its relevancy to the present day learning process.

IMPLICATIONS: It is evident that experimental method of teaching science had a very great influence in the academic lives of students, which demands for building scientific temper among the students. Moreover, the findings of the present study give teachers some guidelines to overcome learner's specific problems in teaching science. Furthermore, these findings would also help authorities responsible for implementation of various policy matters, related to experimental methods

FURTHER RESEARCH:

1. Similar study can be conducted with a large sample to have in depth knowledge of experimental method in teaching science and its relevancy.
2. It is very necessary to throw a bridge between an experimental project and a developmental project.
3. There is hardly any professional interest in carrying out policy studies in science education.
4. An investigation can be taken up on the utility of various scientific methods in teaching science.

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The Influence of Socio Economic Status on Self Confidence and Achievement Motivation of Sports Women

*Shivasharanappa .D. Ryagi

*Physical Cultural Instructor, Govt. First Grade College, Kembavi, Karnataka.

ABSTRACT:The high socio economic status would be highly advantageous for an individual as he enjoys the better standard of living, quality education, high income, positive self image, high dignity and status in the society, good training facilities and the subsequent high self confidence which invariably helps her to gain positive personality traits and higher achievement motivation. Whereas, an individual of low socio-economic status would inherit the motivational and personality characteristics like low achievement motivation, low aspiration level, low expectation, neuroticism, insecurity, rigidity, conformity, anxiety, extroversion, alienation, low self image, past orientation, lack of future orientation, external attribution for success and internal attribution for failure and use of dysfunctional coping strategies like escape, helplessness, hopelessness and denial. To achieve the purpose of study 130 sportswomen who are participated in inter-collegiate athletic meet were selected and firstly personal data schedule is used to collect the information related to personal and socio-demographic status of the subject and Socio-economic status scale developed by Bharadwaj and Chavan (1989) is administered. Then 68 sportswomen divided into two groups of 34 each as high and low low SES groups by random sampling out of total population. Secondly the Self confidence Inventory by M. Basavanna (1975) and Achievement Motivation Test developed by Dr. Beena Shah were administered two groups respectively and found that positive and significant influence of socio-economic status on self confidence and achievement motivation of sportswomen and there is a significant difference in self confidence and achievement motivation level between low and high socio-economic status sportswomen. Also found that the significant relation between socio-economic status and self confidence, socio-economic status and achievement motivation of sportswomen. On contrary the low SES group of sportswomen because of their strong desire to win and succeed, the fear and humiliations associated with failure, the urge to grow and develop might have influenced them to adopt the higher achievement motivation.

INTRODUCTION:The participation of women in sport has been of great concern especially because for many years in the past, our society has condemned women's participation in physical activities involving to profuse sweating, building of muscles and competing with others in public. However, with changed time, women now find a place in sport avenues and acceptance, not only to participate but to compete in a wide range of activities including wrestling, weight lifting and marathon etc., which were once considered as only male dominated events. A change is also evident in the attitudes of parents and society, where as women now participate in sport whole-heartedly without hazards, they are also found to be competing in sport for the same reasons, as are men. Although a specific relationship between social class and sports participation has been postulated, explanations for such a relationship have been relatively less empirically tested. Further, research is needed in such areas to gain greater insight into the factors aimed at motivating or discouraging female participation in sport and physical activities.

SIGNIFICANCE OF THE STUDY

In view of competitive sports gaining significance the study of socio-economic status assumes importance in the context that,

1. The study of individual sportswoman to determine her performance, and persistence are result of her socio-economic status and its impact on their self confidence and achievement motivation.
2. To know the self confidence and achievement motivation correlates of the psychological profile differentiation among the low and high socio-economic status sportswomen and it would be greatly helpful for the coaches engaged in preparing the sportswomen for higher performance.
3. This would enable them to understand and know the psychological strengths and weaknesses of players with respect to their participation in different sports.
4. To know about the extent of help in providing guideline to physical education teachers and coaches for selecting and preparing players for their psychological make-up.

Variables

The socioeconomic status is an independent variable

The dependent variables are

- Self confidence
- Achievement Motivation

HYPOTHESES

- There is a significant influence of socio-economic status on self confidence and achievement motivation of sportswomen.
- There is a significant difference in self confidence and achievement motivation level between low and high socio-economic status sportswomen.
- There is a significant relation between socio-economic status and self confidence of sportswomen.
- There is a significant relation between socio-economic status and achievement motivation of sportswomen.

METHODOLOGY

The present investigation pertaining to 'The influence of socioeconomic status on self confidence and achievement motivation of sportswomen' is in the framework of ex-post-facto research. The particulars of samples, tools, collection of data and statistical techniques are given as under;

Sample

The total sample consists of 68 sportswomen belonging to high and low socioeconomic status participated in the inter-collegiate athletic meet. The age level ranging from 19-25 and were selected randomly. The sample design is given below:

Sample Design Sportswomen		
High SES	Low SES	Total
34	34	68

Tools

1. Personal data schedule was used to collect the information related to personal and socio-demographic status of the subject.
2. Socio-economic status scale developed by Bharadwaj and Chavan (1989).
3. Self confidence Inventory by M. Basavanna (1975).
4. Achievement Motivation Test developed by Dr. Beena Shah.

Scoring

Answers were scored as per the scoring key provided in the respective manuals of test.

Collection of Data

To meet the objectives of the present study the data was collected by administering personal-bio-data schedule, SES scale, Self confidence inventory and Achievement Motivation scale. The testing is done in two stages, at the first stage SES scale is administered to the total 130 respondents participated in 3rd inter-collegiate athletic meet held at K.S.W.U, Bijapur (Karnataka). To categorize them into the low and high socioeconomic status, taking the first and the third quartile as cut off points respectively, lastly 68 samples were used.

At the second stage the self confidence inventory and achievement motivation scale, were administered to the high and low socioeconomic status participants. The responses were scored and terminated.

Statistical Analysis

To meet the objective of the study and to verify the formulated hypotheses the data were analyzed. The 't' test, ANOVA and correlation, were calculated and data were organized.

RESULTS AND DISCUSSION

Table.No.1
Table showing the Mean, SD and t values of Self confidence scores of high and low SES sportswomen

Variables		High SES	Low SES
Self confidence	Mean	19.18	57.28
	SD	1.20	1.22
t-value		111.05**	

** Significant at 0.001 level

Table.No.1 presents the Mean, SD and t values of the adjustment of high and low SES sportswomen. The mean score of high SES sportswomen is 19.18 and the mean score of low SES sportswomen is 57.28 respectively. The obtained t-value of 111.05 is significant at 0.001 level

indicates that there is a significant difference of self confidence between high and low SES sportswomen. This indicates that sportswomen belonging to high socio-economic status are more self competent, emotionally, mature, intellectually adequate, successful, satisfied, decisive, optimistic, independent, self-reliant, self-assured, forward moving, fairly in their approach, when compared to the low SES sportswomen who generally have low self confidence. Therefore, the hypothesis that the high SES sportswomen have better adjustment than the low SES sportswomen is accepted.

Table.No.2
Table showing the Mean, SD and t values of achievement motivation of high and low SES Sportswomen.

Variables	High SES	Low SES
Mean	63.69	67.24
SD	10.73	11.88
t-value	2.74*	

* Significant at 0.05 level

Table.No.2 presents the mean, SD and t values of achievement motivation of high and low SES sportswomen. The high SES sportswomen have the mean score of 63.69 whereas the low SES sportswomen have the mean score of 67.24. It suggests that the low SES sportswomen have more achievement motivation than the high SES achievement motivation.

The obtained t-value is 2.74 which is significant at 0.05 level indicates that there is a significant difference between achievement motivation of high and low SES sportswomen. In the above table, the low SES sportswomen have the higher achievement motivation, which could have been a resultant of their strong desire to win and succeed. The fear and humiliations associated with failure, the urge to grow and develop might have influenced them to adopt the higher achievement motivation. On the contrary, the high SES sportswomen might have become complacent due to their higher standard of living, higher income, and secured environment. Thus, it becomes clear that the hypothesis mentioning of the high SES sportswomen having the high achievement motivation than the low SES sportswomen is not accepted.

Table.No.3
Table showing the Mean, SD, and t values of need for academic success of high and low SES sportswomen

Variables	High SES	Low SES
Mean	17.30	19.20
SD	4.70	3.92
t-value	3.51**	

** Significant at 0.01 level

The above table presents the mean, SD and t values of need for academic success between high and low SES sportswomen. The high and low SES sportswomen have the mean scores of 17.30 and 19.20 respectively. The comparison of the mean score suggests that the low SES sportswomen have the higher need for academic success than the high SES sportswomen. The obtained t value is 3.51, which is significant at 0.01 level shows that there is a significant difference of need for academic success between the high and low SES sportswomen. In the above table the irrespective of their condition, the low SES sportswomen have the high need for academic success due to their strong desire to learn, will to win, and a strong desire to improve their condition in the society. Therefore, the hypothesis that there is a significant difference between high and low SES sportswomen in need for academic success is accepted. On contrary, the low SES sportswomen would be in a low need for vocational achievement due to deprived condition, low income, low standard of living, and education. They would make them to be pessimistic and results in low need for vocational achievement.

Table.No.4
Table showing the Mean, SD and t values of need for vocational achievement of high and low SES sportswomen

Variables	High SES	Low SES
Mean	15.01	16.00
SD	4.00	3.75
t-value	2.06*	

* Significant at 0.05 level

The above table presents the mean, SD and t values of need for vocational achievement of high and low SES sportswomen. The high and low SES sportswomen mean scores is 15.01 and 16.00 on the need for vocational achievement respectively. The comparison of the mean scores reveals that the low SES sportswomen have the high need for vocational achievement than their

counterparts. Moreover, the obtained t-value is 2.06 which is significant at 0.05 level shows the significant difference between the need for vocational achievement of high and low SES sportsmen. Therefore, the hypothesis that there is a significant difference between the need for vocational achievement of high and low SES sportswomen is accepted.

Table.No.5
Table showing the Mean, SD and t-values of need for social achievement of high and low SES sportswomen

Variables	High SES	Low SES
Mean	14.00	15.14
SD	3.88	3.18
t-value	2.59*	

* Significant at 0.05 level

Table.No.5 presents the Mean, SD and t values of need for social achievement of high and low SES sportswomen. In the above table the high and low SES sportswomen mean scores is 14.00 and 15.14 respectively. It shows that the low SES sportswomen have the high need for social achievement than the high SES sportswomen. The obtained t value 2.59 which is significant at 0.05 level indicates the significant difference between high and low SES sportswomen on need for social achievement. The findings of the table suggest that the low SES sportswomen have high need for social achievement might have been the result of their high self confidence, high aspirations, internal locus of control and as well as their exposure to the good education, better training and mass media. Hence, the above hypothesis that there is significant difference between high and low SES sportswomen on need for social achievement is proved and accepted.

Table.No.6
Table showing the Mean, SD and t-values of need for skill achievement of high and low SES sportswomen

Variables	High SES	Low SES
Mean	16.00	17.20
SD	4.69	4.62
t-value	2.03*	

* Significant at 0.05 level

The above table demonstrates the Mean, SD and t values of need for skill achievement of high and low SES sportswomen. It is visible in the above table that the high and low SES sportswomen have the mean score of 16.00 and 17.20 respectively and it shows that the low SES sportswomen have the high need for skill achievement than their counterparts. The obtained t value is 2.03 which is significant at 0.05 level indicates the significant difference of need for skill achievement between high and low SES sportswomen. Therefore, the hypothesis that there is a significant difference of need for skill achievement between high and low deprived sportsmen is proved and accepted at 0.05 level.

Table.No.7
Table showing the Mean, SD and t-values of self confidence and achievement motivation of high and low SES sportswomen.

Variables	High SES		Low SES	
	SC	ACMT	SC	ACMT
Mean	19.18	63.69	57.28	67.24
SD	1.20	10.73	1.22	11.88
t-value	29.00**		4.79**	

** Significant at 0.01 level

Table.No.8 presents the mean, SD and t values of self confidence and achievement motivation scores of high and low SES sportswomen. It is clear in the above table that the high SES sportswomen have the mean score of 19.18 on self confidence and 63.69 on achievement motivation respectively; whereas the low SES sportswomen are having the mean score of self confidence is 57.28 and on achievement motivation are 67.24.

The comparison of the mean score of self confidence and achievement motivation of high and low SES sportswomen brings out the fact that the high SES sportswomen are having the positive self confidence as indicated by their mean score of 57.28 and the lower score of low SES sportswomen informs that they lacks in the positive self confidence. On achievement motivation the high SES sportswomen have the lower mean score of 63.69 and low SES sportswomen is 67.24 which signifies that the high SES sportswomen have low achievement motivation when compared to the low SES sportswomen who have higher achievement motivation. The obtained t-value for high SES sportswomen is 29.00 and for low SES sportswomen is 4.79 which are significant at 0.01 level. Hence, the above hypothesis that the good self confidence sportswomen have good achievement motivation is accepted at 0.01 level.

Table.No.9
Influence of SES on Self confidence and Achievement Motivation
of High and Low SES sportswomen.

Main Effects	Sum Squares	of	Mean Square	Df	F ratio
Self confidence	4579.89		165.49	78	3.283**
Achievement Motivation	5166.406		184.47	78	2.964**

** Significant at 0.01 level

Table.No.9 presents the influence of dependent variable on the independent variables i.e. SES on self confidence and SES on achievement motivation of high and low SES sportswomen. It can be seen from the above table that the F ratio for self confidence is 3.283 which is significant at 0.01 level suggests that SES is having a greater impact in changing the self confidence of both high and low SES sportswomen. Because the family background of sportswomen and environment in which they are living largely influences their self confidence. SES is an index of "living standard" that capacitates the individuals to be exposed to various modernizing influences such as mass media, occupational mobility, more education etc., that enable them acquire modern dispositions. Since SES is a combination of education, occupation, caste and income individuals belonging to different levels of SES have differential exposure to the conditions of life and their by develop differential degrees of self competent, emotionally, mature, intellectually adequate, successful, satisfied, decisive, optimistic, independent, self-reliant, self-assured, forward moving, fairly. The F ratio 2.964 on achievement motivation suggests the independent influence of SES on the achievement motivation levels of high and low SES sportswomen.

RELATIONSHIP BETWEEN DEPENDENT AND INDEPENDENT VARIABLES

Further more attempts have been made in this section to examine the relationship between dependent and independent variables like SES and Achievement motivation, Self confidence. For the purpose correlation test has been carried out and correlation co-efficient (r-values) are presented in Table.No10.

Table.No.10
Correlation co-efficient (r-values) of variables

Variables	r-values
SES and Self Confidence	.85**
SES and Achievement Motivation	.83**

** Significant at 0.01 level.

Table.No.10 presents r-values between the dependent and independent variables of the study. It can be observed that the correlation co-efficient for self confidence and SES, achievement motivation and SES are significant at 0.01 level. Thus the significant r-values clearly indicates that the significant relationship between these dependent variable and independent variables.

CONCLUSION

- Positive and significant influence of socio-economic status on self confidence and achievement motivation of sportswomen.
- Significant difference in self confidence and achievement motivation level between low and high socio-economic status sportswomen.
- Significant relation between socio-economic status and self confidence of sportswomen.
- Significant relation between socio-economic status and achievement motivation of sportswomen.

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A Comparative Study of Physical Fitness Reaction Ability and Kinesthetic Perception Among National Level Gymnasts Kho-Kho Players and Professional Chow-Dancers

Gopal Chandra Saha (Asst. Prof., Post Graduate govt. Institute for Physical Education, Banipur, West Bengal, India).

Mallika Prasad Mukhopadhyay (Research Scholar and part time lecturer, Garbeta college, West Bengal India).

ABSTRACT:The main purpose of the study was to compare the Physical fitness, Reaction ability and Kinesthetic Perception among twenty five national level Gymnasts, twenty five Kho-Kho players and twenty five professional Chow Dancers belonging to male categories of 15 to 20 years. The variables taken under physical fitness was Explosive Strength, Agility and Flexibility as well as Reaction Ability and Kinesthetic Perception. In order to investigate the existence of significant difference in Physical Fitness Components, Reaction Ability and Kinesthetic Perception among three groups, Analysis of variance statistical technique was used. Statistical calculation of the gathered data showed that there were insignificant difference among the national level Gymnasts, Kho-kho players and professional Chow dancers in relation to Explosive Strength, Agility, Flexibility, Reaction Ability and Kinesthetic Perception at 0.05 level of significance.

Key Words: Chow Dancers, Gymnast, Kho-Kho, Physical Fitness, Reaction ability, Kinesthetic Perception

INTRODUCTION:

Training is imparted from the elementary school level; personal aptitude is taken under consideration. Patronage and non-government aids are done regularly. The undesirable elements inside a human body are excreted through some organs e.g., kidney etc. similarly all the thoughts and complexes undesirable for the present day human society are given an outlet by way of participating in games and sports indoor and outdoor. Dance is another form in which the ancient people expressed their joy by overcoming their victims. Before baking a killed animal in fire for their meal the celebrated various rituals by way of surroundings if and dancing and singing. In chow dance, this was prominent. Preliminary scripts were all based upon war situations mostly mythological. Slowly modern day situations are also revealed through this form of art. Gymnastics is another form and Kho-Kho is also a popular game. Rhythmic gymnastics combine dance and sports all these nurture the theory of maintaining discipline which is indispensable for the welfare of the society. The present study is an effort for the path of Comparison and investigation to seek the required amount of general Physical Fitness, Reaction Ability and Kinesthetic Sense among the National level Gymnasts, Kho-Kho players and Professional Chow Dancers.

METHODOLOGY

Seventy five male age ranging from 15 to 20 years out of which twenty five of them were national level Gymnasts from Udayan Bayam Samiti, Chandannagar, Hoogly, twenty five of them were Kho-kho players from Purulia and North 24 Parganas district Kho-Kho Association of West Bengal and twenty five of them were professional Chow dancers from Agragami Chow Nritya party, Ramnagar from Purulia district were selected as subjects for the study. Standing broad jump, SEMO agility test, Sit and reach test, Nelson hand reaction test and Distance perception jump test were conducted to measure Explosive strength, Agility, Flexibility, Reaction ability and Kinesthetic Perception respectively for the three groups. The test was conducted at a specified ground, convenient to each group in Purulia, Hoogly and North 24 Parganas from where the subjects were taken for the study as mentioned earlier. The various tests and data was conducted and collected respectively by the research scholar himself with the help of experts and sports professionals. The test was administered in the evening at 3.30 p.m. to 5.30 p.m. consecutively for three days.

STATISTICAL PROCEDURE

In order to investigate the existence of significant difference in Physical Fitness Components, Reaction Ability and Kinesthetic Perception, Analysis of variance statistical technique was used. Further in case of existence of significant difference, the post hoc test was used in order to investigate the significant difference between the paired group means. The level of significance was set at 0.05 level of confidence.

FINDINGS

Table-1

ANALYSIS OF VARIANCE OF THE MEAN OF STANDING BROAD JUMP AMONG GYMNAST, KHO-KHO PLAYERS AND CHOW DANCERS

Source of Variance	DF	Sum of Square	Means Square	F-Value
Between groups	2	0.01	0.01	0.19
Within Groups	72	2.77	0.04	

Table value $F_{0.05(2, 72)} = 3.11$

Table-2

ANALYSIS OF VARIANCE OF THE MEAN OF SEMO AGILITY TEST AMONG GYMNAST, KHO-KHO PLAYERS AND CHOW DANCERS

Source of Variance	DF	Sum of Square	Means Square	F-Value
Between groups	2	2.75	1.38	1.78
Within Groups	72	55.71	0.77	

Table value $F_{0.05(2, 72)} = 3.11$

Table-3

ANALYSIS OF VARIANCE OF THE MEAN OF SIT AND REACH TEST AMONG GYMNAST, KHO-KHO PLAYERS AND CHOW DANCERS

Source of Variance	DF	Sum of Square	Means Square	F-Value
Between groups	2	5.48	2.74	0.89
Within Groups	72	220.68	3.07	

Table value $F_{0.05(2, 72)} = 3.11$

Table-4

ANALYSIS OF VARIANCE OF THE MEAN OF NELSON HAND REACTION TEST AMONG GYMNAST, KHO-KHO PLAYERS AND CHOW DANCERS

Source of Variance	DF	Sum of Square	Means Square	F-Value
Between groups	2	0.00032	0.00016	2.94
Within Groups	72	0.00394	0.00005	

Table value $F_{0.05(2, 72)} = 3.11$

Table-5

ANALYSIS OF VARIANCE OF THE MEAN OF DISTANCE PERCEPTION JUMP TEST AMONG GYMNAST, KHO-KHO PLAYERS AND CHOW DANCERS

Source of Variance	DF	Sum of Square	Means Square	F-Value
Between groups	2	202.82	101.41	2.06
Within Groups	72	3550.51	49.31	

Table value $F_{0.05(2, 72)} = 3.11$

DISCUSSION OF FINDINGS

Statistical calculation of the gathered data showed that there were insignificant difference among the national level Gymnasts, Kho-kho players and professional Chow dancers in relation to explosive leg strength, agility, flexibility, reaction ability and kinesthetic perception.

Gymnastic event involves exercises on different apparatus which are consists of running, jumping, acrobatic action in the air and crash landing on the mat. In Kho-kho the players has to rise from the box, move explosively faster towards the runner, turn, dive, dodge etc during a game, chow dancers while performing their art have to move in different direction, spin in the air jump and crash land on the floor. All these activities require speed and strength in movement i.e. explosive strength of almost the same degree. Probably that was the reason of getting no significant difference in respect of explosive strength of the individuals taking part in the above activities.

A high level of agility is required in gymnastics during performance in floor exercises or exercises in the apparatus. The performers have to execute summer salt, giant circle, turning, splitting and landing in a small area. The kho-kho players have to move quickly within a very short space involving turning, dodging with forming ring, jumping etc. That requires a great amount of agility. In case of chow dances also the movement is done in a very short space with sudden turns, jumps and acrobatic movement are involved, which also requires good amount of agility. Thus the investigator found no significant difference in respect of agility between the subjects of the above activities. In all the above activities players must have enough flexibility to facilitate smooth movements and a high level of performance. That is why significant difference among the three groups was not observed. Some of the Gymnast's exercises and most of the movements of Chow dances are executed with the tune of music, so the timing of the bits are very much important for excellent performance. In case of Kho-kho players the situations compels the payers to move in a definite direction and execute the required movements. Again the position of the apparatus, the mat etc in gymnasts, the position of the moving weapons in case of mock war in Chow dancing and the position of the opponents and team mates in kho-kho are of much important for a high level of performance. Thus in all three activities the performers should posses a high degree of reaction ability and kinesthetic perception that why the investigator found insignificant difference in these two variables between the performers of three groups.

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An Analysis of Socio Economic Background of Tribal Sports in Karnataka

R. Venkatesh
Principal, Sri K.V. College of Physical Education,
C.V.V. Campus, Chickballapur – 562 101. Karnataka

Dr. H. Nagalingappa
Guide and the Chairman,
Department of P.G. Studies and Research in Physical Education and Sports,
Mangalore University, Mangala Gangothri, Mangalore

ABSTRACT:The objective of the study is to analyse the socio - economic background of tribal sports in Karnataka State. 12 tribes from different parts of the state were selected and the 50 samples from each tribe were selected through random sampling to find out influence of socio economic conditions on the tribal sports. The data required for the analysis of the Socio economic status such as Income, Land Type of house in which they live, facilities available near their areas in terms of School, Hospital, Bus Stop, Water facilities, Police station etc., and factors that influences the change in their life style such as education, Attitude of the people etc., were collected through questionnaire and Oral interviews. Subsequently data was subjected to descriptive analysis. Results clearly indicate a variation in the different 12 type of tribal community.

KEY WORDS: Tribe, Socio-economic background, Tribal Sports

INTRODUCTION: Indian Scheduled Tribes are the group of tribal communities and was given the name Scheduled Tribes during the post- Independence period, under the rule of Indian Constitution. The primary criteria adopted for delimiting Indian backward communities as Scheduled Tribes includes, traditional occupation of a definitive geographical area, characteristic culture that includes a whole range of tribal modes of life, i.e., language, customs, traditions, religious beliefs, arts and crafts, etc., archaic traits portraying occupational pattern, economy, etc., and lack of educational and economic development. It has been recognized that socio-economic factors play crucial role in an individual's performance and achievement. The social class in which a respondent belongs decisively influences both physical as well as psychologically, its personality development. This influence continues to be present throughout one's life. Tribal sports activities are played only in tribal areas. Every tribe can participate in these games. There are separate games for tribal children, youth, adults, men and women. The tribal game situations are located at temple, streets, in front of huts and other areas. These games are played in front of the tribal people. Thus, the tribal people enjoy by witnessing the games. Some special games are played only during some special occasions. They use to play different types of games, like recreation games, festival games and harvest games. For example during the festivals, some activities like Kolkata, singing songs are played. For recreation they play Attya – pattya, Kunitha, (harvest dance) by using some special and conventional musical instruments etc are performed. Thus tribal sports play an important role in the tribal areas. In tribal haddi, special facilities are not available so they use some conventional tools for playing and follow some rules and regulations for playing which are framed by them. In short we can say that tribal sports give the tribal people healthy habits and competitive spirit due to which, they become more active and healthy. These tribal sports develop mental, physical and social skills besides the physical fitness.

Tribes in Karnataka The tribal people (other wise called budakattu jananga) as the name signifies, live in the hilly and forest areas of the state from time immemorial. They are educationally, technoeconomically backward with the depleting resources base. They gather their food from forest and farming. In view of degradation of fresh they have switched over to cultivation which is limited in scope. In the absence of cultivating and alternative employment, the economic condition of the

people is worse. Their resource base is negligible. As far as the position of tribal is concerned their condition is much more precious in comparison with their counter parts in rural areas of the state. India was inhabited by wild, uncivilized tribes whom we may call pre Dravidian peoples, then India was invaded by the Dravidians. As the Dravidian spread in India they drove the pre-Dravidians to the hill and the forests, where they still survive.

Methodology

The present study was conducted on twelve tribes from the entire state of Karnataka. The 600 subjects were selected from various 12 tribal communities from different parts of the Karnataka and 50 members from each community. The required data was collected from standardized questionnaire. The questionnaire was admitted to the subjects and the data pertaining to the study was collected. The data so collected through questionnaire and oral interview was analysed to find the findings of the study. Various techniques such as statistical tables and graphs were used to analyse the data pertaining to the study. The data so analysed reveal the following conclusions.

OBJECTIVES OF THE STUDY: To study the socio-economic background of the samples.

SAMPLE

The 600 subjects were selected from various 12 tribal communities from different parts of the Karnataka. 50 members from each community.

SAMPLE DESIGN

Sl. No	Items	Adavi chanc hare	Adavi golla	Dongre gere sheel	Erularu	Hakki paikki	Jenu kuraba	Kadu Kuraba	Lambani	Medaru	Soliga	Siddi	Yeravaru
		50	50	50	50	50	50	50	50	50	50	50	50

TOOLS: The standardized questionnaire was framed and used for the collection of data pertaining to the study.

STATISTICAL ANALYSIS

The number in percentage was used to assess the socio economic background of selected tribes of Karnataka.

RESULTS AND DISCUSSION

Items	Adavi chanc hare	Adavi golla	Dongre gere sheel	Erularu	Hakki paikki	Jenu kuraba	Kadu Kuraba	Lambani	Medaru	Soliga	Siddi	Yeravaru	Total
	50	50	50	50	50	50	50	50	50	50	50	50	600
Kuchcha	27 (54%)	8 (16%)	19 (38%)	24 (48%)	44 (88%)	20 (40%)	27 (54%)	28 (56%)	19 (38%)	24 (48%)	27 (54%)	24 (48%)	291 (48.5%)
Pucca	2 (4%)	2 (4%)	13 (26%)	13 (26%)	1 (2%)	10 (20%)	8 (16%)	12 (24%)	13 (26%)	13 (26%)	10 (20%)	11 (22%)	108 (18%)
Semi pacca	-	-	11 (22%)	9 (18%)	5 (10%)	13 (26%)	13 (26%)	8 (16%)	11 (22%)	8 (16%)	10 (20%)	9 (18%)	92 (15.3%)
RCC	21 (42%)	29 (58%)	7 (14%)	4 (8%)	-	5 (10%)	02 (4%)	02 (4%)	7 (14%)	4 (8%)	02 (4%)	6 (12%)	89 (14.8%)
Any other	-	11 (22%)	-	-	-	4 (8%)	-	-	-	1 (2%)	4 (8%)	-	20 (3.3%)

The present study was undertaken to assess the socio economic background of tribal sports in Karnataka. As has been stated 12 different tribal communities from different part of the Karnataka have been selected to examine the socio economic background of the sample representing these

tribal communities. The socio economic background can be assess through variety of information of respondent that constitute the component of socio economic background accordingly, the tables have been prepared which express the number and percentage of the constitutional component of socio economic background. The detailed explanation of these tribal communities and their socio economic background in terms of passions of the stated component has been presented in the tables. Table shows that the number and percentage of respondents belonging to 12 tribal communities with regard to house hold information. The household information includes. Kaccha house, pacca house, semi pacca house, RCC house and other type house possessed by the respondents belonging to different tribal communities. It is noticed that 54% of the Adavi Chanchare lives in Kaccha house, Adavi Golla 16%, Dongre Gere Sheel 38%, Erularu 48%, Hakki Paikki 88%, Jenu Kuraba 40, Kadu Kuraba 54, Lambani 56, Medaru 38%, Soliga 48%, Siddi 54% and Yeravaru 48%. The number and percentage of communities living in kaccha house in 291 and 48.5% percentage. The highest percentage staying in kaccha house is of Hakki Paikki community (88%), followed by Lambani (56%), Siddi and Kadu Kuraba and Adavi Chanchare (54%), Erularu (48%), than Soliga (48%), Yeravaru (48%), Jenu Kuraba (40%), Dongre Gere Sheel (38%), Medaru (38%), and the lowest is Adavi Golla (16%). The percentage of all the community living in the kaccha house is 48.5%. This clear tells that there is more number of communities which require improvement in socio-economic background. With the regard to pucca house is the higher percentage is of Dongre Gere Sheel (26%), Erularu (26%), Medaru (26%), followed by Lambani (24%), Yeravaru (22%), Jenu Kuraba (20%), Siddi (20%), Kadu Kuraba (16%), Adavi Chanchara (4%), Adavi Golla (4%), and the lowest is Hakki Paikki (2%). The total percentage staying in pacca house is 18%.

With regard to the semi pacca house, the higher percentage is of Kadu Kuraba (20%), Jenu Kuraba (26%), Medaru (22%), Dongre Gere Sheel (22%), Siddi (20%), Erularu (18%), Yeravaru (18%), Soliga (16%), Lambani (16%), and the lowest is Hakki Paikki (10%). The total percentage staying in semi pacca house is 18.3%.

The highest percentage living in RCC is of Adavi Golla (58%), Adavi Chanchare (42%), Medaru (14%), Dongre Gere Sheel (14%), Yeravaru (12%), Jenu Kuraba (10%), Erularu (8%), Soliga (8%), and the lowest is Kadu Kuraba (4%), Lambani (4%) and Siddi (4%), the total percentage staying in RCC House is 14.8% only this reveals the lowest socio economic background of the communities.

The Adavi Golla houses (22%), with regard to any other houses and there is a lowest percentage of Jenu Kurabas (8%), Soliga and Siddi (8%), the total percentage staying the any other house is 2.5%.

The over all picture of house hold information of all the tribal communities reveals clearly that there is a higher percentage (48.5%), living in kaccha house, followed by pacca house (18%), semi pacca (15.3%), RCC (14.8%) and any other (3.3%).

CONCLUSION

Within the limitation of the present study the conclusion is that the socio economic background plays an important role for the performance of the sports activity.

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Effect of Weight Training and Fartlek Training on Selected Physiological Variables among College Men Students

Jayaraman.S, Lecturer, Sports Authority of India, LNCPE, Trivandrum, Kerala, India

Introduction:Resistance training includes the strength sports of weight lifting and power lifting, in which resistance exercise used in training becomes the competition tool, and body building, in which resistance exercise training is used to create an idealized physique. Additionally, resistance training has become integral part of training in other sports such as American football, track and field, and tennis. While sports depend on specific talents and characteristics, such as strength, explosiveness, power, endurance capabilities, and agility, ideally these sports also depend on a training process that develops and maximizes such talents. Resistance training is a primarily ingredient in that process becomes paramount. Fartlek is a Swedish term that means “run as you feel” or “Speed play”. One way of doing it is to cover as much as distance as an athlete can in forty to sixty minutes. Fartlek training is much easier for experienced runners than for novice runners, because novice runners often don’t know how to change the pace. Fartlek running is an enjoyable free from method of training involving running at varying speed over varied turnout. Fartlek is a variation of faster and relatively slower speed runs, variety of change of pace and change of terrains. This sort of method of training should be a part of training program for better understanding of the environment or terrain, changes in the running paces and prepare an athlete to run in a group.

MethodologyTo achieve the purpose of the study, forty five men students were selected randomly as subjects and divided in to three groups namely resistance training group, fartlek training group and control group of fifteen subjects in each groups and the subject’s ages ranged from 18-23yrs. All the subjects were tested on selected variables prior to and immediately after the training period. The selected criterion variables such as cardio respiratory endurance was measured by Copper’s 12 min/walk test and resting pulse rate was measured by counting the pulse rate per minute.

Analysis of DataThe analysis of covariance (ANACOVA) were used to find the significant difference if any, among the experimental and control groups on selected criterion variables separately. In all the cases, 0.5 level of confidence was fixed to test the significance, which was considered as an appropriate. Since there were three groups involved in this study the Scheffe’s test was used as post-hoc test.

Table I

ANALYSIS OF COVARIANCE ON CARDIO RESPIRATORY ENDURANCE FOR RESISTANCE TRAINING GROUP, FARTLEK TRAINING GROUP AND CONTROL GROUP

	Resistance training	Fartlek training	Control group	SOV	Sum of squares	df	Mean square	'F' ratio
Pre -test Mean	2473.33	2462.67	2446.67	B:	5404.04	2	2702.22	0.90
S.D.	59.00	58.12	46.09	W:	125760.00	42	2994.29	
Post -test Mean	2488.67	2541.33	2382.00	B:	197693.33	2	98846.7	18.36*
S.D.	53.03	64.90	95.56	W:	2261186.67	42	5385.40	
Adjusted post-test Mean	2477.58	2539.75	2394.67	B:	156089.13	2	78044	25.31*
				W:	126417.37	41	3083.35	

*significant at .05 level of confidence

(The table value required for significance at .05 level of confidence with df 2 and 42 and 2 and 41 were 3.23 and 3.21 respectively)

Discussion:Table I shows that the pre -test means of cardio respiratory endurance for resistance training , fartlek training and control groups were 2473.33 +_ 59.00,2462.67 +_ 58.12, and 2446.67+_46.09 respectively. The obtained 'F' ratio value of 0.90 for pre -test score of resistance training, fartlek training and control groups on cardio respiratory endurance was less than the required table value of 3.23 for significant with df 2 and 42 at .05 level of confidence.The post –test mean values of cardio respiratory endurance for resistance training , fartlek training and control groups were 2488.67 +_ 53.03, 2541.33 +_ 64.90, 2382.00+_95.56 respectively. The obtained 'F' ratio value of 18.36 for pre –test scores of resistance training, fartlek training and control groups on cardio respiratory endurance was less than the required table value of 3.23 for significant with df 2 and 42 at .05 level of confidence.The adjusted post -test mean values of cardio respiratory endurance for resistance training, fartlek training and control groups were 2477.58, 2539.75 and 2394.67 respectively. The obtained 'F' ratio value of 25.31 for pre - test scores of resistance training, fartlek training and control groups on cardio respiratory endurance was less than the required table value of 3.21 for significant with df 2 and 41 at .05 level of confidence.The above statistical analysis showed that there was development in cardio respiratory endurance after the testing. Further to determine which of the paired means has a significant improvement, Scheffe'S test was applied and which is presented in table II.

Table II

SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN THE ADJUSTED POST-TEST MEAN OF CARDIO RESPIRATORY ENDURANCE

Resistance training group	Adjusted post-Test Mean			Mean Difference	Confidence interval at .05 level
	Fartlek training group	Control group			
2477.58	2539.75	2394.67		82.91*	62.82
2477.58	2539.75	2394.75		62.17*	62.82
				145.08*	62.82

*Significant at .05 level of confidence

Table II indicated that the adjusted post -test mean difference in cardio respiratory endurance between resistance training group and control group and resistance training group and fartlek training groups were 82.91 and 145.08 which were significant at .05 level. The adjusted post- test mean difference between fartlek training group and resistance training group were 62.17 which was insignificant at .05 level of confidence.

Table III

ANALYSIS OF COVARIANCE ON RESTING PULSE RATE FOR RESISTANCE TRAINING GROUP, FARTLEK TRAINING GROUP AND CONTROL GROUP

	Resistance training	Fartlek training	Control group	SOV	Sum of squares	df	Mean square	'F' ratio
Pre -test Mean	80.07	80.93	79.47	B:	50.98	2	25.49	1.19
S.D.	4.95	3.24	4.94	W:	831.60	42	19.80	
Post-Test Mean	80.67	78.27	80.20	B:	48.58	2	24.29	1.23*
S.D.	4.67	3.31	5.14	W:	828.67	42	19.73	
Adjusted post-test Mean	79.48	78.16	81.50	B:	82.67	2	41.34	25.54*
				W:	66.36	41	1.62	

*significant at .05 level of confidence

(The table value required for significance at .05 level of confidence with df 2 and 42 and 2 and 1 were 3.23 and 3.21 respectively)

Discussion:Table III shows that the pre - test means of resting pulse rate for resistance training , fartlek training and control groups were 80.27+_ 4.95 , 80.93 +_ 3.24, and 79.54+_4.94 respectively. The obtained 'F' ratio value of 1.29 for pre -test score of resistance training, fartlek training and control groups on vital capacity was less than the required table value of 3.23 for significant with df 2 and 42 at .05 level of confidence.The post -test mean values of resting pulse rate for resistance training , fartlek training and control groups were 80.67 +_ 4.67, 78.27 +_ 3.31, 80.20+_5.14 respectively. The obtained 'F' ratio value of 1.23 for pre –test scores of resistance training, fartlek training and control groups on vital capacity was less than the required table value of 3.23 for significant with df 2 and 42 at .05 level of confidence.The adjusted post -test mean values of resting pulse rate for resistance training, fartlek training and control groups were79.48, 78.16 and 81.50 respectively. The obtained 'F' ratio value of 25.54 for pre -test scores of resistance training, par course training and control groups on vital capacity was less than the required table value of 3.21 for significant with df 2 and 41 at .05 level of confidence.The above statistical analysis showed that there was development in resting pulse rate after the testing. Further to determine which of the paired means has a significant improvement, Scheffe's test was applied and which is presented in table VI.

Table IV

SCHEFFE'S TEST FOR THE DIFFERENCE BETWEEN THE ADJUSTED POST TESTS MEAN OF RESTING PULSE RATE

Adjusted post-Test Mean				
Resistance training group	Fartlek training group	Control group	Mean Difference	Confidence interval at .05 level
79.48	78.16	81.50	2.02*	1.45
79.48	78.16	81.50	1.32*	1.45
			3.34*	1.45

*Significant at .05 level of confidence

Table IV indicated that the adjusted post - test mean difference in resting pulse rate between resistance training group and control group and resistance training group and fartlek training group were 2.02 and 3.34 which was significant at .05 level. The adjusted post- test mean difference between fartlek training group and control group were 1.32 which was insignificant at .05 level of confidence.

CONCLUSION:Based on the results of the study, the following conclusions were drawn:

1. There were significant improvements in the variables such as leg strength, muscular endurance, vital capacity, resting pulse rate and cardio respiratory endurance due to physical training on the experimental groups.
2. Participation in physical training resulted in a significant development in the physical fitness variables such as leg strength, strength endurance and cardio respiratory endurance on experimental groups when compared to control group.

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“A Study of Enthusiasm among Male and Female Kho Kho Players”

Dr. Quadri Syed Javeed
Associate Professor in Psychology
M.S.S. Art's Commerce & Science College,
Jalna – 431203 (M.S.) India.

ABSTRACT: The study was conducted on 100 male kho kho players and 100 female kho kho players of aurangabad town. The purpose of the study was to examine the enthusiasm among male and female kho kho players. Hypothesis of the study Male kho kho players will significant high Enthusiasm than the female kho kho players. Multi assessment personality series (MAPS, 1996) tool were used the study. Besides these, a PDS was used to get the other necessary information relating to the respondents. It was conclusion that Male kho kho players will significant high Enthusiasm than the female kho kho players.

Introduction:

Enthusiasm: On that first day of practice, I would sit them down and tell them the ways that I love volleyball I love the way the ball sounds as it's being passed, I love the sound of the gym when everyone's talking and playing hard, I love the cheers at the end of plays, and on and on I would go so that they understood that their coach was crazy about the sport. Let's look at ways that coaches can create an atmosphere of enthusiasm on their teams and in their gyms. What differentiates Jonty Rhodes, Ronaldinho and Dhanraj Pillay from the rest? Take a closer look the next time you watch them play. It is their enthusiasm that keeps them going when the others are tired and weary. They put in a hundred percent effort and enjoy what they are doing because they are enthusiastic. Enthusiasm is a state of mind that arouses and inspires a person to put action into the task at hand. The great philosopher Ralph Waldo Emerson once said, "Nothing great was ever achieved without enthusiasm". The word enthusiasm means 'God within' in Greek, and when a person is enthusiastic, it looks as if God is working hand-in-hand with him. Enthusiasm, according to Napoleon Hill, bears the same relationship to a human being that steam does to a locomotive. It is the vital moving force that impels action. Success in sport at any level depends a lot on how enthusiastic you are about learning new things, achieving your targets, progressing to higher levels of your sport etc. It is in fact the inner voice that whispers 'I can do it!' when others shout 'No you can't!' What's more, enthusiasm is contagious! In sport, when you want to inspire your team to fight it out and play as a team, the enthusiasm of a few team members will spread to the others and in no time you will notice that the whole team is fighting back as a unit. Mareike Kunter, Yi-Miau Tsai, Uta Klusmann, Martin Brunner, Stefan Krauss, Jürgen Baumert (*October 2008*) Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. This article investigates teacher enthusiasm and how it relates to instructional behaviours. We distinguished teachers' enthusiasm for the subject matter of mathematics from their enthusiasm for teaching mathematics. A total of 323 teachers and their 9th-grade classes participated in the study. Questionnaires were used to assess teachers' enthusiasm and instructional behaviors from both the teacher and the student perspective.

Aim and Objective of the Study: To find out the Enthusiasm among male and female kho kho players

Hypothesis: Male kho kho players will significant high Enthusiasm than the female kho kho players.

Sample:

For the present study 200 Sample were selected from Aurangabad university, Maharashtra State. The effective sample consisted of 200 subjects, 100 subjects were male kho kho players and 100 subjects were female kho kho players. The age range of subjects was 18 to 25 years.

Tools

PDS: It necessary collects the information.

Multi Assessment Personality Series (MAPS) (1996):

This scale was constructed and standardized by Psy Com. It consists of 147 sentences and each item provide three alternatives the subjects had to select one of the three alternative and this test used Split-Half and Test-Retest Reliability Coefficients & Factorial Validity.

Procedures of data collection

One instrument could be administered individuals as well as a small group. While collecting the data for the study the later approaches was adopted. The subjects were called in a small group of 20 to 25 subjects and there seating arrangements was made in a classroom. Prior to administration of test, through informal talk appropriate rapport form. Following the instructions and procedure suggested by the author of the test. The test was administered and a field copy of test was collected. Following the same procedure, the whole data were collected.

Variable

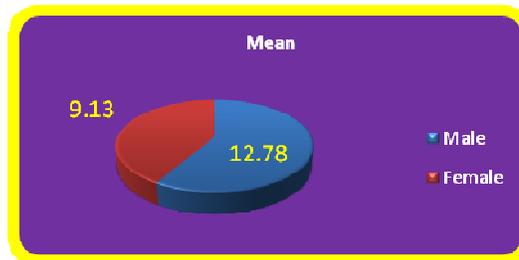
Independent variable- 1. Gender a) Male b) Female

Dependent Variable 1. Enthusiasm

Statistical analysis and discussion

Enthusiasm among male kho kho players and female kho kho players students Mean S.D. and "t" Value.

Gender	Mean	S.D	N	df	't'
Male	12.78	3.21	100	198	8.98**
Female	9.13	2.49	100		



The results related to the hypothesis have been recorded. Mean of Enthusiasm score of the male kho kho players Mean is 12.78 and that of the female kho kho players Mean is 9.13 The difference between the two mean is highly significant ('t' = 8.98, df =198, P < 0.01) It is clear that male kho kho players and female kho kho players Differ Significantly From each other from the mean scores and graph it was found that the male kho kho players have Significantly high Enthusiasm than the female kho kho players. This Result Support the Hypothesis.

Conclusion: Male kho kho players have significantly high Enthusiasm than the female kho kho players.

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“A Comparative of Physical Fitness among Athletes and Non-Athletes”

Dr. Quadri Syed Javeed

Associate Professor in Psychology
M.S.S. Art's Commerce & Science College,
Jalna – 431203 (M.S.) India.

Prof.L.B.Laxmikanth Rathod, Secretary,I.U.T.OU

Introduction:The win-at-all-costs approach is well-documented in the literature of sports psychology. Vallerand and Losier (1994) suggest, “Playing to win at all costs may lead an athlete to cheat in order to reach his or her goal” (p. 230). Furthermore, studies have shown that athletes point to their coach as having a heavy influence on their decisions to win-at-all-costs (Guivernau & Duda, 2002; Stephens & Bredemeier, 1996). The win-at-all-costs approach may lead athletes to sacrifice all for the cause (Rudd & Mondello, 2006). The Canadian Sport for Life movement, which tries to improve the quality of sports and physical activity in Canada, published a 7-stage Canadian model of Long-Term Athlete Development (LTAD). They argue, “Athletes’ environment is geared to the short-term outcome—winning—and not to the process, and as an outcome there are bad habits developed from over competition focused on winning” (p. 17). Indeed, professional athletes will endanger their health and sometimes their future by competing when injured¹. Some professional athletes are willing to use drugs in order to improve their performance and increase their chance of winning. Using drugs puts the athlete’s health and future reputation at risk². In 1999, the Department of Industry, Science and Resources in Australia published a report on professional sports in Australia. The report mentions the common use of drugs in professional sports and the Australia’s anti-drugs in sport programs. The report claims, “The pressures of international sport create an environment for taking drugs, either for performance enhancement or to assist recovery so that high levels of performance can continue” (p. 83). Frank L. Smoll, Robert W. Schutz, Physical fitness differences between athletes and nonathletes: Do changes occur as a function of age and sex? *Human Movement Science, Volume 4, Issue 3, September 1985, Pages 189-202*, The main objectives were to determine (a) if physical fitness superiority of athletes over nonathletes increases as a function of age, and (b) if the magnitude of athlete-nonathlete fitness differences are the same in males as in females, and if these differences are consistent across ages. Approximately 3,000 students in grades 3, 7, and 11 (ages 9, 13, and 17 years) were tested on measures of static and explosive muscular strength, static and dynamic muscular endurance, cardiovascular endurance, and flexibility. MANOVA and follow-up univariate ANOVAs indicated that the higher the grade, the better the performance; males outperformed females on all measures except flexibility; and athletes were superior to nonathletes on all six test items. Furthermore, (a) there was no difference between athletes and nonathletes at grade 3, athletes were considerably better than nonathletes by grade 7, and the magnitude of the difference was virtually the same at grade 11, (b) the fitness superiority of athletes over nonathletes was essentially of the same magnitude for males as for females at each grade level.

 **Methodology:**

 **Aim and Objective of the study:** To find out the physical fitness among athlete and non-athlete.

 **Hypotheses:** Athlete have significantly better physical fitness than the non-athlete.

 **Sample:** For the present study 100 Sample were selected from Dr babasaheb ambedkar Marathwada University, Aurangabad, 50 subjects were athlete and 50 subjects non-athlete. The age range of subjects was 18-26 years Ratio were 1:1;

Tools

Physical Fitness: Pune University Physical Fitness test was used for measuring Physical Fitness.

Procedures of data collection For data collection first permission has been taken from respective sources than the despondence has been selected for data collection. Personal data sheet (PDS) has been given to collect the preliminary information with respect to subject's related variables then standardized test administer to the subjects. Before that rapport was established with subjects. And they have been told that their responses were kept confidential and the information is used for research purpose only.

Variable

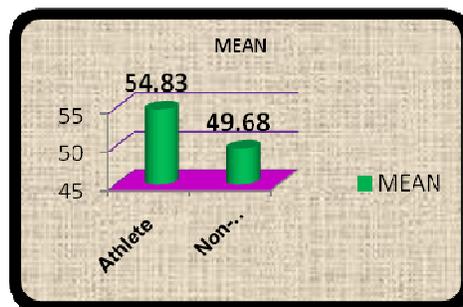
Independent variable- 1) **Players** a) Athlete b) Non-Athlete

Dependent Variable 1) Physical Fitness

Statistical Analysis and Discussion

Athlete and non-athlete, Shows the mean S.D and t value of Physical fitness

Players	MEAN	SD	SEM	N	DF	't'	P
Athlete	54.83	3.74	0.53	50	98	7.31**	< 0.01
Non-Athlete	49.68	3.29	0.47	50			



The result's related to the first hypothesis have been recorded In Table Mean of physical fitness score of the athlete is 54.83 and that of the non-athlete 49.68. The difference between the two mean is highly significant 't'= 7.31, df = 58, P < 0.01. Thus the first hypothesis is confirmed athlete have significantly better physical fitness than the non-athlete.

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A Comparison Of Citizen's Attitude About The Efficiency Of Municipality Sports Complexes Of Tehran

**Lila Sabbaghian Rad, Ali Mohammad Amirtash, Fatemeh Ahmadi .
Department of Physical Education, Science and Research Branch, Islamic Azad University, Tehran, Iran.**

Abstract:The aim of this research is to compare different attitudes of Tehran male and female citizens about various dimensions of the efficiency of Tehran municipality sports complexes using descriptive method on a field basis. The research carried out by consumers of training services of aquatic and multipurpose sports complexes of Tehran Municipality. In this study, the simple random sampling is used. The questionnaires were distributed throughout all the 22 districts of Tehran city. To collect data, a researcher-made questionnaire was used with an approved reliability and a validity of 90 %. In order to analyze data from the descriptive statistics comprising center-inclination and distribution indexes, frequency tables, Kolmogorov-Smirnov test, Leven test and two independent t-test were used. Moreover, two independent groups of t-test were also used to compare the averages of study variables in two groups of aquatic and multipurpose sports complexes as well as to compare them in two gender groups separated based on aquatic and multipurpose sports complexes. Relatively, to analyse the research hypothesis SPSS software, version 18 is used. The findings has revealed that : there was no significant difference between satisfaction level of women and men towards the efficiency of management and facilities of aquatic sports complexes whereas, the difference was observed regarding the geographical location and sanitation, in a case that, men were more satisfied as compared to women . Moreover, there is a significant difference between the satisfaction level of men and women with multipurpose sports complexes for the variables including management performance, equipment and geographical location, in a sense that men are more satisfied than women. But there was not a noticeable difference for sanitation variable.

Keywords: Consumer Satisfaction, Aquatic Sports Complex, Multipurpose Sports Complex.

Introduction:Customer service is a main concern for any organization from the past to the present. Undoubtedly nowadays in the world success of each organization is directly related to the customer satisfaction. Retaining fixed customers in a long term decreases the expenses instead of attracting new customers. This issue is especially very important for the professional service providers because their popularity and good reputation in considering their advantages and positive points by others would be a key data source for the new customers. Recognizing and predicting customers' demands is very significant because on one hand customer is a pivotal and vital element in survival and growth of any organization. On the other hand, influence, attitude and demands of customers on different aspects especially technology is a determinant competition .For most of the institutes the safest way for survival and success is to be remembered for their quality of services by the customers. This view is simple, vigorous and attractive yet. Satisfaction assessment of clients is a useful tool by which you can evaluate the communication pattern and treatment manner of the service providers with the clients. The received data from the satisfied clients can be a tangible proof to consider the issue whether the policy of the organization and the method of providing services is liable to change or not? Moreover, identifying the effective elements in client satisfaction can provide a step for planning to accomplish servicing organization's objectives. Studying the customer satisfaction helps the companies to recognize customer's attitude and identify the problems and they can prove them as

soon as possible. As you see, plenty of researches have proven that there are many differences among genders for instance difference in levels of activity, physiological function, physical and mental features and etc. besides, the differences in expectations towards the gender's role, social and professional activity. To say, considering the sports which is the subject discussed in this study, one of the reasons that men and women are different is to perform sports since long back therefore they are socially defined and accepted where as women are not equally accepted in the society yet. Furthermore, it can be mentioned that less importance is to compare women and men's sports in Iran. The sports complexes devised for women are too limited quantitatively and schedule wise as compared to the men, though this is being resolved by the help of municipalities to an extent, especially in a metropolitan city such as Tehran. Among a few number of researches conducted on this issue some of them are coming below: Bagherzadeh et al. (2001) in their study discovered that the most important reasons of dissatisfaction and nonparticipation of high school girls in sports extra-curriculum activities were equipment deficiency and high cost of sports gym. Study by Club haus (2002) shows that one of the influential elements in attracting and satisfaction of athletes with the sports clubs is the high quality of services. Young Jan Park (1999) in his study topic "Satisfaction level of Elite track and Field Athletes in south Korea" has discovered that they were more satisfied with the sports equipment and facilities than the management of sports clubs. Nicholas Theodorakis (2004) "Measurement of customer satisfaction in the context of health club in Portugal" has discovered that the women had less satisfaction with the facilities and services as compared to the men and the educated people had the least satisfaction with the facilities. Nasrin Ramezani (2004) in her thesis topic "Investigating the effective elements on the satisfaction of women private gym clubs in Tehran" has perceived that there is a meaningful connection between the socioeconomic aspects and satisfaction of customers. There is also a meaningful connection between advanced equipment use and satisfaction of club's customers. Taher Bohelkeh (2005) in his research "Investigating related elements with the satisfaction of consumers of Tehran indoor swimming pools" in order to target and satisfy more customers, has found that there is a meaningful link between the sanitation and customers satisfaction.

Methods

In the present case study the attitudes of Tehran male and female citizens about the efficiency of sports complexes of Tehran in management performance, equipment, sanitation aspects and geographical location are compared. The studied statistical society in this research is the consumers of training services of aquatic and multipurpose sports complexes of Tehran municipality. In this research the simple random sampling method is used. The questionnaires were distributed throughout all 22 districts of Tehran city. Considering the volume of the society and employing the Morgan table has led to the volume of 800 samples from which 400 questionnaires among women and 400 questionnaires among men were randomly distributed in aquatic and multipurpose sports complexes. The personal description questionnaires contained 10 questions about age, sex, marital status, education, profession, and sports activity background, type of sport place used, purpose and motive of activity. Customer satisfaction questionnaires are researcher-made questionnaires which comprised 30 questions as follows: Questions 1 to 11 management performance. Questions 12 to 18 equipment. Questions 19 to 22 geographical location. Questions 23 to 30 sanitation. In order to analyze the data, descriptive statistics including center-inclination and distribution indexes, frequency tables for personal description and research variables (satisfactory data) were used. To check normality of the data the Kolmogorov-Smirnov test was used. In order to test study hypothesis, the inferential statistic (Two independent t-test groups) was used. All these analysis were done by SPSS software, version 18 and Excel 2007.

Results

The data obtained from personal description questionnaire shows that 56.4 % women and 43.6 % men are using the municipality sports complexes. Also the consumers of multipurpose complexes

were two times more than aquatic complexes' users (68.2 %) and 69.2 % of consumers of complexes were using two to three times a week. The main research hypothesis by t-test of two individual groups were studied and analyzed which are shown in the tables and figures below:

Table 1. T-test results of the two individual groups.

P value	T value	Mean ±SD	Variables	Type of sports complexes
0.43	0.79	3.81 ± 0.96	women	Aquatic
		3.90 ± 0.94	men	
0.18	-1.35	3.43 ± 1.05	women	
		3.61 ± 1.01	Men	
*0.021	-1.24	3.88 ± 0.83	Women	
		4.02 ± 0.98	Men	
*0.01	-1.59	3.65 ± 0.77	Women	
		3.84 ± 0.99	Men	
* <0.001	-3.77	3.54 ± 0.89	women	Multipurpose sports complexes
		3.85 ± 0.93	men	
* <0.001	-4.28	3.20 ± 1.03	women	
		3.61 ± 1.01	men	
0.25	-1.15	3.84 ± 0.89	Women	
		3.93 ± 0.89	men	
* <0.001	-3.20	3.62 ± 1.01	women	
		3.90 ± 0.84	men	

The * sign denotes that in 5% level the difference between the women and men attitudes is meaningful

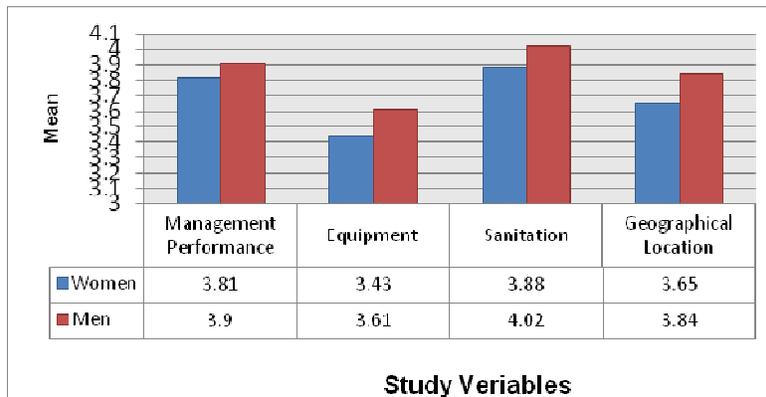


Figure1. Average of consumers' attitude of aquatic complexes on the basis of the genders toward the study variables.

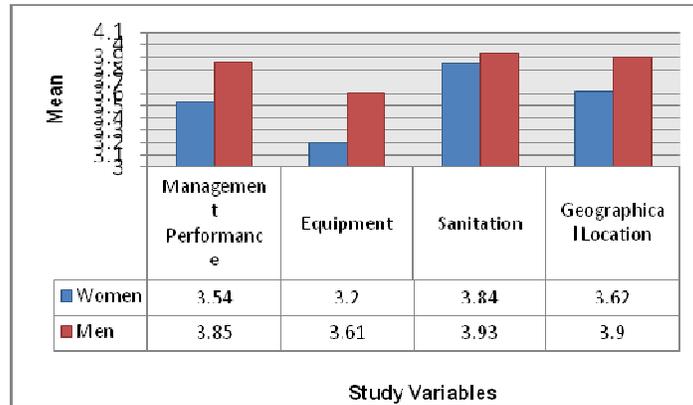


Figure2. Average of consumers' attitude of multipurpose complexes on the basis of the genders toward the study variables. The findings showed that there are not any noticeable differences between women and men satisfaction with the aquatic sports complexes toward the management performance and equipment. But there is a noticeable difference toward the geographical location and sanitation variables in a sense that men are more content as compared to women (table1) (figure1). Furthermore, there is a noticeable difference between the women and men satisfaction with the multipurpose sports complexes toward management performance, equipment and geographical location in a sense that men are more content than women but toward the sanitation there is not a noticeable difference (table 1) (figure 2). Moreover the priority of effective elements in satisfaction of consumers on the basis of sports complexes were obtained as follows respectively, in aquatic complexes 78.8 % for sanitation, 77 % for management performance, 74.6 % for geographical location, 70.2 % for equipment and in multipurpose complexes 77.6 % for sanitation, 75 % for geographical location, 73.6 % for management performance, 67.6 % for equipment.

Discussion and conclusion: The study findings have shown that generally the consumers of municipality sports complexes were more content with the management performance variable than the equipment variable. These findings are not corresponding with Young Jan Park's findings (1999) which were showing that athletes were satisfied more with the equipment and facilities than the management performance in Korean sports complexes. Perhaps one of the reasons must be difference in the amenities provided in two countries. The other findings show that there is a noticeable difference between the women and men satisfaction toward equipment in the multipurpose sports complexes. These finding are corresponding with Afthinos results (2006) which showed in total 13 meaningful differences were found between women and men regarding their expectations of quality services and in equipment particularly. The other results show that there is a noticeable difference between genders and satisfaction level in municipality sports complexes in a sense that 5 out of 8 contrived statistical assumptions differ meaningfully among women and men that from which all 5 denoting on more men satisfaction as compared to women. These findings correspond with Afthinos results (2006) which showed in total 13 meaningful differences were found between women and men regarding their expectations of quality services. Perhaps these findings are as a result of difference in requirements, motives and in the other words the difference in expectations of women and men from these places. On the basis of research findings it is figured out that in overall there is more satisfaction with the studied variable in aquatic sports complexes than multipurpose sports complexes which may be the other parameters which has caused this difference. For instance there can be difference in objectives, management, personnel and etc. It can be assumed that may be the managers of aquatic complexes professionally have the necessary skills such as awareness of the consumers' requirements therefore they could provide good quality of services and on the other side the clients had perceived the quality given. Relatively what Pill Choi (2001) in his research stresses, is that the most important parameter in client satisfaction with the sports complexes is the understanding of the quality services by the customers.

Recommendations: In this study on the basis of satisfaction averages of variables toward aquatic and multipurpose sports complexes there observed less satisfaction with the equipment variable as compared to the other variables. Therefore it can be suggested that in order to increase the satisfaction of consumers and maintain them in these places. we must pay a deep concern toward the satisfaction and take some measures to strengthen the mentioned parameters.

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Relationship of Selected Kinematical Variables With The Performance of Female Basketball Players in 3 Point Shot

Birendra jhaharia* Upendra pandey** Mandeep Singh***

* Assistant Professor, LNUPE, Gwalior, ** Lecturer, C.S.J.M.U, Kanpur, *** Physical Director, Deptt. of Higher Education, J&K.

Abstract:Ten female basketball players of CSJM University, Kanpur, were selected as subjected for the study. The videos as obtained by the use of digital videography were analyzed (the best trial) by Siliconcoach pro 7 software. Only one selected frame was analyzed. Selected variables were as Ankle joint, Knee joint, Hip joint, Shoulder joint, Elbow joint, Wrist joint, Angle of release, Height of release, Velocity of ball and Standing height of players. The scores of the subjects in 3 point shot were used as the criterion variable in the study. To determine the degree of relationship between selected Kinematic variables with the performance in 3 point shot Pearson's product Moment Correlation Method was used. The results have that the value of coefficient of correlation. In case of Knee joint, Hip joint, Elbow joint, Wrist joint, Angle of release, height of release, velocity of ball and standing height of players showed insignificant and incase of Ankle joint and Shoulder joint (right) showed significant relationship with the performance of subjects of coefficient of correlation for 8 degree of freedom is 0.632.

key wards:- Kinematic, velocity,

INTRODUCTION:Biomechanics may be defined as the science, which investigates the internal and external forces acting on a human body and the effects produced by these forces. In the last several decades, biomechanics has demonstrated considerable growth evolving from an exercise in the filming of human movement to an applied science with a powerful array of measurement and modeling techniques. The simple descriptive approach which was characteristic of early work has been superseded by attempts to explain the mechanisms underlying movement. Consequently, biomechanics has emerged as an important area of scientific investigation in a variety of disciplines. Included among these are automobile safety, biomedical engineering, ergonomics, exercise science, orthopedic surgery, physical rehabilitation, and sport. Cinematography is the technique most frequently used in sport biomechanics research for obtaining a record of human movement. These film records are quantitatively analysed to obtain linear and angular displacement time data for total body or segmental movements. Typically, the basic displacement time functions of a motion do not provide sufficient information to describe fully the activity thus; these data are further treated mathematically to determine the respective velocity and acceleration functions. The role of cinematography in biomechanical research involved from a simple form of recording motion to a sophisticated means of computer analysis of motor efficiency. Over the years, new techniques in filming and timing having been perfected to aid the research in achieving accurate time measurements of both simple and complex locomotion patterns .

OBJECTIVE-: The purpose of this study was to measure the relationship of selected bio-mechanical variable to the performance in 3 point shot.

METHODOLOGY The study was delimited to female basketball players of C.S.J.M. University, Kanpur. The study was further delimited to the 10 subject belonging to the age group 17 to 23 years. The subjects were right handed shooters. The scores of the subjects in 3 point shot were used as the criterion variable in the study. The performances of the subjects were assessed by three judges however elements related to the accuracy of shooting were also added. Used in three-point scale. Three point awarded in correct action and basket scored. Two points awarded in correct action but not scored. One point awarded in touches the ring or board. Siliconcoach pro 7 software was used for biomechanical analysis of 3 point shot in basketball. A Casio Exilim F-1 High Speed Camera, which was positioned at 7.90m from the subject at height of 1.50mts. from the subject on an extension of free throw line. Camera was also set for capturing 300 fps. The subjects were made to take two Shots only. The linear and angular kinematical variables of the body were calculated at moment execution.



The videos as obtained by the use of digital videography were analyzed (the best trial) by siliconcoach pro 7 software. Only one selected frame was analyzed. Selected variables were as under. Were represented by the angles at selected joints as Ankle joint, Knee joint, Hip joint, Shoulder joint, Elbow joint, Wrist joint, Angle of release, height of release, velocity of ball and standing height of players. The data was analyzed by use of person's product moment correlation. The level of significance chosen to test the hypothesis was 0.05 Table- 1

Correlation between Dependent variable (3 point shooting performance) and Independent variables (selected kinematic variable) at moment execution

Independent Variables	Coefficient of Correlation (r)
Ankle joint (right)	0.731*
Knee joint (right)	0.037
Hip joint (right)	-0.416
Shoulder joint (right)	0.675*
Elbow joint (right)	0.227
Wrist joint (right)	-0.148
Angle of release	0.403
Height of ball release	-0.240
Velocity of ball release	0.170
Standing height of the player	0.218

* Significant at .05 level

r.05 (8) = .444

Table – 1 clearly indicates that there exists a significant relationship between 3 point shooting performance and Ankle & Shoulder (right) as the correlation coefficient values were found higher than the tabulated value. At .05 level of significance. On the other hand, there exists an insignificant relationship between 3 point shooting performance and Knee (right), Hip (right), Elbow (right), Wrist (right), Angle of release, height of release, Velocity of ball release and standing height of player as the correlation coefficient values were found lower than the tabulated value. At .05 level of significance.

DISCUSSION OF FINDING: The statistical findings point out that there is significant relationship of 3 point shot performance with ankle joint and shoulder joint in basketball. It is also evident from the statistical findings that for Knee joint, Hip joint, Wrist joint, elbow joint, height of ball release, Angle of ball release, velocity of ball release and standing height of players no significant relationship was observed. It signifies the contribution of both joints for the best execution of 3 point shot. This may be attributed to the fact that in execution of shooting skill the main role is of shoulder movement because at the This It may be because of the fact that the shooting ability basically depends on the explosive strength of shoulder muscles and angle of release movement is essential for each player to maintain accuracy in shooting. Secondly for the purpose of 3 point shot the player has to jump up and balance his body in surface so, that he can release accurately and this movement is dependent on the ankle joint. It may be done to the fact that any skill execution in basketball is not solely depending on one joint movement, it is the combination of movement at different joint. The result of the study were also in agreement with the works of Hudson and Hudron who stated that during release the players pushes the ball in the forward and upward direction by shifting his centre of gravity in the forward direction. Which result in more inclination of torso towards the direction of release.

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Delayed Onset Muscle Soreness

By

**Dr.Mohammed Yousuf Khan (Ph.D) Principal Polytechnic,Maulana Azad National
Urdu University,Hyderabad.**

Dr.Mohammed Amjad Khan (Bachelor of Physiotherapy)

Mr.Mohammed Maaz Mohiuddin (M.Sc Biochemistry)

Introduction: Sports generally promote health and fitness but at the same time, injuries are part of all sports. Unaccustomed, strenuous exercises may lead to the development of DOMS which is also called muscle fever in sports professional and as well as in amateur sports person. The intend of this comprehensive article is focused to develop awareness about the pathophysiology and the treatment strategies to combat with DOMS.

Characteristics of DOMS: Delayed onset of muscle soreness is a sensation of discomfort that occurs 1 to 2 days after exercises. The soreness has been found to be most evident at the muscle/tendon junction initially, and then spreading through out the muscle. The muscle activity which cause the most soreness and injury to the muscle is eccentric activity(The injury to the muscle has been well described but the mechanism underlying is not fully understood). Eccentric muscle work has different physiological properties compared with concentric muscle work and may be describe as a controlled lengthening of a muscle under tension¹.This commonly occurs in certain muscles of individuals infrequently undertaking a particular activity that has quiet high eccentric component .Examples include hill walking (quadriceps in downhill component)or playing squash (gluteus maximus when reaching for a low shot).

Causes: DOMS is effectively the occurrence of local micro trauma within the muscle. A key site for this inflammation is between adjacent sarcomeres, or within the Z bands. Evidence of this inflammatory reaction can be found in increased levels of creatine Kinase(CK) into the blood stream following a muscular injury. Occasionally the high creatine Kinase levels found following eccentric exercises can confuse the clinical picture of a person in whom Creatine Kinase levels may be used as a means informing clinical diagnosis².

Mechanism: Delayed onset muscle soreness was described in 1902 by Theodore Hough³.who concluded that this kind of soreness is fundamentally result of ruptures within the muscle⁴.This is considered broadly valid although the soreness does not appear to involve the rupture of whole muscle fibers. What have been found to accompany soreness are ultra structural disruptions of myofilaments, especially the Z-disc, as well as damage to the muscles connective tissues. The tissue damage may relate most directly to soreness, as it may increased the mechanical sensitivity of the muscle Nociceptors or pain receptors, and cause pain when stretching and palpation⁵.DOMS may occur because the inflammatory response process that sensitize the Nociceptors takes some time.

Prevention: Doms can be reduced or prevented by gradually increasing the intensity of a new exercises program⁶, thereby taking advantage of the repeated-bout effect. Soreness can be avoided by limiting to concentric and isometric contractions. But eccentric contractions in some muscles are normally unavoidable during exercises, especially when muscles are fatigue. Limiting the length of eccentric muscle extensions during exercises may offer some protection against soreness.

Treatment: The soreness disappears in about 72 hours after appearing. If treatment is desired any measure that increase blood flow to the muscle, such as low intensity work, massage, hot baths or a sauna visit may help to some extend. Sports massage can help in each stage of conditioning by preventing muscles injuries as well as healing the injured ones⁷.Counterintuitively; continued exercise may temporarily suppress the soreness. Exercises increases pain threshold and pain tolerance. This effect is known as exercise-induced analgesia is known to occur in endurance training. Early intervention with a prophylactic Non-Steroidal Anti-Inflammatory Drugs(NSAIDs) has been successful in reducing the symptoms of DOMS⁸.Although certain NSAIDs have demonstrated effectively in reducing the symptoms of DOMS, Potential side effects and their inherent disruption of the natural

healing process should caution reader as to their beneficial effect. Several treatment interventions such as compression, Yoga training and light muscle activity have emerged as potential strategies to reduce the symptoms of DOMS.

Conclusion: Delayed onset of muscle sore is a natural phenomena occurring in the muscles after 48-72 hrs of unaccustomed and strenuous muscle activity/exercises, especially if the muscles are put on eccentric muscle work. Though the pathophysiology of DOMS is not yet fully understood based on clinical symptoms and research work many theories have been proposed to explain the Causes and mechanism of DOMS in which the soreness is said to be linked with intra-muscular rupture and trauma which results in the formation of inflammation adjacent to sarcomeres or within the Z- bands and thus can be monitored with an increased in levels of Creatine Kinase in the blood. The treatment should be aimed at reducing the symptoms of DOMS (Pain,Discomfort,Inflammation and muscle stiffness.ect..) and helping the sports person to resume his/her sports activity at the earliest.

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A Study of Body Mass Index, Percentage of Body Fat and Blood Pressure between Boarding and Non-Boarding School Boys of Chandigarh

Dr. Th. Nandalal Singh¹, Reeta², Bhupinder Nain³

¹Assistant Professor, Department of Physical Education, Panjab University, Chandigarh

²M.Phil. Student, Department of Physical Education, Panjab University, Chandigarh

³Research Scholar, Department of Physical Education, Panjab University, Chandigarh

ABSTRACT:The purpose of the present investigation was to compare the body mass index, percentage of body fat and blood pressure between boarding and non-boarding school boys of Chandigarh. To attain the objectives of the study, fifty (N=50) boarding school boys (Jawahar Navodaya Vidyalaya, Sector-25, Chandigarh) and fifty (N=50) non-boarding school boys (Kendriya Vidyalaya, Sector-29, Chandigarh) were selected randomly as subjects. The age of the subject ranged between 14-17 years. To find out the significant differences between the mean scores of boarding and non-boarding school boys on body mass index, percentage of body fat and blood pressure, 't' test was employed with the help of SPSS software. The level of significance was set at 0.05. Results of the study revealed no significance differences obtained between boarding and non-boarding school boys of Chandigarh in regard to BMI, percentage of body fat and blood pressure.

Keywords: BMI, Body Fat Percentage, Blood Pressure, Boarding and Non-Boarding School.

INTRODUCTION:In children and adolescent the degree of body mass depends upon ethnic background, gender, developmental stages, and ages. Waist circumference, skin fold thickness and body mass index are the most useful non invasive 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, fats can be divided into essentials fats and stored fats. Recently, it has been proposed that the adult body mass index (BMI) cut-off points (25 and 30 kg/m²) should be related to BMI percentile in children and adolescents to provide for cut-off points at younger ages. Obesity and hypertension are both major public health problems in society. Cardiac output and systematic vascular resistance determines the level of arterial BP. In children, high cardiac output plays a part in the early pathogenesis of hypertension. Several factors have been suggested to be related to the BP level in children. These include genetic factors, maturation, obesity and low physical activity; body size, endocrine and renal factors, dietary factors (particularly high sodium intake), environmental cardiac exposure, oral contraceptives, noise and psychological and social influences.

MATERIALS AND METHODS

The subjects selected for the present study were 50 boarding school boys from Jawahar Navodaya Vidyalaya, Sector-25, Chandigarh and 50 non-boarding school boys from Kendriya Vidyalaya, Sector-29, Chandigarh. The age of the subjects were ranged between 14-17 years. In order to examine the hypothesis of the present study mean, SD and t-test were employed to compare the mean scores of boarding and non-boarding school boys on the variables of body mass index, body fat percentage and blood pressure (Systolic and Diastolic). Level of significance was set at .05.

RESULTS AND DISCUSSION

The comparison between boarding and non-boarding school boys on selected variables: body mass index (BMI), percentage of body fat and blood pressure were statistically analysed using 't' test. The data pertaining to the same is presented in table 1.

TABLE-1
Comparison of Scores on Body Mass Index (BMI), Percentage of Body Fat and Blood Pressure (Systolic and Diastolic) Between Boarding (B) and Non-Boarding (NB) School Boy

Variable	Group	N	Mean	S D	M D	S E	't'ratio
BMI	B	50	19.45	2.21		.54	.522
	NB	50	19.17	3.11	.282	0	
Percentage of Body Fat	B	50	12.96	3.73		.72	.852
	NB	50	13.58	3.53	.62	7	
Systolic Blood Pressure	B	50	120.80	7.51		1.6	.355
	NB	50	120.20	9.36	.600	9	
Diastolic Blood Pressure	B	50	73.70	7.41		1.4	.425
	NB	50	73.10	6.76	.600	1	

*Significant at 0.05 level
 't' .05 (98) = 1.64

It has been depicted from the mentioned table-1 that there were no significant differences between boarding and non-boarding school boys on the variables of body mass index, percentage of body fat and blood pressure. From the above table that the calculated 't' value in case of boarding and non-boarding school boys on body mass index, percentage of body fat, systolic blood pressure and diastolic blood pressure were not found to be statistically significant as the value obtained were .522, .852, .355 and .425 whereas, the tabulated value was 1.64 which 98 degrees of freedom at .05 level of significance.



Fig-1: Blood Pressure Measurement



Fig-2: Triceps Skinfold Measurement



Fig-3: Biceps Skinfold Measurement

Mean scores of body mass index (BMI), percentage of body fat, systolic blood pressure and diastolic blood pressure between boarding and non-boarding school boys of Chandigarh are depicted graphically in figures.

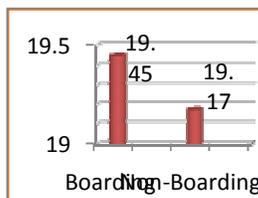


Fig-4: Body Mass

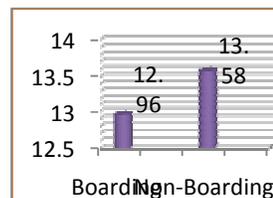


Fig-5: Percentage

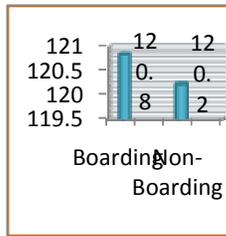


Fig-6: Systolic Blood

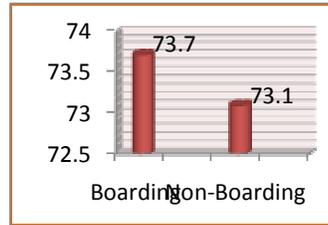


Fig-7: Diastolic Blood Pressure

From the above table, it has been observed that there were no significant differences obtained on body mass index (BMI), percentage of body fat and blood pressure (systolic and diastolic) between boarding and non-boarding school boys of Chandigarh. The probable reason could be that the subjects for this study were during growth period. Henceforth, the variable like body mass index (BMI), percentage of body fat and blood pressure of boarding and non-boarding school boys of Chandigarh could not be differentiated.

CONCLUSION

On the basis of the obtained results from the present analysis it may be concluded that boarding and non-boarding school boys of Chandigarh did not significantly differ on the variables of body mass index, percentage of body fat, systolic blood pressure and diastolic blood pressure. However, percentage of body fat boarding school boys are better score in comparison to non-boarding school boys.

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Changing Attitude Towards Physical Education and Modern Lifestyles

¹ * Prof. Bhimjibhai N. Patel - Director of Physical Education, Vijaynagar Arts College, Vijaynagar

² ** Prof. Kiritkumar B. Patel – Director of Physical Education, Arts & Commerce college, Chanasma

INTRODUCTION: Today the technology has changed life style of man largely and it will continue to do so. Physical work of person living in very fast lifestyle and pushbutton technology has become negligible. Things that were produced by labors system, have been replaced by machines. Due to this reason man of today losing health and happiness. People becomes idle and dependent on technology. Obesity is the biggest issue now a day. Many invention have been made by the medical science. They invent to cure the person after they become ill. Not all the persons attached to respective field should be inactive. On the contrary, they should be active to ensure that they may not be ill. We always say- 'Prevention is better than cure'. We should concentrate on contributing factors of physical-happiness. We should spare some time for physical labors, exercise, naturopathy, yoga & Asana, walking, jogging, swimming, recreational games to be healthy and fit in modern technologically featured life. We should know as to what are the physiological aspects among constituents of physical happiness, and what should be done for its proper development and what should be done for problem have developed. Persons work in various fields, if food habits are according to their duties and type of work, then serious problems of health do not rise. In existing circumstances, health and hygiene are important for everybody. Physical-Education is not only limited to physical activities but it helps to develop the art of learning, leaving intellectuality and attitude towards life. From the ancient time sports and games have been the part of human instinct to enjoy life and be happy. In tune with the growth of man and the value system in the society around him, the intensity and the goal of games and sports have changed. The modern era of science and technology is featured by the analysis and accuracy of questioning mind with a deterministic approach and economy based value system in the society. In tune with this the sophistication and complexities in sports and games have also increased.

Generally physical-activities fall in two categories:

1. Health, recreation and fitness related activities.
2. Sports performance related activities.

World wide accepted concept about physical education is that it deals with all round development of an individual through active participation in various recreational and play oriented activities, and an integral art of total education. Physical education popularly known and accepted as a profession which enable an individual to develop his physical, mental, social, emotional and other qualities to live most, serve best and get wellness. It also provides an opportunities to involve in various leisure time activities to get relief from tension and worries. More over it develops competitiveness which in turn develops personality for better adjustment and understanding capacity.

Health habits should be developed from home and then in school. In modern lifestyle people have no more time to be spare for physical activities and games. Normally people accept physical activity when they fall sick with advice of a physician, but this is not enough. There should be a lifetime approach towards different physical activities. There is no little doubt that physical activity with appropriate frequency, intensity, and duration produces significant health benefits. The Claude Bouchard the internationally renowned Canadian exercise physiologist estimate that- " Physical fitness in one's richest possession, it cannot be purchased and it has to be earned through a daily routine of physical exercise." Physical-education deals with the health and wellness of citizen, which directly leads to the fitness and progress of a nation. Wellness in holistic sense means a person must be full of life in good physical, mental, social and emotional state, and free from disease and tenderness to the maximum extent possible. Achieving a state of wellness means living a higher quality of life experiencing a peace that goes beyond what material wealth and external situation can offer.

Old age approach: People would like to take part in physical education programme like, play combat, games etc. to spend their leisure time and to have fun and pleasure or to show superiority over

another during the time when society have limited goals to achieve even in educational institutions students used to take part in physical activities without any compulsion. The result behind is students were free than now when compare to present curricula and demand of education to find livelihood. On the other hand common man though less aware about health aspect but used to participate with others due to be achievement motive but play oriented.

* OLD CONCEPTS OF PHYSICAL EDUCATION

[A] Recreation centered lifestyle-

- * Joint family system
- * Life settlement
- * Limited ambitions
- * Communication

1. Joint family system-More number of individuals residing under one shelter used to get opportunities to interact and involve in recreational activities. Play used to be among the numbers of the kinship. Main intention was to interact and develop belongingness.

2. Life settlement-Commonly people used to reside in a particular place and this because workplace was attracted to the family moreover, all the members of the family are involved in same occupation. There is less movement from place to place.

3. Limited ambitions- People are satisfied with their type of occupation and earning. Moreover people were unaware about the world around them, they never used to attain height by hook or crook.

4. Communication- Communication system was primitive slow and limited to a particular community or area. People had no idea about what is happening on the other side of the globe. Poor communication restricted people to a particular area and adapt similar lifestyle by all.

[B] Performance centered approach-

- *Scientific approach
- * Professionalism
- * Propagandas
- * Superiority

1. Scientific approach-Physical education when became a part of the total education process that takes place in around the man, gradual development has been made through implementing scientific facts and principals in obtaining high performance in sports and games to attain higher levels of goals. All efforts are being made with help of science.

2. Professionalism-Purpose of recreation has become profit motive and people began to move from amateurism to professionalism. Many people and organizations have made sports as a means of gaining money.

3. Propagandas -Wide publicity through various mass media attracted people to perform better in sports and get the motives achieved. Similarly media helped in comparing efficiency of one over another.

4. Superiority- Sports have become the means for providing superiority over others. People ready to accept defeat in the battlefield but not on the play field. Superiority strength and the power of the nation are scaled through sports achievement.

[C] Spectator centered-Over the years drastic change from participation as spectators is seen all over the world this is due to many changes that taken place in the lifestyle of the people. Attitudinal change parents, children's, students and people can never be over looked in assessing the present development of spectators. Change in the lifestyle, need for better placement, higher ambitions in life and due to mechanical life, attitude has been changed from time to time. Incidentally even active spectators taking a deviation as passive viewers or spectators.

* Reasons Of Attitude Change:-

1. Urbanization:-People started moving towards urban areas to revise their standard of living and to have easy and fast life. Occupation becomes clock demanding and shifted to work place. Which in turn developed mass spectators. Moreover, common holidays demanding certain entertainment for the people to get relief from tension.

(a) Limited play areas- Urban areas give rise to shortage or non-availability of sufficient play areas. Since people do not get access to playgrounds and recreational areas, because find it difficult to involving big muscle activities.

(b) Machine Mania-Arrival of various machine to perform domestic as well as productive functions of man, created easy and inactive life. This also give rise to non-constructive leisure time, which may people to sit and watch television and other mass media.

2.Heroism-Most of the people would like to see and satisfy the action made by the active participants, which they cannot perform due to their limitations.

3.Mass media-Recreational games, ply (local or regional) has become national and internationalized and brought down to global village by the mass media . Whatever actions are being performed anywhere in the world could be easily viewed by the huge mass all over the globe . Moreover nuclear family system welcomes mass media to get solutions for childcare.

4.Commercialization- Hooliganism developed due to the influence of professional competitions conducted at various levels for the purpose of profit making. Different contest announced through mass media to attract sports and games lovers towards money making.

5.Academic Advancement-To meet the changing social needs and create human resource, too much of academic emphasis is given at various levels of education. Students do not find sufficient time to time participate in physical education activities. To release their mental tension and aggression, watching sports competitions is the only alternatives.Wide range of curriculum facilitates students to make career advancement in various disciplines. Multi discipline oriented education does not provide any opportunity to engage in sports and games. Student community by and large converted as spectators to come out with their inner urge of participation for which there is no time and place and to get the burden of huge curriculum.Now it is high time for physical education profession to make such changes, which can affectively attract youth. Greater emphasis should be made on health related fitness. As we observe people suffer from diseases like cardiac arrest, diabetes, blood pressure, stroke, spondalitis, and meningitis, so on and so forth due to lack of physical exercises. One of the commonest old age health problem seen today is stress related problems like depression, psychosomatic diseases etc.physical education profession should come forward to make people aware bout the need of physical exercise.

Suggestions For The Remedy :

[1] Elementary school physical education program-Informal activities, playing recreational and minor games and some of the general fitness activities, which will help to develop neuromuscular co-ordination, general strength, endurance and speed as well as to develop better posture.

[2] Secondary and higher Secondary physical education program- Emphasis on fitness consciousness and voluntary participation in physical activities of big muscle. Reduce selection of students, coaching and competitions which demands screening and elimination. Educate students regarding hazard and need for physical exercises.

[3] Higher education-All those who receive higher education must compulsorily indulge in physical activities at least thirty to sixty minutes a day. Stress on maintenance of muscular strength , cardio respiratory endurance and flexibility through stretching.

[4] Veterans and old age physical activities-Setup facilities at various levels to indulge in physical activities in the form of recreation, joking and general exercises. Opportunity must provided to make use of available facilities extended by physical education departments in various centers with proper propogandas.

CONCLUSION:-

Physical education is a dynamic profession and it is in our hand that how perfectly and efficiently we execute to keep up the status of the profession. As there is a saying that-" There is no shortcut for success ". Physical education personnel should try to follow the ethics of physical education and sports, so that possible justice could be done to the people and youth who are being cheated and diverted by our own personnel in obtaining results by hook or crook. All must make a collective efforts for the better progress and promotion of physical education

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Role of Mass Media in the Progress of Sports

Jayshree Narayanan
Research Scholar
Shri Jagdishprasad Jhabarmal Tibrewala University

Introduction:

Mass media is known as the central nervous system of society. It is a medium of communication between public and government. Without media, the country is like a vehicle without wheels. It acts as a bridge between people worldwide. Media is considered to be the fourth pillar of the society. It plays an important role in the welfare of the society and is a source of information, education and entertainment. We are calling the world a global village because of the importance of media in the current world. The relationship between mass media and sports has profoundly influenced both the institutions. Sports and press became a mass phenomenon during the 19th century and the two spheres have developed in parallel ever since. The purpose of this paper is to state how mass media influences sport and how sport influences the masses all over the world. Since the dawn of civilization, people have enjoyed viewing sports. From the times of gladiatorial combats in Rome, there have been avid sport spectators. A sport spectator is someone who regularly watches, listens to, or reads about sporting events. Spectators can be further subdivided into two classifications: direct sport consumers and indirect sport consumers. Direct sport consumers are individuals who are actually in attendance at the sporting event. Indirect sport consumers are individuals who view the event on television, listen to it on the radio, or read about it in the newspaper or on the Internet.

Discussion:

The media influences sports in a number of ways and has changed over the years. 40-50 years ago most fans would have to wait until the next day's papers to come out to find out the scores of the previous day's game. Or they might have access to the radio. The relationship between mass media and sports has profoundly influenced both the institutions in the last 25 years. Mutual commercialization and development of both sport and media has developed to such an extent that today we cannot think of one without the other. In many ways they are intertwined. Recent research proves that there has been a major increase - at least quantitatively - of sport in the media in countries all over the world, in the number of specialist newspapers, the number of pages given over sport in conventional newspapers, television sport channels, in the number of programming hours and the radio and television sport programmes' audiences, etc. The increase in the number of references to sport in advertising and sponsorship strategies of small and large advertisers alike stresses the financial importance that this phenomenon has acquired and is also an unquestionable sign of its cultural importance. Television has tremendous influence on sports. Sports have contributed to the development of new media and to the use of new media technology. The increase in televising of games has brought a completely new dimension to sports in the last two decades. Fans are able to follow their teams more closely. Over the years technology has increased to the point where even if your team is not on the television, you can still get up to the second game details through the internet. Media caters to the needs of the wide public, fulfilling the desire to watch the "actual thing" on-line. Although a football match might occur in Milano, and tennis game may take place in Moscow, media brings the tennis game and the football match straight to your living room, without the need to get up from sofa and buy the ticket to Milano or wherever you want to get to. Media makes use of our need to witness the actual action by serving as a mediator between the sporting event and sports loving consumer. The media, by exposing sports, teams and players more intimately to the public have brought many more fans to the games. The prevalence of sport spectatorship in society is undeniable. Media brings sport to people who may not normally get to experience it otherwise. This can encourage people to get involved in various sports that they generally do not play in their country or region

Major events such as the Super Bowl regularly top 100 million viewers, while the football World Cup is reported to have drawn more than 2 billion viewers internationally. It is rightly said "It is little wonder that the relationship between sport and media (especially T.V) is commonly described as the happiest of marriages". This symbiosis is evident when we look at how appeal of sports has made T.V as the most important media for most of the viewers. It plays an important role in encouraging and motivating the new generation to take up sports even as a career.

The stars of sport, the athletes, have become never-ending sources of inspiration for the construction of stories to be told. Modern stories about good and bad, success and failure, luck and misfortune, victory and defeat, things native and foreign, group identity and emotion are all recounted in their most popular of expressions - sports narration. In 60's and 70's TV programs in India spread haltingly and transmission was mainly in black & white. The thinkers and policy makers of the country, which had just been liberated from centuries of colonial rule, frowned upon television, looking on at it as a luxury Indians could do without. The colour TV was introduced by state-owned broadcaster Doordarshan (DD) timed with the 1982 Asian Games which India hosted. The success of this event on colour television paved the way for the rapid roll out of infrastructure and content much to the delight of Indian viewer. The cricket telecast subsequently completely changed the fortunes of the game in India. The cultural importance of sport is unquestionable when we realise that "media-sport", besides satisfying the symbolic needs of the identification of athletes and nations, also satisfies the needs of the viewer's fantasies. The money which is generated by popular sports like cricket through telecast rights sustains the sports in India. Media companies pay for the rights to show a sporting event. Also, sports shown on the tv generate more sponsorship.

Conclusions:In conclusion one can say that mass media has brought about a revolution of how sporting events are watched and followed. The increased exposure it provided for sports and players has changed the economics of sports. Though there have been occasional problems because of over consumerisation of sports, by and large we can definitely say that impact of the mass media has been a great for sports.

Efficacy of Varied Intensity Interval Training on Selected Motor Fitness Components Among School Boys

* Mr. K.Rajaskhar, ** Dr. P. Johnson
* Research Scholar & **Assistant Professor,
University College of Physical Education & Sports Sciences,
Acharya Nagarjuna University, Guntur-522510, Andhra Pradesh, India.

Abstract:The purpose of this study was to compare interval training programmes of different intensity on selected motor fitness components among schoolboys. For this purpose 45 male students of Junior Colleges in Guntur District, aged 16 to 18 years took part in the study. Subjects were randomly assigned to three groups of 15 each. Group-I underwent intensive interval training, group-II followed extensive interval training and group-III acted as control subjects. The training regimen lasted for eight weeks. The strength endurance, cardiorespiratory endurance and speed were selected as criterion variables, and they were assessed using standard tests and procedures, before and after the training regimen. Analysis of Covariance (ANCOVA) was used to determine the significant difference existing between pre and post test on selected criterion variables. The analysis of data revealed that both the experimental treatments had significant impact on chosen motor fitness components, however there was significant difference in the level of effectiveness of intensive and extensive interval training on cardiorespiratory endurance and speed.

Introduction:Healthy living and physical fitness are closely connected. Being physically fit not only helps people live healthy lives, it also helps people live longer. People who make physical activity and exercise a part of their daily lives when they are young are more likely to continue the same in their lives as they grow older and benefited throughout their lifespan. Physical activity is defined as any movement that spends energy. Exercise is a subset of physical activity, but it is an activity that is structured and planned. The best way to keep physical activity and exercise a permanent part of one's life is to make it fun and enjoyable. If people are given different options of what they can do and have easy access to those options, they are more likely to participate in physical activity and exercise. This allows people to have a positive attitude toward physical fitness. It's also helpful if people are knowledgeable about the rewards of physical activity and exercise. The challenges facing the fitness professional is how best they can manipulate training load progressively, and intermix intensity, duration and frequency with a variety of modes of activity, to help the clients reach their goals. Fortunately a number of different training programs are available to the fitness professionals including interval training. Interval training was originated in Europe as a scientific method of developing speed and endurance in athletes. It is a method of overloading the athlete by the use of aerobic and anaerobic exercises, thus developing a high oxygen debt. A quick recovery of cardiovascular and respiratory systems is sought for and expected. In this method, an athlete runs a prescribed course in a specified time for a prescribed number of times. Fast runs are interspersed with short recovery periods of jogging. Besides developing speed and endurance, interval training has the added advantage of allowing large numbers of athletes to train at the same time (Novich & Taylor, 1983). Interval training is a programme of repeated running with a set of interval and restful jogging after each run. The period between runs must be long enough to allow the athlete sometime to recover from previous run, but not long enough to afford him complete recovery (Ecker, 1992). Doherty (1963) described two types of interval training. The first type is "long interval training" in which one runs half or three quarter of the actual distance at competition speed or even faster, which requires a longer interval of slow jogging. The second type is "short interval training" where, there were two types of workout i.e., pace endurance workout and speed endurance workout. In pace endurance distance pace, intervals are kept constant and the numbers of repetitions are increased as conditions improve. While, the distance interval and the numbers of repetitions are remained fixed and pace varied in speed endurance workout. Intensity, the qualitative component of work an athlete performs in a given time. It is important to establish and use varying degrees of intensity in training. Several methods are available to

measure the strength of the stimuli and thus the intensity (Bompa, 1999). The studies of some (Astrand, 1970; Astrand, *et al.*, 1960; Christensen, Hedman & Saltin, 1960) have shown that the alternation of work and rest periods permits more work to be done with less accumulation of lactic acid than work done at the same rate continuously. Furthermore if the duration of the work period was limited to 10 seconds it was possible to delay fatigue for much longer than when completing 30 or 60 second work bouts under similar 1:2 work/rest ratios (Astrand, *et al.*, 1960). Each method of interval training is designed to achieve specific training goals. The literature on comparative effects and suitability of intensive and extensive interval training on different variables have been insufficient. Hence, an attempt to compare interval training programmes of different intensity on selected motor fitness components among schoolboys was made.

Thereby, it was hypothesised that:

- a. There would be a significant improvement on selected criterion variables due to experimental treatment.
- b. There would be a significant difference in the level of influence between experimental groups on selected criterion variables.

Methodology

Subjects: To achieve the purpose of the study, 45 male students were selected at random as subjects from volunteers of Junior Colleges in Guntur District, in the age group of 16 to 18 years. The selected subjects neither have the experience of organised fitness training nor participating in any other special coaching programme. The chosen subjects were randomly segregated into three groups of 15 each. Group-I underwent intensive interval training, group-II followed extensive interval training and group-III acted as control subjects. The duration of the training program as experimental treatment was eight weeks.

Variables: The independent variables used in the present study were two different intensities of interval training, namely: intensive interval training and extensive interval training. The criterion variables chosen for the present research were strength endurance, cardiorespiratory endurance and speed. These criterion variables were assessed using standard tests and procedures, before and after the training regimen. The abdominal strength endurance was tested using bent-knee sit-ups, cardiorespiratory endurance was assessed through Cooper's 12-minute run/walk, and speed was appraised by means of 50 metres dash.

Training Protocol: The exercise training program of both the experimental groups consisted of sprinting for distance in time and then jogging or walking for a short period that allows incomplete recovery of the heart rate. Fifteen subjects participated in the intensive interval training and fifteen subjects in the extensive interval training program. The subjects confined to both the experimental groups trained one session a day, 3 times a week for 8 weeks in the morning between 6.30 and 8.00 am. During every session the workout lasted approximately for 90 minutes inclusive of warming up, training and warm down process, while the control group was not exposed to any specific training programme. During every second week of a particular training intensity, one repetition is performed additionally. Further, the prescription of exercise allows two weeks of stabilization to a training intensity, and thereafter the time limit to execute the exercise was reduced so as to increase the intensity of exercise.

Experimental Design: The experimental design used for the present study was random group design involving 45 volunteers as subjects.

Statistical Techniques: To examine the efficacy of varied intensity interval training on selected motor fitness components, analysis of covariance (ANCOVA) was computed for the data collected from intensive interval training, extensive interval training and control groups during pretest and posttest separately for each variables. Further, since three groups were involved, whenever the F ratio was significant, Scheffé S post hoc test was used to determine which of the paired mean differed significantly. The level of confidence was fixed at 0.05 for significance.

Results and Discussion: The age, height and weight of the subjects averaged 16.82 ± 0.74 yr, 158.3 ± 3.4 cm, and 56.3 ± 2.52 kg respectively. The data collected on selected motor fitness components before and after eight weeks of intensive and extensive interval training, was analysed by using ANCOVA and it is presented in table 1 & 6 respectively. Table 1, 3 & 5 shows that the pretest means on abdominal strength endurance, cardiorespiratory endurance and speed respectively of intensive interval training, extensive interval training and control groups were found to be insignificantly varied, since the obtained 'F' ratio value was lesser than the required table value for significance at 0.05 level of confidence. Further, it demonstrates that the posttest means on abdominal strength endurance, cardiorespiratory endurance and speed respectively of intensive interval training, extensive interval training and control groups were found to be significantly varied,

since the obtained 'F' ratio value was greater than the required table value for significance at 0.05 level of confidence.

Table 1 – Analysis of covariance on abdominal strength endurance of intensive and extensive interval training and control groups

	Intensive Interval Training Group	Extensive Interval Training Group	Control Group	Source of Variance	Sum of Square	df	Mean Square	F Ratio
Pre Test								
Mean	26.20	23.80	23.33	Between	70.978	2	35.489	2.154
S.D	3.028	3.913	4.995	Within	692.133	42	16.479	
Post Test								
Mean	31.33	28.20	23.80	Between	429.644	2	214.822	21.273*
S.D	2.440	3.468	3.509	Within	424.133	42	10.098	
Adjusted Post Test								
Mean	30.289	28.583	24.461	Between	252.468	2	126.234	28.856*
				Within	179.362	41	4.375	

* Significant of 0.05 level of confidence

The required table value for significance at 0.05 level of confidence with degrees of freedom 2 and 41 is 3.226 and degree of freedom 2 and 42 is 3.222. Table 1 shows that the adjusted posttest means on abdominal strength endurance were found to be significantly varied, since the obtained 'F' ratio value was greater than the required table value for significance at 0.05 level of confidence. Thereby, the analysis of data was further continued and the results of post hoc test on strength endurance are given in table 2.

Table 2 – Scheffé S test for the differences between adjusted posttest paired means on abdominal strength endurance

Adjusted Posttest Mean			Mean Differences	Confidence Interval
Intensive Interval Training Group	Extensive Interval Training Group	Control Group		
30.289	28.583		1.706	1.94
30.289		24.461	5.829*	1.94
	28.583	24.461	4.122*	1.94

*Significant at .05 level

Table 3 – Analysis of covariance on cardiorespiratory endurance of intensive interval training extensive interval training and control groups

	Intensive Interval Training Group	Extensive Interval Training Group	Control Group	Source of Variance	Sum of Square	df	Mean Square	F Ratio
Pre Test								
Mean	2049.33	1973.33	2054.7	Between	62098	2	31048.9	2.154
S.D	115.169	64.217	93.417	Within	365600	42	8704.8	
Post Test								
Mean	2247.33	2442.00	2097.33	Between	895951	2	447975.6	56.701*
S.D	84.55	110.66	65.63	Within	331827	42	7900.6	
Adjusted Post Test								
Mean	2237.35	2464.23	2085.09	Between	952299	2	476149.4	73.351*
				Within	266147	41	6491.4	

* Significant of 0.05 level of confidence

The required table value for significance at 0.05 level of confidence with degrees of freedom 2 and 41 is 3.226 and degree of freedom 2 and 42 is 3.222. Table 3 proves that the adjusted posttest means on cardiorespiratory endurance was found to be significantly varied, since the obtained 'F' ratio value was greater than the required table value for significance at 0.05 level of confidence. Thus, the analysis of data was further continued and the results of post hoc test on cardiorespiratory endurance are given in table 4.

Table 4 – Scheffé S test for the differences between adjusted posttest paired means on cardiorespiratory endurance

Adjusted Posttest Mean			Mean Differences	Confidence Interval
Intensive Interval Training Group	Extensive Interval Training Group	Control Group		
2237.35	2464.23		-226.879*	74.73
2237.35		2085.09	152.261*	74.73
	2464.23	2085.09	379.140*	74.73

*Significant at .05 level.

Table 5 – Analysis of covariance on speed of intensive interval training extensive interval training and control groups

	Intensive Interval Training Group	Extensive Interval Training Group	Control Group	Source of Variance	Sum of Square	df	Mean Square	F Ratio
Pre Test								
Mean	7.933	7.867	7.900	Between	0.033	2	0.017	0.531
S.D	0.238	0.150	0.131	Within	1.347	42	0.032	
Post Test								
Mean	7.233	7.467	7.853	Between	895951	2.942	2	25.807*
S.D	0.285	0.184	0.236	Within	331827	2.384	42	
Adjusted Post Test								
Mean	7.193	7.507	7.853	Between	3.252	2	1.626	147.818*
				Within	0.440	41	0.011	

* Significant of 0.05 level of confidence

The required table value for significance at 0.05 level of confidence with degrees of freedom 2 and 41 is 3.226 and degree of freedom 2 and 42 is 3.222.

Table 5 proves that the adjusted posttest means on speed was found to be significantly varied, since the obtained 'F' ratio value was greater than the required table value for significance at 0.05 level of confidence. Thus, the analysis of data was further continued and the results of post hoc test on speed are given in table 6.

Table 6 – Scheffé S test for the differences between adjusted posttest paired means on speed

Adjusted Posttest Mean			Mean Differences	Confidence Interval
Intensive Interval Training Group	Extensive Interval Training Group	Control Group		
7.193	7.507		0.314*	0.097
7.193		7.853	0.660*	0.097
	7.507	7.853	0.346*	0.097

*Significant at .05 level.

The Scheffé S post hoc test reveals that there is a significant influence of both intensive and extensive interval training on abdominal strength endurance, cardiorespiratory endurance and speed. Furthermore, it seemed that experimental treatments didn't differ significant among themselves in their level of effectiveness on abdominal strength endurance, while experimental treatments differ significantly at 0.05 level of confidence, in their level of efficiency in upgrading cardiorespiratory endurance and speed. The findings of the present study are in line with the observations of some of the previous empirical researches. Tabata *et al.*, (1996) revealed that steady state group had a higher VO_2 max at the end of experimentation, while ultra-intense exercise group had gained anaerobic capacity benefits. A study Little *et al.*, (2009) demonstrated that subjects trained 3 times per week using 60 seconds of intense exercise (at 95% of VO_2 max) followed by 75 seconds of rest, repeated for 8-12 cycles, have obtained gains similar to a steady state (50-70% VO_2 max) training for five hours per week. A recent study by Driller *et al.*, (2009) showed an improvement that equates to a significant 2% after just 7 interval training sessions.

Conclusion

It was concluded that both the intensive and extensive interval training regimes are very effective methods of producing a high total work output in a relatively short training session and in improving muscular endurance, cardiorespiratory endurance and speed, thereby the ability to tolerate the short duration interval work encountered in many games. Although, these interval training is strenuous and tedious, it can be recommended for individuals who were highly motivated to improve their capacity for performance in competitive sports.

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Effect of Sex and Age on Self-concept of Interuniversity Volleyball Players”

Dr. Raypure S.E.
Assistant Professor in Psychology
M.S.S. Arts, Commerce & Science College,
Jalna – 431203 (M.S.) India.

Self-concept (also called self-construction or self-perspective) is a multi-dimensional construct that refers to an individual's perception of "self" in relation to any number of characteristics, such as academics (and nonacademic's), gender roles and sexuality, racial identity, and many others. While closely related with self-concept clarity (which "refers to the extent to which self-knowledge is clearly and confidently defined, internally consistent, and temporally stable"), it presupposes but is distinguishable from self-awareness which is simply an individual's awareness of their self. It is also more general than self-esteem, which is the purely evaluative element of the self-concept. The self-concept is composed of relatively permanent self-assessments, such as personality attributes, knowledge of one's skills and abilities, one's occupation and hobbies, and awareness of one's physical attributes. For example, the statement, "I am lazy" is a self-assessment that contributes to the self-concept. In contrast, the statement "I am tired" would not normally be considered part of someone's self-concept, since being tired is a temporary state. Nevertheless, a person's self-concept may change with time, possibly going through turbulent periods of identity crisis and reassessment. The self-concept is not restricted to the present. It includes past selves and future selves. Future selves or "possible selves" represent individuals' ideas of what they might become, what they would like to become, and what they are afraid of becoming. They correspond to hopes, fears, standards, goals, and threats. Possible selves may function as incentives for future behavior and they also provide an evaluative and interpretive context for the current view of self.

Volleyball is an Olympic team sport in which two teams of six players are separated by a net. Each team tries to score points by grounding a ball on the other team's court under organized rules. The complete rules are extensive. But simply, play proceeds as follows: A player on one of the teams begins a 'rally' by serving the ball (tossing or releasing it and then hitting it with a hand or arm), from behind the back boundary line of the court, over the net, and into the receiving team's court. The receiving team must not let the ball be grounded within their court. They may touch the ball as many as three times. Typically, the first two touches are to set up for an *attack*, an attempt to direct the ball back over the net in such a way that the serving team is unable to prevent it from being grounded in their court. The rally continues, with each team allowed as many as three consecutive touches, until either (1): a team makes a *kill*, grounding the ball on the opponent's court and winning the rally; or (2): a team commits a *fault* and loses the rally. The team that wins the rally is awarded a point, and serves the ball to start the next rally. The ball is usually played with the hands or arms, but players can legally strike or push (short contact) the ball with any part of the body. A number of consistent techniques have evolved in volleyball, including *spiking* and *blocking* (because these plays are made above the top of the net the vertical jump is an athletic skill emphasized in the sport) as well as *passing*, *setting*, and specialized player positions and offensive and defensive structures.

Carly B. Slutzky, Sandra D. Simpkins (May 2009) [The link between children sport participation and self-esteem: Exploring the mediating role of sport self-concept](#). Sport participation is positively associated with indices of adjustment, such as self-esteem, among adolescent participants. Less is known about the processes through which younger children benefit from their sport participation. The purpose of this investigation was to test whether children's sport self-concept mediated the longitudinal associations between time spent in individual- and team-oriented organized sport activities and later self-esteem. We used four waves of data from the Childhood and Beyond Study collected from three cohorts of elementary school-aged children ($N = 987$), their parents, and their teachers. Findings indicated that children who spent more time in team sports, but not time in individual sports, reported higher

Sport self-concept, which, in turn, was associated with higher self-esteem than their peers. Multi-group analyses suggested that these relations did not vary across gender, sport ability, sport importance beliefs, or peer acceptance. Study results suggested that the relations between time spent

in sports and children's sport self-concept depends, in part, on whether the time was spent in team or individual sports. This investigation highlighted the value of examining mediating processes so as to better explicate the association between time in sports and self-esteem.

Rod K. Dishman, Derek P. Hales, Karin A. Pfeiffer, Gwen Felton, Ruth Saunders, Dianne S. Ward, Marsha Dowda, Russell R. Pate (May 2006) [Physical Self-Concept and Self-Esteem Mediate Cross-Sectional Relations of Physical Activity and Sport Participation With Depression Symptoms Among Adolescent Girls](#). The authors tested whether physical self-concept and self-esteem would mediate cross-sectional relations of physical activity and sport participation with depression symptoms among 1,250 girls in 12th grade. There was a strong positive relation between global physical self-concept and self-esteem and a moderate inverse relation between self-esteem and depression symptoms. Physical activity and sport participation each had an indirect, positive relation with global physical self-concept that was independent of objective measures of cardiorespiratory fitness and body fatness. These correlational findings provide initial evidence suggesting that physical activity and sport participation might reduce depression risk among adolescent girls by unique, positive influences on physical self-concept that operate independently of fitness, body mass index, and perceptions of sports competence, body fat, and appearance.

Methodology

Aim and Objective of the study:

To Examine the Self-concept of Male and Female Interuniversity Volleyball Players.

To Examine the Self-concept of 18-21years and 22-25years Interuniversity Volleyball Players.

Hypothesis:

Male Interuniversity Volleyball Players have Significantly Better Self-concept than the Female Interuniversity Volleyball Players.

22-25years Interuniversity Volleyball Players have Significantly Better Self-concept than the 18-21years Interuniversity Volleyball Players.

Sample

For the present study 200 players were selected from Maharashtra. The effective sample consisted of 200 subjects, out of which 100 subjects were male and 100 subjects were female. The age range of subjects where 18 to 25 years.

Tools

Self-Concept scale:

This test is developed and standardized by C.G.Deshpande. The test consisted of 60 Items. The subjects were required to respond to each item in terms of 'YES' OR 'NO'. The reliability coefficient of the test was found 0.86 with Spearman Brown formula. The validity coefficient was found 0.84.

Procedures of data collection

Each of the three instruments could be administered individuals as well as a small group. While collecting the data for the study the later approaches was Adopted. The subjects were called in a small group of 20 to 25 subjects and there seating arrangements was made in a classroom. Prior to administration of test, through informal talk appropriate rapport form. Following the instructions and procedure suggested by the author of the tests. The test was administered and a field copy of each test was collected. Following the same procedure, the whole data were collected.

Variable

Independent variable- Gender a) Male b) Female

Age a) 18-21y b) 22-25y

Dependent variable- 1. Self-concept

Statistical Treatment of Data
Male and Female Interuniversity Volleyball Players Shows the mean S.D and't' value of factors 'Self Concept'

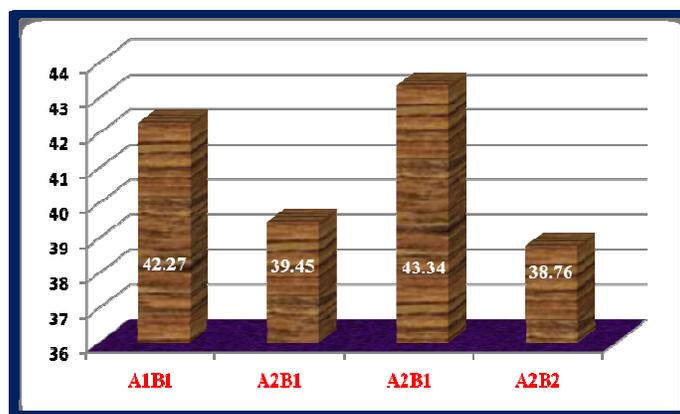
Factor	Group	A1B1	A2B1	A2B1	A2B2
Self- concept	Mean	42.27	39.45	43.34	38.76
	S.D.	2.51	2.86	2.06	2.19

A = Gender

B = Age

A1 = Male A2 = Female

B1 = 22-25y B2 = 18-21y



Summary of Two Way ANOVA

Ss	Source	Df	MS	F	P
990.13	A	1	990.13	378.75	< 0.01
465.13	B	1	465.13	177.93	< 0.01
1.12	A x B	1	1.12	0.43	NS
512.38	Within	196	2.61		
1968.76	Total	199			

From the Summary and graph it is seen that main effect A is highly significant main effect A refer to the factor Gender. It was varied at two levels i.e. Male and Female it was assumed Male & female differ significantly with regards to Self-concept. Since the main effect A is highly Significant (F = 378.75, df = 1 and 192, P < 0.01) It is Clear that Male and Female Subjects Differ Significantly From each other from the mean scores and graph it was found that the males had significantly Better Self-Concept than the Females this Result Support the Hypothesis.

The Second Independent Variable the Factor of Age It was also varied at two levels. The effective sample was divided in to two groups, 22-25years and 18-21years. Main effect has yielded highly significantly result and F Values of 177.93 for 1 and 192 df is significant beyond 0.01 level. And Support the Hypothesis 22-25years Interuniversity Volleyball Players has Significantly Better Self-concept than the 18-21years Interuniversity Volleyball Players.

Results:

Male Interuniversity Volleyball Players have Significantly Better Self-concept than the Female Interuniversity Volleyball Players. 22-25years Interuniversity Volleyball Players have Significantly Better Self-concept than the 18-21years Interuniversity Volleyball Players.

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The Relationship of Selected Anthropometric and Biomechanical Variables with the Performance of Players in Off Spin Bowling

Kapil Dixit¹, Dr. Shrikrishna Patel², Upendra Pandey

Lecturer, Department of Physical Education, Armapore, College, Kanpur.
Lecturer, Faculty of Education, D.A.V. Training College, Kanpur
Lecturer, Department of Physical Education, CSJM University, Kanpur

Abstract:The study was concluded in order to determine the relationship of selected anthropometric and biomechanical variables with the performance of players in off spin bowling. Five male cricketers players who represent lakshmibai National Institute of physical education, Gwalior, were selected as subjected for the study. The help of digital photography was used to film the subjects in sagittal plane of off spin bowling. Joint point method was used in order to obtain the values of selected angular kinematics variables from develop stick figures. The performance of off spin bowling of each selected subjects was recorded on the basis of twenty point scale. 5 point awarded in run up, 5 point awarded in placement of foot, 10 point awarded in Execution, 10 point awarded in Trajectory and 20 point awarded in line, length and spin, which was obtained by using three point scales by the three judge. To determine the degree of relationship of selected anthropometric and biomechanical variables with the performance of players in off spin bowling Pearson's product Moment Correlation Method was used. The obtained value of coefficient of correlation of selected anthropometric variables at the moment release. Only the height and leg length have significant relationship with the performance of subjects in off spin bowling. In case of biomechanical variables none of the biomechanical variable has exhibited significant relationship with the performance of players in off spin bowling. It may be because of small size of the sample. It is a known fact that greater radius of rotation creates greater momentum but angle at elbow joint bowling arm did not exhibit significant relationship which may be due to other reasons.

Key words: - Biomechanical analysis, off spin

INTRODUCTION:A sport is as old as the human society and it has achieved a universal following in the modern times. It now enjoys popularity, which outstrips any others form of social activity. It has become an integral part of the educational process; millions of fans follow different sport. Many participate in sports actively for fun or for health, fitness and well being. Sports have become a man movement and social phenomena of great magnitude. Biomechanics is an applied form of mechanics and consequently the methods used to investigate, it must be derived from those of mechanics but as boarding science in other scientific discipline such as anatomy, physiology and technique of sports. The role of biomechanics in attaining high performance can not be overlooked, since it is the only science which helps to identify the faults in performing technique very precisely. There are basically two methods by which motor skill can be analysed. They are qualitative and quantitative. High speed movie film for exactness has been used extensively to examine in great details of the movements which occur too fast for the human eye to detect. In many of the elite sport training and research institution around the world, force applied during high caliber sporting event, while the analysis test have done much to improve understanding of movement and the performance of elite athletes, the analysis task faced by the coach are predominantly qualitative in nature. Measurement of body since includes descriptive information such as height, weight and surface areas, while measure of body proportion describe the relationship between height, weight and among lengths, widths and circumference of various body segments. It has been found that top athletes in some sports tend to have those proportions that biomechanically aid the particular performance. However, the cricket as

such as being played in limited countries irrespective of its vast popularity. As a result of which it could not be flourished to the maximum potency, though the advancement in techniques and in nature of the game has been tremendous apart from all these developments no steps have been taken to make it more scientific by constructing the test and validating them preparing the norms. Any part of educational discipline without some form of evaluation procedure is like a ship in the sea without a chart or compass. Cricket is the most popular and the richest in the history of all ball games. There is no exact record available which shows when and by whom the game was started in England. It is as old as 13th century. Cricket has become one of the most popular in the world of all major games in India. It is only one that has been jealously preserved by all those who play or support it.

PURPOSE:The purpose of the study was to analyze the relationship of selected anthropometric and biomechanical variables with the performance of players in off spin bowling.

Hypothesis: It was hypothesized that there may not be significant relationship of selected anthropometric and biomechanical variables to the performance of players in off spin bowling in cricket.

Delimitation :The study was delimited to 5 male cricketers of 18 to 23 years of age of inter-varsity level.

The biomechanical variables, selected in the study were angles of wrist, elbow, shoulder, knee and ankle joint, and the height of centre of gravity of the body at moment release.

The selected anthropometric variables were height, sitting height, arm length, leg length, body weight and height of release of ball.

METHODS AND MATERIALS

Participants:Five male cricket players who had participated in the west Zone inter-varsity Cricket Tournament held at Rajkot in January 2003 were selected as subjects for this study. Since the player had been trained for a considerable period of time, they were considered skilled and their technique was treated as stabilized. All the subjects were explained the purpose of the study and were requested to put in their best during each attempt.

Criterion Measures:The performance of off spin bowling of each selected subjects was taken as the criterion measure for the purpose of present study. The performance was recorded on the basis of twenty point scale. 5 point awarded in run up, 5 point awarded in placement of foot, 10 point awarded in Execution, 10 point awarded in Trajectory and 20 point awarded in line, length and spin.

The performance of the subjects on off spin bowling was collected on the basis of three judges evaluation. The averages of three judges were considered as the final point obtained by each bowler. Further, to make the calculation easier it was reduced out of 10 point.

Tools and Apparatus: To obtain reliable measurements, standard and calibrated equipments like, camera, stadiometer, weighing machine, steel tape etc were used in order to establish the reliability of the tester for anthropometric measurements, which were taken on two consecutive days, test retest method was used. The coefficient of correlation was calculated. The results had shown high degree of reliability. The camera used for biomechanical purpose was a standard Nikon EM (with motor drive).

Collection of Data and Analysis of Film:Sequential photographic technique was employed for the biomechanical analysis of bowling. The camera used for this purpose was a standard Nikon EM (with motor drive). For obtaining individual photographic sequence, the subjects were photographed in controlled conditions. The distance of the camera from the subject was 11.05 meters, and was fixed on the tripod at 1.07 meters height. A hurdle was filmed prior to filming of subjects for reference of height and distance. The camera was operated by an expert professional photographer on the basis of the sequential photographs obtained the investigator developed the stick figures from which various biomechanical variables were taken. The stick figures were developed by using joint point method in which the body projection at the joints facing the camera were considered. The C.G. of each subject was located using segmentation method. The Anthropometric variables were represented by the Anthropometric Measurements such as Height, Sitting Height, Leg Length, Arm Length and Weight.

Statistical technique: The relationship of selected anthropometric and biomechanical variables with the performance of cricket playing ability was calculated by using Pearson's product moment correlation. For testing the hypothesis the level of significance was set at 0.05.

RESULTS:

TABLE - I

Relationship of Selected Anthropometric Variables with the Performance of Players In Off Spin Bowling

S.No	Variables	Coefficient of Correlation
1.	HEIGHT(CMS)	0.93*
2.	SITTING HEIGHT (CMS)	0.20
3.	ARM LENGTH (CMS)	0.35
4.	LEG LENGTH	0.88*
5.	BODY WEIGHT(KG)	0.04
6.	HEIGHT OF RELEASE(CMS)	0.90*

*Significant 0.05(3) =0.878

As shown in table-I that the obtained values of coefficient of correlation is case of height ($r=.93$), leg length ($r=.88$) and height of release ($r=.90$) were found significant at 0.05 level of significance. Since these values were higher than the tabulated value of .878 for 3 degree of freedom at the selected level of significance. All other selected anthropometric variables did not show significant relationship with the performance of cricketer in off spin bowling because the obtained values were less than the required value to be significant at selected level of significance.

TABLE - II

Relationship of Selected Biomechanical Variables with The Performance of Player in Off Spin Bowling

S.NO	Variable	Coefficient Of Correlation	Mean
1.	wrist	.62	157.4
2.	Ankle joint Left Leg	.74	109
3.	knee joint Left Leg	.53	165
4.	Elbow joint	.11	175.4
5.	shoulder joint	.02	162
6.	Ankle Joint Right Leg	.02	102.4
7.	Knee Joint Right Leg	.07	132.4
8.	Height of Centre of Gravity (mts)	.80	0.92

Table –II indicates that none of the Biomechanical variable namely angles of Left Ankle joint (front leg), Right Ankle joint (rear leg), Elbow joint (bowling arm), Shoulder joint (bowling arm), Left knee joint (front leg), Right Knee Joint (rear leg) and Height of centre of gravity at moment release have significant relationship with the performance of the subjects in off spin bowling. Even though the value of coefficient of correlations in case of wrist joint (bowling arm) and Height of Centre of Gravity has exhibited quite high but were not found significant at the selected level of 0.05.

DISCUSSION

The obtained value of coefficient of correlation of selected anthropometric variables at the moment release. Only the height and leg length have significant relationship with the performance of subjects in off spin bowling. In case of biomechanical variables none of the biomechanical variable has exhibited significant relationship with the performance of players in off spin bowling. It may be because of small size of the sample. It is a known fact that greater radius of rotation creates greater momentum but angle at elbow joint bowling arm did not exhibit significant relationship which may be due to other reasons. As a whole the variables which have shown high relationship with the performance must have contributed towards the performance of subject in off spin bowling. Along with these variables, other motor components also must have contributed to the performance. This does not mean that other variables might have not contributed to the performance. They do contribute to the performance. But the insignificant values of coefficient of correlation of such variables with the performance might have been due to the small size of the sample and non availability of sophisticated equipment. Since the results have shown significant relationship of few selected anthropometric variables to the performance of players in off spin bowling, the hypothesis is as stated earlier that there may not be significant relationship of selected anthropometric and biomechanical variables to the performance of players in off spin bowling in cricket is rejected. However in case of other variables the hypothesis is accepted.

CONCLUSIONS

Based on the analysis and within the limitations of the present study the following conclusions can be drawn.

In anthropometric variables height and leg length has shown positive effect on performance of players off spin bowling in cricket.

Height of release has shown positive effect on performance of off spin bowling.

None of selected biomechanical variable have shown the significant relationship with the performance of cricketers in spin bowling.

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XIX Commonwealth Games: Corruption and Administrative Responsibility

G.Srinu, Research Scholar, Department of Public Administration,OU,Hyd

Introduction:The 2010 Commonwealth Games, officially known as the XIX Commonwealth Games, were held in Delhi, India, from 3 to 14 October 2010. A total of 6,081 athletes from 71 Commonwealth nations and dependencies competed in 21 sports and 272 events, making it the largest Commonwealth Games till date. It was also the largest international multi-sport event to be staged in Delhi and India, eclipsing the Asian Games in 1951 and 1982. The opening and closing ceremonies were held at the Jawaharlal Nehru Stadium, the main stadium of the event. It was the first time that the Commonwealth Games were held in India and the second time it was held in Asia after Kuala Lumpur, Malaysia in 1998. The official mascot of the Games was *Shera* and the official song of the Games, "Jiyo Utho Bado Jeeto", was composed by celebrated Indian musician A.R. Rahman. Preparation for the Games received widespread international media attention, with criticism being leveled against the organizers for the slow pace of work, as well as issues related to security and hygiene. However, all member nations of the Commonwealth of Nations participated in the event, except Fiji, which is suspended from the Commonwealth, and Tokelau, which didn't send a team, in spite of threats of boycotts and athlete withdrawals.

Bidding

The two principal bids for the 2010 Commonwealth Games were from Delhi, India and Hamilton, Ontario, Canada. A ballot of members was held in November 2003 at the Commonwealth Games Federation General Assembly in Montego Bay, Jamaica. Delhi bid won by a margin of 46 votes to 22, confirming India's first successful bid for the Games. The bid was Canada's attempt to hold the games for the fifth time. India's bid motto was *New Frontiers and Friendships*.

India shifted the balance in its favor in the second round of voting with a promise that it would provide US\$100,000 to each participating country, along with air tickets, boarding, lodging and transport. The successful 2003 Afro-Asian Games held in Hyderabad was also seen as having showed India has the resources, infrastructure and technical know-how to stage a big sporting event. India also thanked Latif Butt, former vice president of the Olympic Council of Asia, for his support in the winning bid, by saying, "You played a vital role in the Commonwealth Games 2010 being allotted to India. Such actions are worthy of emulation by all concerned in Pakistan and India.

Organization

The organization of CWG 2010 was beset by delays: in January 2010, the Indian Olympic Association vice-chairman Raja Randhir Singh expressed concern that Delhi was not up to speed in forming and organizing its games committee and, following a 2009 Indian Government report showing two thirds of venues were behind schedule, Commonwealth Games Federation president Mike Fennell stated that the slow progress of preparations represented a serious risk to the event. Singh also called for a revamp of the games' organizing committees: Jarnail Singh, a former Secretary of the Government of India, was appointed as the Chief Executive Officer and Indian Olympic Association president Suresh Kalmadi was appointed as head of the committee. In spite of delays and the corruption cases levied on the organizers, commentators stated that they were confident that India will successfully host the games and do so on time.

At the launch of the Queen's Baton Relay in October 2009, the Business Club of India (BCI) was formed through the partnership of the organizing committee, the Confederation of Indian Industry (CII) and the Federation of Indian Chambers of Commerce and Industry (FICCI). The BCI was formed to both market the Games and promote Indian business interests internationally.

Cost and Transport

The initial total budget estimated by the Indian Olympic Association in 2003 for hosting the Games was ₹1,620 crore (US\$328.54 million). In 2010, however, the official total budget soon escalated to an estimated ₹11,500 crore (US\$2.33 billion), a figure which excluded non-sports-related infrastructure development.^[20] Business Today magazine estimated that the Games cost ₹60,000 crore (US\$12.17 billion). The 2010 Commonwealth Games are reportedly the most expensive Commonwealth Games ever.

A four-lane flyway, 2.2 km stretch from Lodhi Road to trans-Yamuna, linking the Games Village to the Jawaharlal Nehru Stadium was constructed which reduced the travelling time between the village and the Stadium to six minutes. In response to concerns over the large number of trains that pass by the Delhi metropolitan region daily, construction of road under-bridges and over-bridges along railway lines have been completed. Indira Gandhi International Airport is being modernized, expanded, and upgraded. Costing nearly \$1.95 billion, Terminal 3 has improved airport passenger capacity to more than 37 million passengers a year by 2010. A new runway has been constructed, allowing for more than 75 flights an hour. At more than 4400 metres long, it will be one of Asia's longest. The airport has been connected to the city via a six-lane expressway (Delhi–Gurgaon Expressway) and the \$580 million Delhi Airport Metro Express line.

Mascot and official song

The official mascot for the 2010 Commonwealth Games is *Shera*, an anthropomorphised tiger. His name comes from "Sher", a hindi word meaning tiger (Hindi "Bagh" means tiger. However, Sher is colloquially used for both lion and tiger). The logo and the look for the games were designed by Idiom Design and Consulting. There is one song for Shera also composed by the popular composer of INDIA the song contains initiative "Shera Shera" The mascot Shera is visiting many schools across Delhi to create enthusiasm and interest for the Commonwealth Games being held. The official song of the 2010 Commonwealth Games "Jiyo Utho Bado Jeeto" was composed and performed by the Indian musician A. R. Rahman. The song's title is based on the slogan of the games, "Come out and play". The song is penned by Mehboob in Hindi with a sprinkling of English words. It was released on 28 August 2010. The music video, directed by Bharath Bala was released on 23 September and featured a shorter version of the song. A. R. Rahman also gave a live concert for the theme song in Gurgaon, Haryana which was previewed on various news channels.

Corruption in construction of Stadia and purchasing of material resources

The various contracts were manipulated by Kalmadi and team and allegedly misappropriated huge amounts in the process. Administrators and organizers has done lot of corruption in the matter of allocation of grounds, construction of stadiums and purchasing of materials.

- Renovation of stadia appears to be a top favourite. The Pune Administration constructed Balevadi Stadium at a cost of Rs. 500 crore for holding of the National Games. Kalmadi undertook a renovation that was as good as new construction, spending Rs. 318 crore. His man Ajay Shirke, a realtor, was given the contract, but he was misused all these funds.
- Construction of a hostel for budding athletes was another trick up his sleeve. The idea was that such players would come to Pune for training after the 2008 Games. But the hostel adjacent to Balevadi Stadium was not ready in time and players were housed in hotels at exorbitant tariffs, this was also misused.

The CAG Reports alleges that various CWG associations were provided hotel accommodation and travel grants to the tune of Rs. 38 lakh, but the OC could recover only Rs. 17 lakh from them. Then, Rs. 1.8 crore was given to fellow sports organisations for conducting seminars and refresher courses.

Corruption in Selection Process

Such a prestigious game suffered with corruption due to lack of Administrative and official accountability in selection process, the selection process is currently underway to finalize the team of youth athletes to represent St. Kitts and Nevis in the up-coming quadrennial Commonwealth Games to be held Oct. 3 – 14 in Delhi, India. The recently concluded Central American and Caribbean Games in Puerto Rico, and the CUT Games at Silver Jubilee Stadium represented the final tune-ups for the major international athletic event.

While avid preparations are taking place locally also suffered with corruption, a storm of controversy has erupted in India over recent revelations of massive corruption, inclusive of secret bank accounts and forged documents, that involve authorities tasked with administering over the Games. So far, the brewing scandal has cost two top Commonwealth Games officials their jobs, and more are currently under intense scrutiny. On Monday, Aug. 9, it was announced that the Organising Committee's Joint Director T.S. Darbari had been fired by India's sports ministry. The other director, M. Jeyachandran, and Deputy Director General Sanjay Mohindroo both remain under suspension due to corruption.

The final arbiters regarding conditions on the ground in Delhi will be CGF officials, not members of the local organizing committee in India, according to Bridgewater. He also noted that apprehensions about venues and cost overruns are often raised in the months and days leading up to major sporting events. "It isn't unusual to have those concerns, even for the Olympic games," he explained. "But the countries who are hosting have so much at stake, that they usually finish things." He did, however, admit that there were special concerns about Delhi, given the many issues being raised so close to the event's commencement.

Parties involved

Like any other scams it involved politicians, bureaucrats and corporates acting in collusion.

Politicians involved

Suresh Kalmadi, the Congress party representative to 15 Lok Sabha from the Pune constituency. He was the Chairman of the Organising Committee of the Delhi Commonwealth games.

Sheila Dikshit, Chief minister of Delhi: Was indicted for several irregularities in the CWG processes both by Shunglu committee and also by the CAG.

Bureaucrats involved

Lalit Bhanot, Secretary General of the Organising committee, TS Darbari, Joint Director General of the Organising committee, Sanjay Mahindroo, Deputy Director General of the Organising committee. BS Lalli, CEO of Prasar Bharat.

Corporations involved

AM Films, AM Cars, SIS Live, Jaypee Group, Its alleged that the proceeds of corruption are parked here through financial involvement of Suresh Kalmadi's son, Sumeer Kalmadi in the F1 circuit project at Greater Noida, MTNL, HCL Infosystems.

Businessmen involved

RSP Sinha, MTNL CMD, SM Talwar, Executive director MTNL, NK Jain, GM (Corporate Sales) MTNL, Jitendra Garg, DGM MTNL.

Formation of investigation committee

The day after the conclusion of the Games, the Indian Government announced the formation of a special committee to probe the allegations of corruption and mismanagement against the Organizing Committee. The probe committee will be led by former Comptroller and Auditor General of India VK Shunglu. This probe will be in addition to the Central Bureau of Investigation, Enforcement Directorate, and Central Vigilance Commission investigations already underway. Kalmadi, an MP with the ruling Congress party, was arrested for alleged irregularities in the Queen's Baton Relay event held in London before the Games and also for allegedly handing out contracts to Swiss Timing that provided equipment and services at exorbitant rates, causing a huge loss to the Government, according to a spokeswoman for the Central Bureau of Investigation (CBI). Kalmadi, a 66-year-old former fighter pilot who has been President of the Indian Olympic Association since 1996, has denied the allegations and will seek bail when he appears in court tomorrow, according to his lawyer Hitesh Jain. Two other senior officials on the Games' Organising Committee were arrested earlier for involvement in the same case. The CBI accused secretary general Lalit Bhanot and director general V K Verma of causing a huge loss to the Indian Government by paying 1.41 billion rupees (£19 million/\$31 million) to Swiss Timings Ltd for equipment available from another company for much less. Kalmadi has been arrested under Sections 120 B and 420 [criminal conspiracy and cheating] of the Indian Penal Code, said CBI spokesperson Dharini Mishra.

Conclusion

CBI sources lodged Preliminary Enquiry report against unknown persons in the Games organizing body after it received several complaints and references from the Central Vigilance Commission claiming violation of norms in the appointments. They said the complainants alleged involvement of sacked OC Chairman Suresh Kalmadi, who is at present in judicial custody, and his close aides for irregularities in the recruitment process. In its PE, the CBI has alleged that during the period of 2003 to 2009, some persons were nominated to the OC who had no expertise for various jobs. The Games organizing body had an overall strength of about 2,100 officials engaged for various duties related to the mega sporting event. At present, there are about 100 officials on the rolls. The CVC has also conducted an enquiry into the alleged recruitment scam following complaints that it showed ghost employees on its muster rolls and violated norms while inducting people. The High Level Shunglu Committee had also found alleged irregularities in the recruitment procedures followed by certain OC officials

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Comparison of Job Involvement Among Physical Education Teachers

Mahdi Amel Khabazan*¹, Mahdi Taleb Pour², Hossein Soltani³, Zahra Hojati⁴

¹ Department of Physical Education and Sport Sciences, Mashhad Branch, Islamic Azad University, Iran & PhD Scholar in Osmania University, India.

² Faculty of physical education and sport sciences, Ferdowsi University, Mashhad, Iran.

^{3,4} Department of Physical Education and Sport Sciences, Torbat-e Heydariyeh Branch, Islamic Azad University, Torbat- e Heydariyeh, Iran & PhD Scholar in Osmania University, India.

*Email: Dr_khabbazan@yahoo.com Tel: +918686950380

ABSTRACT: The aim of the present research was the comparison of job involvement among female and male physical education teachers in the high school (PETHS) level in educational regions of Mashhad (Iran).

METHOD: Method of conducting this research was descriptive. Research statistical society contained 289 people who were (PETHS) in Mashhad from which 205 persons were selected through classical sampling. For analyzing the data SPSS software (ver.14) was applied.

RESULTS: There was no significant difference between the rate of job involvement between male and female (PETHS) in educational regions of Mashhad.

CONCLUSION: In spite of many problems, (PETHS) like their jobs and even they do some of their relevant works during rest time. Gender and individual differences, also, cannot change job involvement of male and female physical education teachers.

KEYWORDS: job involvement, male and female physical education teachers, high school level.

INTRODUCTION: The man forced to do different works for securing his family's expenses life. With appearance the new jobs the man selected a job among them and continued it for a period time or he was forced change his job due to dissatisfaction. He was interested respect to some jobs and uninterested regard to some jobs. Expressions such as "happy employee is an efficient employee" and "a happy employee satisfy with his job", means that the people affects by their job. There are people that like their job and love it and live with that and have a nice feeling about their job and value for it. Such people don't leave their work place and do their work and continue it if they don't finish it on out of working hours (Emami, 2004). Wanted and needs and conditions between men and women was different and so mainly the research was done in different domains and few research was done about comparison the job involvement between men and women in the (PETHS). For this purpose, the researcher follow to answer to this question that are there any different between the rate of job involvement of male and female (PETHS) in education region in Mashhad?

METHODOLOGY

The method of the search is descriptive and arena that researcher by the (JI) questioner considers the differences about the statistical society.

Statistical society and sample: Instance society of this search contain all of the (PETHS) of the regions in the Mashhad that they are 289 people to the total volume of statistical society that get from education system of Khorasan, that use from the determine the sample volume formula and Morgan table. For this case 205 people of physical education teachers selected from the way of classical patterning and by the (JI) questioner.

Tools: Respect to the goals of the research, JI questionnaire is used.

Statistical method: In the descriptive way have used statistics such as average, Standard Deviation, variance and frequency table and in the deductive way have used from Klmogroph Smirnoph tests and analys the one-way variance test and T.test exam. All of this analyses have done by using Statistical software SPSS (ver.14)

1. RESULT AND DISCUSSION

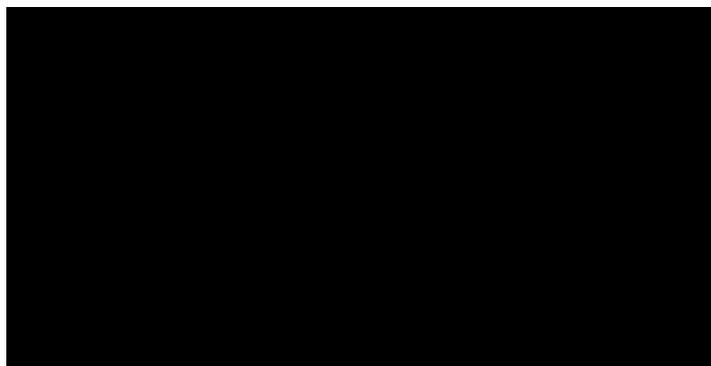
Table 1 shows the comparison of affection's job of physical education teachers by denotation areas and sexuality.

Table 1: comparison job involvement of physical education teachers by denotation areas and sexuality

Regions	Sexuality	Number	Average	Standard deviation	Standard wrong deviation	With 95% trust for average		Minimum	maximum
						Low border	High border		
Region 1	Man	5	58.6000	2.96648	1.32665	54.9166	62.2834	56.00	63.00
	woman	5	60.8000	4.86826	2.17715	54.7553	66.8447		
region 2	Man	7	56.5714	8.54122	3.22828	48.6721	64.4707	45.00	67.00
	woman	7	58.1429	3.67090	1.38750	54.7478	61.5380		
region 3	Man	18	59.4444	4.69320	1.10620	57.1106	61.7783	52.00	70.00
	woman	13	56.8571	8.19810	2.19103	52.1237	61.5906		
region 4	Man	7	54.2727	9.17705	2.76698	48.1075	60.4380	34.00	65.00
	woman	6	60.6923	3.81629	1.05845	58.3861	62.9985		
Region 5	Man	7	59.4286	5.34968	2.02199	54.4809	64.3762	50.00	68.00
	woman	6	56.0000	4.42719	1.80739	51.3540	60.6460		
Region 6	Man	11	59.1818	3.54452	1.06871	58.8006	61.5631	52.00	66.00
	woman	9	59.4444	6.06447	2.02149	54.7829	64.1060		
Region 7	Man	14	59.6429	5.45763	1.45861	56.4917	62.7940	48.00	70.00
	woman	17	57.4118	8.47835	2.05630	53.0526	61.7709		
Total-man		73	58.3288	6.05543	0.70873	56.9159	59.7416	34.00	70.00
Total-woman		71	58.3521	6.50077	0.77150	56.8134	59.8908	40.00	76.00

Diagram 1 shows the comparison of (JI) of (PETHS) job denotation by male and female in education regions in Mashhad. Dark column: men and light column: woman

Diagram 1: comparison of (JI) of (PETHS) job denotation by male and female in education regions in Mashhad



Have brought the analyses the (JI) (PETHS) with separation the regions and sexuality in table 1.

Table 1: analyses the (JI) of (PETHS) with separation the regions and sexuality

		Total of squares	Free grade	Square of average	Number F	P-value
Woman	Inside group	266.004	6	44.334	1.232	0.301
	Outside group	2374.105	66	35.971		
	Total	2640.110	72			
man	Inside group	191.717	6	31.953	0.739	0.620
	Outside group	2766.481	64	43.226		
	Total	2958.197	70			

Table 2 shows the rate of job involvement and kind of schools.

Table 2: the rate of job involvement and kind of schools

J I Kind of school	Number	Average	Standard deviation	Average of wrong standard deviation
Girl's school	73	58.3288	6.05543	0.70873
Boy's school	71	58.3521	6.50077	0.7715

According to the rate of (JI) and kind of schools, corresponding to the above tables (JI) of (PETHS) with separating the man and woman, there are not meaningful difference between JI of them.

The rate of advantage the job involvement of male and female physical education teachers in region 1 with average 59.7 and standard deviation 3.97 have high grade in region 2 with average 57.35 and standard deviation 6.36 have the lowest grade.

There isn't any meaningful difference between the rate of job involvement of male and female physical education teachers ($P\text{-value}=0.982$). At consideration in JI in the sample under review, (between 52-63 JI is high) ($M=58.34$, $SD=6.25$) have observed. Emami (2004), have a research about the connection between institutional warrant and JI and comparison that between male physical education teachers in regions in Mashhad and concluded that from the view point of statistical nevertheless the different between the averages the JI in the different regions although there isn't any meaningful different in the rate of the JI of the (PETHS) that the result was like the present search.

CONCLUSION: In spite of many problems, (PETHS) like their jobs and even they do some of their relevant works during rest time. Gender and individual differences, also, cannot change job involvement of male and female physical education teachers.

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“A Study of Attitudes towards Sports Teachers among High Socio-Economic Status and low Socio-Economic status persons”

Dr. Quadri Syed Javeed
Associate Professor in Psychology
in Sociology
M.S.S. Art's Commerce & Science College,
Science College,
Jalna – 431203 (M.S.) India.

Dr BORADE N H
Associate Professor
M.S.S. Art's Commerce &
Jalna – 431203 (M.S.)

Introduction:According to Portuguese regulation, Physical education teacher has the status, administrative and pedagogical organization as any other subjects. Physical education teacher receive the same salary and quality of preparation as other teachers. Educational authorities provide free continuous professional development. Children's negative attitude towards school, and physical education as well as, emerge as early as the elementary or primary phases in several countries (Delfosse, Cluses, Ledent and Pieron, 1994). the percentages of indifferent and negative attitudes are generally higher towards school than towards physical education. Although teachers all over the world share some similar characteristics such as common educational background, obligations and rights; physical education (PE) teachers are often considered as marginal. In many cases scholars have indicated that the status and rewards of PE teachers are not the same and/or equivalent with teachers from other disciplines (Stroot et al. 2006). The concept of social status is a multifaceted dimension, intertwined with a number of related concerns around esteem, prestige, respect, autonomy, authority, confidence, professionalism and professionalization (Hoyle 2001). The social standing of PE teachers has been the focus of many researches in the past few years. PE teachers are often perceived by many, including a number of teachers and students, as supervisors of a playful entertainment and that their job is not that serious since PE is all about “blowing a whistle” (Hardy 1997). In many countries PE teachers have to deal with sarcasm and lack of respect by the wider public. However there are instances in which qualified PE teachers are regarded as capable, well-trained and committed. Those PE teachers who are not active and hard-working are those who contribute to the degrading of the professional status. On the one hand it can be argued that the status of PE at schools depends on the professionalism of PE teacher's work (Zahner et al. 2005). On the other hand it can be expected that the opposite version might be valid as well. The status of PE teachers may depend on the low status of the subject itself. Waddington (2000) mentioned that PE teachers are conscious of the relatively low status of their subject and that is often considered to be inferior to other academic subjects. Although PE is a compulsory subject within the curriculum, which officially means that it is legitimate; many people perceive it as a non-productive educational activity (Christodoulou 2010). Nevertheless, the teachers' social status depends on their cultural, historical, and political traditions as applied in their respective countries and it seems that in some countries this profession has lost its prestige. According to Hoyle (2001) nowadays, teachers' prestige is comparable to semi-professions such as social work, rather than the major professions such as law or medicine.

Zeri F, Livi S, Maffioletti S. Attitudes towards visual correction in sport: What coaches, physical education teachers and sports physicians think. **PURPOSE:** To evaluate sport professionals' attitudes towards visual correction in sport. **METHOD:** A questionnaire was handed out in schools, gyms, sports centres and universities, to coaches, physical education teachers and final year students of motor science. The questionnaire was given to one group of sport physicians prior to a 1-day scientific update course on the benefits of contact lenses (CLs) in sport. At the end of the course, certain questions from the questionnaire were given out again in order to evaluate the effect of the update on their opinions. **RESULTS:** A total of 245 questionnaires were collected. The interviewees stated that correcting a vision defect during sports practice was important, but their propensity to suggest CLs for sport, though still rather high in value, showed a statistically significant drop. This drop did not occur if the CLs were recommended for competitive sports. This trend remained unchanged if a specific

judgement was requested for the adolescent category. The tendency to suggest CLs was higher in CL wearers as compared to non-wearers. The sport with the lowest recommendation of CLs was swimming. In the sample of sports physicians, a specific education on the subject of CLs increased the propensity to adopt CLs in sports. CONCLUSIONS: The main "actors" in the sports sector regard correcting a vision defect during sport to be important. Nevertheless, their tendency to suggest CLs is significantly lower. Works that make these categories aware of the benefits of CLs in sport can certainly help to fill this gap.

According to Armour and Yelling (2004), governments all over the world are recognizing that quality teaching makes a difference to pupil learning, that teachers can improve their practice through professional learning and therefore, that high quality professional learning for teachers is a central factor in determining the quality of teaching. The purpose of the article is to represent and/or highlight the importance of professional learning and to focus on experienced PE teachers' career-long continuing professional development; the research took place in England. The findings of this study suggest that there may be a gap between teachers' ambitions in PE and the professional development available to achieve their goals. PE teachers reported three main goals: 1) health, fitness and lifelong activity 2) competence, knowledge and understanding in/of sports and 3) elements of personal, social and emotional education. According to the results of this study they appeared to be undertaking professional development in only one of them. Particularly, professional development was undertaken with respect to knowledge and understanding in/of sports. Therefore the authors of the article argued that professional development should be restructured and refocused.

The most common concern of pre-service Physical Education teachers is classroom management. Most of the teachers encounter several problems regarding the imposition of classroom discipline or controlling their students' behaviour especially with respect to PE classes which are carried out in an open arena. McCormack (1997) provides in her article references to several activities that can lead and/or assist to the performance of a high quality of teaching. She suggests that the following could assist in the rendering of a high quality of teaching; good arrangement of the physical environment, maintaining certain rules and procedures and monitoring pupils' behaviour. Physical education studies usually involve more pedagogical and educational subjects but it is important to realize that the practical components and field experiences are more significant. The transition from physical education studies to the real classroom can be

sometimes be dramatic because of the lack of management. Poor organization has a negative impact on how and what students learn. In addition it may create a negative impact on students' behavior. On the other hand, teachers with effective discipline practices tend to be more efficient planners and they manage to communicate in a more sufficient and productive way with their pupils. It is also essential to plan and develop a challenging curriculum in order to motivate students and encourage their participation in physical activities.

Methodology:

Aim of the study:

To examine the high socio-economic status persons attitude towards the sports teachers.

 **Objective of the study:**To find out the high socio-economic status persons attitude towards the sports teachers.

 **Hypotheses:**High socio-economic status holders have significantly positive attitude towards sports teachers than the low socio-economic status holders.

 **Sample:**For the present study 200 Sample were selected from Dr babasaheb ambedkar Marathwada University, Aurangabad, 100 subjects were high socio-economic status holders and 100 subjects were low socio-economic status holders. The age range of subjects was 18-40years Ratio were 1:1, Non- probability accidental and purposive sampling was used.

Tools

 **Authority Figure Scale.**This test is constructed and standardized by G. Alam and Dr.Ramji Srivastva. The test consists of 40 questions. This highly reliable and valid tool, for measuring Authority Figure Attitude.

Procedures of data collection For data collection first permission has been taken from respective sources than the despondence has been selected for data collection. Personal data sheet (PDS) has been given to collect the preliminary information with respect to subject's related variables then standardized test administer to the subjects. Before that rapport was established with subjects. And they have been told that their responses were kept confidential and the information is used for research purpose only.

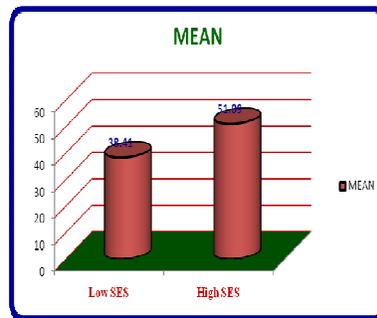
Variable

Independent variable- 1) SES a) High b) Low

Dependent Variable1) Attitude

Statistical Analysis and Discussion
High socio-economic status and low socio-economic status persons, Shows the mean S.D and t value of attitude towards sports teachers

SES	MEAN	SD	SEM	N	DF	't'	P
Low	38.41	8.47	0.88	100	198	9.10**	< 0.01
High	51.09	10.83	1.08	100			



The result's related to the first hypothesis have been recorded In Table Mean of attitude score of the high socio-economic status is 51.09 and that of the low socio-economic status 38.41. The difference between the two mean is highly significant 't'= 9.10, df = 198, P < 0.01. Thus the first hypothesis is confirmed High socio-economic status holders have significantly positive attitude towards sports teachers than the low socio-economic status holders.

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Dealing with Girl's Special Groups: Rehabilitation Through Aqua-Therapy

Dr. Bimal K. Joshi*,

Shri Vikram S. Vankani**

*Assistant Profesor , Shah C.K. Municipal Commerce College, Kalol. Dist.

Gandhinagar (Gujarat) India.,Pin 382721

**Asst. Professor, Department of phy. Education, saurashtra university, Rajkot-380005
(Gujarat)

Introduction: Educating the whole child is the essence of Education and several innovative strategies are being designed and implemented in schools to promote this. These strategies are to make a slow learner as an active and proactive learner through holistic education. Dealing with Girl's Special Groups in schools is another complex task for most of the teachers. These special group children may be having several disabilities both in terms of physical and as well as psychological. The only strategies that schools think of and focus on would be the mental exercises and remedial teaching. The potential of certain physical activities in schools are often forgotten or neglected. Research has clearly shown that certain physical activities have tremendous potential and affect the personality and the body chemistry. Swimming, jogging, yoga, aerobics and other simple physical exercises really make the young minds fresh and active receptors. Aqua therapy is unique because of the medium in which it takes place i.e. water. The properties of the water allow for a great, safe workout. A specialist in aqua therapy is knowledgeable in how to use the properties of water to enhance rehabilitation. Swimming is good for overall fitness and it improves stamina and co-ordination. During swimming it exercises more muscle group than any other sports. Through swimming person's heart and lungs working efficiency increases which boost the circulation of oxygen around the body. While exercising in water natural buoyancy is gained which minimize the strain on the body. Regular swimming builds endurance, muscle strength and cardio-vascular fitness. Water exercise is rapidly growing in popularity. Exercise enthusiasts, athletes, elderly, and the physically challenged are discovering aquatic exercise programs that suit their fitness desires. An advantage of aquatic exercise is that it can involve the upper and lower extremities through optimal ranges of motion while minimizing joint stress. Let's review these some of these properties and how they may apply to you.

Why Exercising in Water is Better than Exercising on Land

1. **Buoyancy:** This water property allows people to do exercises that are difficult on land. 90% of your body is buoyant when in the water up to your neck. It is the upward force that is opposite to gravity. This can be beneficial if a person has weight bearing difficulties. An example would be someone after a knee surgery that cannot place full weight on the leg while it is healing. This person would need to use crutches on land but may be able to walk in the water without the crutches.
2. **Resistance:** There is continual resistance to every move you make. The water offers 12%-14% more resistance than when you exercise on land. Resistance does not allow for sudden body movements.
3. **Cooling Effects:** Water dispersing heat more efficiently, so there is less chance of overheating. The water continuously cools the body. Exercise in the water is cooler and more comfortable than it is on land.
4. **Gravitational Pull is Minimized:** While exercising on water the effects produced by the gravitational pull on the body are minimized.
5. **Hydrostatic pressure** - This refers to the pressure the water exerts on an object immersed in the water. The pressure is greater at deeper depths. When exercising in water while standing the pressure is greater at the feet and less on the chest. This pressure difference allows for edema/swelling reduction especially when combined with exercise. This is beneficial for people with swelling in legs or ankles.

Benefits of Exercising in Water for Specific Groups

1. **Therapeutic:** Helping people recover from accidents and sickness. Combating the aging process.
2. **Social:** Meeting and being with other people. You can talk with others as you Water Exercise. Workout facing your partner or side-by side. Meet new people, too.
3. **Stress Release:** Gives you a chance to just relax and forget about work, problems, or other things.
4. **People Watching:** There are often classes going on or others to watch! It's fun to see what's happening in the pool area.
5. **Fun:** Enjoying the diversion. Water exercise in a playful way and don't worry about being serious! Laugh and enjoy it! Water Exercise is fun!
6. **Fitness:** Getting or keeping in shape. Remember that you cannot just waddle back and expect great results. Improving your fitness depends on how much energy you use.

How Can Water Exercise Help the Special Group Peoples?

1. **Physical Benefits**
 1. Improved flexibility and strength.
 2. Builds up endurance.
 3. Increases muscular flexibility.
 4. Muscular balance.
 5. Heart muscle becomes stronger.
 6. Improves the physique.
 7. Increases circulation.
 8. Rehabilitates muscles.
 9. Improved ability to control and maintain healthy weight.
2. **Social Benefits**
 1. Have fun.
 2. Fellowship with other people.
 3. Enjoyable - even when working hard.
 4. It is a safe program.
3. **Psychological Benefits**
 1. Helps develop a positive attitude (individually and as a group.)
 2. Contributes to a feeling of well-being.
 3. Teaches patience.
 4. Releases stress and tension.
 5. Renews energy.

Type of Aqua Therapeutic Activities for the Special Group Children

- **Water Walking:** Moving forward, backward, and sideward, using regular, short, quick, or long steps, in waist-deep to chest-deep water.
- **Water Running:** Moving in water with Speed and Fast steps where feet touch the bottom of the pool.
- **Water Aerobics:** Full body rhythmic exercises conducted in shallow and/or deep water for 20 minutes or more, designed to provide cardiovascular benefits.
- **Flexibility Training:** Large movements using each body part's full range of motion, along with full body stretches.
- **Water Therapy & Rehabilitation:** Procedures in the water designed and implemented for specific clinical purposes.
- **Water Yoga & Relaxation:** Gentle, easy-flowing moves using the water as a relaxation medium.
- **Deep Water Running:** Simulating land running in water depth where the feet do not touch the bottom of the pool. Flotation devices are used. Various running styles, drills, and methods can be used.
- **Lap Swimming:** If the individual learns to swim, swimming back and forth using various swimming strokes is a possibility.

Framework for the Aqua Therapy for Special Children:

- Warm up on land
- Water Warm Drills
- Special Conditioning Exercises
- Disability related Specific Exercises
- Cool Down in water

Physical therapy also provides education in the following ways:

- Relieves pain and stiffness
- Increase Concentration
- Improve Joint flexibility
- Correct postural or gait deviations
- Increase Balance and Strength
- Improve body mechanics with work and daily activities to avoid re-injury

Conclusions

Children with special needs are usually provided with mental remedial training whereas physical training is also required. Physical education can be helpful for the overall development of the special group children. There is a need for the teachers of the Girl's Special Groups to come forward and consult with physical education experts and encourage children to participate in physical activity. Sound and strong body is essential. Through regular water exercises children can become healthy. The body needs movements and that a part of human body, which is not used, leads to development of the disorders. The balance of mind and body results into a healthy living for the children. Slightly extra efforts applied by the children will lead to improve the level of work capacity and which indirectly lead to rehabilitate the child faster.

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A Study the Impact of Sports on Confidence and Motivation Among Students Studying in Higher Secondary School.

*Prof. Dr. Quadri. S. J. **Jadhav R. K. ***Akolkar A. A.

*Associate professor, Dept. of Psychology, M.S.S. College, Jalna, Maharashtra (India).

** Lecturer Dept. of Psychology, Badribarayan Barwale Mahavidhaylaya, Jalna,
Maharashtra (India)

***Lecturer Dept of Psychology, M.S.S. college, Jalna, Maharashtra (India).

Abstract:Present study was framed to investigate the impact of sports on students self-confidence and achievement motivation. By employing a sample of 400 subject in which 200 subject were from playing at least district or national level various games. And 200 were selected form those students who was not playing games and only attending classes. All subjects included in the study from Jalna dist from various school and various sports groups. The first dependant variable i.e. Self-confidence was measured by standardized scale "Self-confidence Inventory developed by Dr. M. Basavvann. And second standardized tool was Achievement Motivation Scale After analysis of the data following results was drown. Subjects from sports and non-sports differ significantly among themselves on the dependant variable self-confidence. A summary of two way ANOVA shows that main effect Type of students is highly significant ($F= 45.156$, $df 1$ and 396 , $p < .01$). Subjects from sports background differ significantly among themselves on the dependant variable achievement motivation. A summary of two way ANOVA shows that main effect area is highly significant ($F= 172.47$, $df 1$ and 396 , $p < .01$). and in the last stage there is positive correlation was fond between self-confidence and achievement motivation.

Introduction:It has been widely proposed that participation in sport, particularly by children, is in some way 'character building'. Ewing et al (2002) have suggested the following six ways in which taking part in sport might exert an influence on child development: fitness, social competence, physical competence, moral development, aggression and education. The evidence for the benefits of sport across these domains is highly mixed. The 'character-building' argument It is common to hear successful adults speak fondly of their childhood experiences of sport, and to attribute their success, at least in part, to having participated in sport while growing up. There may be some basis for this. Certainly, participants and spectators witness dedication, courage, discipline and perseverance on almost every sporting occasion. In addition, socially disadvantaged groups can benefit from seeing members of their community publicly succeeding in sport (Krane, 1998). In fact, the stereotypes held of minority ethnic groups by others may be changed for the good in response to their sporting success. However, this is not to say that sport is necessarily a positive influence on the lives of most or all young people. Whilst successful adults speak fondly about their sporting youth, we should perhaps not take this too seriously as evidence. Energetic, competitive people are likely to be successful both in sport *and* in their careers. This means that, although they may *believe* their success in business is related to sport, it is more likely that both their sporting and career success owe much to their personality. In addition, as Krane (1998) says, most research has focused on successful athletes, and we know almost nothing about the futures of those who have negative childhood experiences of sport. An important distinction in types of human motives is that between extrinsic and intrinsic motivation. *Extrinsic* motivation results from external rewards. *Intrinsic* motivation comes from within the person. Both extrinsic and intrinsic motives are important in sport, and sport psychologists can work with both extrinsic and intrinsic motives to improve the performance of the individual. Intrinsic motives for taking part in sport include excitement, fun, love of action and the chance to demonstrate and improve our skills – in short, all the reasons that we *enjoy* sport. Later in this chapter, we will discuss some techniques designed to increase intrinsic motivation. The reason these can be used so effectively to motivate athletes is that they directly affect our intrinsic motivation. Extrinsic motives can come in the form of trophies, prizes and less tangible rewards such as praise and status. Although there has been an enormous amount of research into how motivation can be improved in those already participating in sport, rather fewer studies have examined what motivates

people to choose to take up sport. Ashford et al (1993) interviewed 336 adults at community sports centre in Leicester about why they participated in sport, and what they enjoyed about it. Four main motivations emerged, physical well-being, psychological well-being, improvement of performance and *assertive achievement*, the last meaning to accomplish personal challenges and to gain status. Age and gender significantly affected motivation. Older people were more motivated by psychological well-being than younger people.

Aim of the study:- The present research was designed for find out the impact of student's self-confidence and achievement motivation, engaged in sports activity.

Hypothesis:-

There will be significant difference of self-confidence among students of both engaged in sports and non-sports. There will be significant difference of achievement motivation among students of both engaged in sports and non-sports. There will be positive correlation between self-confidence and achievement motivation.

Method

Sample:- The study was conducted on 400 higher secondary students 200 from engaged in sports(100 male and 100 female respectively) and 200 from non-engaged in sports, from Jalna district of Maharashtra state (India). The students were selected on the purposive sampling basis.

Tools:

Self-confidence Inventory: To measure self-confidence of students through the self-confidence Inventory developed by Dr. M. Basavann. The S-C Inventory has been designed to estimate the level of self-confidence among adolescents and adults. Self-confidence, as conceived here, is a phenomenological construct. It is a characteristic or an aspect of self-concept itself. It is simply an attribute or perceived self. Like self-esteem, self-confidence is another self-construct. In general terms, self-confidence refers to an individual's perceived ability to act affectively in a situation to overcome obstacles and to get things go all right. In a factor analytic study of self-concept data, Smith (1962) identified six dimension According to test manual the split-half reliability was found to be 0.94. After the administrating of the inventory it was thought worthwhile to redetermine the discrimination values of the items in the final form. Hence a fresh item analysis was conducted on sample of 200 subjects drawn randomly from the group of 800 using again the extreme groups' technique. It was encouraging to note that all the co-efficient except two were very much above 0.20 the required value to retain any item as valid. Eighty-eight items had coefficients of 0.30 or more and ten items between 0.20 and 0.30. Since two items of doubtful validity in an inventory of 100 items could do little to change the score pattern, the final form was retained without alternations as an internally consistent tool to estimate the level of self-confidence.

Achievement Motivation Scale.:The present test is intended to measure the N Ach score of the person. It is based on the lines following the pattern on Dr. Bishwanath Mukharji and the method of sentence completion test. The test consist of 50 items of incompliant sentences which are two be completed by subject by putting a check mark on any one of the three alternative responses given against each items. The subject are instructed about what they have to do and are required to check the item by choosing one of the alternative responses which indicate his true feelings with respect to the point asked through a particular item. The manual reported that test-retest reliability after an interval of one moth :.87 by comparing the responses on similar items : .79. considering the responses if they indicate to measure the same aspect for which they were intended to measure, it was found that they did so. The test was tried for having the agreement with the criterion test of N Ach and with educational achievement in various faculties. It was fond that the test scores on this test and that with the test scores SCT of Dr. Bishwanath Mukarji had an agreement of .80 and with Educational Achievement Test it had an agreement .75.

Procedure:

In the present study, the students (Age group of 16 to 18 years) of higher secondary school from engaged in sports and non engaged students. Total sample was taken from various school in Jalna district. The sample were selected as a purposive sample. Out of the large data (Almost 650 students) selected randomly 400 sample were chosen for the actual research survey. This is done to minimize the error in performing the survey research. In the first stage "Two way Analysis of Variance" was used for calculating the significant difference of self-confidence and achievement motivation among students engaged in sports and non-sports. Than Correlation research refers to Studies in which the purpose is to discover the relationship between variable through the use of correlation statistics. The basic design in correlation research involves collection of data on two or more variables for each individual in a sample and calculating a correlation coefficient.

Results and discussion:

The First dependant variable in this study was self-confidence. These variable investigate into independent variable i.e. Students engaged in sports and non-sports and gender. The following table shows that significant difference of Sports non-sports students and gender, dependant variable self-confidence.

Table no. 1.1 summary of the 2x2 ANOVA for Self-confidence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Type of Students	2294.410	1	2294.410	45.156	.000
Sex	28.090	1	28.090	.553	.458
Type of Students * Sex	6955.560	1	6955.560	136.89	.000
Total	241920.0	400			

The table shows that subjects from sports and non-sports differ significantly among themselves on the dependant variable self-confidence. A summary of two way ANOVA shows that main effect Type of students is highly significant (F= 45.156, df 1 and 396, p< .01). According to these result hypotheses no.1 “There will be significant difference of self-confidence among students of both engaged in sports and non-sports. Has been accepted.

Figure no. 1.1 shows mean difference between Students from sport and non-sports dependant variable Self-confidence

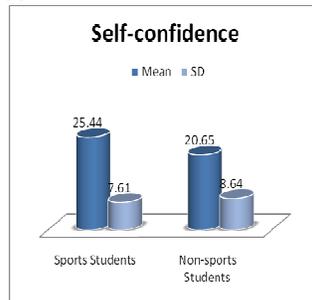


Figure showing mean and SD values of self-confidence students from sports and non-sports. Its indicating that mean value of sports students was found 25.44 and SD 7.61 is comparatively larger than mean value of student’s sports background 20.65 and SD 8.84 on Self-confidence. According to mean value students from sports better Self-confident than the students from non-sports background. The table no 1.1 shows that male and female subjects not significant among themselves on the dependant variable self-confidence.

Table 1.2 summary of the 2x2 ANOVA for Achievement motivation

Source	Type III Sum of Squares	df	Mean Square	F
Type of Students	58298.102	1	58298.102	172.477
Sex	45432.923	1	45432.923	134.415
Type of students * Sex	208.803	1	208.803	.618
Error	133849.650	396	338.004	
Total	7828641.000	400		

The table shows that subjects from sports background differ significantly among themselves on the dependant variable achievement motivation. A summary of two way ANOVA shows that main effect area is highly significant ($F= 172.47$, $df 1$ and 396 , $p < .01$). According to these result hypotheses no.2 There will be significant difference of achievement motivation among students.

Figure No 1.2 shows mean difference between students engaged in sports and students from non-sports dependant variable Achievement Motivation.

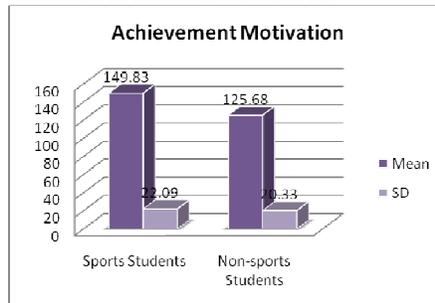


Figure no.1.2 showing mean and SD values of achievement motivation subject from sports and non-sports. Its indicating that mean value of students from sports background found 149.83 and SD 22.09 is comparatively larger than mean value of students non-sports background 125.68 and SD 20.33 on achievement motivation. According to mean value students engaged in sports better achievement motivation than students those who are non-sports background. The table no 1.2 shows that male and female subjects not significant among themselves on the dependant variable achievement motivation. A summary of two way ANOVA shows that the main effect of gender not significant ($F= 134.41$ $df 1$ and 396) these 'F' ratio indicate that there is significant difference on achievement motivation among male and female of both.

Table no. 1.3 shows that correlation between self-confidence and achievement motivation.

Variable	Correlation Mehtod	Achievem ent Motivation	Self-confidenc e
Achievement Motivation	Pearson Correlation	1	.155(**)
	Sig. (1-tailed)	.	.001
	N	400	400
Self-confidence	Pearson Correlation	.155(**)	1
	Sig. (1-tailed)	.001	.
	N	400	400

In the second stage, computing correlation method with dependant variable self-confidence and achievement motivation. The table no. 1.3 shows that the correlation between self-confidence highly correlated with achievement motivation that is 'r' ratio .155 which is positively significant correlated with each other. Hence the result indicates that if the students' high score on self-confidence than they also high score on achievement motivation. According to result hypothesis no. 3 "There will be positive correlation between achievement motivation and self-confidence" was accepted.

Conclusion: The result indicate that sport activity is positively impact on students self-confidence and achievement motivation.

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Effect of Yogic practices and Interval Training on selected Physiological and Bio-Chemical Variables among High School Boys

Satya Sridevi Datla(P.hd.Scholar)
Physical Directress
A.P. Social Welfare Residential
Jr. College (Girls)
Elkathurthi, Karimnagar (Dist.)
Andhra Pradesh, India.

Dr. Syed Karimulla(Guide)
Professor & Head of the Dept.
Dept. of Physical Education
Dravidian University, Kuppam
Chittoor Dist.
Andhra Pradesh, India.

YOGA:Yoga is a complete science of life that originated in India many thousands of years ago. Human beings are made up of three components: Body, Mind and Soul. Corresponding to these are three needs that must be satisfied for a contented life. The Physical need and inner peace, when all three are present there is harmony.Yoga is India's unique contribution to Physical Education activities. Yoga is a scientific and systematic discipline of the internal human body with a view to cosmic reality of God. It is the ancient traditional Psychophysical culture that creates the health of a human being."Yoga has a complete message for humanity. It has a message for the human body, it has a message for the human mind, and it has also a message for the human soul. Intelligent and capable youth must come forth to carry this message to every individual not only in India, but also in every other part of the world".

MEANING AND IMPORTANCE OF YOGA

Yoga is a system of attaining perfect physical and mental health. "The body is the temple of the soul and to attain a harmony of mind, body and spirit, the body must be physically fit".

INTERVAL TRAINING

Mac Dongall says,Interval training involves activities that are more intermittent. It consists of alternating periods of relatively intense work and active recovery. It allows for performance of much more work at a more intense workload over a longer period of time than if working continuously.Interval training is to subject the body to repeated but short intermittent periods of reduced intensity. Interval training is advocated by many of the top coaches, trainers and performers who have used it to advantage. According to Kalafs and Aeaheim the following four factors are significant in interval training.

1. A specific distance that is repeated at given number of times.
2. a recovery period during which the athlete jogs slowly and relaxes.

A pre-determined pace, carefully timed at which the athlete covers the set distance, and

METHODOLOGY To execute this investigation, the research scholar employed random sampling method. The study was conducted on a total sample of ninety boys drawn randomly from one hundred and fifty students of Andhra Pradesh Social Welfare Residential School (Boys), Janagoan, Warangal District, A.P., age was ranged from twelve to fifteen years. The pre and post tests design employing analysis of covariance technique was adopted.The purpose of the study was to find out whether Asanas and interval training had any influential effect, individually and collectively on the selected Physiological variables and Bio-chemical variables. Further it was aimed to find out which of the experimental variables were more effective.For this purpose, the research scholar followed the following procedure.The subjects for the study were selected at random and divided into three homogenous groups based on their initial performance. Among the three groups, the control group was strictly under control without undergoing any special activity. The experimental groups were subjected special activity. The experimental groups were subjected to the experimental treatment.

PROCEDURE

EXPERIMENTATION – IThe selected ten Asanas training was given in six days a week except Sunday. The duration of the exercises was 20 minutes during the first month 30 minutes during the next month and 40 minutes during the third month in the morning from 6:30 A.M. to 7.10 A.M.

EXPERIMENTAL – IIThe interval training was practiced by the subjects three days per week over a period of three months. Before giving the interval training the subjects were asked to warm up. The duration training schedule was 20 minutes during the first month 30 minutes during the second month and 40 minutes during the third month in the morning from 6:30 am to 7:10 am.

CRITERION MEASURES:The following criterion measures were chosen for testing the hypothesis.

1. Vital capacity was recorded in liters / minute.
2. Pulse rate was measured in beats per minute.
3. Breath holding time was recorded in seconds.
4. Red blood cells, white blood cells and serum cholesterol was measured through blood analysis.
- 5.

LEVEL OF SIGNIFICANCE

F-ratio obtained through Analysis of Variance to be significant has to exceed 3.107 and 3.104 at .05 and .01 level respectively.

F-ratio obtained through Analysis of Covariance to be significant has to exceed 4.859 and 4.862 at .05 and .01 level respectively.

DISCUSSION ON HYPOTHESIS

1. There may be significant differences in the way the selected physiological variables respond to asanas.

Results showed that there was significant difference at .01 level. Hence the hypothesis was accepted.

2. There may be significant difference in the way the selected physiological variables respond to interval training.

Results showed that there was significant difference at .01 level. Hence the hypothesis was accepted.

3. There may be significant difference in the way the selected bio-chemical variables respond to asanas.

Results showed that there was not significant difference at .01 level, except serum cholesterol. Hence the hypothesis was rejected.

4. These may be significant differences in the way the selected bio-chemical variables respond to interval training.

Results showed that there was no significant difference at .01 level except serum cholesterol. Hence, the hypothesis was rejected.

5. There may be significant differences on the responses of selected physiological variables among asanas and interval training groups.

The results found that the interval-training group had better improvement in physiological variables when compared to the asanas group.

6. There may be significant differences on the responses of selected bio-chemical variables among asanas and interval training groups.

The results found that the interval-training group had better improvement in bio-chemical variables except R.B.C. and W.B.C when compared to the asanas group.

Statistical Procedure:In this study the analysis of covariance was used to analyse the results. The scheff's post hoc test was used to analyse the means and differences between the means of the various groups.

CONCLUSIONS

Within the limitations imposed by the experimental conditions, the following conclusions were drawn.

1. Yogic practices and Interval Training had significantly improved the pulse rate, breath holding time, vital capacity and serum cholesterol.
2. When the experimental group-I's yogic practices were compared with control group, there was significant improvement in pulse rate, vital capacity, breath holding time and serum cholesterol.
3. When the experimental group-II (Interval Training) was compared with control group, there was significant improvement in pulse rate, vital capacity, and breath holding time and serum cholesterol.
4. When the experimental group-I was compared with experimental group-II, experimental group-I had no significant difference in physiological variables where experimental group-II had a significant difference in physiological variables.
5. When the experimental group-I was compared with experimental group-II, experimental group-I had no significant difference in bio-chemical variables whereas experimental group-II had a significant difference in bio-chemical variables except W.B.C and R.B.C.

RECOMMENDATIONS

1. Similar study can be conducted using other physiological and bio-chemical variables.
2. The study may also be conducted in Asthmatic patients.
3. Similar study can be conducted separately for girls of different age groups.
4. It is recommended that yoga shall be made a compulsory part in the physical education programme in schools and colleges.
5. Comparative studies on the effects of yogasanas and other training schedules on the variables used in the studies shall be conducted.
6. Studies to see the effect of yogasanas on psycho-physiological and psychomotor variables shall also be conducted.
7. Similar studies may be conducted for other stages of yoga.
8. Similar studies may be conducted on state and National level players and Athletes . It is recommended that similar studies may be conducted separately for men of different age groups.

Comparative Analysis of Selected Hematological Variables Among university Men Basketball Football and Volleyball Players

Smt. A. Pallavi, Asst. Professor, Dept. of Physical Education, Andhra University, Visakhapatnam

Mr. R. Bhaskar Ananta Rao, Asst. Professor, G.V.P. Degree College, Visakhapatnam

ABSTRACT: The purpose of this study was to compare the selected hematological variables among university men basketball football and volleyball players. To achieve the purpose each twenty university level basketball, football and volleyball players were selected as subjects from Andhra University, Visakhapatnam. Data were collected on the selected variables namely red blood corpuscles, and hemoglobin. One way analysis of variance (ANOVA) was used for statistical analysis. The results of the study showed that there was significant difference among players in red blood corpuscles and hemoglobin.

Keywords: Hematological, Red Blood Corpuscles, Hemoglobin

INTRODUCTION: Today's world is a world of competition and this is very true to sports and games. In fact it has become prestige issue to win medal at the international level. This has resulted in countries sparing no effort to achieve goals; multimillions are spent on research projects to invent much new techniques and technology to achieve excellence. Blood is a vital connective tissue (Fluid) consisting of fluid portion i.e., plasma in which the formed elements such as Red Blood Corpuscles, white blood corpuscles, and platelets are suspended. Plasma contains 8% of solids, which include proteins (Albumin). Non protein nitrogenous substances (cholesterol and glucose) pigments, salts, enzymes. Hormones, anti-bodies and immune bodies. (Dacie and leuis 1987). The scientific study of exercise physiology is becoming increasingly important with the growing realization of the relation of exercise to health. Field and laboratory observations of exercise in human subject are being supplemented with physiology, biochemical and hematology studies on laboratory animals. With the result many of the phenomena associated with acute and chronic exercise can now be explained at cellular and molecular levels, (Guyton Arther C, 1976).

METHODOLOGY

The purpose of this study was to make a compare the selected hematological variables among university Basketball, Football and volleyball Players in order to achieve the purpose of this study twenty players each from Basketball, football and volleyball players, who played in the inter-zonal university matches they were selected at randomly. These players had sufficient experience in the game. The subjects were more or less of the same age and their age group is between 18 to 24 years. The following hematological variable were selected to this study

1. Red Blood Corpuscles
2. Hemoglobin

STATISTICAL ANALYSIS : The data which were collected from the subjects were treated statistically. In order to find out the significant difference among the basketball football and volleyball players in hematological performance, one way analysis of variance (ANOVA) was employed. To find out the paired means significant difference, the scheff's post hoc test was used.

TABLE -1
ONE WAY ANALYSIS OF VARIANCE OF RED BLOOD CORPUSCLES (SCORES IN MILLIONS/CU.MM) AND HEMOGLOBIN OF (SCORES IN GM %) THREE GROUPS

Variables	Volleyball	Basketball	Football	Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
Red Blood Corpuscles	4.515	4.88	5.22	Between	2.884	2	1.442	12.155*
				Within	6.762	57	0.118	
Hemoglobin	15.105	15.285	15.875	Between	6.489	2	3.244	5.22*
				Within	35.392	57	0.620	

*Significant at 0.05 level 3.15

The table reveals the one way analysis of red blood corpuscles and hemoglobin among basketball, football and volleyball players. The obtained F-ratio was 12.55 and 5.22, the table F-ratio value was 3.15 at 0.05 level of confidence for the degree of freedom 2 to 57. As the obtained F-ratio was higher than the table F-ratio, the study was significant. Among the players in red blood corpuscles and hemoglobin. Scheffe's post-Hoc test was administered to find out the paired means significant difference.

TABLE II
ORDERED SCHEFFE'S POST-HOC TEST ORDERED MEANS AND
DIFFERENCE BETWEEN THE MEANS FOR RED BLOOD CORPUSCLES AND HEMOGLOBIN

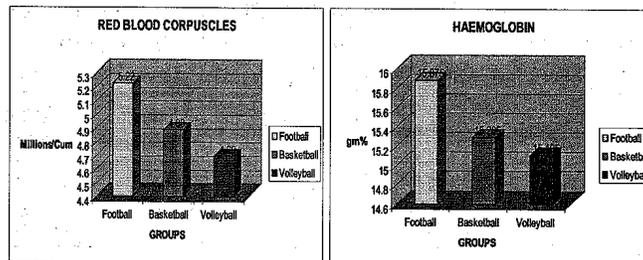
Variables	Football	Basketball	Volleyball	Mean Difference	Confidence Interval
Red Blood Corpuscles	5.22	4.88	-	0.35*	0.334
	5.22	-	4.69	0.53*	
	-	4.88	4.69	0.19	
Hemoglobin	15.87	15.28	-	0.59	0.76
	15.87	-	15.10	0.77*	
	-	15.28	15.10	0.18	

*Significant at 0.05 level

The required scheffe's confidence interval value to be significant at 0.05 level was 0.334 and difference among volleyball, basketball and football players were significant as the mean differences were greater than the required confidence interval. Except basketball and football mean difference. The obtained mean values in red blood corpuscles among university men basketball, football and volleyball players were presented through bar diagram for better understanding of the results. The required scheffe's confidence interval value to be significant at 0.05 level was 0.76 and difference among football and basketball, basketball and volleyball players were significant as the mean differences were greater than the required confidence interval. Except basketball and Volleyball mean difference. The obtained mean values in Hemoglobin among university men basketball, football and volleyball players were presented through bar diagram for better understanding of the results.

FIGURE

BAR DIAGRAM SHOWING THE MEAN DIFFERENCES AMONG THE GROUPS ON RED BLOOD CORPUSCLES (SCORES IN MILLIONS/ CU.MM) AND HAEMOGLOBIN (SCORES IN GM %)



CONCLUSIONS

With in the limitation of the present study, the following conclusions were drawn. It was concluded that football players having high rate of red blood corpuscles than the basketball and volleyball players. It was concluded that football players having more hemoglobin percentage than basketball and volleyball players.

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Relationship of Selected Motor Fitness components with the Performance of Badminton Player

Lalit Mohan Tiwari¹ Vaibhav Rai² Siddhartha Srinet²

¹PRResearch Scholar Department of Physical Education Punjabi University Patiala Punjab, India

²Lecturer Department of Physical Education S.G.G.S. Khalsa College Mahilpur Punjab

³Physical Education Teacher K.V. No.1 Udhampur Jammu & Kashmir, India

ABSTRACT:

Purpose: The purpose of the study was to find out the “relationship of speed, agility, shoulder strength, Explosive Strength and muscular endurance with the performance of Badminton Player”. 30 State Level Badminton Players from lucknow who were participating in state Badminton championships were selected as a subject for the study. Their age ranged between 20 to 25 years. For estimating speed, agility, shoulder strength, Explosive Strength, muscular endurance and badminton performance the following tests were employed:- For speed (50 meters dash in seconds), agility (4 x 10 meters shuttle Run in second), shoulder strength (pull ups in numbers), explosive strength (standing broad jump in meters), muscular endurance (sit ups in numbers/min) and the badminton performance was graded by a panel of experts on the basis of their skills, techniques and match result. Statistics: - For analysis, Zero order correlation was used to compute correlation between badminton performance and selected variables i.e. speed, agility, shoulder strength, Explosive Strength and muscular endurance. Result: - The result showed that all the motor fitness components (speed, agility, explosive strength, shoulder strength and muscular endurance) of an individual correlates maximum with badminton performance. The coefficient of correlation of speed ($r = -0.667$), agility ($r = -0.83$), explosive strength ($r = 0.55$), shoulder strength ($r = 0.69$) and muscular endurance ($r = 0.75$) were found to be significant with Badminton Players performance at 0.05 level of confidence. The finding indicates that speed, agility, explosive strength, shoulder strength and muscular endurance were important variables for better performance in Badminton.

Key Words: Badminton, Shuttle Run, Correlation, Explosive Strength

INTRODUCTION:

Badminton is a [racquet sport](#) played by either two opposing players (singles) or two opposing pairs (doubles), who take positions on opposite halves of a rectangular court that is divided by a net. Players score points by striking a [shuttlecock](#) with their racquet so that it passes over the net and lands in their opponents' half of the court. Each side may only strike the shuttlecock once before it passes over the net. A rally ends once the shuttlecock has struck the floor. Badminton being a highly explosive sport, involves a unique movement technique and strength over a relatively small court area. The match is won normally by a perfect amalgam of physical condition, mental attitude, courage, intelligence and the player's technical skill and tactical efficiency. It calls for a co-ordinate functioning of the body and its reflexes. Before attempting stroking technique, the beginning badminton player has to learn the pre-requisite skills for effective stroke production.

Burly, Dobell and Farrell (1961) conducted a study to determine the relation between power and flexibility speed and flexibility, speed and certain anthropometric measures the subjects were enrolled in intergraded physical education classes. Seventh grade girls were faster than eight grade girls in the 50 yard dash. Ninth grade girls broad jumped further than seventh and eighth grade girls. No significant relations were found in the other items studied.

Clarke (1957) conducted a study to find out the “Relationship of Strength and Anthropometric Measure to Physical performances Involving the Trunk and Legs”. In this study 16 strength and 10 anthropometric tests were related by correlational methods to 8 trunk and leg measures, involving dynamometric strength, Muscular endurance, agility and power. The intercorrelations among some of the anthropometric variables were specially high: .91 standing height with leg length .88 foot length with leg length; and .87, body weight with both hip width and thigh girth. The highest strength test

intercorrelation was .65 between trunk flexion and extension. Significant multiple correlations obtained were: .74 for leg lift with body weight, ankle dorsal flexion strength and trunk flexion strength; .71 for back lift with knee extension strength, hip width, trunk flexion strength, and knee flexion strength and .66 for standing broad jump with adipose tissue over the abdomen and hip extension strength.

Garry (1968) Studied the relationship of college football players strength, speed and agility to the coaches ranking playing positions were combined in to offensive linemen and the in to group I an group II correlates were than computed between the objective tests scores and the coaches subjective evaluations. It was conducted that arm strength, agility were not valid predictors of football ability and leg strength and speed were significant predictors of footballing ability.

Mishra (1986) Studied the relationship between flexibility, speed, strength an body segments to bowling performance taking 25 cricketers and found that shoulder wrist, trunk, neck flexibility and arm length are reliable variables in predicting bowling performance in cricket. Arm strength, right and the left strength of grip are significantly related leg length and the leg strength are not significantly related to bowling. [Castelli DM, Hillman \(2007\) conducted the study to find out](#) the relationship between physical fitness and academic achievement has received much attention owing to the increasing prevalence of children who are overweight and unfit, as well as the inescapable pressure on schools to produce students who meet academic standards. This study examined 259 public school students in third and fifth grades and found that field tests of physical fitness were positively related to academic achievement. Specifically, aerobic capacity was positively associated with achievement, whereas BMI was inversely related. Associations were demonstrated in total academic achievement, mathematics achievement, and reading achievement, thus suggesting that aspects of physical fitness may be globally related to academic performance in preadolescents. The findings are discussed about maximizing school performance and the implications for educational policies.

Nail (1978) determined the relationship of balance, speed, strength, height arm and leg length to success in collegiate wrestling. Subjects were classed as successful, average, or unsuccessful according to their win loss percentage. A second classification was by weight (light weight, middle weight, heavy weight). All subjects were measured for height, arm length and leg length and tested for RT, MT, static elbow flexion strength, explosive leg strength, and dynamic balance. Treatment of the data by anova showed no difference among the wrestlers in the three weight divisions or dynamic balance explosive leg strength and (RT) reaction time. The elbow flexion strength the middle weights were stronger than the light weight. Light weights and middle weights were faster in movement time and reaction time than the heavy weights. The successful wrestlers had better balance than the unsuccessful wrestlers. The unsuccessful wrestlers had longer legs than the average and successful wrestlers. Analysis by multiple R and regression showed that no combination of the independent variables was useful in predicting success.

METHODS

Subjects

30 State Level male Badminton Players who were participating in state badminton championships in Uttar Pradesh were selected for the purpose of this study. The selected subjects were from the age group of 20-25 years.

Hypotheses

On the basis of variable literature and scholars own understanding of the problem it was hypothesized that there would be a significance difference in the relationship of speed, agility, shoulder strength, Explosive Strength and muscular endurance with the performance of Badminton Player.

Testing Procedures

For establishing the relationship of speed, agility, shoulder strength, Explosive Strength and muscular endurance with the performance of Badminton Player following tests were conducted:-

Criterion Measures

speed was measured by 50 meter dash in seconds.

Agility was measured by 4X10 METERS SHUTTLE RUN IN SECONDS.

Shoulder strength was measured by maximum number of pull up test.

Explosive leg strength was measured by standing broad jump ans score measured in meters.

Abdominal strength was measured by one minutes bent knee sit ups test.

Badminton performance was recorded on the basis of actual game performance. Every badminton player was participating in three match seven points each. Three qualified judges were give points / marks out of 10 to each player according to his performance and skills during the match. Some more additional points were awarded according to result of match i.e. 5 points / marks for winning and 2 points / marks for losing the match.

Statistical Analyses

For determining the significant relationship of speed, agility, shoulder strength, Explosive Strength and muscular endurance with the performance of Badminton Player the Pearson’s Product Moment Correlation was used for the analysis of data.

$$r_{xy} = \frac{N \sum x_i y_i - (\sum x_i) (\sum y_i)}{\sqrt{(N \sum x_i^2 - (\sum x_i)^2) (N \sum y_i^2 - (\sum y_i)^2)}}$$

Results

For testing the relationship between the independent and dependent variables, the level of significance was set at 0.05 level of confidence. The relationship between the independent variables (speed, agility, shoulder strength, Explosive Strength and muscular endurance) and dependent variable variable (Badminton performance) have been presented in the table- 1

TABLE-1
COEFFICIENT OF CORRELATION BETWEEN MOTOR FITNESS COMPONENTS AND BADMINTON PERFORMANCE

Independent Variables	Dependent variables	Coefficient of Correlation
Speed	Playing Ability	-0.667*
Agility	Playing Ability	-0.83*
Explosive Strength	Playing Ability	0.55*
Shoulder Strength	Playing Ability	0.693*
Muscular Endurance	Playing Ability	0.75*

Significant at 0.05 level $r_{0.05 (28)} = 0.361$

Table 1 reveals that all the motor fitness components (speed, agility, explosive strength, shoulder strength and muscular endurance) of an individual correlates maximum with badminton performance. The coefficient of correlation of speed (r =-0.667), agility(r =-0.83), explosive strength(r =0.55), shoulder strength(r =0.69) and muscular endurance(r =0.75) were found to be significant with Badminton Players performance at 0.05 level of confidence.

Discussion

It has been found that there is a significant negative relationship between speed, agility and badminton playing ability. Speed is the quickness of movement of a limb, whether this is the legs of a badminton player or the arm during smashing. Speed is an integral part of badminton. Agility is the ability to change the direction of the body in an efficient and effective manner. The badminton player required this type of movement during play. There was a significant relationship between explosive strength and playing ability. Explosive strength is the product of speed and strength. It is the ability of a muscular unit or combination of muscular unit to apply maximum force in minimum time. So during smashing in badminton the player has to jump as early as possible for effecting smashing. Therefore explosive strength is performance prerequisite for badminton player. Shoulder strength and muscular endurance both are the part of required for badminton player and it showed significant positive relationship with badminton performance. Muscular endurance is the ability of a muscle or group of muscles to perform repetitive contraction over period of time or under condition of fatigue. During game situation one has to perform repetitive contraction of muscles for a longer period of time. Core strength of abdomen in performance prerequisite for a badminton player therefore the abdomen endurance is required for effective muscular contraction. Shoulder strength is the ability of muscle to overcome resistance or act against resistance and it is required for effecting smashing and long passing.

Discussion Of Hypotheses

The hypothesis with respect to selected motor fitness components i.e speed, agility, explosive strength, shoulder strength and muscular endurance is accepted because significant relationship has been obtained between above mention motor fitness components and badminton playing ability.

Conclusions

On the basis of the findings of the study, it is concluded that motor fitness components i.e; speed, agility, explosive strength, shoulder strength and muscular endurance showed significant relationship with playing ability of badminton players.

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The Role Of Officiating In Amateur Boxing

Shri K.R.Steven (Retd) Reader in Physical Education, S.D.Signodia College, Hyd

Research Scholar, J.J.T.U. Jhunjhunu, Rajasthan

Dr.B.D.Salvi, Research Guide in Physical Education, J.J.T.U.Jhunjhunu, Rajasthan

Abstract:In the National and International Amateur Boxing Tournaments the Boxing Bouts will officiate President of Jury, Jury Members, Scoring Jury Members, Referee, Judges, Time Keeper, Announcer, Doctor and Technical Computer Members. The Bout in Amateur Boxing will be of three rounds of three minute each round and one minute interval after the first and second round. The referee will check both the Boxers those who are in the Red and Blue Corner. He will check the five judges at the ring side and half raised hand towards the doctor, President of the Jury and Time Keeper. Then the Announcer announced the beginning of the first round and Time keeper hit the gong. During the Bout the care of the Boxer is the primary concern of the Referee. The Referee shall officiate in the Ring with dress in black trouser, white shirt, light black shoes, bow tie black shall be worn. He may use surgical gloves when officiating. A decision of the referee may be over ruled by the Jury when the referee has given a decision. The Judges shall officiate in black trouser and white shirt clothing. Each Judge shall independently judge the merit of the two contestants and decide the winner of the Bout according to the rules. He shall use the electronic scoring system for judging the merit of the Boxer. The executive members of Indian Amateur Boxing Federation Jury Members together with the members of the refereeing and judging commission shall compose the scoring jury three members. Each jury member in the composition shall be seated behind each of the five judges and judge the bout with the help of a second set of the electronic scoring system by using a hand held using machine. The result shall be recorded on the scoring sheet and hand over before the announcement of the final result. The president of the Jury shall make known to the announcer the name of the boxer shown as Winner on the monitor of the computer. Then the Referee raised the Winner's hand showing the Jury and to the Public Red or Blue Winner. Hence the Officiating in Boxing through Computer Scoring will give precise results.

Introduction: In the National and International Amateur Boxing Tournaments the boxing bouts will officiate by Referee, Judges, Jury, Jury Scoring Members, Time keeper, Doctor and Technical Computer Members. In all National and International Championships there shall be three rounds of three minutes each round. The Interval will be one minute full rest period between each round. No additional round may be given. For female Boxers the bouts will be of three rounds of two minutes each with a interval of one minute rest period between the rounds. The Referee primary concern is to care of the Boxers. The referee decision may be over rules by the Jury when the referee give the decision, which is clearly against the articles national and international rules, when considering such an incident, the jury may use a video tape recorder or through the computer system. The referee shall officiate in the ring. He shall be dressed in black trouser, white shirt and light black shoes with out raised hells along with bow tie (black). He may use surgical gloves when officiating. The referee shall see the bout will be fair play and strictly observed, maintain control. He should prevent weak boxer from receiving undue and unnecessary punishment to terminate the contest. First the referee shall check the both Boxers gloves and dress at their respective corner's. The referee call the both boxer's in the centre for shaking the hands. Then the referee check the five Judges seated and he raise his hand towards the doctor, President of the Jury to start of the bout and to the time keeper and announcer to start the first round bout by hitting the Gong and say first round simultaneously.

Methodology of Officiating:

The referee will use three words of command .

Stop : when ordering the boxer to stop boxing

Box : when ordering them to continue and

Break : when breaking a clinch, upon which command each boxer shall step back before continuing boxing.

If a boxer infringement of the rules then the referee shall indicate by suitable explanatory signs . when the announcer announce the winner then only the referee shall raise the hand of the boxer who won the bout. When the referee disqualified a boxer or stopped the bout, he shall first inform the President of the Jury for the reason he disqualified or the reason that he stopped the bout, to enable the President to instruct the announcer to make the decision correctly known to the public. To terminate a contest at any stage if he consider it to be one sided or any boxer has received injuries. The five Judges seated separate from the public, but immediately adjacent to the ring. The two of the Judges shall be seated on the same side of the ring at a sufficient distance from one another and each of the other three Judges shall be seated at the centre of one of the other three sides of the ring. The panel of Referee and Judges in female boxing contest may consist of both male and female officials, a male referee or judge may officiate in a female bout. All the five judges must score actual scoring blows with Electroning scoring system scoring machine shall be compulsory. Each jury member in a competition will be seated each of the five judges and judge the bout with the help of a second set of electronic scoring system or by using a hand hold scoring machine. In case a hand held machine is used, the results shall be recorded on a scoring sheet and handed over before the announcement of the final result. The President of the Jury shall make known to the announcer the name of the boxer shown as winner on the monitor of the computer. The jury will be appointed by the executive committee. The Jury shall consist of 5 persons, including an acting president, two of whom shall be members of the commission of refereeing and judging.

TIME KEEPER: The main duty of the time keeper is to regulate the number and duration of the rounds three minutes each round and the intervals between rounds. The intervals between rounds shall be a full minute duration. Five seconds before the commencement of each round, he shall clear the ring by ordering "clear the ring" or seconds out. He shall commence and end each round by striking the Gong or Bell. He shall announce the number of each round immediately prior to commencing it. He shall take 'off time' for temporary stop pages or when instructed to do so by the referee. He shall regulate all periods of time and counts by a watch or clock. At a "knock down" the time keeper shall give sound signal to the referee indicating the elapsing seconds, while the Referee is counting and if at the end of a round, a boxer is down and the referee is in the course of counting "The Gong indicating the end of the round of three minutes will not be sounded. The gong will be sounded only when the referee gives the command box indicating the continuation of the bout. The time keeper shall seated directly at the Ringside at the for right side near to the President of the Jury below the neutral corner of the ring.

DOCTOR: In attendance to every bout a qualified doctor of medicine throughout out the competition and should not leave the place where it is held before the end of the last bout and until he has checked on the two boxers who participated in the last bout. Doctor may wear surgical gloves during the bout. The officiating doctor should be seated next to the jury and if he believes the bout should be stopped because of severe hard punches. He shall advise the president of the jury accordingly, who shall press a bell or raise a flag indicating to the referee to stop the bout temporarily. **Conclusions:**It is concluded that every Official plays a key role in the boxing bout. Hence Officiating is very important in Boxing to avoid injuries and giving the precise results. In International Amateur Boxing Competitions the new rules came in electronic scoring system which has already implemented in the recent World Boxing Championships where our four Indian boxers have gain advantage and given good performance for which they have qualified for London Olympic games 2012.

Recommendations:

The similar studies can be conducted on other sports and games for fair play.

A Comparative Study On Speed Among Long Jumpers And High Jumpers Of Kakatiya University

Dr.R.Srinivas Reddy

Physical Director, Kakatiya University, Warangal

Introduction: Track and field is one of the oldest of sports. Athletic contests were often held in conjunction with religious festivals, as with the Olympic Games of ancient Greece. Track and Field as a modern sport started in England during the 19th century. English public school and University Students gave the sport impetus through their inter class meets, or meetings. In 1849 the Royal Military Academy at Sandhurst held the first organized track and field meet of modern times. Not until the 1860s, however did the sport flourish. In 1866 the First English championships were held by the newly formed Amateur Athletic Club, which open the Competition to all gentlemen amateurs, specifically, athletes who received no financial compensation for their efforts. Although meets were held on the North American Continent as early as 1839, track and field first gain popularity in the late 1860s after the formation of the New York Athletic club in 1868.

In 1896 the first Modern Olympic Games were staged. Although initially of limited appeal the Olympics captured the imagination of athletes and grew steadily, making track and field an international sport for the first time. In 1913 the International Amateur Athletic Federation was formed by representatives from 16 countries. The long jump is a Track and Field event in which athletes combine speed, strength, and agility in an attempt to leap as far as possible from a take off point. This event has been an Olympic medal event since the first modern Olympics in 1896 and has a history in the ancient Olympics. The high jump is a track and field athletics 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. It has been contested since the Olympic Games of ancient Greece

Purpose(s) :

The purpose of this study to find out the Speed among Male Long Jumpers and Male High Jumpers of Kakatiya University.

Method(s):

The sample for the present study is consist of 20 Male Long Jumpers and 20 Male High Jumpers between the age group of 19 to 21 Years who have taken part in the Kakatiya University Inter College Athletics Championship for the year 2011-12. 50 M Run is used to measure the speed among Long Jumpers and High Jumpers and study is limited to the athletes of Kakatiya University. The hand timing is recorded by well qualified Technical Officials of Athletics.

Result(s)

This study shows that Long Jumpers are having good speed compare to the High Jumpers.

Conclusions(s):

It is concluded that Long Jumpers are having good speed than High Jumpers because their approach Run is bigger than High Jumpers and moreover they are doing horizontal jump to jump more compare to High jumpers those who are doing vertical jump to jump high.

Recommendation(s):

The similar studies can be conducted on other events in athletics.

References:

Wikipedia Long Jump and High Jump

**“A Comparative Study among Smasher and Lifter of Volleyball Players
Respect to Aggression”**

Dr. Shafiuddin S. Shaikh

Head, Dept. of Physical Education,

NKSPT's Arts, Science & Commerce College
Badnapur,

Dist. Jalna-431202 (M.S.) India

Dr. Mrs. Nazma A. Khan

Asst. Prof. In Physical Education

NKSPT's Arts, Science & Commerce College
Badnapur,

Dist. Jalna-431202 (M.S.) India

Introduction: Games, at least the way adults perceive and play them, typically involve controlling and manipulating an object, very often a ball. Sitting volleyball as a team game involves six players per side and the object is to volley the ball over the net into the opponents' court using, according to the rules, any part of the body. Each team is allowed three contacts with the ball to get it over the net. The major problems that arise when beginners attempt to perform sitting volley ball skills occur through difficulties to follow the flight of a fast moving ball, and mobility problems of covering the playing court. The basic techniques of sitting volleyball are relatively simple. The problem of speed reaction to a fast ball remains on early stages of practicing. Beginners need to develop confidence in their movement abilities and enjoy playing.

Smashing (Hitting)

The smash (or spike, hit) is the most dynamic of all volleyball skills. The approach to the net should be made at sufficient speed (sitting volleyball) and maximum height of the jump (standing volleyball). Take off is originally from both feet, in some situations in standing Volleyball for the disabled adjustments are individualized, Arms swing forward and upwards providing maximum lift and balance in preparation for the smash. The ball is hit at the top of the reach and with an open hand. The wrist should be relaxed but not floppy. Timing is of crucial importance if we want to take a maximum from the smashing action. Smashers also use tactical balls, known as the dump and enrich their attacking repertoire. There are different ways to attack the ball: hard driven smash, off speed smash, standing smash and tip or tactical ball. Blocking is used to encounter the smash. Block is carried out by any or all of the front line players. Players try to block a smash with their hands. The four factors are important when making the block:

1. Positioning
2. Timing
3. Jump (speed reaction in sitting volleyball)
4. Aggression

The block should be made with open hands and fingers spread to cover as wide an area as possible and try to force the ball down into the opponents court. Good blocking involves the ability to read the offensive smasher's intentions. In sitting volleyball it is allowed by the rules to block the serve which has consequences in defence strategies.

Neal B. Kimble, Stephen A, Russo, Brandon G. Bergman, Viviana H. Galindo *{November-December 2010}* Revealing an empirical understanding of aggression and violent behavior in athletics. Despite the multitude of published accounts that focus on "aggressive athletes," scientific investigation into aggression and violence within an athletic population has been surprisingly absent. Publications have

often been more editorial in nature, with scientific rigor, sound methodology, and empirical exploration appearing to be secondary concerns. The present review seeks to summarize what is currently known about aggression and violence in sports through actual empirical investigation. The information presented herein was synthesized from the inclusion of studies that met strict scientific and methodological inclusion criteria, representing less than one-third of published studies on the subject over the past 30 years.

Methodology:

Aim of the study:

- 1) To examine the aggression among smasher and lifter of volleyball players.

Objective of the study:

- 1) To find out the aggression among smasher and lifter of volleyball players.

Hypotheses:

- 1) Smasher volleyball players have significantly high aggression than the lifter volleyball players.

Sample:

For the present study 60 Sample were selected from Dr Babasaheb Ambedkar Marathwada University, Aurangabad, 30 subjects were smasher volleyball players and 30 subjects were lifter volleyball players. The age range of subjects was 18-26 years Ratio were 1:1;

Tools:

Aggression Scale (A scale):This test is developed and standardized by Km Roma Pal and Mrs. Tasneem Naqvi. The test consisted of 30 Items and Five Alternatives. The reliability coefficient of the test was found 0.82.

Procedures of data collection:For data collection first permission has been taken from respective sources than the despondence has been selected for data collection- Personal data select (PDS) has been given to collect the preliminary information with respect to subject's related variables then standardized test administer to title subjects. Before that rapport was established with subjects. And they have been told that their responses were kept confidential and the Information is used for research purpose only.

Variable

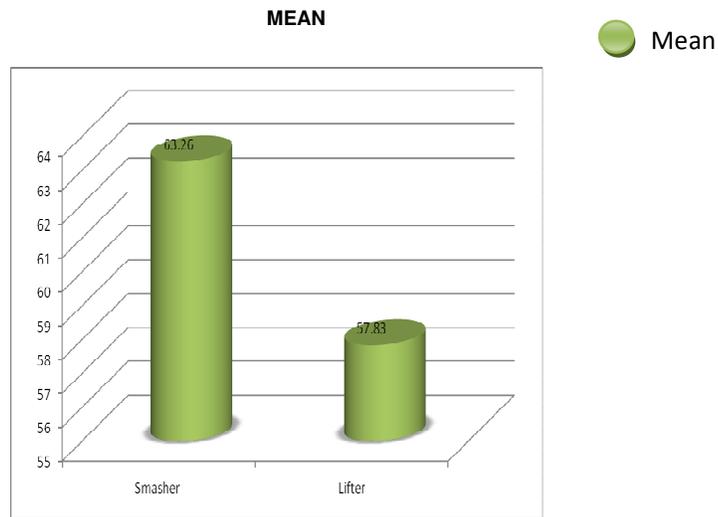
Independent variable : 1) **Volleyball Players** a) Smasher b) Lifter

Dependent Variable : 1) Aggression

Statistical Analysis and Discussion

Smasher volleyball players and Lifter volley ball players, Shows the mean S.D And t value of Aggression

Players	MEAN	SD	SEM	N	DF	t'	P
Smasher	63.26	4.39	0.80	30	58	4.96**	<0.01
Lifter	57.83	4.09	0.75	30			



The results related to the first hypothesis have been recorded in Table Mean of aggression score of the smasher volleyball players is 63.26 and that of the lifter volleyball players 57.83. The difference between the two means is highly significant $t = 4.96$, $df = 58$, $P < 0.01$. Thus, the first hypothesis is confirmed: smasher volleyball players have significantly higher aggression than the lifter volleyball players.

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A Comparative Study of Aerobic Endurance among Boxers and Taekwondo Players of Hyderabad District in India

Dr.Rajesh Kumar
Associate Professor
Department of Physical Education, Osmania University,Hyd.

K.Krishna
Asst.Professor of Physical Education(Contract) P.G.College, Secunderabad

Abstract:

Aerobic Endurance is the amount of oxygen intake during exercise. Aerobic Endurance is the time which you can exercise without producing lactic acid in your muscles. During Aerobic work, the body is working at a level that the demands for oxygen and fuel can be met by the body's intake. Boxing is a combat sport in which two fighters battle each other with their fists. The boxers wear heavily padded gloves and fight in a square rope of area called ring. Taekwondo is the techniques of unarmed combat for self defence than involves the skillful application of techniques that include punching, jumping, kicks, blocks, dodges, parrying action with hand and feet.

Purpose(s) :

The Purpose of the the present study to find out the Aerobic endurance among Boxers and Taekwondo of the Hyderabad District in India.

Method(s):

The sample for the present study is Thirty Male Boxers and Thirty Male Taekwondo Players between the age group of nineteen to twenty one years of Hyderabad District in India. The Twelve Minute Cooper Test were used to measure the Aerobic Endurance of Boxers and Taekwondo Players. The Boxers and Taekwondo Players were made to run twelve minute in four hundred meters track at Lal Bahadur Stadium in the batch of ten Members and the results recorded based upon the distance covered in the twelve minutes.

Result(s):

This study shows that Boxers are having good Aerobic Endurance Compare to Taekwondo Players and the Boxers has covered the more distance in twelve minute.

Conclusions(s):

It is concluded that Boxers are having good Aerobic Endurance compare to taekwondo Players.

Key Words: Aerobic Endurance, Boxers, taekwondo, cooper test etc.

Introduction:

Aerobic Endurance is the amount of oxygen intake during exercise. Aerobic Endurance is the time which you can exercise without producing lactic acid in your muscles. During Aerobic work, the body is working at a level that the demands for oxygen and fuel can be met by the body's intake. Boxing is a combat sport in which two fighters battle each other with their fists. The boxers wear heavily padded gloves and fight in a square rope of area called ring. Taekwondo is the techniques of unarmed combat for self defence than involves the skillful application of techniques that include punching, jumping, kicks, blocks, dodges, parrying action with hand and feet.

Aerobic Endurance is the amount of oxygen intake during exercise. Aerobic Endurance is the time which you can exercise, without producing lactic acid in your muscles. During aerobic (with oxygen) work, the body is working at a level that the demands for oxygen and fuel can be met by the body's

intake. The only waste products formed are carbon-dioxide and water which are removed by sweating and breathing.

Aerobic exercise is physical exercise of relatively low intensity and long duration, which depends primarily on the aerobic energy system. Aerobic means “with oxygen”, and refers to the use of oxygen in the body’s metabolic or energy – generating process. Many types of exercise are aerobic, and by definition are performed at moderate levelsof intensity for extended periods of time. Aerobic exercise comprises innumerable forms. In general, it is performed at a moderate level of intensity over a relatively long period of time. For example, running a long distance at a moderate pace is an aerobic exercise, but sprinting is not. Playing singles tennis, with near continuous motion, is generally considered aerobic activity, while golf or two person team tennis, with brief bursts of activity punctuated by more frequent breaks, may not be predominantly aerobic. Some sports are thus inherently “aerobic”, while other aerobic exercises, such as fartlek training or aerobic dance classes, are designed specifically to improve aerobic capacity and fitness.

Among the recognized benefits of doing regular aerobic exercise are:

- Strengthening the muscles involved in respiration, to facilitate the flow of air in and out of the lungs
- Strengthening and enlarging the heart muscle, to improve its pumping efficiency and reduce the resting heart rate, known as aerobic conditioning
- Strengthening muscles throughout the body
- Improving circulation efficiency and reducing blood pressure
- Increasing the total number of red blood cells in the body, facilitating transport of oxygen
- Improved mental health, including reducing stress and lowering the incidence of depression
- Reducing the risk for diabetes.

Boxing is a combat sport in which two fighters battle each other with their fists. The boxers were heavily padded gloves and fight in a square rope of area called a ring. A good bout between two well matched fighters is a fast violent display of strength and skills. The Boxers through powerful punches as such tries to win the bout on points. Good Boxer must be strong, quick, skillful and in excellent physical condition. They also should have the courage and determination to fight in spite of pain and exhaustion. In all amateur tournaments there shall be 3 rounds of 3 minutes each, a full one minute rest period shall be given between the Rounds.

Taekwondo is an empty hand combat form that entails the use of the whole body. TEA means the kick or smash with the feet. KWON implies punching, destroying with the hand or fist and DO means WAY OR METHOD, Taekwondo this is the techniques of unarmed combat for self defiance that involves the skillful application of techniques that include punching, jumping kicks, blocks, dodges, parrying actions with hand and feet. It is more than a mere physical fighting skill resenting as it does a way thinking and a pattern of life requiring strict discipline. It is a system of training both the mind and the body in which great emphasis is placed on the development of the trainees moral character. Taekwondo is a martial art that is today form of self defense has evolved by combining many different styles of martial arts that existed in Korea over the last 2000 years and some martial arts styles from countries that surround Korea. Taekwondo incorporates the abrupt linear movements of Karate and the

flowing circular patterns of recognized by the Korean Government as an International regulating body for taekwondo. The World Taekwondo Federation has since made a major effort to standardize tournament rules and organize World Class Competitions.

Purpose(s) :

The Purpose of the the present study to find out the Aerobic endurance among Boxers and Taekwondo of the Hyderabad District in India.

Method(s):

The sample for the present study is Thirty Male Boxers and Thirty Male Taekwondo Players between the age group of nineteen to twenty one years of Hyderabad District in India. The Twelve Minute Cooper Test were used to measure the Aerobic Endurance of Boxers and Taekwondo Players. The Boxers and Taekwondo Players were made to run twelve minute in four hundred meters track at Lal Bahadur Stadium in the batch of ten Members and the results recorded based upon the distance covered in the twelve minutes.

Result(s):

This study shows that Boxers are having good Aerobic Endurance Compare to Taekwondo Players and the Boxers has covered the more distance in twelve minute.

Table-I

Cooper Test				
Group	Mean	Std. Deviation	Std. Error Mean	N
Boxers	3085.500	140.180	25.595	30.000
Taekwondo	2644.833	190.719	34.822	30.000

	Independent Samples Test		
	t	df	Sig. (2-tailed)
Cooper Test	2.06	58.000	0.000

Table I showing the Cooper Test results of Boxers and Taekwondo Players. The Boxers has covered the distance of 3085.500 Meters and Taekwondo Players has covered the distance of 2644.833 Meters in 12 Minutes Run. There is a significant difference between Boxers and Taekwondo Players in Aerobic Endurance.

Conclusions(s):

It is concluded that Boxers are having good Aerobic Endurance compare to taekwondo Players. It may be due to the regular training of Boxing and requirement of Endurance is high compare to the Taekwondo.

Recommendations:It is recommended that similar studies can be conducted on females and also in other sports and games among males and females.

References:

Science of Sports training, Hardyal Singh
 Wikipaedia- Boxing and Taekwondo

A Comparative Study of Self Concept and Anxiety among Sprinters and Middle distance Runners of Osmania University

Mrs.Parveen Banu, Research Scholar, J.N.T.U.Hyd

Introduction

Self concept is a multidimensional construct that refers to an individual's perception of self in relation to any number of characteristics, such as academics, gender roles, racial identity etc. The self concept is an internal model which comprises self assessments. Anxiety is a psychological and physiological state characterized by somatic, emotional, cognitive and behavioral components. Anxiety invokes a feeling of fear or a perception of threat and which may be specific to and particular situation. Sprints are short running events in Athletics and Track and Field. Races over short distances are among the oldest running competitions. The first 13 editions of the Ancient Olympics featured only one event – the stadium race, which was a race from one end of the stadium to the other. There are three sprinting events which are currently held at the Summer Olympics and Outdoor World Championships: the 100 Metres, 200 Metres and 400 Metres. These events have their roots in races of imperial measurements which were later altered to metric: the 100 Meters evolved from the 100 Yard dash, the 200 m distances came from the furlong (or 1/8 of a mile) , and the 400m was the successor to the 440 Yard dash of quarter mile race. Middle distance running events are track races longer than sprints, up to 3000 metres. The standard middle distances are the 800 metres, 1500 metres and mile run, although the 3000 metres may also be classified as a middle distance event. The 880 yard run, or half mile, was the forebear to the 800 m distance and it has its roots in competitions in the United Kingdom in the 1830s. The 1500 m came about as a result of running three laps of a 500 m track, which was commonplace in continental Europe in the 20th century.

Purpose:

The Purpose of the the present study to find out the Self concept and anxiety among Sprinters and Middle distance Runners of Osmania University in India.

Method(s):

The sample for the present study is thirty Male Sprinters and thirty middle distance runners those who have participated in the Osmania University Inter College Sports and games during the year 2011-12 between the age group of 19 to 21st Years. R.K.Saraswath Self Concept Questionnaire and Sinha's Comprehensive Anxiety Test are used in the study. Each of the two instruments were administered individuals as well as a small group. Prior to administration of test through informal talk was explained the subjects procedures of the tests.

Result(s):

This study shows that Sprinters are having high self concept and low anxiety compare to middle distance runners.

Conclusions(s):

It is concluded that that Sprinters are having the good self confidence and concept and less anxiety to achieve the high level of performance compare to middle distance runners.

Recommendations:

Similar studies can be conducted on all athletic events and others sports and games.

References:

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A Comparative Study of Aerobic Endurance among Kabbadi and Kho Kho Players of Osmania University

Dr. Bidla Sunil Kumar, Associate Professor, Dept. of Physical Education

Venkatnarayana, Asst. Professor in Phy. Edn (Contract) P.G. College of Law, OU

Introduction

Aerobic Endurance is the amount of oxygen intake during exercise. Aerobic Endurance is the time which you can exercise, without producing lactic acid in your muscles. During aerobic (with oxygen) work, the body is working at a level that the demands for oxygen and fuel can be met by the body's intake. The only waste products formed are carbon-dioxide and water which are removed by sweating and breathing.

Purpose:

The Purpose of the present study to find out Aerobic Endurance among Kabbadi and Kho Kho Players of Osmania University.

Method(s):

The sample for the present study is twenty Male Kabbadi Players and twenty Kho Kho Players those who have participated in the Osmania University Inter College Sports and games during the year 2011-12 between the age group of 19 to 21st Years. Cooper Test 12 Min Run is used to assess the Aerobic Endurance.

Result(s):

This study shows that Kho Kho Players are having good Aerobic Endurance compare to the Kho Kho Players. The Kho Kho Players ran 2941.75 M and Kabbadi Players ran 2843.50 M in 12 Min.

Pre Test(Mtrs) Results of 12 min Cooper Test	N	Mean	Std. Deviation	Std. Error Mean	t	df	Sig. (2-tailed)
Kho Players	20	2941.75	218.71	49.13	1.69453	38.00	0.10
Kabbadi Players	20	2843.50	136.71	30.79			

Conclusions(s):

It is concluded that Kho Kho Players are good in Aerobic Endurance compare to Kabbadi Players because the game of Kho Kho is involved sprinting activity and Kabbadi involve strength and technique.

Recommendations:

Similar studies can be conducted on all others sports and games.

References:

Science of Sports Training, Dr. Hardayal Singh

A Study on Speed among Junior National Swimmers and Senior National Swimmers in Hyderabad

J.Prabhakar Rao, Head, Department of Physical Education,OU,Hyd

Abstract:

The Purpose of the study was to find out the speed among Junior National Swimmers and Senior National Swimmers of Hyderabad. 20 Junior National Swimmers and 20 Senior National Swimmers were taken for the study. The 50 M Free Style Swimming is used to assess the speed. It was found the Junior National Swimmers are having good speed compare to Senior National Level Swimmers

Key words: speed, swimmers etc.

Introduction: Speed like strength and endurance is a conditional ability. Speed abilities are trainable to a very limited extent due to its marked dependence on the functioning of the central nervous system. important to be specific so that the athlete and coach understand which specific aspects of sports performance they are training. The definition of speed from a scientific standpoint is simply distance / time, but this is a rather simplistic view of speed. A more accurate definition of speed is this: speed is the ability of an athlete to move as fast as possible, through the optimal range of motion, in a deliberate and intentional manner, in a particular direction. Speed is not just measured on how fast a person is either; there are several components of measurement that give a complete picture of an athlete's speed.

Swimming was part of the first modern Olympic games in Athens in 1896. In 1902, Richard Cavill introduced the front crawl to the Western world. In 1908, the Fédération Internationale de Natation (FINA), which is the current governing body of the swimming world, was formed. The butterfly stroke was developed in the 1930s and was at first a breaststroke variant, until it was accepted as a separate style in 1952.

Swim styles

In competitive swimming, four major styles have been established. These have been relatively stable over the last 30–40 years with minor improvements. The four main strokes in swimming are:

1. Freestyle
2. Breaststroke
3. Backstroke
4. Butterfly

STATEMENT OF PROBLEM:

To find out the speed among Junior National Swimmers and Senior National Swimmers of Hyderabad.

SAMPLE: For the present study 20 Male Junior National Swimmers and 20 Male Senior National Level Swimmers are taken for the study of Hyderabad District. All Swimmers are from Free Style.

TOOL:

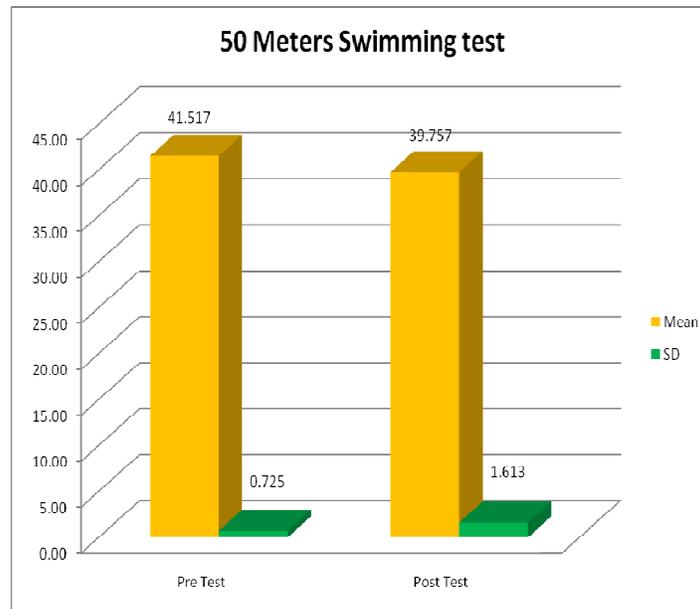
To measure the speed the 50 Meters Free Style event is chosen.

Procedure of Data Collection: The Swimmers are made to 50 Free Style Swimming in a batch of 5 Members and timing is recorded by the Officials for all 5 Members.

Results and Discussion:

Table - I

50 M Free Style Swimming	N	Mean	SD	SE	t	table value	df	P-Value
Senior National	20	40.517	0.725	0.132	10.117	2.045	29	0.0000
Junior National	20	38.757	1.613	0.295				



The Mean Score of 50 M Free Style swimming of Junior National Swimmers is 38.757 compare to Senior National Level Mean score is 40.517.

Conclusions:It is concluded that Junior National Swimmers are having good speed compare to Senior National Swimmers in Swimming.

Recommendations:It is recommended that Swimmers must be given good training for speed for the development of speed for improvement of performance.

Reference:

Wikipedia,Swimming

Science of Sports Training, Hardyal Singh

A Study on the Physical fitness among Athletes and Foot Ball Players of Schools in Hyderabad

Dr.K.Deepa, Associate Professor, Dept. of Physical Education, OU

T.Rajender Raj, Phy.Education Teacher, Govt. H.S. Shaniyathgunj, Hyd

Introduction:

Physical fitness refers to the organic capacity of the individual to perform the tasks of the daily living without undue tiredness and fatigue and still have a reserve of strength and energy available to meet satisfactorily sudden emergence placed upon him. Physical fitness is necessary for a successful and enjoyable life because it increases the functional efficiency of human organism. The characteristics of Physical fitness such as strength, speed, endurance, agility, flexibility are essential for physiological function and good health. Physical fitness is composed of general and specific fitness. It can be health and skill related physical fitness. Athletes and Foot ball Players compulsory require physical fitness to excel.

Benefits of Physical fitness.

1. Helps maintain and increase muscle strength, improving balance, overall co-ordination, reaction time and flexibility. Some physical activities even improve mental concentration.
2. Controls Weight, improves mood, boost energy, promotes better sleep.
3. It combats health conditions and diseases.
- 4.Reduces the incidence of illnesses such as coronary heart disease, hypertension, stroke, type 2 diabetes and osteoporosis

Purpose(s) :

The Purpose of the the present study to find out the Physical fitness among Male Athletes and Male Foot Ball Players of Schools in Hyderabad between the age group of fourteen to sixteen years.

Method(s):

The sample for the present study is twenty Male athletes and twenty Male Foot Ball Players from various Schools of Hyderabad in India. The AAPHER Youth Fitness Tests consisting of 50 Yard Run, 600 Yard Run, Standing Broad jump, Pullups, Shuttle Run and Sit ups were tested to know the status of Physical fitness among Athletes and Foot Ball Players.

Result(s):

This study shows Foot Ball Players are having good Pull Ups, Situps, Shuttle Run, Standing Broad Jump compare to Athletes who are good in 50 Yard Run and 600 Yard Run.

Conclusions(s):

It is concluded that Foot Ball Players are having good Physical fitness compare Hockey Players may be because that Foot Ball is played longer duration compare to the Athletes.

Recommendations:

Similar studies can be conducted in schools in others sports and games and also on girls sports persons.

References:

- 1.Mayo clinic. Com 2.Science of Sports Training, Hardayal Singh

Physical Education & Sports in Indian society -A perspective

Dr. Ramesh J Chaudhari
Associate Professor
Smt A P Patel Arts & Late Shri N P Patel Commerce College,
Naroda,Ahmedabad.(Gujrat)

Introduction:Physical Education & Sports forms an important part of educational system even when it never received the importance it deserves. Even though it is included as part of the curriculum from the early stages of education, it has never been taken seriously by the educational administrators, the academicians and the students.

Physical Education is the only profession where you talk as well as play / perform. The concept of Physical Education in the mind of general public is big round, play & play and no work.

Abraham Lincoln quoted in one of his address, "Sportsman is the best Ambassador of the Nation." Hence, the Physical Education Director/Teacher can also be the best Ambassador of our Institution / University.

PHYSICAL EDUCATION DEFINED:

The problem of defining Physical Education is not only that the term is broad based and complex, including so many kinds of phenomena, but also it means different things to different people. Someone has suggested that Physical Education is whatever Physical Educators do.

J P Thomas sums up that Physical Education is education through physical activities for the development of total personality of the child and its fulfillment and perfection in body, mind and spirit.

Even though this definitions differ significantly with regards to emphasis on different aspects, they still have many common elements. Some of them may be noted as:

Physical Education is a phase of total Education process.It is sum of total experience and their related responses.Experience grown and responses developed out of participation in big muscular activities.

All-round development of individual' – physical, mental, social, moral is the real aim of Physical Education. It is the same as in General Education.

In the Indian context, Physical Education is perhaps the only aspect of education which has not been given due attention. That is due, most probably to the fact that we have remained satisfied with that the British have handed over to us, with no sincere efforts on our part to prepare any concrete and far-reaching programme for Physical Education specially suited to our conditions.

We have ever-stressed the academic aspects, the physical one being relatively untouched. This has resulted in an increasingly large number of Indians who are neglecting their bodies, to whom Physical Education is similar to physical training, whose physical fitness is not what it should be they are getting 'soft'. One of the main objectives of any Physical Education activity is to maintain and improve the health of the youngsters in our school and colleges. And the School has the responsibility to see that all students achieve and maintain optimum health, not only from a moral point of view, but from the standard point that educational experience will be much more meaningful if optimum health exists. A child learns easier and better when he is in a state of good health.

Even ones' values have much to do with health building and destroying activities. Unfortunately, a large number of people suffer from 'value illnesses', i.e. they know what they are supposed to do to keep well, yet they fail to do so. They know that tobacco smoking can cause death from Lung Cancer, even then they do not give up smoking. They understand how alcohol affects the driving ability, yet they drive in a state of drunkenness. They appreciate the role of regular exercise in weight control, yet they do little to alter their sedentary way of living.

Education and health & medical authorities have therefore, long recognized the need for a programme of director Physical Education activities in school curriculum. It is during the formative and rapidly growing period of elementary school-age that foundation of proper habits, attitudes and appreciations toward all physical activities, including play is laid and desirable citizenship traits acquired, so that in adulthood he will be equipped with the knowledge, sound thinking processes,

physical stamina and emotional maturity to live effectively in an ever-changing and highly complex society. In that respect, teachers bear a major responsibility in answering that challenge effectively. It is said, "An idle mind is the devil's workshop".

WHY STUDY PHYSICAL EDUCATION AND SPORTS?

To study Physical Education and sports is not merely to discuss performance, technique or records journalistic-ally but to look at some of the implicit assumptions held by the general population about Physical Education and Sports.

Despite the significance of sports, it has been primarily a vehicle of 'escape' more than an avenue of education. A sport has been viewed as a distraction from the trials of everyday life. Ask some friends why they are involved in sports. The response will probably have something to do with "fun" or "enjoyment".

Analysis :

Every College / University should have an Elective Subject of Physical Education, if not compulsory, where 60% stress should be given to theory and 40% to practical.

Another viewpoint is that all the first year students should undergo a minimum Physical Education programme like National Physical Fitness Test, otherwise they will not be given the degree.

We should have colleges of Physical Education with 4 to 5 years degree course, like Indian Institute of Physical Education and Sports Science (IIPESS).

Physical Education and Sports are seen not merely as a playground but also as a laboratory in which the theories of each discipline may be tested and/or as a phenomenon whose worthiness value, and effect on people and society must be continually scrutinized.

Suggestions & Recommendation:

Revision & Reconstruction of Physical Education syllabus in context with need of Society.

Periodical Refresher course for Physical Educational personnel by an unified agency.

Updating and Upgrading of the subject and related area in collaboration with top Educational & Physical Education bodies.

Strict implementation and follow-up of the prescribed Physical Education standard.

An honest and sincere appraisal system for total evaluation and feedback.

The academic study of Physical Education and Sports may be as stimulating and fun as experience as one's actual participation in sports. Once the rule, subject matter, and 'spirit' of both games are understood, they may be equally rewarding. General Education is for the masses, so also Physical Education. 'Recreation' is as important as 'reading', 'writing' and 'arithmetic', in the life of common man. Physical activities do the garb of 'Physical Education' when the focus is on the means used, namely, big muscles, 'Recreation' when the focus is on 'life is worth living' (joyful) attitude or use is leisure time.

Conclusions:

In our profession we should follow the concept of 3 'D' Discipline, Dedication & Determination. Young people are the real wealth of the nation. No programme is successful without the participation of youth. Therefore, to enable an individual to lead happy, enjoyable and healthy life as a member of society, he should regularly engage in games and sports and different exercise programmes to ensure development of Physical Fitness and learn skills in sports and games, which have a carryover value. Society on the other hand should provide enough opportunities to its members so that they may engage themselves in activities of their own choice and thus develop or maintain the level of

Physical Fitness.

Unless there is improvement in the 'General Standard of Health', excellence in sports cannot improve. Physical Education and Sports activities in educational institution should aim at 'Health Related' and 'Performance Related' areas so as to ensure 'enhancement of performance in competitive sports'.

Physical Education, thus consists in promoting a systematic all-round development of human body by scientific technique and thereby maintaining extraordinary Physical Fitness to achieve one's cherished goals in life. Hence any organization of Physical Education should start with developing a positive attitude and self-confidence among Physical Educators themselves and make them feel, Physical Education need not exist in the periphery of the schools / colleges, but should extend itself to the classrooms and become the focus or central point of Educational System.

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Competing Against Doping

Dr.Rajesh Kumar, Associate Professor, Dept. of Physical Education, OU.Hyd

Prof.Syed Ibrahim, Physical Education Dept. King Fahd University, Saudi Arabia

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

ABSTRACT

Sport is thought of as an activity that is governed by a set of rules and is engaged in competitively, while Doping is the idea of using banned natural or synthetic substance for the purpose of enhancing sports performance. Sports goes beyond a measure of athletic excellence and the winning of trophies, medals and cash awards has become a pride to the Nation and sports persons. Sports teaches us about honest endeavour, commitment and fair play. The use of performance enhancement drugs are very harmful to the body. Doping in sport is not a new phenomenon, athletes have taken performance enhancing agents since the beginning of time. The ancient Olympics in Greece were riddled with doping. In ancient Rome, gladiators drank herbal infusions to strength them before chariot races. The first doping death occurred in 1886 in cycling. In the early 1900 the popular doping agent was a cock tail of alcohol and strychnine. The use of performance enhancing drugs is a form of cheating, that is quite wide spread and common in sports. Performance enhancing drugs such can be stimulants, anabolic steroids, diuretics, beta blockers etc. are harmful to the health. In spite of harmful effects the sports persons are using drugs to become fame and rich in life. Performance enhancement may be attained fairly through good dietary nutrition and effective training and recovery programmes. Athletes require good dietary advice from early on their career to achieve high level sports performance. Sports must be doping free and performance must be achieved through scientific sports coaching. Sports and Games must be played in fair manner.

Key words:doping, gladiators, stimulants, anabolic steroids, beta-blockers

INTRODUCTION:

Sport is thought of as an activity that is governed by a set of rules and is engaged in competitively. While Doping is the idea of using banned natural or synthetic substance for the purpose of enhancing performance in sports. The use of performance enhancing drugs is a form of cheating that is quite wide spread and common in todays modern sports. Doping in sports refers to the use of prohibited substances that may give an athlete an artificially improvement in their natural ability over other competitors. The fundamental principles of fair play and sporting ethics are violated. High skilled athletes are not rewarded for hard work but instead those associated with banned substances are recognized for their achievements.

Doping in sport is not a new phenomenon. In Ancient Rome gladiators drinks herbal infusions to strengthen them before chariot races and going into battle. Almost two millennia later the first documented report in the medical literature was published in 1865 in the British Medical Journal citing expulsion of a swimmer from a Amsterdam canal race, for taking a unnamed performance enhancing drugs. The first doping death occurred in 1886 in cycling.

Doping in sport will always raise concern, as it is the integrity of the competition being questioned. As long as the importance and rewards of athletic excellence become greater there is an irresistible urge for athletes to resort to drugs to gain an edge. Amateur Athletes have the opportunity to receive college scholarships and elite athletes can earn tens of millions of dollars and many more through prize money and commercial endorsements. The lure to success is great and the temptation to gain any advantage will increasingly linger.

The need for education

Performance enhancement may be attained fairly through good dietary nutrition and effective training and recovery programs. The role of protein is often overestimated. Fatigue is often due to either dehydration or depletion of carbohydrate stores or both. The role of carbohydrate and fluid intake has been overlooked. A rich carbohydrate diet after each exercise session will promote endurance and recovery. Athletes require good dietary advice from early on in their career and this should be part of undergraduate sports curricula; coaches require a parallel education in dietetics. Athletes suffer the same cross-section of chronic diseases e.g. asthma, diabetes and common ailments e.g. headache, cold, 'flu, hay-fever, as the general population and so a balance is needed to have a range of medicines that may be used for treatment of all conditions while maintaining a level playing field. All athletes are aware of the risks of taking medicines near or during competition and for their own benefit should always ensure that the medicines they are taking are permitted by their governing body, as regulations may vary from sport to sport.

DISCUSSION:

In the early 1900s, the most popular doping agent was a cocktail of alcohol and strychnine. The use of strychnine was superseded by amphetamine, following its development in the 1930s. In 1960, the Danish cyclist, Kurt Jensen, died after overdosing on amphetamine in an attempt to seek competitive advantage and the search for control measures began. Methods of anti-doping control were first pioneered in the 1960s, by Arnold Beckett, an academic pharmacist with a specialist interest in sports pharmacy, based at Kings College London (formerly Chelsea College). It was however the televised death of the British cyclist Tommy Simpson, while under the influence of amphetamine during the 1967 Tour de France, that proved the catalyst for implementation of official anti-doping control systems and the banning of amphetamine in international sport. Cycling has long since been a harbinger for systematic doping and as one top cyclist explained "it is impossible to finish in the top five of a Tour de France without doping". In 1968, the International Olympic Committee (IOC) published the first banned list of drugs and implemented the first formal drug testing programme at the Montreal Olympics.

In the last three decades a number of names have joined the cheaters' hall of fame including Ben Johnson (stanozolol), Dan Mitchell (testosterone), Lindford Christie (nandrolone), Olga Yegorova (erythropoietin) and Andrea Raducan (pseudoephedrine), to name a few. Johnson was abusing stanozolol and other agents for years with the help of fringe practitioners, before testing positive at the Seoul Olympics in 1988. In the UK, many were shocked by the Lindford Christie saga, however he first tested positive in 1988, at the start of his career, for the banned stimulant pseudoephedrine; not surprisingly he has now lost the contract for whiter than white whites

The pharmacy department at Kings College remains a focus for drug testing and now houses one of the world's leading drug testing laboratories, headed by Professor David Cowan, it is the only IOC accredited anti-doping control laboratory in the UK, and it is to this laboratory all Irish urine samples are sent for analysis.

It is not just athletes who are involved in the doping games, however, Coaches, managers, team doctors and fringe practitioners have all been implicated. Eric Ryckaert, medical officer of the Festina cycling team, was prosecuted for possession of erythropoietin in 1999. The Australian swimming team coach for the 2000 Sydney Olympics, Gennadi Touretski was found in possession of stanozolol; interestingly this discovery was made following the arrest of two heroin addicts who burgled his home. But perhaps the most sinister of all, is the publication last year of the book "Faust's Gold" which takes an in-depth look at the systematic doping machine implemented by the German Democratic Republic (GDR) in the 1970s. The GDR regime involved the state, sports federation officials, coaches and sports physicians and activities were encouraged by the secret police. Many of the athletes were given performance enhancing agents without their knowledge. However, it is not only the East Germans who were involved in such dubious practices. The US cycling team bought into the practice of blood doping and during the 1984 Los Angeles (LA) games, a professor of medicine, no less, supervised the transfusion of non cross-matched blood from families of cyclists in an LA hotel room, hardly an aseptic environment. In the same games, 86 athletes tested positive for anabolic steroids; interestingly 9 of these positive test results disappeared from the laboratory.

Doping and detriment to health:Doping not only contravenes the spirit of fair competition, it can be seriously detrimental to health. Elite athletes who turn to doping take the greatest risks which seem to pale in contrast to their burning desire for gold. Anabolic steroids affect cardiovascular and mental health and are associated with an increased risk of neoplasm's. Dietary supplements containing ephedrine alkaloids' have been linked to serious health risks including hypertension, tachycardia, stroke, seizures and death. This finding has led to the recall of ephedrine containing supplements in the USA and Canada. Deaths under the influence of drugs and combinations thereof are not uncommon in sports. The peptide hormones or so called "sports-designer drugs" are thought to be the most dangerous, although the combination of amphetamines, anabolic steroids or antihypertensive combined with intense exertion in athletes are just as hazardous. America's dream girl Florence Griffith Joyner. "Flo-Jo", and the Cuban runner Chelimo both died from cardiovascular events at 38 years of age. Natural causes or doping? We will never know. President Bill Clinton said of Flo-Jo "we were dazzled by her speed, humbled by her talent and captivated by her style".

How to athletes obtain banned drugs?

Athletes may obtain banned medicines from physicians, pharmacists, retail outlets, health and lifestyle magazines, gymnasiums, coaches, family members, fellow athletes, the internet and the black market. Banned drugs, including anabolic steroids, are widely advertised in lifestyle magazines and gymnasiums and there are no controls on mail order and internet sales.

Types of Doping.

Doping can be split up into physical methods, such as blood doping and the use of performanceenhancing drugs

Performance enhancing drugs can be categorized into the following types;

1. Anabolic Androgenic Steroids
2. Stimulants
3. Diuretic
4. Blood doping
5. Beta Blockers

Effects of Doping:

1. In Males testicular atrophy, breast enlargement, reduction of sperm production, premature baldness.
2. In females masculinization, excessive hair growth on face and body, deepening of voice, abnormal menstrual cycle, reduced breast size.
3. Increase Heart Rate, Blood Pressure, palpitation, Cardiac irregularities.
4. Loss of Balance and co-ordination.
5. Increase the risk of heart attacks.

RECOMMENDATIONS:

1. Scientific Coaching must be given to Sports Persons to achieve the high level performance.
2. The good diet and recovery will be given to Sports Persons.
3. Education of Doping must be given to the sports persons.
4. The rules of World Anti Doping Agency must be followed for Coaching by Coaches.
5. An effective anti doping program must incorporate educational components in addition to testing. Education needs to be collaborative and pro active and include athletes, coaches, managers, governing bodies and health care professionals.

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