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Email:rajesh2sports@yahoo.co.in

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Health and Nutrition Status of Kolam Tribal Children in Adilabad District of Andhra Pradesh

Srinivas. Akula
Principal
Janardhan Reddy College of Education.
Huzurabad. Dist. Karimnagar. (A. P)

Abstract
Adilabad is homeland of different tribal races that includes Gond, Thoti, Pradhan, Raj Gond, Addi, Sugali, Naikpod, Andh, Bagata and Kolam. Among these tribal communities the Kolam tribe is more sensitive to health and nutrition, health issues because of their diet, dependence on indigenous and forest produce. Prevalence of hunger and malnutrition among the children between age group four to ten is very high because of poor economical family background, unavailable of food grains and lack of transportation, due to their habitats at deep forest and hill track areas. The children's health and nutrition is a sensitive core issues for these neglected aborigine population segment. The seriousness of this issue and their shrinking health condition as per 2001 census motivated us to do this work and the study was conducted during 2011-2012 in the forest belt of thiriani, Kerimery, Wankidi, jionoor and sirpur (U). Talukas about 500 subjects. The main objectives of this work are to identify nutritional status of the Kolam tribal school children (from 3rd class to 5th class) who have high malnutrition rate. The study was conducted in 50 villages and hamlets in four talukas. The study includes 500 children aged between eight years to twelve years. A simple survey instrument was used for collecting information regarding their diet, height, weight and age anthropometric test. Information was recorded fortnightly during all three seasons. The study shows that health and nutrition status of tribal children is very poor, it may be due to lack of nutritional diet and non-availability of health services and it was worst in remote inaccessible areas.

Introduction
Health and nutritional status are two crucial interlinked aspects of human development, which in turn interact with demographic variables in important ways. Malnutrition (a condition that occurs due to the intake of inadequate amount of nutrients leading to insufficient nourishment) continues to be a problem of considerable magnitude in most of the developing countries of the world. (Subal Das 2011).Malnutrition is a prevalent issue in all developing countries (Black et al 2003 and UNICEF1993). In India this is further aggressive and critical because of 8% ethnic share in 70% of rural population as reported by NNMB (1978) taking unbalanced diet because of poverty stress. The 18% of Indian population constitutes 170 million children below age six years (Rao et al 2005) and one third of this bulk is malnourished. India has a high infant mortality rate of 90 per 1000 children. The IMR shows increasing trend in tribal dominant states.The main health problems of the tribal areas according to studies are due to poverty, illiteracy, malnutrition, absence of safety drinking water and unhygienic living surroundings. Poor maternal and child health services and ineffective coverage of national health and nutritional services have been traced out in several studies as possible contributory factors to dismal health conditions prevailing among the tribal population in India.

Material and Methods
This was community based study covering the survey of 50 villages and hamlets having strong tribal base. These villages and hamlets are located at deep forest and hill track areas in Adilabad district.
The district of Adilabad is the symbol of tribe in Andhra Pradesh. Once upon a time the Gond kings ruled this area and hence the area was and is known as Gond Rajyam. The Adilabad district was named after the ruler of Bijapur Sultan, Ali Adil Shah. The district was, for long, not a homogeneous unit and its component parts were ruled at different periods by dynasties namely, the Mauryas, Satavahanas, Vakatakas, Chalukyas of Badami, Chalukyas of Kalyani, Mughals, Bhosle Rajas of Nagpur and Asaf Jahis, besides the Gond Rajas of Sirpur and Chanda. Originally this was a sub-district named Sirpur-Tandur which was created in A.D. 1872 with Edilabad (Adilabad), Rajura and Sirpur as its constituent talukas. In 1905, an independent district with headquarters at Adilabad was formed.

Table 01: Composition of the Sample

S.No.	Kerameri	Tiryani	Wankidi	Jinoor	Sirpur(U)	Total
Children	95	115	98	92	100	500
Schools	(10.P.S)	(12.P.S)	(9.P.S)	(8.P.S)	(11.P.S)	50

Source (ITDA Utnoor, Adilabad district- statistics-2009) (P. S. Primary School)

An important note in the context of the sample selection of this study is that all the schools and villages selected for the present study are from hill track and deep forest areas which are very remote and not well connected with the sub-plane and plane areas of the Adilabad district. The study had a discussion with the I T D A officials identified truly agency areas that are far off from the mainland and other rural areas. These are the areas which are labeled as 'isolated from the mainstream. People in these areas still live in proximity with the nature and their subsistence is mostly based on forest and primitive agriculture. (And one more interesting issue is that even today these areas do not have minimum facilities like transportation, electricity, availability of food grains, health care facility, advisable school environment and drinking water facility etc). Therefore, the study keeping this purpose selected these remote mandals of Adilabad district as target sample by purposive sampling technique. *The researcher along with purposive sampling technique and also adopted simple random sampling technique.* Purposive Sampling Technique was adopted to select Mandals,
Simple random sampling technique was adopted to select schools, students,
Parents and teachers.

Tools of the Study

This study used three (3) different tools to collect the required data from different respondents and adopted tools developed by National Institute of Nutrition (NIN) and Indian Institute of Health and Family Welfare (IIHFW) Hyderabad, the same tools are modified and standardized by three eminent educationalists (Prof. B. Ramesh Babu(RIE-BOPAL-NCERT), Dr. G. Upendar(SCERT-HYD) and Prof. V. Sudhakar. (University of EFLU-HYD) as need to the present study. Anthropometric test for assessment of nutritional status,Quasi clinical test for assessment of health status,Interview schedule to know the food and dietary habits,

Results and discussion:

In order to understand the nutritional status of Kolam tribal school children this study measured their weight and height, than Body Mass Index (BMI) was calculated by taking age into consideration. The BMI is the most commonly used index. It is the best indicator, provided it is interpreted cautiously otherwise a "normal" individual may be classified as malnourished which is an underlying danger. The same is true for other indices too. The calculated BMI was interpreted by taking all the measurements, as per the guidelines of World Health Organization (WHO, 1995). For the purpose of analysis of the data children were classified into three age groups (9+, 10+ and 11+ years) and the data is analyzed and presented below. Nutritional status or BMI of children is constructed in terms of thinness, normal and overweight.

Table: 02, Nutritional status of children of Kolam tribal primary school.

Body Mass Index (BMI) of tribal school children				
Age Group	Thinness	Normal	Overweight.	Total
9+ years	81	43	2	126
	64.2%	34.2%	1.5%	100%
	26%	23%	33.3%	25.%
10+ years	173	110	1	284
	60.9%	38.7%	0.35%	100%
	56%	58.80%	16.6%	56.8%
11+ years	53	34	3	90
	58.8%	37.7%	3.3%	100%
	18%	18%	50%	18%
Total	307	187	6	500
	61.4%	37.4%	1.2%	100%
	100%	100%	100%	100%

Table 02 shows that the nutritional status of the Kolam tribal school children. Out of 500 children, 187 (37.4%) is normal, 307 (61.4%) children found to be thinness and only 6 (1.2%) children found under category of overweight. Nearly sixty percent of children are under malnutrition. Among these three age group children, the 10+ age group children's nutritional status is not good.

It may be due to poverty, unavailability of food grains and children do not have consciousness towards food. The growth and development of children of this age group is very rapid. So, these age group children required nutritious food because this is the age group which promotes to teen age. In this age, boys and girls are enter into the age of puberty. Good nutrition helps in physical and mental development, lack of which leads to malnutrition, thinness that hampers the learning abilities also. It is supported by the study of "David Diaz (2001)" that "*Physical and mental fatigue, poor attention in the classroom, lack of concentration are seen in undernourished children of this age group".(page.132).*

Table: 03, Health status of Kolam tribal school children.

Health status of Kolam tribal school children.					
Health status	Normal	Mild	Moderate	Sever	Total
1. Fissures on Tongue	72	170	211	47	500
	14.4%	34%	42.2%	9.4%	100%
2. Fissures on Lips	32	178	206	84	500
	6.4%	35.6%	41.2%	16.8%	100%
3. Skin Rashes	16	59	254	171	500
	3.2%	11.8%	50.8 %	34.2%	100%
4. Skin Scratches	27	89	231	153	500
	5.4%	17.8%	46.2%	30.6%	100%
5. Running nose	85	92	218	105	500
	17%	18.4%	43.6%	21%	100%
6. Diarrhea	114	153	167	66	500
	22.8%	30.6%	33.4%	13.2%	100%
7. Hair Discoulored	129	196	84	91	500
	25.8%	39.2%	16.8%	18.2%	100%
8. Dental Caries	93	168	134	105	500
	18.6%	33.6%	26.8%	21%	100%

Health is a basic requirement, not only for the fulfillment of human aspirations, but also for the enjoyment of all mankind a better quality of life. It is also indispensable for a balanced development of the individual within the family and as a part of the community and the nation (Mahler, 1980). The present study reveals that nearly eighty percent of the Kolam tribal school children are suffering from common health problems like skin, fissures on tongue and lips, diarrhea and running nose, which are preventable diseases and water caused health problems.

Table 4: Food Items Consumed by Kolam Tribe in a week

Food habits of Kolam tribal school children						
Food Items	Once	Twice	Thrice	Rare	More than Thrice	Total
Vegetables	243 48.6%	92 18.4%	30 6%	47 9.4%	Nil	500
Eggs	68 13.6%	Nil	Nil	432 86.4%	Nil	500
Non-vegetarian	62 12.4%	47 9.4%	38 7.6%	353 70.6%	Nil	500
Milk	46 9.2%	Nil	Nil	454 90.8%	Nil	500
Leafy vegetables	252 50.4%	86 17.2%	Nil	162 32.4%	Nil	500
Sweets	26 5.2%	Nil	Nil	474 94.8%	Nil	500
Honey	114 22.8%	Nil	Nil	386 77.2%	Nil	500
Cereals	38 7.6%	124 24.8%	87 17.4%	Nil	251 50.2%	500
Pulses	Nil	Nil	258 51.6%	Nil	242 48.4%	500

The above table shows that the dietary habits of Kolam tribal school children. More than fifty percentages of children have been consuming the pulses and chili paste in their regular diet even in the breakfast, because, which ingredients are their indigenous products.Regarding non-vegetarian – these Kolam tribal communities are habitat at deep forest, so, they easy to get forest animal flesh without cost, The common food culture of this community is broken rice, maize rice, maize chapatti, pulses, tama
rind juice and chili paste.

Findings, suggestions and conclusion.:

Health and culture-including the traditional belief in the super natural powers.

Health, food habits and environment- covering the sanitation, water supply, settlement pattern, the total physical environment affecting health and food during socio-religious occasions andMedicine, health and community-the traditional health practitioners, their position in the society, concept and treatment of diseases, nature and use of medicine-traditional and modern.The prevalence of morbidity status among the tribal school children of Kolam community is very high in Adilabad district. Morbidity is a state of disease. The present study reveals the morbidity status of tribal school children. Table 03 indicates the health status of 500 children of kolam during preceding three months, Fissures on Lips, Fissures on Tongue, Skin Rashes, Skin Scratches, Running nose and Diarrhea diseases were affected to more then eighty six percent of Kolam tribal community children. Which diseases are preventable but, no more preventions are not taking at place and it prevailing to other children and entire community Though the government has been taking different health schemes and policies to reduce the morbidity status in the tribal community, still disease burden is increasing resulting in to negative. .

Suggestions:

To train literate tribal youth as volunteers within a short time to detect cases of common health problems in a tribal area. To provide mobile health facilities and it should be reached every root corner of forest tribal communities.To provide transport facility to each tribal community and provide all kinds of food grains and to develop awareness among tribal parents regarding their children's health and nutritional.

Conclusion.

Health and Nutritional Status of tribal children in interior inaccessible regions of Adilabad District is very poor due to lack of nutritional awareness and non availability of health services. The Government or any other organisations immediately should take initiation to provide safety drinking water and facilitate medical services to their residence through mobile medical services.

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Psychological Strategies For Faster Injury Recovery

Dr. ABEDNIGO SUNIL
Physical Education Director
UNION CHRISTIAN COLLEGE
TUMKUR-572 106
KARNATAKA - INDIA
E-mail : sun2sunil@yahoo.com

INTRODUCTION

Sports Injury recovery generally focuses on physical rehabilitation, but using a few sports psychology skills and techniques may actually help an athlete recover faster as they learn to use such setbacks to become a more confident and resilient athlete.Athletes react to injuries with a wide range of emotions which may include denial, anger, sadness and even depression. An injury often seems unfair to anyone who has been physically active and otherwise healthy. Although these feelings are real, it's important to move beyond the negative and find more positive strategies to cope with this setback. In many cases dealing gracefully with an injury helps an athlete become a more focused, flexible, and resilient athlete. Here are some sports psychology strategies that can be used for faster injury recovery.

LEARN ABOUT INJURY

Learning about the cause, treatment and prevention of injury will help in recovery. Not fully understanding an injury can cause fear or anxiety.

The following questions to the doctor, trainer, coach or therapist may help to know exactly what can be done to heal quickly and fully.

What is the diagnosis (what type of injury)
How long will recovery take
What is the purpose of the treatments
What is expected during rehabilitation
What are the alternative workouts
What are the warning signs that the injury getting worse

By understanding the injury and knowing what to expect during the rehabilitation process, it will maker feel less anxiety and a greater sense of control. The following are some of the psychological strategies for faster injury recovery.

Accept the Responsibility for the Injury: This is not to say that the injury is your fault. This means is that you accept that now you have an injury and you are the only one that can fully determine your outcome. By taking responsibility for your recover process, you will find a greater sense of control and will quickly progress in recovery, rather than dwelling on the past or blaming the injury on an outside factor.

Maintain a Positive Attitude: To heal quickly you need to be committed to overcome the injury by showing the up for your treatments, working hard, and listening and doing what your doctor or the trainer recommend. There is need to monitor what you are thinking and saying to yourself regarding the injury and the rehab process. Your self-talk is important. Are your thoughts negative and self defeating? To get the most out of your daily rehab, you need to work hard and maintain a positive attitude. Remain focused on what you need to do.

Use the Mind to Heal the Injury: It may be possible to speed up the healing process by using specific metal skills and techniques such as imagery and self-hypnosis. Imagery techniques use all of the senses to create mental images, feelings and sensations related to a desired outcome as though it is happening now or has already happened. Healing from sports injury take some time. Healing time varies from person to person and one can not force it to happen.

Get Support: A common response after an injury is to isolate yourself from teammates, coaches, and friends. It is important to maintain contact with others as you recover from injury. Your teammates, friends and coach can listen when you need to vent some anger, or can offer advice or encouragement during the rehab process. Just knowing you don't have to face the injury alone can also be a tremendous comfort. Be visible by being an active member of the group.

Set Appropriate Goals: Just because of the injury it doesn't mean to stop planning or setting goals, rather than viewing the injury as a crisis, make it another training challenge. The goals will now focus on recovery rather than performance. This will help keep motivated. By monitoring the goals one can be able to notice small improvements in the rehab of the injury. This will feel more confident that you are getting better and improving. Remember to work closely with the therapist or doctor. They can help to set realistic goals that are in line with each stage of the rehab. Most athletes have a tendency to try to speed-up the recovery by doing too much too soon.

Maintain the Fitness While Injured: Depending upon the type of injury it is possible to modify the training or add alternate forms of training to maintain cardiovascular conditioning or strength. Work with the trainer, therapist or physician to establish a good alternative workout program. Work on relaxation training and flexibility. Create a modified strength training program, do a limited amount of exercise to maintain cardiovascular fitness or focus on better nutritional health.

With the right knowledge, support and patience an injury can be overcome without turning the whole world upside down. By taking things slow, setting realistic goals and maintaining a positive, focused approach most athletes can overcome minor injuries quickly and major injuries in time. Make sure to see a doctor for a proper diagnosis and treatment plan for any injury.

CONCLUSION

Healing time for any injury can be longer if one return to activity too soon. Never exercise the injured part if it pain during the rest. When the injured part no longer hurts at rest, start exercising it slowly with simple range of motion exercise. If pain occurs stop and rest. Return to activity at a very low intensity, and build up to the previous level. Increase intensity of exercise only when one can do so without pain.

The injured part is now more susceptible to re-injury and should pay close attention to any warning signs of over doing it. Soreness, aches and tension must be acknowledged or it may end up with an even more serious injury.

The psychological impact of injury can affect an athlete long after the body has successfully healed. For this reason the role of a trainer or coach is particularly important in the progression from the rehabilitation to full completion. Both the performance and self-confidence of the athlete will likely be lower than pre-injury and this can be tackled by implementing a steady process of goal-setting and achievements to build both factors. On occasions, the circumstances surrounding the initial injury might cause negative memories and expectations that need to be worked through with a sport psychologist.

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Prevention techniques of sports injuries

Dr.R.M.Hiremath
Asst.Prof.In Physical Education
Basaveshwar Science College
At Post Bagalkot – 587101.
Dist-Bagalkot State Karnataka

Introduction: In modern days with the great increase in leisure time and increasing sports activity by all members of the community, sports related injuries are becoming more frequent.
As you begin to exert the body in new ways, the risk of injuries increases. All though there is no guaranteed method to keep the injuries free, there are precautions that we can take to minimize the risks. Any sports men, even the most highly trained athlete, can sustain an injury on any given day, seemingly without explanation. However the athlete take the time to learn about the own body and train it well. Athlete is much less likely to be thwarted by aches, pains, strains and sprains. Choosing a sports or activity that suits the body type and build helps to prevent injury
Men and women are equally vulnerable to sports injuries these injuries usually but not always, reflect the natural tendency of men to be stronger, especially in the upper body, and for women to have greater flexibility. This is not say, of course, that the men cannot be flexible and graceful, or that women can not develop great strength. However, it is by understanding these characteristics and by evaluating the own strength and weaknesses hat you can guard against problems.

The factors that you should consider to prevent injuries stretching and strengthening, training and caching and equipment and facilities. The most common injuries sustained by both men and women during the exercise and ports activities are mention below

1.Rotator cuff tendonitis(shoulders)
Irritation of the muscles and tendons that hold the ball and socket of the shoulder joint.
Causes
Strain from un usual use or over use of arm in an overhead position.
Direct blow or injury to muscles and tendons in the shoulder.
Infection introduced though broken skin at the time of injury.
Symptoms:
Constant pin or pain with movement of the shoulder.Limited movement of the shoulder.A cracking sound when the tendon moves.Redness and tendon over the injured tendon.
Preventive techniques:
Engage vigorous physical conditioning exercise before beginning regular sports activities.Warm up adequately before practice or competition.Wear protective shoulder pads, if you need. Learn proper moves and techniques for the sports.
Treatment:
Consult a doctor immediately if you sustain a serious injury, milder injuries might heal by themselves through treatment.Immediate treatment for injuries should fallow the acronym RICE.Use a sling to rest the shoulder. (If need painkillers).Apply heat frequently. Use heat lamps, hot soaks, hot showers, heating pads and informatory ointments.Take whirlpool treatment, if available.

Training:
General fitness routine.
2. Tennis elbow :(elbow tendibitis or epoicondylitis)
Inflammation of muscles, tendons or covering to bones (periosteum) at the elbow.

Causes:
Classic over use.Partial tear of the tendon and attached covering of the bone caused by.Chronic stress on the tissues that attach the forearm muscles to the elbow area.Sudden stress on the tissues that attach the forearm muscles to the elbow area.Sudden stress on the forearm.Can be caused by too heavy or incorrect grip.incorrect hitting position (technical fault).use oversize gripUnsustainable equipment.

Symptoms:
Locking the elbow during your swing.Radiating pain slightly below the elbow.Weak grip.
Pain when twisting the hand.Pushing wall or using screwdriver.Excessive strain on the forearm.
Preventive techniques:
Do not play sports, such as tennis for long period until your four arm muscles are strong.
Take frequent rest period.Do forearm conditioning exercises to build the strength gradually.
Warm up slowly and completely before participating in sports. Especially before competition.
Use a tennis elbow strap when your resume normal activity after treatment.
Treatment:
Self care after diagnosis.Doctor's treatment.Physical therapy.Surgery (rare).Use heat to relieve pain, use warm soaks, heating pad, heat lamp, and receive diathermy or ultrasound.You may use to wear forearm splint to immobilize the elbow.Regesting exercises.Deep friction massage.
Training:
Supporting wrist curls, general fitness programmed.

3. Shin splints :(shin bone right and left side)
An aching pain on the front of the lower leg, often caused by improper stretching of calf muscles, incorrect execution of movement. it on the right side and left side of the shin bone.
Causes:
Strain from the unusual use (movement) direct below, inadequate shoe, over use of lower leg, poor surface, inflection introduced through broken skin at the time of the impact of injury. Improper stretching of calf muscles in incorrect execution of movement.

Symptoms:
Contrast pain.Pain with movement.Limited movement of the lower leg.
Preventive techniques:
Learn proper moves and techniques for your sport.Proper shoes.Proper surface.Adequate warming up before practice or competition.
Treatment:
Self care during recovery.Apply heat frequently, use heat lamp (infra red lamp), hot soaks, hot showers heating pads, and ointments.
Wear protective strapping or adhesive bandages or shin guard.
Training:
Avoid running for 5 to 6 weeks, then short stride pattern and correct foot placement of you run.

Conclusion:

Based on the problems in the activities are concerned.
Rest in injured area.
Ice the injured area with ice in a towel to prevent swelling.
Compress the injured area if possible with a towel or bandage to prevent swelling.
Elevate the injured area above the level of the heart to help drain fluid that might collect.
When the pain subsides, try working gradually and gently back into activity.

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Effect of Specific Exercise Programme on Dribbling Skills of Intellectually Disabled Male Soccer Players

Dr. G. K. Dhokrat Associate Professor
BPCA, Wadala, Mumbai

Abstract

The present study was planned to find out the effect of eight weeks specific exercise training programme on dribbling skills of intellectually disabled soccer players. To conduct the study 40 intellectually disabled male soccer players (Ave. age 16.22 yrs.) from special schools in Mumbai were selected as sample. Out of these 40 selected subjects, 20 subjects were randomly put into a control group while remaining 20 subjects constitutes an experimental group for the study. Pre-post test design was used to assess the influence of eight weeks programme on selected soccer skill. Experimental group received eight weeks specific exercise training programme, while the control group did not receive any specific exercise training programme. Dribbling skills of the selected subjects was assessed by Football Team Assessment Skill prior to the commencement of the study and after eight weeks of study period. Results reveal that dribbling skills of intellectually disabled soccer players from experimental group have increased significantly after eight weeks of specific exercise training programme while no significant change was observed in dribbling skills of intellectually disabled soccer players after eight weeks of study period. It was concluded that dribbling skills of intellectually disabled soccer players can be improved by specifically designed exercise programme.

INTRODUCTION :

Disability exists in four categories: physical, mental, permanent and temporary. Sport for persons with intellectual disabilities began to be organized in the 1960s Intellectual disability is a behavior, which covers many everyday social and practical skills. This disability disability characterized by significant limitations both in intellectual functioning and in adaptive originates before the age of 18. Intellectual disability is a condition of arrested or incomplete development of the mind characterized by impairment of skills and overall intelligence in areas such as cognition, language, and motor and social abilities (WHO).

Disabled sports also adaptive sports, are sports played by persons with a disability, including physical and intellectual disabilities. through the Special Olympics movement.

Whether like a normal athlete, sports performance of an intellectually disabled athlete be enhanced? This question is not answered scientifically in sporting parlance. It is a well known fact that athletic performance may be improved by scientific training of mental, physical and skill related aspects of the game.

So it is interesting to know the effect of physical or exercise related training on skill related aspect of sports performance. The present study is an attempt in the same direction. In the present study, effect of eight weeks specific exercise training programme of dribbling skills of intellectually disabled soccer players were ascertained.

Although Zarandi, H. P. (2011), Oshiko Takeda, Hinger, A., Mittal, U., Rowney, J. and Saxena, T. (2006), Dalal, A.K. (2006), Yoshiyuki kuroiwa (2005), Manickarj, S. and Karunanidhi, S. (1992) have worked on psychological, social, cognitive aspects of handicapped people but so far effect of specific exercise training programme on soccer skills of intellectually disabled players has not been ascertained. So considering the dearth of studies, the researcher decided to assess the effect of eight weeks specific exercise training programme on dribbling skills of intellectually disabled male soccer players.

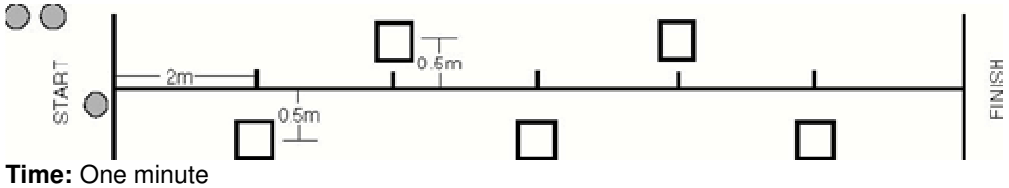
HYPOTHESIS :

It was hypothesized that eight weeks of exercise training programme will improve the dribbling skills of intellectually disabled soccer players.

METHOD AND MATERIAL :
To test the abovementioned hypothesis, following methodological steps were taken.

Sample :
To conduct the study, 40 intellectually disabled male soccer players (Ave. age 16.22 yrs.) from special schools in Mumbai. The selected subjects took part in specially organized soccer tournaments for intellectually disabled population. Out of these 40 selected subjects, 20 subjects were randomly put into a control group while remaining 20 subjects constitutes an experimental group for the study.

Tools :
Football (soccer) team skills assessment test was used to assess the dribbling skills of the intellectually disables soccer players.
The description of the test is as follows :
12-meter dribbling slalom: five cones (minimum 18 inches high), 2 meters apart, staggered 0.5 meters from central line. Three to five balls at the start line.



Time: One minute
Player dribbles through slalom as quickly as possible, rounding all cones. Player leaves ball over the finish line (ball must be stopped) and sprints back to the start. If there is time remaining, player starts with the second ball and repeats. Player continues to repeat until one minute has elapsed. A whistle will be blown when one minute has elapsed to signify the end of the test.
Player scores five points for each cone passed (to the outside) (i.e., 25 points per successful run). Cones that are knocked down do not count.
The Specific Exercise Training Programme :
The experimental group underwent daily specific training (stretching, repeat sprint, leg swing with trunk twist, one leg hopping, squat jump with the ball, wall ball) as per the planning for Four days a week. The 60 minute specific exercise training programme consist of warm up (10 minutes), specific exercise (40 minutes) and limbering down (10 minutes).

Procedure :
- To conduct the study, 40 selected intellectually disabled male soccer players were assigned into control and experimental group.
- Each group consists of equal number of subjects i.e. 20.
- Dribbling skill test was administered to each subject prior to the commencement of the study period.
- The subjects belonging to experimental group were put under eight week's specific exercise training programme.
- The subjects of control group did not receive any such programme.
- After the completion of eight weeks, dribbling skills test was again administered to each subject.
- Pre and pos test scores on dribbling skill was recorded for each subject belonging to control and experimental group.
- Paired sample't' test was used to compare pre and post test dribbling scores of the selected subjects.
- To find out the efficacy of the eight weeks training programme on dribbling skills, gain score (Post test – Pre test) was used to compare the data between control and experimental group.

Analysis of Data
The results are presented in table 1, 2 and 3 respectively.

Table 1
Comparison of pre-post test scores on Dribbling Skills of Intellectually Disable Soccer Players belonging to Control Group

Groups	Mean	S.D.	't'
Pre-test (N=20)	32.50	8.66	0.78 (NS)
Post-test (N=20)	31.50	6.09	

NS – Not Significant

A perusal of entries reported in table 1 indicate that the dribbling skills of intellectually disabled soccer players of control group did not change much after eight weeks of study period. The reported t=0.78 (p>.05) also shows that the pre and post test dribbling scores of intellectual disabled soccer players of control group did not change significantly during the study period.

Table 2

Comparison of pre-post test scores on Dribbling Skills of Intellectually Disable Soccer Players belonging to Experimental Group

Groups	Mean	S.D.	't'
Pre-test (N=20)	31.00	9.54	2.35*
Post-test (N=20)	34.00	8.36	

* Significant at .05 level

A perusal of entries reported in table 1 reveals a positive impact of eight weeks specific exercise training programme upon the dribbling skills of intellectually disabled soccer players belonging to soccer players. The reported t=2.35 also shows that post test dribbling scores of intellectually disabled soccer players were significantly better than their pre test dribbling scores at .05 level of significance.To find out the efficacy of eight weeks specific training programme upon dribbling skills, gain score (Post test – Pre test) was calculated for control and experimental group and compared with the help of the independent sample 't' test.

Table 3

Comparison of gain score on scores of dribbling skills between experimental control group

	Gain Score		
Groups	Mean	S.D.	't'
Experimental Group (N=20)	-1.00	5.75	2.21*
Control Group (N=20)	3.00	5.71	

* Significant at .05 level

A mean gain of +3.00 is observed in dribbling skill scores of intellectually disabled soccer players of experimental group who underwent eight weeks specific exercise training programme while a mean gain of -1.00 in dribbling skill scores was recorded for control group. The reported t=2.21 which is statistically significant at .05 level also indicate that mean gain in dribbling skills of intellectually disabled soccer players belonging to experimental group is significantly higher as compared to subjects of control group.

Results

1. No statistically significant change was observed in pre-post test dribbling test scores of intellectually disable soccer players belonging to control group.
2. The post test dribbling test scores of intellectually disabled soccer players have shown significant improvement after eight weeks training programmes as compared to their pre test scores.

Discussion

The effect of eight weeks specific training programmes schedule have shown positive impact upon the dribbling skills of the intellectually disabled soccer players. Machek et al. (2010) in their study found that supervised resistance program increases the flexibility and strength of athletes with intellectual disability. It shows the importance of well designed physical exercise programme in improving the motor ability of intellectually disabled athletes which in turn enhance the dribbling skills because the nature of this skill requires speed, stamina and flexibility to complete the course.

Conclusion

Hence, on the basis of findings and associated discussion it can be concluded that specially designed exercise training programme of short duration is beneficial in improving the basic soccer skills i.e. dribbling of the intellectually disabled soccer players.

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Influence Of Video Analysis On The Selected Skill Performance Variables Of School Level Badminton Players

M.Srinivasan, Assistant Professor, Faculty of General & Adapted Physical Education and Yoga, Ramakrishna Mission Vivekananda University, Coimbatore.
Bholanath Barman, Director of Physical Education, Boxirhut College, Cooch, Behar.

ABSTRACT

The purpose of the study was to find out the influence of video analysis on the selected skill performance variables of school level badminton players. For this study twelve school level male badminton players were randomly selected from Ramakrishna Mission Sports Academy Coimbatore, Tamil Nadu. They belonged to the age group of 11 to 17 years. The subjects were tested to find out short serve and long serve. The selected twelve badminton players were under gone the video analysis through Sports motion cameras and software at practice session. The researcher has done the training on two days a week, for six weeks. All twelve players were tested by selected performance variables at before and after completion of six weeks of training. The pretest, posttest were analyzed by 't" ratio. The level of significance for the study was chosen as 0.05. The study revealed that the above said criterion variables were significantly improved due to the influence of video analysis of school level badminton players.

Key words: Badminton,video analysis, short serve and long serve.

INTRODUCTION

In the present scenario participation in sports becomes a vital nutrient for human survival. In sports enormous modern technologies and training methods are used by the players and coaches to improve their sports performance. Participation in sports is a great way of staying active and offers wonderful rewards for mental health. Being involved in sports has been proven to help children learn valuable skills for dealing with life's ups and downs.Video contains more information about an event or action than any other type of recorded media. A video clip of an event will require >1,000x more disk space to store and bandwidth to transmit than any textual description of the same event – thereby lending credence to the old adage that "a picture is worth a thousand words." High-speed video in particular generates a lot of information in a short amount of time.Video is an extremely useful tool (and underrated!) for tennis coaching. It can be applied to skill acquisition, technique refinement, visualization, injury prevention, and coach education. Although video has been around for many years, it is only now becoming a common tool for the badminton coach and player.According to ball velocities badminton is one of the fastest racket sports. For the smash ball velocities up to 250 km/h are reported (Kollath, 1996; Tsai & Chang, 1998). Such high movement dynamics are normally analyzed with high effort by optometric systems such ashigh speed video. Due to technical limitations (e.g. high amount of light) these measures are often performed in a laboratory setting, which does not comply well with the real competition or training conditions. Alternatively, accelerometric sensors can be used to analyze the performance of the smash. Miniature sensors allow a data collection with a high sample rate and a wide measuring range. Because of the small size and weight athletes are merely limited in their performance (Kemp, Janssen, & van der Kamp, 1998). In sports biomechanics, accelerometric sensors are primarily used to analyze vibration (e.g. Hennig, Rosenbaum, &Milani, 1992, Stroede, Noble, & Walker, 1999) or movements at low velocities (e.g. Bussmann, Hartgerink, van der Woude, &Stam, 2000). The traditional view of teaching games and sports puts emphasis on the mastery of techniques by means of drill practice, as a fundamental requirement that must precede the progressive introduction to the tactical elements in game context. Conversely, the tactical approach gives the precedence to understanding and learning tactical concepts related to a game or sport, and argues that techniques should only be introduced after learners have perceived they are in need of improving their execution of skills (Gréhaingne, et al., 1999; Griffi n, Mitchell, &Oslin, 1997).

OBJECTIVE

To assess the influence of video analysis on the selected skill performance variables of school level badminton players.

HYPOTHESIS

It was hypothesized that there would be significant improvement due to video analysis on the selected skill performance variables of school level badminton players.

EXPERIMENTAL DESIGN

For this study twelve school level men badminton players were randomly selected from Ramakrishna Mission Sports Academy Coimbatore, Tamil Nadu. They belonged to the age group of 11 to 17 years. The subjects were tested to find out short serve and long serve. The selected twelve badminton players were under gone the video analysis through Sports motion cameras and software at practice session. The researcher has done the training on two days a week, for six weeks. All twelve players were tested by selected performance variables at before and after completion of six weeks of training. The pretest, posttest were analyzed by 't" ratio. The level of significance for the study was chosen as 0.05.

TOOLS AND TECHNIQUES

- Short serve was measured by French short serve test.
- Long serve was measured by Poole long serve test.

STATISTICAL TECHNIQUE

The following statistical procedure was employed to estimate the influence of video analysis onthe selected skill performance variables of school level badminton players."t" ratio was used to test the significant differences between the pre test and post test.

TABLE-I

CALCULATION OF MEAN, STANDARD DEVIATION, STANDARD ERROR OF MEAN, MEAN DIFFERENCE AND 'T' VALUE OF PRE TEST AND POST TEST ON SHORT SERVE

Variables	Test	Mean	MD	SD	Sta. Error of Mean	Df	't' ratio
Short serve	Pre test	21.75	5.08	8.53	2.46	11	2.32*
	Post test	26.83		10.17	2.94		
Long serve	Pre test	31.75	4.17	8.08	2.33	11	2.40*
	Post test	35.92		5.09	1.47		

(Table Value for 0.05 Level for df11 =2.20)

RESULTS OF SHORT SERVE

An examination of table –I indicated that the difference between pre and post test on short serve of the players. 't' ratio was employed and the level of significance was set at 0.05. It seen that the dependent 't' test value between pre test and post test means of experimental group is 21.75 and 26.83 respectively, difference of mean value 5.08. The obtained't' ratio 2.32 was greater than the table value 2.20. So it was found to be significant.

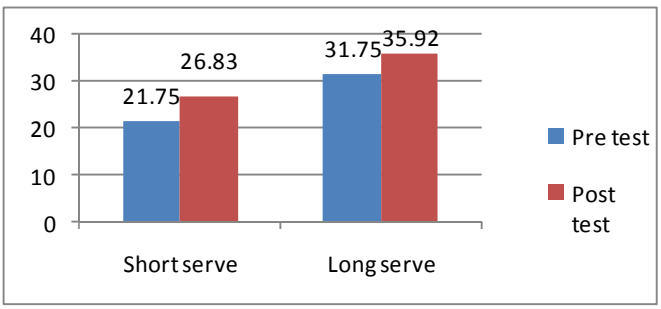
RESULTS OF LONG SERVE

An examination of table –I indicated that the difference between pre and post test on long serve of the players. 't' ratio was employed and the level of significance was set at 0.05. It seen that the dependent 't' test value between pre test and post test means of experimental group is 31.75 and 35.92 respectively, difference of mean value 4.17. The obtained 't' ratio 2.40 was greater than the table value 2.20. So it was found to be significant.

Adjusted mean differences of the video analysistraining groupon the selected skill performance variables was given in Figure I.

FIGURE-I

PRE TEST AND POSTTEST MEAN DIFFERENCES ON THE SELECTED SKILL PERFORMANCE VARIABLES



CONCLUSIONS

It was concluded that the video analysis group showed a statistically significance positive sign over the course so the training period on the selected skill performance variables such as short serve and long serve of school level badminton players.

RECOMMENDATIONS

- The following recommendations are drawn based on the finding of the study.
- The study may be conducted for school level badminton girls.
- The same study may be conducted by using other skills.
- The same study may be conducted to other racket games.

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Combined Effect of Plyometric Training and Skill Training on the Development of Fitness Related Parameters and Skill Performance variables among Male Volleyball Players

Dr.R.Ashok Kumar*, Mr.D.Balamurugan, Mr.V.Karthik Raja*****
***Director of Physical Education, Dr.Mahalingam College of Engineering & Technology, Pollachi, Coimbatore, Tamilnadu**
****Directors of Physical Education, SVS College of Engineering, Coimbatore, Tamilnadu**

ABSTRACT

To study the effect of combination of plyometric training and skill training on the development of jumping ability, anaerobic capacity and skill performance of Male volleyball players, sixty male volleyball players (18-25 yrs) were selected from various colleges in Coimbatore District, Tamilnadu. The subjects were divided as the Experimental group-1 (n=20, PLYOSKILL group) performed the plyometric and skill training, Experimental group-2 (n=20; SKILL group) performed the Skill Training alone, Experimental group:-3 (n=20, CONTROL group) did not perform any training. Pre-test values of jumping ability, anaerobic capacity and playing ability were 14.3± .69, 780.9 ± 54.12, 4.6 ± .59, for PLYOSKILL group, 14.27± .69, 780.9 ± 54.1, 4.6 ± .59 for Skill group and 14.27± .67, 780.95 ± 52.9, 4.7±.656 for Control group respectively. After 12 week of training programme the physical variables and playing ability were significantly improved at (P<=0.05 level). The post test values of jumping ability, anaerobic capacity and game playing ability were 16.4 ± .59, 818.2 ± 44.2, 6.7± .55 for PLYOSKILL group, 15.02 ± .59, 800.2 ± 28.25, 6.0± .72 for skill group and 14.22 ± .73, 775.80 ±49.47, 4.75± .638 for control group respectively. The study shows that combination of plyometric training and skill training were significantly developed jumping ability, anaerobic capacity and skill performance variables among male volleyball players.

INTRODUCTION

Volleyball is a team sport that requires great skill and can be very rewarding when played properly. Certainly considered to be both a competitive and leisurely activity, it can be played by school teams, professional players and families. Normally, each team in a volleyball match consists of **six players**. However, the health benefits of playing with fewer people on each team increases with the larger area for which each player is responsible. A well-structured volleyball training program requires explosive power, vertical jump, stamina and speed and agility around the court. Skill training alone won't develop the physical traits necessary to play to the athlete's full potential (Gabbett T *et al* 2006). Power in the legs is needed to jump explosively off the ground in order to spike, block, set and dive (Smith DJ 1992, Fleck SJ, 1985).Therefore the objectives of this study was to examine the combined effect of plyometric training and skill training on the development of jumping ability, anaerobic capacity and skill performance among Male volleyball players.

METHODS

Subjects

Sixty male volleyball players were randomly selected from various colleges representing inter collegiate level tournaments as subjects for this study.

Protocol

The subjects were divided in to Experimental group:-1 (n=20, PLYOSKILL group) performed the plyometric and skill training, Experimental group:-2 (n=20; SKILL group) performed the Skill Training alone, Experimental group:-3 (n=20, CONTROL group) did not perform any kind of training.

Testing

The test items selected were highly standardized, appropriate and ideal for the selected variables. Jumping ability was measured by vertical jump test, anaerobic capacity was measured by using margaria kalaman test and playing ability was assessed by subjective rating. Test administration was done before and after 12 weeks of training regimen.

Training programme

Experimental group – 1:-Training Programme for Plyometric with skill training group

Mon	Tue	Wed	Thu	Fri	Sat
Warm-up 10min	Warm-up 10min	Warm-up 10min	Warm-up 10min	Warm-up 10min	Warm-up 10min
Plyometric drills	**Skill performance drills** Over head pass, under arm pass, setting, spiking and serving	Plyometric drills	**Skill performance drills** Over head pass, under arm pass, setting, spiking and serving	Plyometric drills	**Skill performance drills** Over head pass, under arm pass, setting, spiking and serving
Warm-down 10min		Warm-down 10min		Warm-down 10min	
	Warm down – 10 minutes		Warm down – 10 minutes		Warm down – 10 minutes

Experimental group – 2 :-Training Programme for skill training group

Monday	Tue	Thu	Sat
Warm-up 10min	Warm-up 10min	Warm-up 10min	Warm-up 10min
Skill performance drills Over head pass, under arm pass, setting, spiking and serving	**Skill performance drills** Over head pass, under arm pass, setting, spiking and serving	**Skill performance drills** Over head pass, under arm pass, setting, spiking and serving	**Skill performance drills** Over head pass, under arm pass, setting, spiking and serving
Warm down – 10 minutes	Warm down – 10 minutes	Warm down – 10 minutes	Warm down – 10 minutes

Statistical Analysis

A paired sample of student's t-test was used to determine the significance of the mean differences between the pre-test to post-test values of a variable in the same group. Analysis of variance (ANOVA) was used to know the significant differences among the group. Statistical significance was accepted as $p \leq 0.05$ level of confidence.

Results

SIGNIFICANCE OF MEAN GAINS /LOSSES BETWEEN PRE AND POST TEST OF PLYOMETRIC WITH SKILL TRAINING GROUP

Variables	Pre test mean ±SD	Post test mean± SD	M. D	Standard Error DM	't'-ratio
Jumping ability	14.3± .69	16.4 ± .59	2.1	.18532	11.6*
Anaerobic capacity	780.9 ± 54.12	818.2 ± 44.2	37.3	4.89	7.6*
Playing ability	4.6 ± .59	6.7± .55	2.1	.208	10.3*

* Significant (Table value 2.093 at 0.05 level of confidence)

SIGNIFICANCE OF MEAN GAINS /LOSSES BETWEEN PRE AND POST TEST OF SKILL TRAINING GROUP

Variables	Pre test mean ±SD	Post test mean± SD	M. D	Standard Error DM	't'-ratio
Jumping ability	14.27± .69	15.02 ± .59	0.75	.233	3.2*
Anaerobic capacity	780.9 ± 54.1	800.2 ± 28.25	19.3	8.75	2.2*
Playing ability	4.6 ± .59	6.0± .72	1.4	.222	6.2*

* Significant (Table value 2.093 at 0.05 level of confidence)

SIGNIFICANCE OF MEAN GAINS /LOSSES BETWEEN PRE AND POST TEST OF SKILL CONTROL GROUP

Variables	Pre test mean ±SD	Post test mean± SD	M. D	Standard Error DM	't'-ratio
Jumping ability	14.27± .67	14.22 ± .73	0.05	.080	.623
Anaerobic capacity	780.95 ± 52.9	775.80 ±49.47	-5.0	4.99	1.031
Playing ability	4.7±.656	4.75± .638	0.05	.05	1.00

Table value 2.093 at 0.05 level of confidence

Discussion

The scheduling of combined plyometric training and skill training on the development of jumping ability, anaerobic capacity and skill performance variables among male volleyball players have produced significant development on jumping ability, anaerobic capacity and skill performance.

Recommendation

The coaches and physical education personnel may plan the training schedule for volleyball players in such a way that combining of plyometric and skill training will bring better performance and therefore combining plyometric and skill training improves volleyball performances.

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A Study On Athletic Performance Of Pre-University Level Athlete

Dr. Ajit Das
Asst. Teacher, Matikole Vidyamandir, Rabindranagar, Kol-65, (W.B).
Email : ajit_das075@yahoo.co.in

ABSTRACT
The purpose of the study was to find out the athletic performance of Pre-University level athlete. The study was confined to the age group of 16 -18 years, 72 boys and 72 girls from the district of North 24 Parganas of the state of West Bengal were selected for the purpose. The study was to compare the performance among the men athletes and among the women athletes of three consecutive years (2007, 08 and 09) and also the trend of performance. The criterion measure adopted in this study were speed (time taken to cover contain distance), strength of muscles (distance covered in jumping and throwing), explosive leg strength (height attained in high jumps). Mean and standard deviation were used as descriptive statistics in the present study. To obtain the mean difference between the variables of three years, 't' ratio was employed. For statistical calculation Excel Spread Sheet of windows version 7 was used. The result of the study indicated that there is no significant difference of performance of boys and girls in three years in relation to running events and jumping events but in case of throwing events, the performance of girls were found better than the boys. One more note worthy points is that it was observed that the level of ability of the athletes were not same. Thus the quality of movement, level of coordination, speed of skill learning and stabilization of technique became different. Those factors have a direct effect on the performance.

Key Words : Athlete, Pre-University, Running, Jumping and Throwing.

INTRODUCTION
.Participation in physical activities develops physical strength, speed of movement, endurance, flexibility and learning of proper movements and its repetition improves co-ordination of movements of the body parts by improving the quality of movements.Everyday, somewhere, some one is practicing track and field events. This does not mean that it is the most popular sports in the world; with the greatest number of participants; this honour probably belongs to the majority of nations in the world. Track and field athletics is considered as number one of all the sports disciplines and it is being carried on all over the world.The revival of the Olympic game was not automatic and Baron Pierre De Coubertin suffered many disappointments during the campaign to re-establish the games.

METHODOLOGY
For the present study the performances of 72 boys and 72 girls were recorded. Data were collected from the record book of sub-division sports association of North 24 Parganas of the state of West Bengal. In this study the running events considered were 100 mts., 200 mts., 800 mts & 1500 mts. Run, the throwing events included were Shot Put & Javelin and the jumping events considered were Long Jump & High Jump. The performance timing, distance and height of the first three places as recorded in the competition of the year 2007, 2008 and 2009 were gathered for the present study.

STATISTICAL PROCEDURE
In running event distance covered per second was considered as raw data. All the scores were converted in the standard score (event wise) whose means was 50 and S.D was 10. To find out the mean difference between the variables of three years the statistics of 't' ratio was employed.

RESULTS
Table – 1
The mean and S.D. of the variables of Boys and Girls were presented in this table.

Test Items		2007		2008		2009	
		Mean	S.D	Mean	S.D	Mean	S.D
Running Events	Boys	46.83	11.00	53.50	7.70	50.25	9.67
	Girls	45.22	8.94	50.67	7.02	55.44	10.64
Throwing Events	Boys	45.67	5.72	53.33	5.35	51.17	15.19
	Girls	47.33	7.58	57.00	5.89	46.11	11.41
Jumping Events	Boys	49.83	10.46	50.67	7.20	49.17	12.51
	Girls	46.17	12.45	51.33	9.29	51.83	8.33

Table – 1 indicates that boy's performers of 2008 were found superior to other years in running, jumping and throwing. In case of girls performers of 2009 were found superior to other years in running and jumping, whereas in case of throwing performance of 2008 was found superior to others.

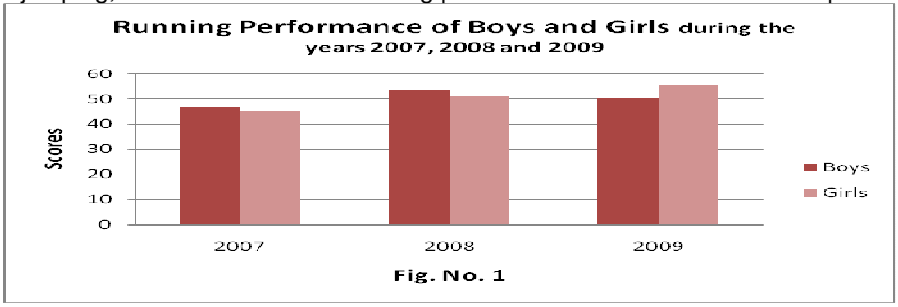

Fig. No. 1

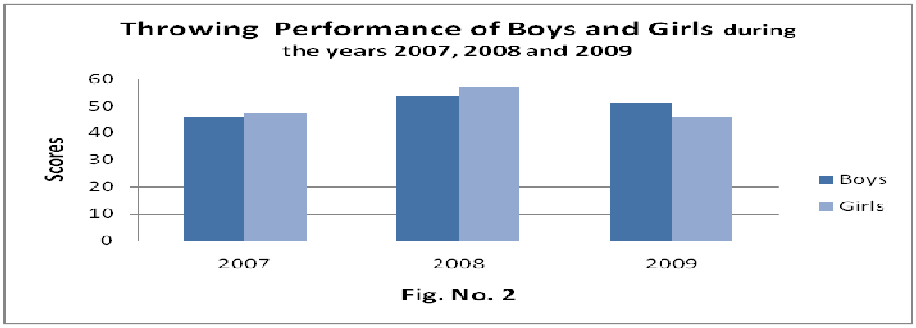

Fig. No. 2

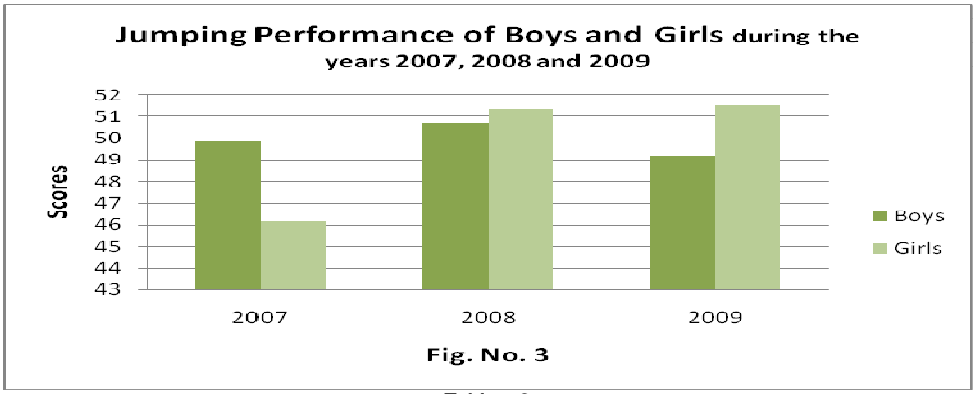

Fig. No. 3

Table – 2

Mean difference of variables between the performance of Boys and Girls in the years of 2007 and 2008.

EVENTS		2007 MEAN	2008 MEAN	S.E	't' ratio
RUNNING	BOYS	46.83	53.50	3.88	1.72
	GIRLS	45.22	50.67	3.79	1.44
THROWING	BOYS	45.67	53.33	2.71	2.83*
	GIRLS	47.33	57.00	3.20	3.02*
JUMPING	BOYS	49.83	50.67	5.18	0.16
	GIRLS	46.17	51.33	6.34	0.81

*Significant at 0.05 level of confidence $t_{0.05}^{22} = 2.07$ (Running)
$t_{0.05}^{10} = 2.23$ (Throwing & Jumping)

From Table –2 it was found that in relation to throwing events the performance between 2007 and 2008 were significantly different in case of both boys and girls. In relation to running events and jumping events there was no significant difference.

Table – 3

Mean difference of variables between the performance of Boys and Girls in the years of 2007 and 2009.

EVENTS		2007 MEAN	2009 MEAN	S.E	't' ratio
RUNNING	BOYS	46.83	50.25	4.23	0.81
	GIRLS	45.22	55.44	4.63	2.21*
THROWING	BOYS	45.67	51.17	6.63	0.83
	GIRLS	47.33	46.11	4.57	0.27
JUMPING	BOYS	49.83	49.17	6.66	0.1
	GIRLS	46.17	51.83	6.11	0.93

*Significant at 0.05 level of confidence $t_{0.05}^{22} = 2.07$ (Running)
$t_{0.05}^{10} = 2.23$ (Throwing & Jumping)

From Table – 3 it was observed that in relation to running events the performance of the girl athletes of 2007 and 2009 were significantly different and others event like throwing and jumping there were no significant difference of both boys and girls performance.

Table – 4

Mean difference of variables between the performance of Boys and Girls in the years of 2008 and 2009.

EVENTS		2008 MEAN	2009 MEAN	S.E	't' ratio
RUNNING	BOYS	53.50	50.25	3.57	0.78
	GIRLS	50.67	55.44	4.25	1.12
THROWING	BOYS	53.33	51.17	6.35	0.34
	GIRLS	57.00	46.11	4.28	2.54*
JUMPING	BOYS	50.67	49.17	5.89	0.25
	GIRLS	51.33	51.83	5.09	0.1

*Significant at 0.05 level of confidence $t_{0.05}^{22} = 2.07$ (Running)
$t_{0.05}^{10} = 2.23$ (Throwing & Jumping)

From Table – 4 it was found that the performances of the girl athletes of the year 2008 and 2009 were significantly different in throwing events. In case of running and jumping events there was no significant difference of both boys and girls in performance.

DISCUSSION

The results of the study indicated that there was no significant difference of performance of boys and girls in three years in relation to running events and jumping events but in case of throwing events, the performance of girls were found better than the boys. One worthy points is that it was observed that the level of ability of the students of schools were not the same. Thus the quality of movement, level of coordination, speed of skill learning and stabilization of technique became different. Those factors have a direct effect on the performance.

CONCLUSIONS

From the obtained results it is concluded that :

1. Boys athletes produced no significant difference in running events in three years.
2. Girls athletes produced in running events consistent upward trend is observed in three years.
3. Performance of throwing events, it is found that boys and girls athletes of 2008 are significantly superior to the other years.
4. In jumping events, boys and girls athletes are not significant.

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Effects Of Plyometric Training And Speed Agility And Quickness (Saq) Training On Power Of Male Handball Players

***Mr. Bujjibabu M. and **Dr. P. Johnson**
***Research Scholar,**
****Assistant Professor, University College of Physical Education & Sports Sciences**
Acharya Nagarjuna University, Guntur, Andhra Pradesh

Abstract
The purpose of this study was to investigate the effects of plyometric (PLYO) training and SAQ training for six week on power of male handball players. To achieve the purpose 30 male handball players were selected randomly from SAI Sports Training Center, Sarurnagar, Hyderabad, Andhra Pradesh. The selected subjects were assigned into 3 groups: PLYO training (n=10), SAQ training group (n=10) and control (CON) group (n=10). Power was selected as criterion variable and tested by vertical jump test. The duration of the training prescribed in this study was six weeks that has been carried out during preparatory phase. Pretest and posttest data were measured on the handball field. The data was analysed by applying analysis of covariance (ANCOVA). The result of the study showed that the adjusted posttest mean is significant on power [$F(2, 26) = 5.95$, $p < 0.05$] indicating that PLYO training significantly improved power of handball players compared to SAQ and CON group.

Keywords: *SAQ training, speed, power, agility, handball*.

Introduction

Handball was introduced by Berlin Physical Education School in 1919 from then it is rapidly gaining more and more popularity and became an official Olympic Sport in 1972. These many years brought numerous modifications in rules, playing style and training format of this game. Modern handball is a fast and strenuous body contact sport, characterized by incredible athletic performances by athletes. In fact, modern handball players are able to perform many different moves, jumps, running, change of directions and technical movements in very short time and with an order determined by the tactical situation.Team handball is a complex flashing game, which requires players to have well developed aerobic and anaerobic capacities (Delamarce, *et al*., 1987). Motor ability, sprinting, jumping, flexibility and throwing velocity represent physical activities that are considered as important aspects of the game and contribute to the high performance of the team. Successful performance requires explosive power of the legs and arms, sprint velocity and kinesthetic feeling in ball control (Sibila, 1997). On the other hand, for a modern model of a handball player, the pronounced longitudinal dimensions such as stature, arm span, hand spread and length are necessary (Sibila, 1997; Srhoj, *et al*., 2002; Skoufas, *et al*., 2003). Such an anthropometric profile plays a supportive role in helping athletes perform under actual competitive conditions (Srhoj, *et al*., 2002). Longer upper extremities contribute to maximizing throwing velocity (Fleising, *et al*., 1999) and longer hand spread and length influence specific motor abilities such as dribble, passing, catching and ball throwing (Skoufas, *et al*., 2003). Concerning functional and fitness properties, high level male and female adult players develop maximal oxygen uptake between 55-60 $ml \cdot kg^{-1} \cdot min^{-1}$ and 46-55 $ml \cdot kg^{-1} \cdot min^{-1}$, 30-m sprint between 3.8-4.4 sec and 4.4-5.5 sec and standing long jump between 280-300cm and 165- 230cm respectively (Kotzamanidis, *et al*., 1999; Rogulj, *et al*., 2005; Gorostiaga, *et al*., 2004). At last, the throwing velocity from a standing position for international level handball players ranges between 20-24 $m \cdot sec^{-1}$ and 16-23 $m \cdot sec^{-1}$ (Gorostiaga, *et al*., 2004, Granados, *et al*., 2007; Hoff and Almåsbakk, 1995).Research has also identified aerobic and anaerobic capacity, running speed, and agility as factors which differentiate proficiency levels in players of repeated sprint sports such as rugby, soccer, handball and hockey. Training to develop these variables should therefore also be considered during the training year. The purpose of this study was to investigate the effects of PLYO and SAQ training for six week on power of male handball players.

Material and Methods

Subjects and variables

In this study 30 male handball players were selected randomly from, SAI Sports Training Center, Sarurnagar, Hyderabad, Andhra Pradesh. These selected subjects were assigned into 3 groups: PLYO training (n=10), SAQ training group (n=10) and control (CON) group (n=10). Speed and agility was selected as criterion variable and tested by vertical jump test. The selected subjects mean age: 22.18±2.32years; weight: 70.90±8.22kg; height: 176±3.07cm and BMI: 22.90±3.47kg/m2. All subjects were instructed to refrain from participation in any other form of training during the testing and training period that might improve their explosive power. All subjects were nonsmokers and none ergogenic aid or medication users known to affect leg explosive power during the study.

Experimental Design

In this study pre test – post test randomized group design (Thomas, *et al*., 2005) was used which consists of control group and experimental group. PLYO and SAQ training was given to respective group for six week and its effect on speed and agility of handball players was studied. Equal numbers (ten) of subjects were assigned randomly to all the groups. Experimental groups were exposed to training with a set of drills selected for specific purpose.

Protocol

Plyometric training was performed twice a week for the period of six weeks in outdoor handball court. This training was performed under the direction of handball coach. The training program was based on recommendations of intensity and volume from Piper and Erdmann (1998), using similar drills, sets, and repetitions (see table 1). From a physiological and psychological standpoint, four to six weeks of high intensity power training is an optimal length of time for the CNS to be stressed without excessive strain or fatigue (Adams *et al*., 1992). It is the belief of some sports physiologists that neuromuscular adaptations contributing to explosive power occur early in the power cycle of the periodization phase of training (Adams *et al.,* 1992). Plyometrics were only performed twice per week to allow for sufficient recovery between workouts as recommended by researchers (Adams *et al*., 1992). Training volume ranged from 90 foot contacts to 140 foot contacts per session while the intensity of the exercises increased for five weeks before tapering off during week six as recommended by Piper and Erdmann (1998) and used previously in another study (Miller *et al*., 2002). The intensity of training was tapered so that fatigue would not be a factor during post-testing. The plyometric training group trained at the same time of day, two days a week, throughout the study. During the training, all subjects were under direct supervision and were instructed on how to perform each exercise.

SAQ training was performed thrice a week for the period of six weeks in outdoor handball court. This training was performed under the direction of handball coach. SAQ training sessions lasted for one hour which includes 15 min of general warm-up and 30 to 45 min of prescribed exercise. The training commenced with one week of general physical conditioning for the SAQ training group, so that the subjects were ready physically and mentally to take on specific load administrated to them for the purpose of the study. After one week of conditioning the SAQ training was administrated, which include speed, agility, and Quickness drills respectively for three days in a week (i.e. Monday, Wednesday, and Friday). The SAQ training schedule followed was different for each week (see Table 2). These SAQ training drills and specific warm-up exercises were selected from book Training for speed, agility and quickness (Brown, *et al*., 2000). Speed, agility and quickness drills cover the complete spectrum of biomotor skills, from basic and low intensity to complex and high intensity. The CON group was not allowed to take part in the specific experimental training programme expect they had daily general warming up and had their normal activities.

Statistical Technique

The data was analysed by applying analysis of covariance (ANCOVA). When adjusted posttest *F* is significant Scheffé S post hoc test was applied to know the difference among the groups.

Table 1: **Six-week program for PLYO Training Schedule**

Training Week	Training Volume (foot contacts)	Plyometric Drill	Sets × Reps	Training Intensity
Week 1	**90**	Side to side ankle hops	2×15	Low
		Standing jump and reach	2×15	Low
		Front cone hops	5×6	Low
Week 2	**120**	Side to side ankle hops	2×15	Low
		Standing long jump	5×6	Low
		Lateral jump over barrier	2×15	Medium
		Double leg hops	5×6	Medium
Week 3	**120**	Side to side ankle hops	2×12	Low
		Standing long jump	4×6	Low
		Lateral jump over barrier	2×12	Medium
		Double leg hops	3×8	Medium
		Lateral cone hops	2×12	Medium
Week 4	**140**	Diagonal cone hops	4×8	Low
		Standing long jump with lateral sprint	4×8	Medium
		Lateral cone hops	2×12	Medium
		Single leg bounding	4×7	High
		Lateral jump single leg	4×6	High
Week 5	**140**	Diagonal cone hops	2×7	Low
		Standing long jump with lateral sprint	4×7	Medium
		Lateral cone hops	4×7	Medium
		Cone hops with 180 degree turn	4×7	Medium
		Single leg bounding	4×7	High
		Lateral jump single leg	2×7	High
Week 6	**120**	Diagonal cone hops	2×12	Low
		Hexagon drill	2×12	Low
		Cone hops with change of direction sprint	4×6	Medium
		Double leg hops	3×8	Medium
		Lateral jump single leg	4×6	High

Table 2: **Six-week program for SAQ Training Schedule**

Needs	**Week 1 (Drills)** **Volume: 1 sets/ 12 rep** **Work rest ratio: 1:3**	**Week 2 (Drills)** **Volume: 2 sets/ 12 rep** **Work rest ratio: 1:3**	**Week 3 (Drills)** **Volume: 3 sets/ 12 rep** **Work rest ratio: 1:3**
Speed	"A" March Walk	"A" Skip for Distance	"A" Skip for Height
	"A" Form Runs (V)	Partner-resisted starts	Bullet Belts
Agility	20-Yard shuttle	Lateral 20-Yard shuttle (V)	T-Drill
	MB Wall Chest Passes	MB Overhead throw	MB Wall Scoop Toss
Quickness	Repeated Vertical jumps	Standing long jump	Triple Jump
Needs	**Week 4(Drills)** **Volume: 1 sets/ 12 rep** **Work rest ratio: 1:3**	**Week 5 (Drills)** **Volume: 2 sets/ 12 rep** **Work rest ratio: 1:4**	**Week 6 (Drills)** **Volume: 3 sets/ 12 rep** **Work rest ratio: 1:4**
Speed, agility & quickness	Squirm	X-Pattern multi-skill	Z-Pattern cuts
	Hexagon drills	5-Dots drill	21 Drills
Speed & Quickness	Quick feet	Hop Scotch drill to catch a pass (v)	One leg hop to dribble and jump shot(v)
	Repeated vertical jumps (V)	Vertical jump to sprint	Sprint to vertical jump
Agility & Quickness	Tap Drills	MB One handed tap drills with partner	Mirror lateral shuffle/pass
	Standup from 4 points to 20-yard shuttle	Standup from sitting position to Z-pattern run	Standup from lying position to T-drill

Results

Table 3 clearly shows that pre test on power showed no significant difference among PLYO, SAQ and CON groups. The post test [$F(2, 27) = 6.81$, $p < 0.05$] and adjusted post test [$F(2, 26) = 5.95$, $p < 0.05$] for power showed significant difference among the groups. The Scheffé S post hoc test was applied to know the difference among the groups.

Table 3: Analysis of covariance for two groups before and after SAQ training effect on leg explosive power

Variables	Testing conditions	SOV	Sum of squares	Degrees of freedom	Mean-Square	Value (F)
Power	Pretest	Between	46.86	2	23.43	0.546
		Within	1159.30	27	42.93	
	Posttest	Between	483.46	2	241.73	6.81*
		Within	957.50	27	35.46	
	Adjusted posttest	Between	363.43	2	181.71	5.95*
		Within	792.99	26	30.50	

*Significant at 0.05 level of confidence

It is clear from Table 4, the Scheffé S post hoc test showed significant difference between SAQ-CON and PLYO-CON group on power is elicited. Thus, it is concluded that six weeks of PLYO training is better in improving leg explosive power of handball players, though not statistically significant as compared to SAQ.

Table 4: SchefféS test for difference between paired means on leg explosive power

Variable	PLYO	SAQ	CON	MD	CI
Power	50.66	50.28		0.38	6.37
	50.66		42.95	7.71*	6.37
		50.28	42.95	7.33*	6.37

*Significant at 0.05 level of Confidence

Discussion

Coaches around the world require athletes who are faster, quicker and more powerful which makes difference between winners and losers. The level of competition among the collegiate level continues to increase. The coaches formulate and implement various training methods to maximize players performance. Jump shot is often seen in the game which requires good vertical jump performance. The PLYO and SAQ training groups showed larger improvements in vertical power than the active control group. In vertical jump performance of the SAQ training group showed 13.55% of improvement from pre-to post-test. This finding is in agreement with the studies of Jovanovic, Sporis, Omrcen, and Fiorentini, (2011), Remco, Darren, Jonny & Mark (2004) and Yap & Brown, (2000) for vertical jump performance of handball players. Similarly, the PLYO training group showed 13.73% of improvement from pre-to post-test. This findings is in accordance with Kubo *et al.,* (2007), Markovic, Jukic, Milanovic & Metikos, (2007), Thomas, French & Hayes, (2009), Gehri *et al*., (1998), Markovic & Mikulic, (2010), Markovic, (2007), Sáez-Sáez De Villarreal *et al.,* (2009), Sáez-Sáez De Villarreal *et al.,* (2010). It is clear from this study that vertical jump performance can be improved greater in PLYO training than SAQ training. The changes elicited in power of handball players in SAQ and PLYO training group is resulted due to neural adaptations in programmed and random conditions with a gradual progression, and thus, both slow and fast SSC performance is enhanced. Thereby players recorded positive changes in leg explosive power and results in improvement in vertical power. (Remco, Darren, Jonny & Mark, 2004; Jovanovic, Sporis, Omrcen, and Fiorentini, 2011; Wilson, Newton, Murphy and Humphries, 1993; Markovic & Mikulic, 2010; Gehri *et al*., 1998; Sáez-Sáez De Villarreal *et al.,* 2009).

Conclusion

PLYO training is better to improve leg explosive power of handball players. This outcome suggests that this form of training might be a beneficial inclusion in the physical conditioning programs of trained players performing invasion games. However, additional studies are required with elite populations and with different training regimes.

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Health From Vegetarians

Mrs. G. Sarah Sarojini
Asst. Director,Dept. of Physical Education
Sri Padmavati Mahila Visvavidyalaym
Tirupati

Introduction: The excellent health of many vegetarians has been opening eyes and changing attitudes. Research indicates that vegetarians are less prone than meat eaters to some serious health problems, including heart diseases, diabetes and certain cancers. Do you have to be a total vegetarian to reap some of the rewards of a vegetarian lifestyle ? Not at all. The Nutrition Researchers says, "reducing your intake of meat and fatty dairy products only a few times a week will help. If the whole country did this, then there will be a marked decline in heart disease".

Animal Products – Fewer Heart Problem
Eat more grains and vegetables and you can lower your cholesterol and Blood Pressure, slim your waistline and as a result, lesser the chances of heart disease.

Blood Pressure
After studying the vegetarians and found their blood pressures to be significantly lower than that of meat eaters. Vegetarian Men's and Women's systolic blood pressure (the upon number) were almost fire points lower than non-vegetarians and the average diastolic blood pressure (the lower number) was 4 to 5 points lower. It clearly does not take long to realize the effects of vegetarianism. A group of omnivores who became experimental vegetarians for a few months realized a decrase in systolic blood pressure of almost seven points and a three point drop in diastolic pressure. When they resumed eating meat, their blood pressure returned to pre-test levels after several week.

Cholesterol
Studying reveals that if you are vegetarian cancers, gallstones, diabetes and osteoporosis are all less likely to befall. That body of a meat eating women processes the female hormone estrogen differently from that of a vegetarian women. Researchers from Medical centres found that vegetarian women excrete two three times as much estrogen as meat eaters. The more estrogen lost, the lower the levels in the blood scientists believe that the recycled estrogen travelling through the blood stream may have a cancer linked effect on the breast. Men can lessen their risk of another kind of cancer. Scientists found that vegetarian men have lower levels of the men hormones testosterone and estradiol. The scientists note that vegetarian men eat twice the amount of fiber and have low risk of hormonal type cancer. Theory is that the high fiber diet may help rid the body of these hormones, which have been linked to prostate cancer.

Gall Stones
Medical Researchers report that women vegetarian are less likely to develop gallstones. After studying the several years and noted that meat eating women aged 40 to 69 were almost twice as likely to experience problems.

Diabetes
Men and women found that their risk of dying from diabetes is half that of the general population. Looking even closer, scientist found that, especially for men, diabetes was listed more on the death certificates of meat eating than on those of vegetarians.
Meat or saturated fats may interfere with insulin metabolism, or relatively low amounts of fiber and complex carbohydrates consurned by meat eaters may enhance their risk of diabetes.

Osteoporosis
A study also suggests that their vegetarian diets could play a role in preventing the bone – degenerating condition known as osteoporosis that afflicts many post menopausal women. Medical scientists found that women 50 to 80 years of age who were on a vegetarian diet that included milk and eggs had lost 18 percent bond mineral mass, while women who ate meat had lost 35 percent.
Since there was a little difference in the amount of bone– strengthening calcium the two groups of women consumed over the years, the researchers speculate that, for some unexplained reason, meat many cause loss of minerals in older women.

Carnivore to do ?
Of all this, a meat eater who can't bear to part with mutton and chicken many wonder what to do ? Remember 'you don't have to adopt a total vegetarian philosophy or lifestyle in orders to become healthier. But, there are several factors that come into play when considering the health status of vegetarians. They generally are concerned about their health and don't smoke or drink to excess, which has a positive effect, and many of the scientists who have conducted meatless research are quick to acknowledge that lifestyle can play a powerful role. Weather you decide to change your whole lifestyle or simply sacrifice a few servings of meat a week in the name of better health is upto you. You should not that extra care should be taken when considering a vegetarian type – diet.

Pregnant
Lacto – ovo vegetarian diets (which include dairy food and eggs) provide all the required nutrients – Iron and zinc supplements may be needed by strict vegetarians.

Infants and Children
Lacto – ovd (eggs allowed) vegetarian diet meet the requirements for growth, but Iron and Zinc level should be watched. Adults and children with special health problems such as lactose intolerance should consult a professional dietitian for meat planning. But if you are an average person, and if you think a meatless diet just could not supply with sufficient protein – Ask your doctor – he can easily look at the scientific diet data and politely tell you "meat". **'' BE VEGETARIAN TO KEEP UP YOUR HEALTH "**

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Brief History of Fitness & Trends in India

Dr. Abhay N. Buchha

Abstract
Physical fitness is used in context of two meanings: General fitness (a state of health and well-being) and specific fitness (ability to perform specific sports or occupational skills). Fitness can be subdivided into five categories: Cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition. Fitness is an important part of peoples work and home lifestyle. Healthcare and fitness industry in India is seeing growing business owing to increasing awareness and urbanisation. Today the Indian fitness industry is growing as a dynamic, energetic and hugely diverse industry, covering a wide range of different products, venues and services. According to estimates total market size of gyms (including equipment providers) across India is around Rs 3k crore. The oldest of them all is still the biggest and still growing strong. The history of fitness portrays some fascinating themes that relate closely to the 21st century. One commonality is the strong association of military and political might with physical fitness throughout man kind's advancement. Present day fitness programs have evolved concept harmoniously, with music being a distinctive component to the exercise experience. It appears that as societies become too enamored with wealth, technology advancement prosperity and self-entertainment the fitness levels have decreased. Definition of *trend* includes the phrase "general development" as opposed to *fad*, which is defined as "a fashion that is taken up with great enthusiasm for a brief period". This article will highlight history of fitness beginning with primitive man up to the foundation of the modern fitness movement.

Introduction:
As we are in the 21st century, the greatest accomplishment to be celebrated is continuous pursuit of fitness. Throughout prehistoric time, man's quest for fitness has been driven by a desire to survive through hunting and gathering. Today, though no longer driven by subsistence requirements, fitness remains paramount to health and well-being.

The History of Fitness
Primitive man and fitness (pre-10,000 B.C)
Primitive nomadic lifestyles required the continual task of hunting and gathering food for survival for that regular physical activity was necessary. Following successful hunting and gathering excursions, celebration events included trips to visit friends and family to neighboring tribes, where dancing and cultural games last several hours. This Paleolithic pattern of subsistence pursuit and celebration, demands a high level of fitness consisting of various forms of physical activity.

The Neolithic Agricultural Revolution (10,000-8,000 B.C)
This historic period was defined by important agricultural developments including animal and plant domestication, and invention of plow. This era in history symbolizes beginning of a more sedentary lifestyle, as man began to alleviate some hardships of life while simultaneously decreasing daily physical activity.

Ancient Civilizations – India (2500-250 B.C)
In India, consequently, the importance of fitness within society in general was relatively low. However, an exercise program similar to Chinese Cong Fu gymnastics developed, while still conforming to religious beliefs, known as Yoga which existed for at least the past 5000 years. Yoga was originally developed by Hindu priests who lived frugal lifestyles characterized by discipline and meditation. Bedsides balance with nature, ancient Indian philosophers recognized health benefits of Yoga including proper organ functioning and whole well-being. These health benefits have also been acknowledged in the modern-day.

Athens
Perhaps no other civilization has held fitness in such high regard as ancient Greece. The idealism of physical perfection was embodied ancient Greek civilization. A common saying in ancient Greek times was "exercise for the body and music for the soul ". The appreciation for beauty of the body and importance of health and fitness throughout society is one that is unparalleled in history. Greeks believed development of the body was equally important as development of mind. Physical well-being was necessary for mental well-being, with the need for a strong, healthy body to harbor a sound mind. Gymnastics, along with music, was considered to be most important. Gymnastics took place in palaestras, which were sites of physical education for young boys. When adulthood of boys was reached, site for fitness training switched from palaestras to gymnasiums. This idealistic fitness situation existed most strongly within Athens, which has been characterized as a democratic society most similar to united states.

Physical Education (PE): Following the end of the Civil War in 1865, Swedish and German Gymnastics enjoyed a moderate growth in popularity. However, the most popular form of gymnastics during this time period was New Gymnastics, introduced by Dioclesian Lewis. Individuals who played important roles in the development of fitness during this time period were Edward Hitchcock, William Anderson, and Dudley Sargent. Hitchcock recognized the desired outcome of his fitness programs (combination of gymnastics and calisthenics) was improved health. He also introduced the concept of utilizing anthropometric measurements to assess fitness progress. Sargent added scientific research to fitness instruction and developed organized instructor teaching methodologies. The lifetime work of Anderson focused on PE instruction, with his greatest contribution being its development into a professional organization. An argument developed during the post-Civil War period that still exists today is, PE instructors believed firmly in the value of incorporating exercise programs that would improve health-related fitness. However, sports were also gaining popularity during this era. Consequently, the majority of PE programs focused on sports and games.
The20thCentury
The 20th century symbolized the beginning of a new era of fitness leaders. Maximum Presidents of US recognized importance of exercise and physical activity, encouraged citizens to be physically active. President Roosevelt held an infatuation for fitness, his desire for physical fitness evolved out of his childhood battle with asthma, which he overcame with a rigorous exercise program. He engaged in multiple forms of physical activity and other outdoor endeavors.

Fitness Trend in India: Last decade has been a decade where not only infrastructure development has been noticed on other hand people lifestyle has also developed and has brought a trend of fitness, it's not limited to urban areas but effect can be noticed in rural India. After the millennium fitness providing services has raised like mushrooms across India, fitness clubs having most sophisticated fitness equipment, transformation of yoga to power yoga. The reason was tremendous growth in fitness and health care industry as Indians have become more and more health concerned. Fitness industry is growing @ 15%.There aren't many international health clubs in the Indian fitness industry, today they are targeting Indians living in urban areas who are interested in improving their health and wellness and who have money to burn. These fitness clubs are usually well provisioned in terms of equipment, services and operate usually very smoothly. There are lot of independent health clubs in the Indian fitness industry today, ranging from single gyms to multipurpose wellness and weight loss centers. Independent health clubs traditionally don't feature the same brand continuity as an international health club chain and don't often have the same extent of facilities as they don't have the same purchasing power as an international health club group. But these types of clubs usually enjoy a very strong reputation in the local community. Products and services are coming in a huge variety, ready to serve an equally wide range of consumer needs from aerobics to body building, performance training to weight management. Our bodybuilding clubs are a fairly recent phenomenon in India, dating perhaps to the early part of the 20th century. These gyms are modeled on a Western aesthetic and on Western notions of strength and fitness.

Market trends: The market and challenges for gyms is the same as anywhere else. "First being the lack of education about the benefits of exercise, health & fitness and the second challenge is the unplanned and unregulated opening of gyms of all types, shapes and sizes, which are not equipped or staffed to provide a safe and fun exercise environment. A lot of such gyms open up with a lot of fanfare and positioning but immediately start reckless discounting as they are not able to build a healthy membership base and cash flow". Also providing parking space and the chaotic traffic are the main challenges for the setting up gyms in metros.According to gym operators the growth factors of

the business can be attributed where one's physique and photogenic quotient are taken into consideration. However, when it comes to numbers the rate of growth depends mainly on increase in charges, second is management system. Maximum Gyms are flooded with members in the peak hours and there is a steady growth in membership and revenue year on year of 8 to 10 percent in the cities. Maximum Gyms are located in the growing resident population. People who have medium to high consumption and lifestyle habits and their demographics further aided the gym business as a majority of them are young. Gyms are also banking on the high corporate density in the area. Also in metros Gym owners has signed multiple corporate tie-ups. Gyms in India banks heavily on its result oriented services, reasonable charges, good equipments, trained staff, convenient location and educating members about the benefits of health and fitness and in investing in the gym membership."

Conclusion

Fitness is a constantly changing field & more interesting than any other field. Primary reason is that it combines many passions and interests such as biology, psychology, physics, and nutrition, into one area. Latest fitness curricula should be introduced and if exists, it must be updated. *Fitness programs for older adults* and *strength training* should be introduced. As strength training is popular in commercial, community, clinical and corporate health fitness facilities. Professionals should consider developing fitness programs for people of retirement age. As club chain has knowledge and use latest technology help should be taken to educate the new user on new trends. As India is the slowest and has most sluggish fitness market in the world, it makes more attractive for users. Indians once get hooked to fitness culture; they spend more time at the gym. Indian's visit gym at least 11 times a month as compared to members in other countries who visit the gym seven times a month. Foreign health club operator plans to grow through franchising route. Currently, it has 50,000 members across the country and plans to triple in coming years. Fitness fads may come and go, but several trends in fitness lasted several decades and continue to grow in popularity, e.g. Aerobic exercise, running, Yoga, dance-type aerobics, boxing, etc. Current fitness trend is now faced with the challenge of improving the health of future generations and to encourage a lifetime of healthy habits. There has been a shift toward gentler, more introspective exercises that also contribute to improving cardiovascular health while increasing flexibility and muscular strength. To concluded fitness clubs must provide highly customized fitness products and experiences that meet today consumers. Fitness Clubs may become a key partner in working with healthy and at-risk populations to promote and sustain wellness.

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The performance of Indian Players in Olympics And The measures to be taken to improve their performance

P.Krishnamurthy, PET, ZPHS, Nemmani, Mandal Narketpally, Dist Nalgonda

In ancient days in Greece so many works were held to gain power over other places and to dominate others. In order to develop a friendly and cordial relations among the people.They decided to meet once in 4 years. So for the first time in 776 B.C. the Olympic games were held in Athens the capital city of Greece.The games were continued from 776 B.C. to 394 B.C. without any disturbance. After that the King Theodesis felt very difficult to conduct the games and cancelled them. These games which were held upto this period were called as ancient Olympic games. Only the men were allowed to play in this. The players who won were rewarded with a crown which is beautifully decorated with olive leaves.After cancellation of ancient Olympics nobody thought about them including Athens and upto 1984 A.D. also nobody concentrated on Olympics.In 1984 a Frenchman Piere De Coubertine who was the admirer of games and himself a player had thought of unification of the countries in the world. So with that idea he wanted to start modern Olympics in 1984 with the help of France and England. He wanted to start first Olympics in Franch. But Greece did not agree for it and brought a proposal to start them in Greece as it was the origin of (birthplace of) Olympic games.Modern Olympic games were began in 1896 in Athens the capital of Greece. The countries participated in the beginning 21 Number of events 9.

Slogan of Olympics

Citious Altious Fortious

So far the modern Olympic games were conducted once in 4 years. But they were not held in 1916, 1940 and 1944 because of first and second world wars.

Performance of India in Olympics :

Team Event :- Hockey India started participating in modern Olympics since 1920 held in Antiwerp. India started participating in the event of hockey in 1928 olympics. India won 6 gold medals in hockey from 1928 olympics held in Amsterdam to 1956 Melbourne Olympics.

1960	-	Rome	-	Silver
1964	-	Tokyo	-	Gold
1968	-	Mexico	-	Bronze
1972	-	Munich	-	Bronze
1976	-	Montrial	-	7th place
1980	-	Mosow	-	Gold (Last time)
2008	-	Beizing	-	Not qualified
2012	-	Brifon	-	Last Place

Performance in individual events :

1952 – Kashabajada Yadav won bronze medal in Wrestling Light weight event. After that India failed to win a single medal in individual event upto 1996.In 1996 Atlanta Olympics Leander Pace won Bronze medal in Tennis.In 2000 Sidney Olympics Karanam Malleshwari won a Bronze medal in Wieght Lifting. She belongs to Andhra Pradesh.In 2004 Athens Olympics Rajyavardan Singh Rathode won a Silver medal in Shooting Double trap.

In 2008 Beizing Olympis in Shooting Abhinav Bindira won Gold Medal.

India's performance in 2012 London Olympics

1) Vijay Kumar - 25m Rapid fire pistol - Silver medal
2) Saina Nehwal – Shuttle Badminton - Bronze medal
3) Susheel Kumar – Wrestling - Silver medal
4) Yogeshwar Dutt – Wrestling - Bronze medal
5) Gagan Narong – Shooting - Bronze medal
6) Marykom – Boxing - Bronze medal

(Boxing event for women is introduced in 2012 Olympics. Marykom won bronze for it. She is the mother of two children.

In individual events Gold – 1 shooting
Silver – 3
Bronze- 7

Total number of medals won by India in Olympics :
Hockey – 11 and Individual events – 11

Performance of Small Countries in Olympics :

Recently 30th Olympics were held in Briston. India won 22 medals participating 20 Olympics so far. Population of India is nearly 120 Crores but India was failed to perform well. But small countires with less population and limited sources were able to perform brilliantly Ex: Jamaica's population is 30 lakhs. It was participating in Olympics since 1948. Total number of medals won by it is more than 160. Hungary is one more smaller country than ours with 1 crore population But the medals on in Olympics are 465.Performance of China in Olympics China started participating in Olympics since 1920 which were held in Antiwarp along with India but it was able to win a century of medals only in Beizing Olympics. China has a slight difference in population with India and resembling geographical conditions. But it was able to challenge the countries in the world events U.S.A.

Reason's for Success of China :

- From school level the children will tested physically and selected according to their performance levels and standardly.
- The child is picked for suitable sport and trained in sport acadamies. The government will provide all facilities and train them vegoursly.
- If a sports man failed in his event he was not sanctioned with any allowances those who are determined with their work are treated very well and sanctioned all allowances by the government.
- At school level the children are trained in sports academies even in small towns. Special sports schools are setup at College level.

China's challenge with other countries and Measures taken for its success in sports.

1) Training with new methods and techniques.
2) Providing and facilities for sportsmen so that they may not suffer with financial problems.
3) The worthy and suitable sportsman are selected without any political interference.
4) If sportsmen participated in national and international games they will be sanctioned with special allowances and job security.
5) The sportsmen are trained in such away that they play with strong determination and passion towards sports and spirit to win.
6) China was advanced methods and techniques which are used by western countries.
7) Nutritions food will be provided for the sportsmen.

The above creative methods were practiced by China and it was succeded in the games and sports. Once Napolean quoted that "China is a devil which is sleeping the day when it wake up all the countries in the world will be suppressed it is true that not only in sports but financially China is ruling the world with its hardwork and dedication.

India in sports reasons for a disappointed and weak performance.

1) There are no proper trainees or coaches, new and advanced techniques are not used
2) No balanced diet is provided for sportsmen
3) Climate conditions are not favoured comparatively western countries as India is a warm country.
4) Political interference in sports
5) Sportsmen have no assurance of allowances if they participate in games.
6) When a child is passing from his school level and entering into junior and degree college levels there are no follow up activities and sports academies for them. There are no proper facilities at villages and they are not accommodated in towns.
7) There was no proper budget allocation for sports from centre and state. It is not even 1%.
8) Western countries allocation of budget for sports is comparatively more than ours.
   Ex :- America 7%, China 0.2 to 6% France 6%
   England 6%, India 0.2 to 0.3%

9) Developed Countries and other countries are giving more importance for games school level. For every event separate PET will be recruited. In total school there will be minimum of 2 to 8 members.

Some Suggestions and methods for betterment and good performance in sports

1. The permission should not be granted for schools, colleges and higher level of educational institution if they are failed to show proper sports grounds and facilities.
2. The government should make games and sports as compulsory subject in all the educational institutions including aided and private institutions. In evaluation process if a student is failed he should be retained in the same class. All the educational institutions must have a physical education teacher and a coach.
3. The Central and State Governments should allot more funds. For each district head quarter sports academies should be set up for all sport events and continuous training should be given.
4. If a student is showing good performance in sports government should take care of him by joining him in Sports academy with all facilities provided.
5. If a player is succeeded at National level the government should provide job security or he should be given allowance till he gets a job.
6. Physical education should be considered for evaluation like other subjects and weightage should be given.
7. There is a great scope for selection of true and worthy players if all the sports authorities are brought under government control. There will be no chance for sports authorities to select on their own by showing particularly influenced by other factors. The true sportsmen will be selected.
8. The state and central government should take measures for impartial selection of players without any political interference.
   Ex : In cricket Sharad Power, Bihar-Laloo Prasad Yadav, A.P. Olympic Association President Lagadapati were elected.
   National wide for all Sports authorities political leaders are holding main posts. So this system should be banished.
9. At each Mandal, District head quarter levels sports stadium should be built.

Even though all the above reasons are hindering development of sports it is a good sign that recently central and state governments are started showing interest on sports. The state and central government are providing reservations in jobs and in educational institutions.Central government announced government jobs for the players participated in 2012 London Olympics. Central sports minister Ajay Macon announced promotions for the players who won medals in 2012 Olympics and they will be treated as IAS special grade. Any how it is an inevitable development that India progressed from the state of will to 6 medals in 2012 London Olympics.Now India is stepping forward to get 20 medals in forthcoming 2016 Olympics which will be held in Rhio. There is a change in some state governments view that they are making physical education should be a compulsory subject and it should be evaluated. A.P. Government recently had taken a step that in every high school 6 periods each class in a week are allotted for physical education as per G.O.Ms.No.63. There was a hike in reservation quota of education and jobs. It was increased from 0.5% to 2% G.O.Ms.No.74 Dt:08-09-2012.Now India is treated as **"Industry for Diabetes"** most of the people are suffering from heart attacks and obesity.So to build a healthy India we should provide proper place for sports. Sports should be encouraged from ground levels so that we can build our nation deep and strong "A Sound Mind in a Sound body" – Ruso. A Nation's strength depends **not on its wealth but on healthy human beings.**

Comparitively to north India the diabetic percentage is more in South India because of their food habits and lack of Physical exercise so we should develop good food habits and practice yoga and physical exercises for better health conditions.

So all of us join our hands and strive for a healthy and wealthy India because Health is Wealth. If a country is completely healthy it can think healthy and it can progress in a better way so that we can see a prosperous and mighty and unbeatable India.

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Hand-Eye Coordination, Arm-Shoulder Coordination And Dynamic Balance In Different Age Groups Of Adolescent School Children

Dr.P.Johnson
Assistant Professor, University College of Physical Education & Sports Sciences, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur, A.P., India
Ch. Krishna Reddy
Doctoral Research Scholar, Acharya Nagarjuna University, Nagarjuna Nagar, Guntur, A.P. India.

Abstract

The authors selected to understand and analyze the independent motor ability components among the male school children from basing on the age groups 8-10 years, 10-12 years, 12-14 years and 14-16 years. We have taken 200 students with 50 students in each group as sample for the present study. To measure the hand-eye coordination, arm-shoulder coordination and dynamic balance the tests like Wall past test, soft ball throw performance and Modified Bas dynamic balance test was conducted. The data analysed with Analysis of Covariance (ANCOVA) taking the pre-test andpost-test scores of the motor ability components of the individuals to know the significant difference among the four groups. The following conclusions were drawn from the present research study. (i) 12 to 14 years age group children showed more significant improvements in hand–eye coordination factor of motor ability when compared to the other three groups of children, (ii) 10 to 12 and 12 to 14 years age children groups experienced significant improvements in arm-shoulder coordination factor of motor ability, when compared to both the 8 to 10 and 14 to 16 years age children, 12 to 14 years age group children showed more significant improvements in dynamic balance factor of motor ability, when compared to the other three groups of children.
Keywords: Hand-eye coordination, Arm-shoulder coordination, Dynamic Balance and Adolescent.

Introduction

For being physically fit to participate in basic and vigorous movements, the individuals need to possess the qualities like speed, strength, endurance, flexibility and coordination. So, to participate in some kind of physical activities an individual apart from possessing the above general fitness components should also possess minimum physical fitness. At the same time involving in physical activities will improve the individual's status of physical fitness. But, to be healthier and to lead disease free quality life, an individual should also possess other components like cardio-respiratory, and circulatory endurance, and ideal body composition. This new concept is now termed as Health Related Physical Fitness. The health related physical fitness, which includes the components of muscular strength; muscular endurance, cardio respiratory endurance, flexibility and ideal body composition can be developed with improvements in general physical fitness. In this pursuit, the physical educationists are interested to know the fitness concepts that are useful for maintaining good health and posture since childhood and also useful for producing fine skills to participate and excel in sports competitions. For both these purposes the fitness is very essential. The fitness is identified as physical fitness. But, since the involvement in fitness programs requires motor fitness at optimum levels to be able to participate in various sporting skills. The motor fitness is also an important prerequisite to establish oneself as an outstanding sportsperson with outstanding complex skill prospectively. Improvement in general physical fitness and also the health related physical fitness can be attained by involving in various fitness program like jogging, dancing, participating in athletics, participating in various games activities etc. But, to participate in various physical skills, an individual's motor fitness levels should be optimum to suit the movements selected. The motor fitness demands maturation and consolidation of motor ability components. The parallel development of Motor fitness and Physical fitness is highly essential at the developing age. This ensures the child to become prospective skilled sportsperson and also highly fit individual. The present study would bring some constructive evidence, on the impact of kinesthetic sense on the movement and motor performance enrichment.

The study provides knowledge on the development patterns of the motor ability and its related concepts, especially with relation to the age of the subjects.
The study will initiate more such researches and can promote core interest in the domain of motor performance and its related topics, especially of the motor ability of the individuals.
The purpose of the study was to compare and analyze on responsiveness in motor ability individual components in response to the selected physical movements, among the male school children in the age groups of 8 to below 10 years, 10 to below 12 years, 12 to below 14 years and 14 to below 16 years, and to find out if there existed any difference on the selected criterion variables.

Review Of Literature

Karim Salehzadeh, Ali Karimiasl, Saba Borna, Mohsen Shirmohammadzadeh (2011) examined the effects of eight weeks of strength training, Plyometric, and combination training on dynamic balance in teenage Handball player. 40 teenage Handball players with the means and standard deviation between the ages of 93.16 years, weight of 39.72 kg and with the height of 73.176 and any signs of lower body damage, arterial disorders participated voluntarily. The day before training for eight weeks, subject's dynamic balance is measured by SEBT test. During eight weeks in which 3 groups did their especial trainings, Control group were asked to continue their daily activities. Descriptive statistics, one way ANOVA and Tukey's post hoc test were used at significance level of (=0.50) for statistical analysis of the given data. Results showed that strength trainings, Plyometric and combinational have significant increase in subjects achievement distance in eight directions SEBT. Also, combination of strength training and plyometric and plyometric training in comparison with strength training creates more improvement in subject's dynamic balance.

Methodology

Selection of the Subjects

The research problem selected was to understand and analyze the independent motor ability components among the male school children from 8 to 16 years basing on the age groups, like 8 to 10 years, 10 to 12 years, 12 to 14 years and 14 to 16 years. The researcher needed four groups of school children. For this the researcher took the help of the Physical Education Teachers to randomly select and keep them ready for the testing protocol arranged by the research scholar. A total of 200 students with 50 students in each group representing four age groups were involved in the research study. So, there were four groups called 8 to below 10 years group (8 to 10 group for the study), 10 to below 12 years group (10 to 12 group for the study), 12 to below 14 years group (12 to 14 group for the study) and 14 to below 16 years group (14 to 16 group for the study) with 50 children in each group.The selection of the subjects was purely on the random basis without any bias, selecting from the attendance sheets of the students after consulting the concerned physical education teacher. For this purpose the whole Osmania university area was divided on geographical basis into four segments and from each segment fifty subjects were drawn as already explained earlier. Measurement of Hand-Eye Coordination

By measuring the Wall pass test. Directions: The subject stands behind a restraining line that is drawn 9 feet from the wall. On the signal to begin subject passes the ball against the wall in any manner he chooses. He attempts to catch the rebound and toss it again as many times as possible for 15 seconds. For the pass to be legal, both of the subject's feet must remain behind the restraining line. Scoring: The score is the number of times the ball hits the wall in the 15 seconds.

Measurement of Arm-Shoulder Coordination By measuring the soft ball throw performance. Directions: The subject was allowed three trials. A short run was allowed, but the subject neither must nor step over the restraining line. Scoring: The best of three trails are recorded. Distance was measured to the nearest foot.

Measurement of Dynamic Balance Modified Bas dynamic balance test protocol was used. The marked area for the test was 30 inches to 180 inches and eleven tape pieces of one by three fourth inch were used as indicators as per the test protocol. Starting with the right foot on the starting mark, the performer leaps to the first tape mark with the left foot and tries to hold a steady position on the ball of the foot for up to five seconds. He then leaps to the second tape with the right foot and so on, alternating the feet from tape to tape. The score for each mark successfully landed on was five points, and in addition one point was awarded for each second the balance was held up to 5 seconds and hence maximum possible score was 100 points.

Statistical Technique Used: The researcher analyzed the data with help of Analysis of Covariance (ANCOVA) taking the pretest and posttest scores of the motor ability components of the individuals to know if there was any significant difference among the four groups in the responsiveness on them because of the experimental movements

Analysis And Interpretatiion Of Data

*Analysis on the Hand - Eye coordination factor of the Motor ability measured by wall pass performance:*The table I depicts that there is significant influence of the selected experimental variables on the Hand – Eye coordination aspect of the Motor ability measured through the Wall pass performance, since the obtained F value i.e. 19.75 is more when compared to the table F Value of 2.66. Table I Analysis of Covariance for Wall Pass

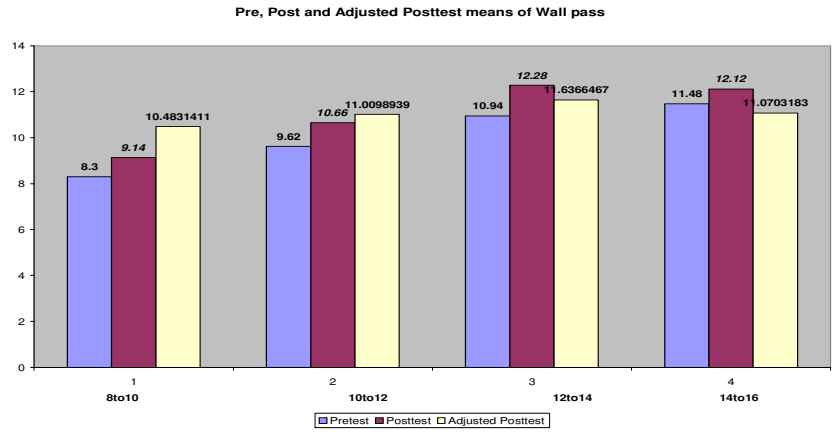
Source	Df	SS	MS	F	Cr.F
BG	3	42.02594	14.00865	19.75425	2.66
WG	196	138.9926	0.709146		
Total	199	181.0186			

Table II depicts the post test means and also the adjusted post test means of the four experimental groups on the selected criterion variable i.e. Wall Pass performance.

Table II : Pretest, Posttest and Post test adjusted means for Wall Pass

Groups	N	MX	MY	MY.X
8 to below 10	50	8.3	9.14	10.48314
10 to below 12	50	9.62	10.66	11.00989
12 to below 14	50	10.94	12.28	11.63665
14 to below 16	50	11.48	12.12	11.07032

Figure I



Post test values of the Wall pass performance of the four groups were 9.14 repetitions, 10.66 repetitions, 12.28 repetitions and 12.12 repetitions respectively for 8 to 10, 10 to 12, 1 to 14 and 14 to 16 years age children groups. But the adjusted post test means over the baseline values and average of the baseline values for these groups were 10.48 repetitions, 11.01 repetitions, 11.63 repetitions and 11.07 repetitions respectively. Adjusted post test means over the baseline values (Mx) indicated that the 12 to 14 yrs age children group showed highest adjusted average for the Wall pass performance with 11.64, followed by 14 to 16 yrs age group with 11.07, followed by 10 to 12 yrs age group with 11.01 and followed by 8 to 10 age group with 10.48 repetitions.

Table III : Scheffe's Post hoc individual comparison test for Wall Pass

Comparison Difference = 0.48

Groups & Values	12 to below 14 11.64	14 to below 16 11.07	10 to below 12 11.01
14 to below 16 11.07	0.57 Sig		
10 to below 12 11.01	0.63 Sig	0.06 N. Sig	
8 to below 10 10.48	1.16 Sig	0.59 Sig	0.53 Sig

To find out the source of significant difference and to find out which age group children showed more responsiveness on the Hand – Eye coordination component of motor ability, Scheffe's Post hoc individual comparison test was conducted. As depicted in table XV the four experimental groups were arranged in a descending order as per their post test adjusted means of the criterion variable. If any two groups' difference is more than the comparative difference obtained i.e. 0.48, there is significant effect because of the experimental variables. 12 to 14 years age children group experienced significant improvements in the wall pass performance when compared to the 14 to 16 years age children group (0.57), 10 to 12 years age children group (0.63) and 8 to 10 years age children group (1.16) indicating that the 12 to 14 years age children group experienced the most significant positive effect on Hand – Eye coordination factor of motor ability when compared to all the other three groups.
*Analysis on the Arm - Shoulder coordination factor of the Motor ability measured by Soft ball throw performance:*The table IV depicts that there is significant influence of the selected experimental variables on the Arm – Shoulder coordination component of the Motor ability measured through the Soft Ball Throw performance, since the obtained F value i.e., 28.24 is more when compared to the table F Value of 2.66.

Table IV : Analysis of Covariance for Soft Ball Throw

Source	Df	SS	MS	F	Cr.F
BG	3	526.4826	175.4942	28.23986	2.66
WG	196	1218.025	6.214414		
Total	199	1744.508			

Table V depicts the post test means and also the adjusted post test means of the four experimental groups on the selected criterion variable i.e. soft ball throw performance in feet. Post test values of the soft ball throw performance of the four groups were 42.18 ft, 50.4 ft, 50.4 ft and 61.84 ft respectively for 8 to 10, 10 to 12, 1 to 14 and 14 to 16 years age children groups. But the adjusted post test means over the baseline values and average of the baseline values for these groups were 51.33 ft, 53.38 ft, 53.58 ft and 51.52 ft respectively. Adjusted post test means over the baseline values (Mx) indicated that the 12 to 14 yrs age children group showed highest adjusted average for the soft ball throw performance with 53.58 ft, followed by 10 to 12 yrs age group with 53.38 ft, followed by 14 to 16 yrs age group with 51.53 ft and followed by 8 to 10 age group with 51.33 ft.

Table V : Pretest, Posttest and Post test adjusted means for Soft Ball Throw

Groups	N	MX	MY	MY.X
8 to below 10	50	39.22	42.18	51.33132
10 to below 12	50	44.8	50.4	53.3804
12 to below 14	50	49.14	55.4	53.58079
14 to below 16	50	56.82	61.84	51.52748

Figure II

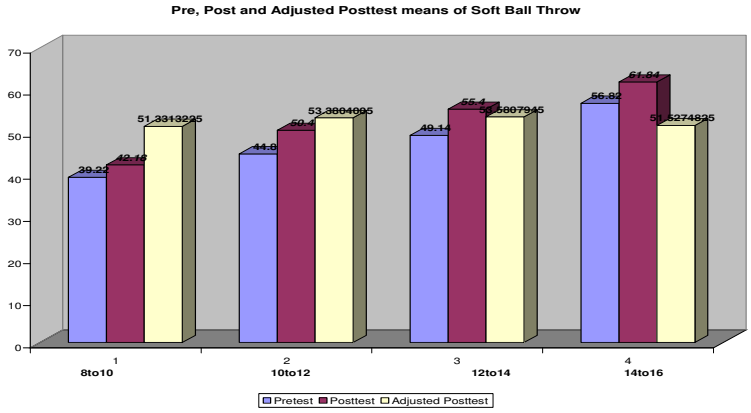


Table VI : Scheffe's Post hoc individual comparison test for Soft Ball Throw
Comparison Difference = 1.41

Groups & Values	12 to below 14 53.58	10 to below 12 53.38	14 to below 16 51.52
10 to below 12 53.38	0.2 N. Sig		
14 to below 16 51.52	2.06 Sig	1.86 Sig	
8 to below 10 51.33	2.25 Sig	2.05 Sig	0.19 N. Sig

To find out the source of significant difference and to find out which age group children showed more responsiveness on the Arm – Shoulder coordination component of motor ability, Scheffe's Post hoc individual comparison test was conducted. As depicted in table XVIII the four experimental groups were arranged in a descending order as per their post test adjusted means of the criterion variable. If any two groups' difference is more than the comparative difference obtained i.e. 1.41, there is significant effect because of the experimental variables. The ordered difference between 12 to 14 years age children group and 14 to 16 age group and the ordered difference between 12 to 14 years age group and 8 to 10 years group were significant but the ordered difference between 12 to 14 and 10 to 12 years age children groups was not significant indicating that both the 10 to 12 and 12 to 14 years age children groups did not show difference in the arm shoulder coordination component of the motor ability.

Analysis on the Dynamic balance factor of the Motor ability measured by Modified Bass dynamic balance test:

The table VII depicts that there is significant influence of the selected experimental variables on the dynamic balance component of the Motor ability measured through the Modified Bass dynamic balance test, since the obtained F value i.e. 67.13 is more when compared to the table F Value of 2.66.

Table VII : Analysis of Covariance for Modified Bass Dynamic Balance

Source	Df	SS	MS	F	Cr.F
BG	3	1251.554	417.1848	67.13179	2.66
WG	196	1218.025	6.214414		
Total	199	2469.58			

Table VIII depicts the post test means and also the adjusted post test means of the four experimental groups on the selected criterion variable i.e. Modified Bass dynamic balance test. Post test values of the variable of the four groups were 48.18, 57.4, 64.4 and 68.84 respectively for 8 to 10, 10 to 12, 1 to 14 and 14 to 16 years age children groups. But the adjusted post test means over the baseline values and average of the baseline values for these groups were 58.37, 59.72, 62.73 and 51.10 respectively. Adjusted post test means over the baseline values (Mx) indicated that the 12 to 14 yrs age children group showed highest adjusted average for the Modified Bass dynamic balance test with 62.73, followed by 10 to 12 yrs age group with 59.72, followed by 8 to 10 yrs age group with 58.37 and followed by 14 to 16 age group with 51.1.

Table VIII: Pretest, Posttest and Post test adjusted means for Modified Bass Dynamic Balance

Groups	N	MX	MY	MY.X
8 to below 10	50	46.22	48.18	58.3713
10 to below 12	50	52.8	57.4	59.72517
12 to below 14	50	56.14	64.4	62.73233
14 to below 16	50	63.82	68.84	51.10201

Figure III

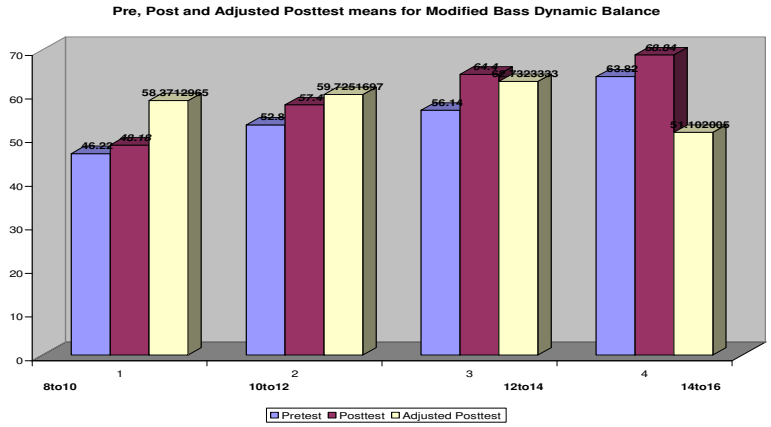


Table IX : Scheffe's Post hoc individual comparison test for Modified Bass dynamic balance test
Comparison Difference = 1.47

Groups & Values	12 to below 14 62.73	10 to below 12 59.72	8 to below 10 58.37
10 to below 12 59.72	3.01 Sig		
8 to below 10 58.37	4.36 Sig	1.35 N. Sig	
14 to below 16 51.1	11.63 Sig	8.62 Sig	7.27 N. Sig

To find out the source of significant difference and to find out which age group children showed more responsiveness on the Dynamic balance component of motor ability, Scheffe's Post hoc individual comparison test was conducted. As depicted in table XXI the four experimental groups were arranged in a descending order as per their post test adjusted means of the criterion variable. If any two groups' difference is more than the comparative difference obtained i.e. 1.47, there is significant effect because of the experimental variables. Ordered difference between 12 to 14 years group and 10 to 12 years group (3.01), between 12 to 14 and 8 to 10 years group (4.36) and between 12 to 14 and 14 to 16 were significant indicating that the 12 to 14 years age children group experienced more positive significant change in dynamic balance component of motor ability when compared to the other three groups of the experimentation.

Discussion

Two hypotheses were formulated at the initiation of the research. (i) There will be significant difference among the four groups in the responsiveness on all the motor ability components because of the selected movements. (ii) The selected movements will bring significant difference in responsiveness of motor ability components and the responsiveness will be more positive as the age of the individuals advance.

Hypothesis-I: the responsiveness on the Hand-Eye coordination factor of the motor ability measured through wall pass performance of the four groups will be significant is rejected since there was no significant responsiveness difference between 14 to 16 years age children group and 10 to 12 years group of the experimentation, though there was significant difference among the other two groups and also there was significant difference between 8 to 10 age group children and all the three other groups of experimentation. The responsiveness on the Arm-Shoulder coordination factor of the motor ability measured through the soft ball throw performance of the four groups will be significant is rejected since there was no significant difference in responsiveness between 12 to 14 and 10 to 12 age groups and also between 14 to 16 and 8 to 10 years age children groups of the experimentation, but only the difference between 12 to 14 years and 14 to 16 years groups and 12 to 14 and 8 to 10 years age children groups of the experimentation have experienced significant effect on the Arm-Shoulder coordination factor because of the experimental exercise variables. The responsiveness on the dynamic balance factor of the motor ability measured through the soft ball throw performance of the four groups will be significant is rejected since there was significant difference in responsiveness between 12 to 14 and 10 to 12 age groups, between 12 to 8 to 10 years age groups and between 12 to 14 and 14 to 16 years age children groups of the experimentation, but there was no significant difference between 10 to 12 years and 8 to 10 years groups and 8 to 10 and 14 to 16 years age children groups of the experimentation.

Hypothesis-II: In the Hand–Eye coordination factor of motor ability measured through wall pass performance, 12 to 14 years age group children showed more significant improvements when compared to the other three groups of children of the experiment and hence the hypothesis that the children with advancing age will experience more significant responsiveness in hand – eye coordination factor is rejected. This improvement in this factor among the 12 to 14 years age group children may be attributed to the maturation and consolidation of sense of proprioception during this age. In the Arm–Shoulder coordination factor of motor ability measured through Soft ball throw performance, 10 to 12 and 12 to 14 years age children groups experienced significant improvements when compared to both the 8 to 10 and 14 to 16 years age children groups of the experimentation and hence the hypothesis that the children with advancing age will experience more significant responsiveness in arm–shoulder coordination factor is rejected. This improvement in this factor among the 10 to 12 and 12 to 14 years age group children may be attributed to the maturation and consolidation of sense of proprioception during this age than the physical maturation. C

Conclusions

The following conclusions were drawn from the present research study :

12 to 14 years age group children showed more significant improvements in hand – eye coordination factor of motor ability when compared to the other three groups of children of the experiment, which clearly signifies the more rapid consolidation of sense of kinesthesia during this age of the children.

10 to 12 and 12 to 14 years age children groups experienced significant improvements in arm - shoulder coordination factor of motor ability, when compared to both the 8 to 10 and 14 to 16 years age children groups of the experimentation, which clearly signifies the more rapid consolidation of sense of kinesthesia and physical maturation during this age of the children.12 to 14 years age group children showed more significant improvements in dynamic balance factor of motor ability, when compared to the other three groups of children of the experiment which clearly signifies the rapid consolidation of sense of proprioception during this age.

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The Financial andTechnological Impact of Sports in public health

***G.Srinu(Ph.D) Research scholar,Department of Public Administration,Osmania University,Hyderabad.500 007.**
****Sree Kalicharan,M.A(Economics)Osmania University,Hyderabad-500007.**
*****A.Kishan MCA Kakatiya Institute of Technology, Warangal, Andhra Pradesh.**

Introduction:The Impact of Computers on Education Technology is all around us these days. If you don't understand the basics of computers and how to run one your choices of jobs and things to do are limited. Almost everywhere you go and every job you can think of uses computers. For this reason, computers have become a big part of the education system. I'm planning on teaching elementary students so I researched the impact that computers have had on teachers and students. Today, computer education is a part of school and college curricula. Considering the wide range of applications of computer technology, it is necessary for each one of us to computer-friendly. Considering the advantages of Internet technology, it is important for each of us to gain basic knowledge of Internet access and web research. We live in a technology-age and hence, it is important for us to be abreast with the latest inventions in the field. With education, we acquire knowledge of the functioning and use of different pieces of technology. And with the application of technology, we can educate ourselves better. This is the impact technology and educations have on each other. Education boosts use of technology and technology aids education.
The importance of technology in education cannot be stressed enough. The introduction of technology in the educational field has made the process of learning and knowledge sharing, a more interactive and pleasurable experience. Perhaps, the greatest impact of technology on education is the change in perspective. The paradigm shift in thinking from local to global can be attributed to technology. Indeed technology is one of God's greatest gifts to mankind.
Engaging in sports is good for your health in many ways. But sports carry risks, too. Knees get banged up. Tendons get torn. Bones get fractured. In the worst cases, a sports-related accident can cause serious injury. Consider just one popular competitive and recreational sport: bicycling. Half a million people show up at emergency rooms in the U.S. each year because of bicycle-related injuries. In 1989, nearly 85,000 of those were head injuries, according to the American Association of Neurological Surgeons. Overall, U.S. hospital emergency rooms treat nearly half a million sports-related head injuries annually a number that has grown in recent years.According to the Consumer Product Safety Commission, adults aged 35 to 54 suffer more than one million sports-related injuries each year. Among Americans of all ages, sports-related injuries account for more than 4.3 million emergency room visits a year. "A serious sports injury can knock you out of work for a few weeks, months, or even longer," says Nancy G. Shor, an expert in disability coverage and executive director of the National Organization of Social Security Claimant Representatives. "Being disabled by an injury can mean loss of income and, for many households, severe financial hardship." By being prepared, you can minimize the financial impact -- and psychological stress -- of a serious sports injury.

Here are 5 steps to take if you've suffered a sports injury.

1. Talk to Your Employer If you'll be sidelined for a short time, you may be able to negotiate a leave of absence from work and collect all or part of your paycheck. Depending on what kind of work you do, you may be able to take on other responsibilities while you recover from your injury. Or you may be able to work from home. The human resources manager at your place of employment can help advise you about your options.

2. Understand Your Prognosis If you've sustained a serious sports-related injury, talk to your doctor about what you can expect. Talking frankly about your prognosis can be difficult. But the more you know, the better you can plan for the future. Communicating with your doctor is also important if you intend to apply for disability assistance.

3. Take Rehabilitation Seriously Rehabilitation programs are designed to help people with serious sports injuries get back on their feet and back to work. Your doctor can refer you to a rehabilitation specialist. Some health insurance plans limit payments for rehabilitation, so check with your carrier to see what your policy offers.

4. Look into Disability Assistance If you may be out of work for several months or longer, it's important to check your options for disability assistance.

- Group or private disability insurance. Some employers offer disability insurance plans for all employees. Ask your human resources manager if you have it. Also, look into your records at work and at home to see if you have a private disability insurance policy. "Private disability insurance plans typically pay all or most of your pre-disability income for the first year or two if you cannot perform the duties of the job you held before becoming disabled," says Shor. "After two years, many policies continue paying only if you are unable to do any kind of work."
- State disability assistance. Some states offer their own disability insurance plans. Requirements vary widely. Contact your state department of employment for information.
- Social security disability. Social security offers disability assistance if you are unable to do the work you were doing before or any other kind of work because of either physical or mental impairment.
- Medicare. If you are disabled and unable to work for more than two years, you qualify for Medicare, even if you are below retirement age. Medicare can be particularly helpful if your disability involves ongoing medical costs.
- Worker's compensation. Most sports-related injuries aren't covered by worker's compensation, which is typically limited to injuries on the job. There are exceptions, however. If you're injured during an activity sponsored by your employer or one that you were specifically encouraged to engage in by your employer, you may be covered.

Conclusion

Even if you qualify for disability income assistance, you're likely to get less than your previous salary. State and federal programs cap payments at 80% of pre-disability income level, for instance. Because serious sports injuries often require extensive medical care, you may also have large medical bills. Review your household budget. List all the bills you must pay each month. Estimate how much you need for food and other essentials. Then estimate how much money you will be taking in. If your income falls short of your costs, look for ways to trim expenses.

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Isolated And Combined Effects Of Yogic Practices And Walking On Flexibility Among School Boys

Md. Kamrul Hassan* Mahaprasad Ghosh **
***Lecturer (Full time Contractual) Deptt. of Physical Education, Falakata College, NBU, W.B.**
Email id: hssnkmrl@yahoo.com
****Ph.d Research Scholar, Visva Bharati, Santiniketan, W.B**
Email id: mahaprasadghosh@gmail.com

ABSTRACT

Education is very essential for all the games and there were many types of training which are used to develop the flexibility (motor fitness components) based upon the intensity and duration of the games. The aim of this study the scholar is interested to determine the isolated and combined effects of yogic practices and walking on flexibility among high school boys. To achieve the purpose of this study the investigator selected schools boys who were from Mahodary High School, Birbhum district, West Bengal. The subjects were selected randomly and their age was between 14 and 16 years. They were assigned into four groups of which one group served as yogic practices groups, second group served as walking group, third group combined walking exercise and yogic practices group and the fourth group served as control group. The training programmes for this study were six weeks yogic practices for experimental group I and six weeks walking for group II, six weeks combined walking and yogic practices for experimental group III and the control group was not given any training except of their routine. The selected subjects were measured of their flexibility by Sit and Rich Text Box before and after the training period of six weeks from all the four groups.The differences between the initial and final scores of flexibility were subjected to statistical treatment using Analysis of Covariance (ANCOVA).The results of this study proved that comparing with control group the yogic practices group significantly improved the flexibility. The results of this study proved that comparing with control group the walking group significantly improved the flexibility. The results of this study proved that comparing with other groups, combined group significantly improved the flexibility. The results of this study proved that Yogic practices group significantly improved flexibility. It was concluded that combined walking and yogic practices group was significantly better than yogic practices group, walking and control group in improvement of flexibility. It was concluded that yogic practices group was significantly better than control group in improving of flexibility. It was concluded that walking group was significantly better than control group in flexibility. It was concluded that yogic practices group was significantly better than walking group in improving flexibility as measure through sit and reach test among school boys.

Keyword: Yoga, Walking, Motor fitness components, Flexibility, Physical Fitness.

INTRODUCTIONThe aim of this study was to find out the isolated and combined effects of yogic practices and walking on flexibility among high school boys. To achieve the purpose of the study was to find out the isolated and combined effects of yogic practices and walking on selected flexibility among school boys. To facilitate the study 60 school Boys from Mahodary High School, Birbhum District, and West Bengal were randomly selected as subjects and their age between 14 and 16 years. They were assigned into four groups of which one group served as yogic practices groups, second group served as walking group, the third group as combined walking and yogic exercise group and the fourth one served as control group.Tran et.al (2001) conducted a study. they selected 10 healthy, untrained volunteers (nine females and one male), ranging in age from 18-27 years, were studied to determine the effects of hatha yoga practice on the health-related aspects of physical fitness, including muscular strength and endurance, flexibility, cardio respiratory fitness, body composition, and pulmonary function. The subjects were evaluated before and after the 8-week training program. Isokinetic muscular strength for elbow extension, elbow flexion, and knee extension increased by 31%, 19%, and 28% ($p<0.05$), respectively, whereas isometric muscular endurance for knee flexion increased 57% ($p<0.01$). Ankle flexibility, shoulder elevation, trunk extension, and trunk flexion increased by 13% ($p<0.01$), 155% ($p<0.001$), 188% ($p<0.001$), and 14% ($p<0.05$), respectively. These findings indicate that regular hatha yoga practice can elicit improvements in the health-related aspects of physical fitness.

OBJECTIVES OF THE STUDY Researches show that the yogic practices significantly improve flexibility and there are researches to prove that walking significantly influences flexibility.The objective of this study was to compare the isolated and combined effect of yogic practices and walking on flexibility. Thus the objectives of this study are:

- To find out the isolated effect of yogic practice on flexibility among school boys.
- To find out the isolated effect of walking on flexibility among school boys.
- To find out the combined effect of yogic practices and walking on flexibility among high school boys.

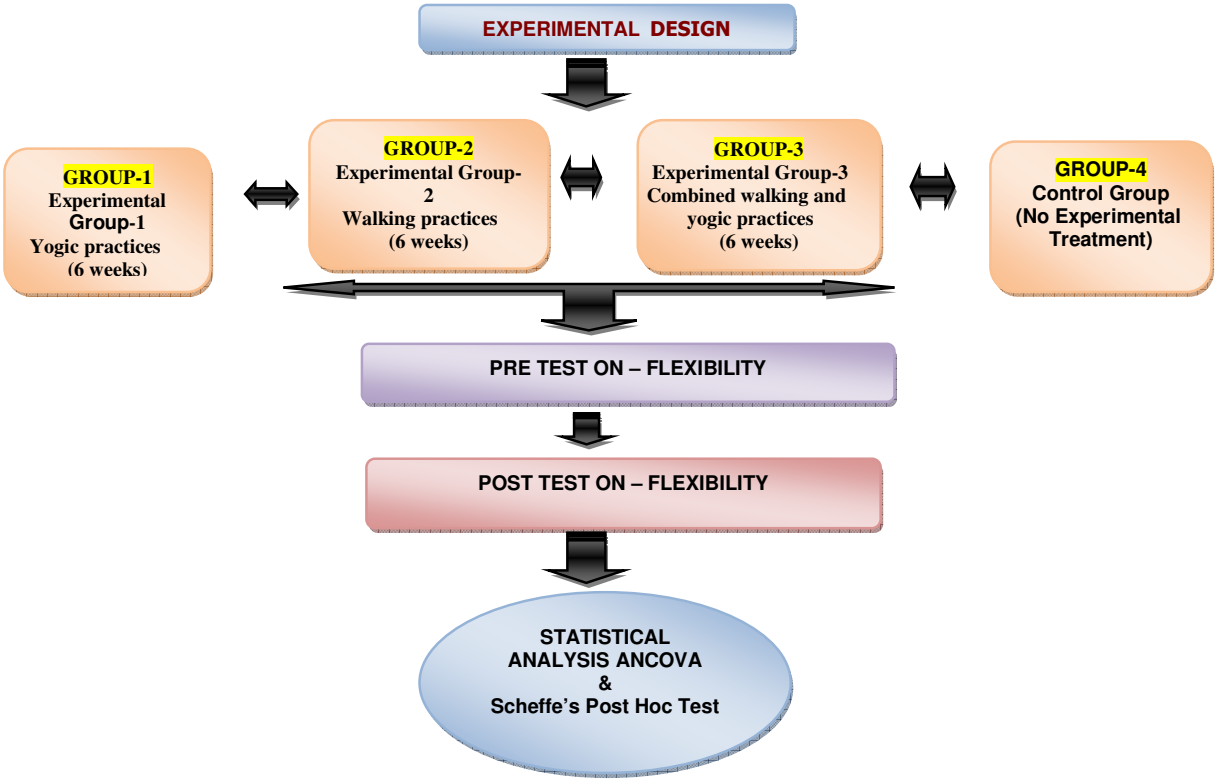
STATEMENT OF THE PROBLEM The purpose of the study was to find out the isolated and combined effects of yogic practices and walking on flexibility among school boys.

PROCEDUREThe study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n=60) were randomly assigned to four equal homogeneous groups of 15 Boys each. Among the four groups, the control group was strictly under control, without undergoing any special activity. The experimental groups were undergone with the experimental treatments. The groups were assigned as Experimental Groups I, II, III and control group respectively. Pre tests were conducted for all the subjects on flexibility as measure through sit and reach test.

TRAINING SCHEDULE

The experimental groups participated in their respective walking, yogic practices and combined walking and yogic practices for a period of six weeks. The post tests were conducted on the above said dependent variable after a period of six weeks. The training programme was scheduled at 6.30 a.m. to 7.30 a.m. on week days excluding Sundays.

STATISTICAL ANALYSIS The differences between the initial and final scores in flexibility were subjected to statistical treatment using Analysis of Covariance (ANCOVA) to find out whether the mean differences were significant or not. The Scheffe's post hoc test was used to find out the paired means significance difference. (Thirumalaisamy, 1998).



RESULT AND DISCUSSION

Results on Flexibility The statistical analysis comparing the initial and final means of flexibility due to isolated and combined effect of yogic practices and walking on motor fitness variable, flexibility is presented in Table I.

Table I

COMPUTATION OF ANALYSIS OF COVARIANCE OF FLEXIBILITY(Total Scores in centimetres)

	Yogic	Walking	Combined	Control	Source of Variance	Sum of Squares	df	Mean Squares	Obtained F
Pre Test Mean	24.80	25.13	25.07	25.2	Between	1.38	3	0.46	0.26
					Within	99.47	56	1.78	
Post Test Mean	27.80	30.13	31.07	25.9	Between	247.38	3	82.46	39.54*
					Within	116.80	56	2.09	
Adjusted Post Test Mean	28.05	30.05	31.05	25.7	Between	249.96	3	83.32	264.38*
					Within	17.33	55	0.32	
Mean Diff	3.00	5.00	6.00	0.67					

*SignificantTable F-ratio at 0.05 level of confidence for 3 and 56 (df) =2.77, 2 and 55(df) =2.77.

As shown in Table I, the obtained F value on the scores of pre-test means 0.26 was less than the required F value, which proved that the random assignment of the subjects were successful and their scores in flexibility before the training were equal and there was no significant differences.The obtained F value on the scores of post-test means 39.54 was greater than the required F value 2.77, which proved that the interventional programmes, yogic and walking exercises were significantly improved flexibility of the subjects.Taking into consideration of the pre-test means and post-test means adjusted post-test means were determined and analysis of covariance was done and the obtained F value 264.38 was greater than the required value of 2.77 and hence it was accepted that the yogic practices, walking exercises and combination of yogic practices and walking training, significantly improved flexibility of the subjects.Since significant differences were recorded, the results were subjected to post hoc analysis using Scheffe's Confidence Interval test. The results were presented in Table II.

Table II
Scheffe's Confidence Interval Test Scores on Flexibility
(Scores in centimetres)

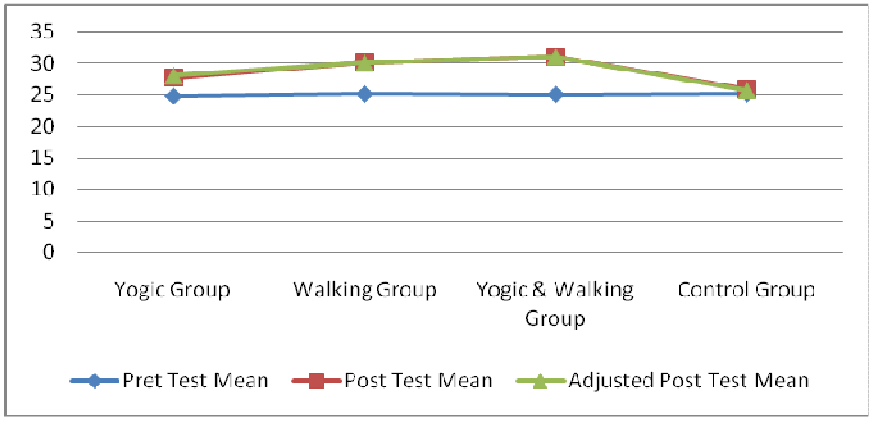
MEANS				Mean Difference	Required C I
Yogic Practices	Walking	Combined	Control		
28.1	30.1			2.0*	0.6
28.1		31.1		3.0*	0.6
28.1			25.7	2.3*	0.6
	30.1	31.1		1.0*	0.6
	30.1		25.7	4.3*	0.6
		31.1	25.7	5.3*	0.6

* Significant

The ordered adjusted means were presented through bar diagram for better understanding of the results of this study in Figure I.

Figure I

LINE GRAPH ON ORDERED ADJUSTED MEANS OF FLEXIBILITY



DISCUSSION ON THE RESULTS OF FLEXIBILITY

Table II shows the post hoc analysis of obtained ordered adjusted means of the yogic, walking, combined and control group. From the results presented in Tables I and II it was proved that the interventional programme yogic practices, walking and combination of yogic and walking exercises significantly improved flexibility of the school boys.Analysis of adjusted means through Scheffe's post hoc test proved that there was significant differences existed between yogic group and walking group, yogic group and combined group, yogic group and control group, walking group and control group, walking group and combined group, combined group and control group. This proved that due to six weeks training on yogic, walking and combined groups significantly improved flexibility comparing to control group. It was also proved that combined group was better than yogic, walking and control group in improving the flexibility of the subjects.

CONCLUSIONS

1.It was concluded that combined walking and yogic practices group was significantly better than the yogic practices group, walking and control group in improvement of flexibility.
2.It was concluded that yogic practices group was significantly better than the control group in improving of flexibility among school boys.
3.It was concluded that walking group was significantly better than the control group in improving flexibility among school boys.
4.It was concluded that yogic practices group was significantly better than the walking group in improving flexibility as measure through sit and reach test.

RECOMMENDATIONS

1. It was found in this study the combined walking and yogic practices had significantly improved selected motor fitness and physiological variables than yogic practices, walking and control group. Hence it is recommended to the coaches, physical educationists and sportspersons may include walking and yogic practices in their training schedule to improve their motor fitness and physiological preparations for better performances.
2. It was recommended that parents, managements of the schools and educational administrators to include yogic practices in their curriculum to improve motor fitness and physiological fitness of the school boys.
3. It was recommended that people of all age in the society may do yogic practices to enhance their way of life.
4. It was recommended that the government should take necessary steps to include yoga teaching in the curriculum of the school children to improve their all round fitness.

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A Comparative Study On Agility And Dynamic Blance Of Football Volleyball And Hockey Players

Dr. Sandip Sankar Ghosh* Mr. Surajit Majumder**
*** Assistant Professor, Post Graduate Govt. Institute for Physical Education, Banipur, North 24 PGS. West Bengal. Email. - sandipsankarmal@gmail.com**
**** Research Scholar, Department of Physical Education, University of Kalyani, Email. - majumdersurajit98@gmail.com**

Abstract

The purpose of the present study was to compare selected motor fitness components of Football Volleyball and Hockey players of West Bengal. In the present study Agility and Dynamic Balance were chosen as variable for motor fitness components. The study was conducted on seventy five (N=75) players [Twenty five Football, twenty five Volleyball and twenty five Hockey players]. The age group of the subjects was ranged from (14 – 18) years. In this study agility were measured by SEMO agility Test and dynamic balance were measured by Modified Bass test. Mean and standard deviation of each variable were calculated. To determine the significant difference among the means of three games in the selected motor fitness components, one way analysis of variance (ANOVA) was used. The level of significant difference was set at $p<0.05$ level of confidence. For statistical calculations Excel Spread Sheet of windows version 7 was used. The result of the study showed that, there was no significant difference in selected motor fitness components of the three different games.

Key words: Agility, Dynamic balance

Introduction

For performance excellence, in any activity, specific fitness is very important besides psychological soundness, technical & tactical efficiency and intellectual soundness. The level and types of fitness is different according to the demand and nature of sports. The fitness quality required in large area games like football, rugby, and hockey differed from that of the small area games like Volleyball, Basketball, Handball, kho-kho etc. Now the question arises that, is there any difference in motor fitness between the players of wide area and small area games? To get the answer the researchers planned the present project. They were interested to compare two specific fitness parameters – agility and dynamic balance separately for two wide area and one small area games viz. Football Volleyball and Hockey. Football and Hockey are two very popular wide area games in the world today. On the other hand volleyball as a small area games is also very popular around the world as well. Though the games (Football Volleyball and Hockey) are different from the stand point of playing area i.e. ground size required for laying out the fields but the movements executed by the players in each game required high degree of motor potentialities. It's true that the movement pattern executed by the volley balers is somehow different than the Football and Hockey players. But all the three games required high degree of motor fitness, balance and coordination ability. The researchers were interested to investigate the difference in few motor qualities among the players of the said games. Among a group of motor fitness variable, agility and dynamic balance was so chosen as these two is the utmost requirement for performing best in all the three games. It was presumed that agility and dynamic balance are the two most important quality required for performing most of the ball games though may be in varied amount. The investigators were interested to find out the amount of agility and dynamic balance possessed by the state level players in the above three games. Accordingly the present project was planned to gather information about agility and dynamic balance of state level Football Volleyball and Hockey players of west Bengal. Possibly the result would be helpful to the coaches for selecting and constructing training programs for the future players.

Methods & Materials

Twenty five Football (N_1=25), twenty five Volleyball (N_2=25) and twenty five Hockey (N_3=25) players were taken as the subjects for the present study. Thus total no of subjects were **(N=75**) seventy five only. The age group of the subjects was ranged from (14 – 18) years. They were represented their respective distract in the respective games in state championship of west Bengal. For the present project random group design was adopted. Agility and Dynamic-balance were the variables for the present study. Agility and Dynamic-balance were measured by SEMO agility Test and Modified Bass test respectively. Mean and standard deviation were the descriptive statistics and one way analysis of variance (ANOVA) i.e. by 'F' test was used as comparative statistics in the present study. The level of significant difference was set at $p<0.05$ level of confidence. For statistical calculation Excel Spread Sheet of windows version 7 was used.

Results

In **Table-1** the mean and standard deviation of obtained data belonging to motor fitness item of agility as measured by SEMO agility test of Football Volleyball and Hockey players have been presented.

Table 1
Mean and Standard Deviation of agility of football volleyball and hockey players

Name of the game	Agility (Measured in Sec.)	
	Mean	Standard deviation
Football	12.44	0.51
Volleyball	12.58	0.67
Hockey	12.53	0.44

From **Table-1** it was found that the mean and standard deviation of agility of the Football players were 12.44 ± 0.51 sec, Volleyball players were 12.58 ± 0.67 sec, and Hockey players were 12.53 ± 0.44 sec. The mean and standard deviation of obtained data belonging to motor fitness item of dynamic balance as measured by Modified Bass test of Football Volleyball and Hockey players have been presented in **Table-2**

Table 2
Mean and Standard Deviation of Dynamic Balance of football volleyball and hockey players

Name of the game	Dynamic Balance (Measured out of 100 score)	
	Mean	Standard deviation
Football	77.38	8.55
Volleyball	71.78	8.79
Hockey	73.27	8.77

From Table-2 it was found that the mean and standard deviation of dynamic balance of the Football players were 77.38 ± 8.55 score, Volleyball players were 71.78 ± 8.79 score, and Hockey players were 73.27 ± 8.77 score,

To find out whether there was any significant difference among mean values of agility for the subjects of different games, one way analysis of variance (ANOVA) technique was employed. 'F' ratio of agility has been presented in **Table- 3.**

Table 3
'F' ratio for Agility of football volleyball and hockey players.

Variable	Source of variance	Sum of squares	Mean square variance	Degree of Freedom	'F' ratio
Agility	Between Groups	0.2517	0.1258	(K- 1) = 2	0.4182
	Within Groups	21.662	0.3009	(N-K) = 72	

**significant at 0.05 level of confidence: $F_{0.05}(2, 72) = 3.11$*

From the above table it was found that in case of agility there were no significant differences among the Football Volleyball and Hockey players. The calculated "F" ratio is lesser than the table value $F_{0.05}(2, 72) = 3.11$. The level of confidence was set at 0.05 levels. Thus the difference in respect of agility among the three groups was not significant, slight difference might be due to sampling error.

In case of dynamic balance to find out whether there was any significant difference among the mean values for the subjects of different games, also one way analysis of variance (ANOVA) technique was employed. 'F' ratio of dynamic balance has been presented in **Table- 4.**

Table 4
'F' ratio for Dynamic balance of football volleyball and hockey players

Variable	Source of variance	Sum of squares	Mean square variance	Degree of Freedom	'F' ratio
Dynamic Balance	Between Groups	420.6	210.3	(K- 1) = 2	2.7759
	Within Groups	5454.7	75.76	(N-K) = 72	

**significant at 0.05 level of confidence: $F_{0.05}$ (2, 72) = 3.11*

From Table-4 it was found that in case of dynamic balance also there were no significant differences among the Football Volleyball and Hockey players. The calculated "F" ratio is lesser than the table value F0.05 (2, 72) = 3.11. The level of confidence was set at 0.05 levels. Thus the difference in respect of dynamic balance among the three groups was not significant, slight difference might be due to sampling error. On the basis of analysis of data the following results were obtained for the present project:-In agility no significant difference was found among the Football Volleyball and Hockey players.Also no significant difference in dynamic balance was obtained among the Football Volleyball and Hockey players.

Discussion

Results of the present study confirmed that there was no statistically significant difference in the mean value of agility and dynamic balance among the Football Volleyball and Hockey players. This may be due to the fact that all the three games are played with high intensity required quicker change of position and direction. The level, training age and motor fitness quality (agility, balance and coordination ability) of the players of different games wear nearly same, may also be a cause of no significant difference. The training and coaching programs on district level players in our country is yet not been structured scientifically specific to a particular game. Most of the players practices under less qualified coaches and fitness experts having very little knowledge in the science of the game. Some of the players practices under self guidance. This may be a cause of general fitness development rather game specific fitness development required for high level performance. This type of result may perhaps due to the above fact that the subjects represented as players of different games had almost equal general motor ability causes no significant difference in agility and dynamic balance. Further the investigator is of the opinion that it may also happen due to sampling error as the sample size was not too large.

Conclusions

Within the limitations of the present investigation following conclusions were drawn on the basis of the obtained results:Agility among the Football Volleyball and Hockey players does not differ significantly.Dynamic balance also does not differ significantly among the Football Volleyball and Hockey players.

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Effect of Exercise Programme with & without Mobilization for the Patients with Limited Dorsiflexion after Ankle Sprain

Manu Goyal[*], Ashok Kumar[**] & Tanu Singh[***]
***Ass. Professor & Head, MM Institute of Physiotherapy & Rehabilitation, MM University, Mullana, Haryana, India**
[**]Ass. Professor, Department of Sports Science, Punjabi University Patiala, Punjab, India
***** MPT Student, MM Institute of Physiotherapy & Rehabilitation, MM University, Mullana, Haryana, India**

Abstract
An ankle sprain known by its other names also such as sprained ankle, twisted ankle, rolled ankle. Ankle sprains are common within the general population and can result in prolonged disablement. Limited talocrural dorsiflexion range of motion (DF ROM) is a common consequence of ankle sprain. Limited ankle DF ROM may contribute to symptoms (pain, swelling, and tenderness), disability, and an elevated risk for re-injury. Purpose:Improve range of motion is the primary goal of manual therapy. This study investigated whether a mobilization with movement (MWM) technique improves dorsiflexion, relieves pain and increase the functional outcome in population with limited dorsiflexion after acute and subacute ankle sprain.Method: Study included 30 subjects who had acute and subacute ankle sprain with grade I and II. Subjects are diagnosed according to diagnostic guideline. They are randomly allocated in two groups, group A received supervised exercise programm and mobilization with movement and group B received supervised exercise only. Dorsiflexion was assessed using a universal goinometer.Result:The result shows group A (SEP+MWM, $p<0.00$) is significant than group B (SEP). Conculsion:The results of the study concluded that supervised exercise programme is effective in both cases i.e when given along with or without Mobilization with movement in reducing pain and improving dorsiflexion and decrease disability after 4wks. But benefits of SEP along with MWM is substantial as compare to SEP without MWM, therefore proving that SEP along with MWM is better strategy than SEP alone.

Key words: MWM,SEP,NPRS,ROM,FAD

Introduction

An ankle sprain known as a sprained ankle, twisted ankle, rolled ankle, ankle injury or ankle ligament injury, is a common medical condition where one or more of the ligaments of the ankle is torn or partially torn. [1] Ankle sprains are the most common injury to the ankle joint, accounting for up to 2 million injuries per year.[2] Annual incidence is estimated at 52.7 per 10,000 individuals [3]. Ankle injuries are very common in younger and active individuals, second only to the knee in the annual incidence of lower extremity sports-related injuries [4, 5]. The lateral ligament complex of the ankle, described as the body's "most frequently injured single structure"[6] is mechanically vulnerable to sprain injury. At extremes of plantarflexion and inversion, the relatively weak anterior talofibular ligament (ATFL) and calcaneofibular ligament (CFL) are prone to varying grades of rupture, often via minimal force.[7] Lateral ankle and midfoot injuries account for 80-85% of all sprains.[8,9] Grades are I, II and III, ordered from least severe to most severe ligament damage.[10] Sprain happen when the foot is rolled or turned beyond motions that are considered normal for the ankle. An ankle sprain usually occurs when a person lands from jumping or running onto an uneven surface. If the ankle is placed into an abnormal position at the same time, overstretching of the ligaments can occur. The ligaments of the ankle hold the ankle bones and joint in position, and therefore help to stabilise the ankle joint. They protect the ankle joint from abnormal movements-especially twisting, turning, and rolling of the foot [1]. According to pathophysiology when a sprain occurs, blood vessels will leak fluid into the tissue that surrounds the joint. White blood cells responsible for inflammation migrate to the area, and blood flow increases as well.[11] Along with this inflammation, swelling and pain is experienced. The nerves in the area become more sensitive when the injury is suffered, so pain is felt as throbbing and will worsen if there is pressure placed on the area. The injury consists of damage to the lateral ligament [12, 13] and results in avoidance of movement and weight bearing. [14] The inability to dorsiflexion is thought to be indicative of a severe injury. [15] At least 10 degrees of dorsiflexion is required for normal walking, [16] descending stairs, and kneeling, whereas running requires 20 to 30 degrees of dorsiflexion. [17] There are different kinds of interventions for ankle sprain like brace or cast to reduce

motion of the ankle .Crutches are frequently provided so the patient does not bear weight on the injured ankle. There are many other type of medical interventions to reduce pain and inflammation. In physiotherapy intervention rest, ice, compression, and elevation (RICE) and electrotherapy modalities are applied to control inflammation, as well as manipulative therapy and therapeutic exercise techniques to address impairments of movement and strength. [7, 14] Although manual therapy techniques (maitland, manipulation and mobilization with movement) are suggested for rehabilitation after ankle sprain, studies evaluating the effect of specific techniques on dorsiflexion range of motion particularly randomized trials, are limited. [18-21] Manual therapy theory suggests that full physiological range of motion (ROM) cannot occur when limitations in accessory joint motions exist. [22-24] Mobilization with movement or mulligan is that theory in which joint injury or dysfunction results in a positional fault and is to improve joint accessory and physiological movement. [25] It is a manual force, usually in the form of a joint glide, is applied to a motion segment and sustained while offended painful (e.g. painful reduced movement, painful muscle contraction) is performed. During the technique, the therapist must continuously monitor the patient to ensure that no pain is recreated. If pain commences, the therapist must investigate different treatment planes and/or grades of accessory motion to ensure pain-free movement. [26] Other techniques are also implied for the rehabilitation of ankle sprain in the form of supervised range of motion exercises that included Achilles tendon stretch (non weight bearing and weight bearing) and alphabet exercises. Numerous studies have looked at the effects of supevised exercises, on returning a patient to functional activity.[27-30] It helps to improve the strength and increase range of motion in the patient, client or athlete, which results in a reduced likelihood of future ankle sprains.In the state of mal-alignment within the joint, the techniques may assist in properly aligning the joint. [31] It is well documented that early mobilization post acute ankle sprain significantly improves range of motion, and decreases pain and swelling sooner than immobilization.[32-37]. Andrea Reid et at[18] investigated the impact of mobilization with movement on dorsiflexion with 23 patients and he founded there was a change in dorsiflexion but limitation of this study was that he only sees the mulligan effect on dorsiflexion. However, due to this report, this study has been designed to investigate the efficacy of supervised exercise with or without mobilization with movement with limited dorsiflexion after ankle sprain.

Materials and Methods

30 subjects were selected by means of simple random sampling based on inclusion and exclusion criteria with signs and symptoms of ankle sprain more than 4 weeks as diagnosed according to diagnostic criteria was recruited as subjects in this study. Subjects were randomly allocated into two groups- Group A (n=15) (mobilization with movement and supervised exercise programme) and Group B (n=15) (supervised exercise-(range of motion exercise). The independent variables were movement with mobilization and supervised exercise programme (Achilles tendon stretch non weight-bearing and weight –bearing, alphabet exercise).The dependent variables were ankle range of motion (dorsiflexion), Pain and functional outcome.The Pain intensity was measured on as 11 point 10cm horizontal NPRS, numbered in 1cm increments. The foot and ankle disability index: disability was measured with 26 question and score _/104 points.

Group A was given mobilization with movement and supervised exercises (range of motion exercise) and Group B was given supervised exercises.

Phase 1 mobilization with movement- The participant was in relaxed stance position. The participant was offered upper extremity support as required. Therapist uses a mulligan belt and belt was placed around the distal tibia and fibula and the therapist's pelvis, with foam cushioning the Achilles tendon. A backward translation by the therapist imparted tension on the belt and posteroanterior tibial glide, while the talus and forefoot were fixated with the web space of one hand close to the anterior joint line. The glide was sustained during slow active dorsiflexion to end of pain-free range, with the belt kept perpendicular to the long axis of the tibia throughout movement, and released after return to the starting position. Three sets of 10 repetitions were applied, with one minute between sets[74]

Phase 2: supervised exercise - After the mulligan session supervised exercises were given that was Achilles tendon stretch in non weight-bearing position. The participant should use a towel to pull foot toward face. Achilles tendon stretch weight –bearing was another supervised exercise in this participant was stand with heel on floor and bend at knees. Stretch should be pain free and hold stretch for 15 to 30 second. Alphabet exercise participant move ankle in multiple planes of motion by drawing letters of alphabet (lower case and upper case). The dosage given was 2 sets of 10 repetitions, separated by a two-minute rest and alternate days

Group B: supervised exercise - Participant performed supervised exercise that are Achilles tendon stretch non weight-bearing ,Achilles tendon stretch weight –bearing , alphabet exercise same exercises procedure follow as in group A. The dosage given was 2 sets of 10 repetitions, separated by a two-minute rest and alternate days.

Statistics

The data was analysed using SPSS 10 software package. Statistical analysis for above two groups were performed to find out the mean, standard deviation and the statistical significance between Goniometer, NPRS & foot and ankle disability index in both the groups. Wilcoxon test was used to compare the within groups values of foot ankle disability index. Mann whitney U test was used to compare the between groups values of foot ankle disability index. Paired t - test was used for within group comparison of Goniometer and NPRS. Unpaired t - test was used for between group comparison of Goniometer and NPRS. The results were found to be significant at $p < 0.05$.

Results & Discussion

Table1. Mean ± SD of Age and BMI of Group A and Group B

Variables	Group A	Group B	't' value	'p'<.05
Age(Yrs)	27.00 ± 5.45	26.40 ± 4.82	2.05	Non- significant
BMI(Kg/m^2)	25.23±2.055	25.82±1.81	.718	Non- significant

There were 15 subjects in each group A and B with mean age of 27.00 ± 5.45 and 26.40 ± 4.82 resp. and mean BMI of 25.23±2.055 and 25.82±1.81 resp. No statistically significant difference was found between the groups showing that subjects were matched for baseline characteristics

Table 2. Comparison of Goniometer, NPRS, and FADI within group A

GROUP A				
VARIABLES	MEAN ± S.D		t values	P values (<0.05)
	Baseline	After 4 Weeks		
GOINOMETER	7.00 ± 1.73	10.40 ± 1.63	2.14	Significant
NPRS	6.73 ± 0.88	1.40 ± 1.18	2.14	Significant
FADI	40.13 ± 13.67	79.73 ± 13.32	25.00	Significant

Paired sample t test has been used to compare the mean difference for Goniometer, NPRS, and FADI in group A. the result revealed significant difference between pre and post of Goniometer, NPRS, and FADI measurement at $p<0.05$.

Table 3.Comparison of Goinometer, NPRS, and FADI within group B

GROUP B				
VARIABLES	MEAN ± S.D		t values	P values (<0.05)
	Baseline	After 4 Weeks		
GOINOMETER	7.20 ± 1.7	9.27 ± 1.2	2.14	Significant
NPRS	6.67 ± 1.2	2.40 ± 1.0	2.14	Significant
FADI	40.73 ± 14.11	64.47 ± 13.64	25.00	Significant

Paired sample t test has been used to compare the mean difference for Goinometer, NPRS, and FADI in group B. the result revealed significant difference between pre and post of Goinometer, NPRS, and FADI measurement at $p<0.05$.

Table 4. Comparison of Goinometer, NPRS, and FADI between group A and B

UNPAIRED TEST						
	GOINOMETER (deg).		NPRS (cm).		FADI	
	A (baseline-4weeks)	B (baseline-4weeks)	A (baseline-4weeks)	B (baseline-4weeks)	A (baseline-4weeks)	B (baseline-4weeks)
MEAN ± SD	3.40 ±1.76	2.40±1.03	5.33±1.34	4.27±1.28	39.13±18.7	28.07±14.21
t values	2.05		2.05		64.00	
P values (<0.05)	Significant		significant		Significant	

Unpaired sample t test has been used to compare for pre and post mean ± SD of Goinometer, NPRS, and FADI between group A and B. The result revealed significant difference between pre and post mean of Goinometer, NPRS, and FADI measurement at $p<0.05$.

Table 5. Comparison of post Goinometer, NPRS & FADI between Group A & B

UNPAIRED TEST						
	GOINOMETER (deg).		NPRS (cm).		FADI	
	A	B	A	B	A	B
MEAN ± SD	10.40±1.6	9.27±1.4	1.40±1.18	2.47±1.0	79.73±13.3	64.47±13.6
t values	2.14		2.14		25.00	
P values (<0.05)	Significant		significant		Significant	

Unpaired sample t test has been used to compare the mean difference for post Goinometer, NPRS, and FADI in group B. The result revealed significant difference between the post of Goinometer, NPRS, and FADI measurement at $p<0.05$.

Discussion

The findings of this trial indicated that subjects in both the groups had significant decrease in pain & increase in range of motion (dorsiflexion).However, out of two groups, the group receiving Movement with mobilization (MWM) as a supplement to supervised exercise programme (SEP) had a higher percentage of change in both pain intensity & ankle dorsiflexion as compared to Supervised exercise program alone (Stretching exercises in weight bearing and non weight bearing and alphabet exercise).There were many studies done on Movement with Mobilization with movement & supervised exercise programme in isolation which shows their effectiveness but the results obtained from this study are novel that proves the combined efficacy of Mobilization with movement & Supervised exercise program administered in lateral ankle sprain patients.

The two groups had equal number of subjects and there were no significant differences with respect to their gender distribution, age and body mass index distribution which could have altered the results of the study. There are two types of exercise programmes: home exercise programme & exercise carried out in a clinical setting under the supervision (SEP). It has been shown that patients fail to comply with the regimen of home exercise program. Therefore, in this study SEP has been taken.[38]

As SEP was given in both the groups & there was a significant decrease in pain & increase in ankle dorsiflexion in both groups after 4weeks of intervention. This difference can be attributed to physiological and therapeutic effects of range of motion exercises.

A number of studies had examined the effect of SEP on treatment of lateral ankle sprain. Michael .W .Wolfe [39] in 2001 demonstrated that supervised exercise programme should be the first treatment option for therapists when they manage lateral ankle sprain patients this study consist of same protocol as used in this study in ankle sprain patients. Carl G Mattacola[40] in 2002 also demonstrated that progressive strengthening & stretching exercises are effective in the rehabilitation of ankle after acute sprain or chronic instability.

Therefore, the results of all these studies support the result of present study that the supervised exercise programme is helpful in the management of ankle sprain patients. Although the SEP helps in decreasing pain and increasing ankle dorsiflexion but the additional benefit in supervised exercise programme along with movement with mobilization group which has been seen in our results can be attributed to Movement with mobilization. . Various studies have done in the past support this

statement. In a case study, O'Brien and Vicenzino[19] in 1998 used a fibular mobilization technique following acute lateral ankle sprain (<72 hours).The intervention included a sustained posterior glide to the distal fibula while the patient actively inverted the ankle. The suggested benefits of treatment included reduced pain and increased ROM. Green and colleagues[20] in 2001 used a parallel-design randomized controlled trial to compare the effect of talocrural joint mobilization in addition to rest, ice, compression and elevation (RICE) with RICE after lateral ankle sprain. He concluded that the addition of a talocrural mobilization resulted in achieve full pain-free dorsiflexion and improved stride speed. Studies using the MWM technique have reported to improve pain – free motion, function & increased pressure thresholds in patients with shoulder impingement[41], traumatic thumb[42] & tennis elbow patients also. The possible benefits because of MWM can be attributed to Mulligan's theory that a minor positional fault of joint may occur following an injury or strain, resulting in movement restriction or pain. Mulligan's theory is that MWM may assist in properly aligning the joint or restoring the joint's tracking mechanism. [41] In this study it was hypothesized that SEP along with MWM would produce good results as compared to SEP alone. A statistical finding procured supports this hypothesis. Additional benefits in supplemented MWM can be due to additional decrease in pain & disability & increase in ankle range of motion (dorsiflexion).

Conclusion

The results of the study concluded that supervised exercise programme is effective in both cases i.e when given along with or without Mobilization with movement in reducing pain and improving dorsiflexion and decrease disability after 4wks. But benefits of SEP along with MWM is substantial as compare to SEP without MWM, therefore proving that SEP along with MWM is better strategy than SEP alone.

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"The influence of Yoga Practices on personality traits of yoga practitioners"

****Dr Yashawant *Smt.Savitri.S.Patil, .**Dr.N.Chandrappa**
****Associate Professor, Dept of Physical Education, Karnataka State veterinary University, Bidar**
***Research Dept of Studies in Physical Education and Sports Science, Karnataka State Women's University, Bijapur..**
****Chairman, Dept of Studies in Physical Education and Sports Science, Karnataka State Women's University, Bijapur**

Abstract
The paper highlights how yoga plays a substantial role in developing personality traits of sportsman, in general Yoga is an integral part of our history, on one hand, serving as a barometer of human progress, yoga have been drawn the attention of whole society across the the entire world and 'yoga' plays predominant role for shaping the personality of sportsperson, present study reveals that there is significant positive effect of yoga on personality traits of yoga practitioners comparing to their counterpart, the calculated 't' value of emotional adjustment and health adjustment are greater than table value and significant at 0.05 level.

Introduction:
Personality is best understood in terms of internal and external influences. At every moment our genes, our experiences, environment and our free will determine our personality. In the western perspective, the various personality theories fall into five major perspectives the Psychoanalytic perspective which defines personality in terms of the dynamics that underlie behavior, the Trait perspective which defines personality in terms of behaviors, the Humanistic perspective which pays attention to the growth potential of people, the social cognitive perspective which emphasizes the ways in which our personalities are influenced by our environment and the Evolutionary perspective which asserts that the patterns of behavior seen in a species is a product of evolution. In the Indian perspective, the essence of human personality is the self, which in conjunction with the gross physical and subtle bodies becomes subject to experience pleasure and pain. Self-realization is the goal of human life according to Indian psychology.
Education has a big role to play in the personality development of a student. Education to be complete must have five principal aspects relating to the five principal activities of the human being: the physical, the mental, the emotional, the intellectual and the spiritual. All these aspects are looked into in our ancient system of yoga.

YOGIC TRAINING:
Yogic training is a system of psycho-physical training that has its goal the uncovering of mystical consciousness. Yoga is a timeless pragmatic science evolved over thousands of year dealing with the physical, moral being of man as a wholeYoga concepts also include another important measure of an evolving personality, which is the knowledge about one's unlimited potential to move towards perfect harmony with Nature.

PERSONLITY:
Personality is best understood in terms of internal and external influences. At every moment our genes, our experiences, environment and our free will determine our personality. In the western perspective, the various personality theories fall into five major perspectives the Psychoanalytic perspective which defines personality in terms of the dynamics that underlie behavior, the Trait perspective which defines personality in terms of behaviors, the Humanistic perspective which pays attention to the growth potential of people, the social cognitive perspective which emphasizes the ways in which our personalities are influenced by our environment and the Evolutionary perspective which asserts that the patterns of behavior seen in a species is a product of evolution. In the Indian perspective, the essence of human personality is the self, which in conjunction with the gross physical and subtle bodies becomes subject to experience pleasure and pain. Self-realization is the goal of human life according to Indian psychology.

Education has a big role to play in the personality development of a student. Education to be complete must have five principal aspects relating to the five principal activities of the human being: the physical, the mental, the emotional, the intellectual and the spiritual. All these aspects are looked into in our ancient system of yoga.
With these background researcher has made plane to assess the effect of yogic practices on personality traits of professional college's students

Problem: To assess the influence of Yoga Practices on personality traits of professional college's students.

Hypothesis:
There would be no significant difference in the personality traits of yogic practitioners and non practitioners.

OBJECTIVES OF THE STUDY:
To assess the effect of yogic practices and non practices on Psychological traits of Professional college students.

METHODALOGY:
The purpose of the study is to investigate the "The Effect of Yogic Practices on Personality Traits of Professional College Students"

Psychological Variables:
1. Practices and non practices of Yoga are Independents Variables.
2. Personality traits are Dependents variables.

Tools.
In the present study yogic practices independent variables and Personality traits like health adjustment and emotional adjustment are the dependent variables. In order to measure these variables the following tools will be used.
I. Personality scale constructed by Cattle 16 P.F Scale has used.
The Sample:

Yogic Practitioners	Non Practitioners	Total
100	100	200

To select the 100 Girls of Yoga Practitioners and 100 non practitioners and total sample of 200 Girls from Professional colleges of Karnataka state women's university and Gulbarga university the method of Purposive random sampling technique has been used in the present study.

Collection of Data:
The standardized questioners are administered on yoga practitioners and non practitioners and data have been collected from Basaveshawar Physical Education professional college, Bagalkota.
Statistical Techniques:
In pursuance of the objectives of the study as well as to test the research hypothesis, "t", test, has used to assess its effects on selected personality traits of professional college students.

Analysis of data and Results:
The hypothesis t is postulated on the rationale that the yoga practitioners with a positive personality traits would be more emotionally stable, relaxed, self sufficient, tough minded and would have greatest degree of self control and would comfortably solve all their emotional problems with their immediate friends, teammates and family members. Whereas non practitioners with negative personality traits would be emotionally unstable, tense, dependent, tender minded and feels incapable of handling the crisis situations with their family members, friends and teammates and becomes frustrated.

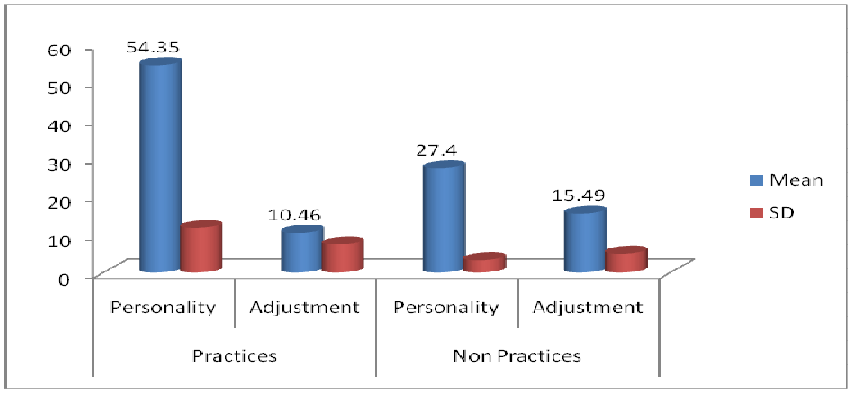
Table –2

Table showing the Mean, SD and t values of personality and emotional adjustment of practitioners and non practitioners.

Variables	Practices		Non Practices	
	Personality	Adjustment	Personality	Adjustment
Mean	54.35	10.46	27.40	15.49
SD	11.65	7.45	3.31	4.93
T value	35.80**		22.42**	

** Significant at 0.01 level

The graphing showing the personality and emotional adjustment of practitioners and non practitioners.



The above table presents the mean, SD and t values of personality and emotional adjustment of yoga practitioners and non practitioners. The yoga practitioners have the mean score of 54.35 on personality and 10.46 on emotional adjustment when compared to the non yoga practitioners who have the mean scores of 27.40 on personality and 15.49 on emotional adjustment respectively. The comparative analysis of the mean scores of both groups suggest that the yoga practitioners are having the positive personality traits and good emotional adjustment when compared to the non yoga practitioners who lacks the positive personality traits and less emotionally adjusted. The obtained t value for the practitioners and non practitioners groups are 35.80 and 22.42 respectively, which are significant at 0.01 levels. The analysis of the above table is quite clear that the good personality yoga practitioners are emotionally good adjusted than their counter parts; hence the above-mentioned hypothesis is accepted.

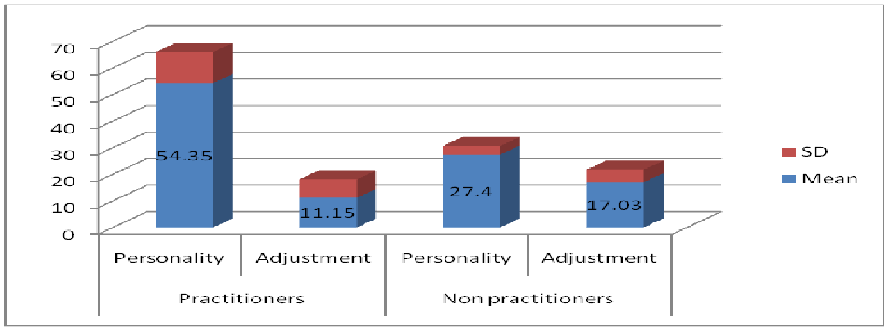
Table –3

Table showing the Mean, SD and t value of personality and health adjustment of yoga practitioners and non practitioners

Variables	Practitioners		Non practitioners	
	Personality	Adjustment	Personality	Adjustment
Mean	54.35	11.15	27.40	17.03
SD	11.65	6.98	3.31	4.70
T value	31.84**		21.20**	

** Significant at 0.01 level

The graphing showing the personality and health adjustment of practitioners and non practitioners.



The above table presents the mean, SD and t values of personality and health adjustment of practitioners and non practitioners. It can be seen in the above table that the yoga practitioners have the mean score of 54.35 on personality and 11.15 on health adjustment. On the contrary the non practitioners have 2333w the mean score of 27.40 on personality and 17.03 on health adjustment. The comparative analysis of the mean scores of both groups suggests that the yoga practitioners have the good personality traits and better health adjustment than the non practitioners. Moreover, the obtained t value for the both practices and non yogic practitioners are 31.84 and 21.20 respectively and both of them are significant at 0.01 level. Thus, the adjustment is specific to a given individual under specific conditions and is related to such factors as the particular culture in which one lives, the sex of the individual, his socio economic status, the personality traits and other factors peculiar to him and to the environment in which he must adjust. Hence, the above table indicates that the good personality yoga practitioners have good health adjustment than their counterparts and therefore, the above mentioned hypothesis is accepted.

Conclusions

The present reveals that regular practice of the various techniques had a beneficial effect on the personality traits at the physical, mental, emotional levels. The regular practice of yoga techniques produces a progressive relaxation of the psychological process within oneself and cultivates skills of mastery over the emotion and interpersonal efficiency, and also develop heartedness and sympathetic attitudes toward human being. Thus the personality development takes the direction of increased openness towards the environment and increased spontaneity.

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Socio-psychological correlation of aggressive behaviuor, locus of control, will to win, and emotional intelligence of sportsmen Unpublished Phd Thesis By Dr Rajkumar P Malipatil , Dept.of Psychology, Gulbaraga University, Gulbaraga.
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Analytical Study Of Search Talent In Table Tennis For Boy's Tejaswi High School Warangal.

***Ailaiah Chedupelly**
****T. Venkateshwarlu**
***Physical Education Teacher, Zppss, Alankanipeti, Warangal.**
****Doctoral Scholar, Department of Physical Education, Osmania University.**

Introduction

Sports talent is the sum of total of pre-requisites possessed by sports persons which will enable him to active high performance in a sports future. Talent is bundle of factor which combine themselves number of factors but of individual factor, some of them are not dependent on training.The history of table tennis development shows that there are many factors contribution to the making of a successful player. A great player must not only excel in such qualities as morphological features physical factors attributes, physiological functions technical skills and hereditary characters what's are important, he must possess the mental attributes that enable him to bring the above mentioned qualities into full pay. Among the ranks of table tennis players in china today, there are a considerable number who can hardly get to the top because of their poor mental qualities, in order to speed up table tennis development in the country greater attention must be paid to the examination of mental qualities in talent identification.

Statement of the problems

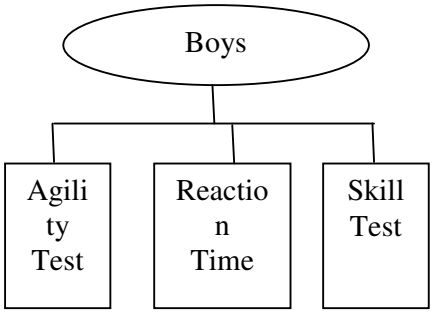
The purpose of the study is to find out the search talent in table tennis skill test for boys.

Significance of the study

The study investigates the search talent in table tennis skill test for boys.

Design of the study

The diagrammatic information was represented here.



Sample of the study

The sample was formulated based on the simple random sampling. The samples were collected from the 100 boys in the age group of 12 – 14 years from tejaswi high school Warangal.

Tools Used

- Agility test
- Reaction time - Nelson speed of movement.
- Skill test – Table Tennis test

Data Collection Procedure

The subjects of the study were in the age group between 12 – 14 years 100 boys consisting of tejaswi high school Warangal.

Result and Discussions

Table – 1 Showing the Mean Values, SD, df, 't' value and p-value of 100 players of tejaswi high school Warangal in relation to their agility.

Sl. No.	Subjects	No. of subjects	Mean	SD	df.	't' value	p-value
1.	Boys	100	9.49	0.66	98	2.54	0.002

Table – 2 Showing the Mean Values, SD, df, 't' value and p-value of 100 players of tejaswi high school Warangal in relation to their reaction time.

Sl. No.	Subjects	No. of subjects	Mean	SD	df.	't' value	p-value
1.	Boys	100	2.0950	0.0643	98	3.420	0.000

Table – 3 Showing the Mean Values, SD, df, 't' value and p-value of 100 players of tejaswi high school Warangal in relation to their skill test.

Sl. No.	Subjects	No. of subjects	Mean	SD	df.	't' value	p-value
1.	Boys	100	22.56	3.08	98	2.98	0.003

Comprehensive Discussion

The study shows that by such test talent could be easily searched, if fair chance is give to individuals and performance of each test is analyzed properly out of 100 boys 62 were skilled performance, 22 were medium performance and 16 were poor performance were shown in the skill test.

Conclusion

Once the talented children are indentified for various sports and games they should be trained or allowed to be trained at their respective sports in some environment and social set-up to bring the best out of them. Since India is multicultural society where food-habit and the language changes from place to place, it is very difficult for a young and tender children's to adopt themselves in new set up. Hence it is concluded that there would be pressure on them for studies as well as of sports at this tender age, will they be in a position to cope up this challenges in entirely a new environment.

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Comparison Of Memory State Between Diabetic And Non Diabetic Subjects

***Dr. GOPAL CHANDRA SAHA (Corresponding Author)**
Assistant Professor in Phy. Education,P.G.G.I.P.E., Banipur,
West Bengal, India.
****SHANTANU HALDER**
Research Scholar,
Dept.of Physical Education,University of Kalyani.
*****PULEN DAS**
M.P.Ed Research Scholar,
Post graduate Govt. Institute for Physical Education,
Banipur, West Bengal, India

ABSTRACT
The aim of this study was to compare the memory state between Diabetic and non Diabetic subjects. Thirty male Diabetic type 2 Patients and thirty Non Diabetic subjects were selected from different places in West Bengal randomly for this study whose age ranged from 45 to 55 years. Only fasting blood glucose level, Short Term and Long Term Memory were measured for this study. Glucometer was used for the measurement of blood glucose level whereas Short Term and Long Term Memory tests scale were used to measure the memory state for this study. 't' test statistic was applied to investigate the existence of significant difference of memory state between Diabetic and non Diabetic subjects. In conclusion the mean memory score in the Diabetic group was lower than the non Diabetic group, and the difference was statistically significant. Maintaining safe blood glucose levels are strongly recommended.
KEYWORDS: NIDDM, Short Term Memory, Long Term Memory.

INTRODUCTION

The prevalence of diabetes is rapidly rising all over the globe at an alarming rate. Diabetes means that your blood glucose is too high. Your body uses glucose for energy. But having too much glucose in your blood can hurt you. When you will reduce your risk for problems with your kidneys, eyes, nerves, feet and legs and teeth, you will also lower your risk for a heart attack or a stroke.

Diabetes is a systemic disease that can affect every organ in the body, including the CNS, and severe hypoglycaemia in type 1 diabetic patients impairs motor ability, short-term memory and visuospatial tasks (Wredling R et.al 1990). Type II diabetes may be associated with impaired cognitive function (Strachan MW et.al 1997). A detailed search of the literature has identified 19 controlled studies in which cognitive function in type II diabetes has been examined (Strachan MW et.al 1997). The studies vary widely with respect to the nature of the diabetic populations studied and the psychological tests used. Thirteen studies demonstrated that diabetic individuals performed more poorly in at least one aspect of cognitive function. The most commonly affected cognitive ability was verbal memory (Vanhanen M et.al 1997, Dey J, Misra A et.al 1997, and Van Boxtel MP Et.al 1998).History and duration of NIDDM and high blood pressure are significant risk factors for poor cognitive performance (Elias PK et.al 1997). Lower socio-economic status may be a risk factor in the effect of diabetes on cognitive performance, perhaps by delaying diagnosis and treatment (Robertson t'chabo E A et.al 1986). The NIDDM patients had impaired control of their learning processes. Elevated serum triglyceride levels may be related to control of mental processing in diabetic patients (Helka1a EL et.al 1995). Poor glycemic control in older subjects with NIDDM was associated with decreased cognitive functioning. Verbal learning and memory may be improved with good glycemic control (Gradman TJ et.al 1993 and Perlmuter LC et.al 1991).

Memory is one of the most important cognitive domains with respect to everyday function and is the process of storing, encoding, and retrieving information. Different forms of memory are recognized, including sensory, Short-Term, Long-Term, and working memory (Baddeley AD, 1996) Short-Term Memory refers to the function that temporarily retains stimuli that have just been perceived. Its capacity is limited in terms of the number of items that can be stored and lasts for 20 seconds. Through repetition, information may be transferred from Short-Term Memory to Long-Term Memory. Long-Term Memory refers to information that is represented on a more permanent basis. Unlike Short-Term Memory, Long-Term Memory has no known limits to capacity and is relatively durable. Working memory is a short-term memory system that allows concurrent retention and manipulation of information (Baddeley AD, 1986). It is used for thinking about what is already known and for deriving

conclusions on the basis of that knowledge; therefore, working memory is fundamental to successful completion of many activities. Therefore the researcher find it essential to compare the memory state between Diabetic and non Diabetic subjects.

DEFINITION OF TERMS

DIABETES TYPE 2

Diabetes mellitus type 2 (formerly noninsulin-dependent diabetes mellitus (NIDDM) or adult-onset diabetes) is a metabolic disorder that is characterized by high blood glucose in the context of insulin resistance and relative insulin deficiency (Kumar et.al 2005). This is in contrast to diabetes mellitus type 1, in which there is an absolute insulin deficiency due to destruction of islet cells in the pancreas (Shoback et.al 2011). The classic symptoms are excess thirst, frequent urination, and constant hunger. Type 2 diabetes makes up about 90% of cases of diabetes with the other 10% due primarily to diabetes mellitus type 1 and gestational diabetes. Obesity is thought to be the primary cause of type 2 diabetes in people who are genetically predisposed to the disease.

SHORT TERM MEMORY

Short-term memory, also known as primary or active memory, is the information we are currently aware of or thinking about. In Freudian psychology, this memory would be referred to as the conscious mind. The information found in short term memory comes from paying attention to sensory memories.Most of the information kept in short-term memory will be stored for approximately 20 to 30 seconds, but it can be just seconds if rehearsal or active maintenance of the information is prevented. While many of our short-term memories are quickly forgotten, attending to this information allows it to continue on the next stage - long-term memory (http://psychology.about.com/od/memory/f/short-term-memory.htm). Short-term memory resides in the inside (medial) of the temporal lobe called the hippocampus and entorhinal cortex, and lasts a few minutes to a few weeks before being erased. When you try to recall a conversation or a phone number learned a few minutes to a few weeks ago, these brain areas are activated.

LONG TERM MEMORY

Long-term memory refers to the continuing storage of information. In Freudian psychology, long-term memory would be call the preconscious and unconscious. This information is largely outside of our awareness, but can be called into working memory to be used when needed. Some of this information is fairly easy to recall, while other memories are much more difficult to access.

Through the process of association and rehearsal, the content of short-term memory can become long-term memory. While long-term memory is also susceptible to the forgetting process, long-term memories can last for a matter of days to as long as many decades.(http://psychology.about.com/od/memory/f/long-term-memory.htm).

Long-term memory can last a lifetime though scientists are not yet certain which brain areas are involved in this function. Well-learned facts such as the name of a school one attended as a child are stored as long-term memories.

METHOD AND MATERIALS

Thirty Diabetes type II male patients and thirty non Diabetic male subjects were selected from different places in West Bengal randomly for this study, whose age ranged from 45 to 55 years. To measure the level of blood glucose, fasting blood glucose test was conducted and was measured by Glucometer. On the other hand Short Term Memory and Long Term Memory test scale were used to measure the memory state prepared by B. B. Asthana (1982).

TEST/TOOLS:

FASTING BLOOD GLUCOSE TEST

Standard and calibrated Blood glucometer instrument prepared by Contour Company was used for measuring the level of blood glucose present in the blood of an individual to the nearest mg/dl. For collecting the Data most common blood sugar test was used i.e. simple finger prick test. The finger prick test measures glucose in milligrams (of glucose) per decilitre of blood (mg/dl). For diagnostic purposes, this was done when the individual has not eaten anything for 10 hours (fasting).




LONG TERM MEMORY TEST (L.T.M.)

Long Term Memory scale was designed by B. B. Asthana (1982). L.T.M. Scale find out the effect of rehearsal of paired –associates on the long term memory of the subject when tested after two minutes of interpolated task. Higher percentage of recall indicates better performance and lower percentage indicates poor performance.

SHORT TERM MEMORY TEST (S.T.M.)

Short Term Memory scale was designed by B. B. Asthana (1982). S.T.M. scale study the effect of different time intervals and association values on short term recall. Higher percentage of recall indicates better performance and lower percentage indicates poor performance.

STATISTICAL PROCEDURE

t' test statistic was applied to investigate the existence of significant difference of memory state between Diabetic type 2 patient and Non Diabetic subjects. The level of significance was set at 0.05 level.

FINDINGS

TABLE -1

MEAN, SD AND T' RATION OF SHORT TERM MEMORY BETWEEN DIABETIC TYPE TWO AND NON DIABETIC SUBJECTS

SUBJECT	NUMBER	MEAN	S.D.	' t'	REMARKS
DIABETIC TYPE 2	30	46.30	7.52	15.43	significant
NON DIABETIC	30	52.66	4.38		

't' value required to be significant at 0.05 level of confidence with 58 degree of freedom was 2.021

TABLE -2

MEAN, SD AND T' RATION OF LONG TERM MEMORY BETWEEN DIABETIC TYPE TWO AND NON DIABETIC SUBJECTS

SUBJECT	NUMBER	MEAN	S.D.	' t'	REMARKS
DIABETIC TYPE 2	30	51.03	5.97	13.10	significant
NON DIABETIC	30	56.36	6.29		

't' value required to be significant at 0.05 level of confidence with 58 degree of freedom was 2.021

DISCUSSION OF FINDINGS

In this study, the aim was to investigate the comparison of memory state between diabetic type 2 patients and non diabetic subjects. It was found from the above statistical calculation that a mean memory score in the diabetic group was lower than the non diabetic group, and the difference was statistically significant.Some studies have demonstrated that poor glycemic control in diabetic patients impairs cognitive function (Strachan MW et.al 1997, Robertson t'chabo E A et.al 1986 and Tun PA et.al 1987). Helka1a EL et.al 1995 also shown that NIDDM patients show poor performance in learning tasks compared with non diabetic subjects. However, Zaslarsky et. al showed that visual memory score in NIDDM was lower than non diabetic; also, there was no difference in verbal memory performance. They concluded that decreased visual cognitive function in NIDDM patients is associated with the presence and degree of autonomic neuropathy (Zaslavsky LM et.al 1995). NIDDM patients were more impaired in controlling the learning process than the non diabetic subjects. Performance of memory tasks that tap long-term memory or learning has generally been found to be poorer in NIDDM patients than in age-matched controls (Richardson JT et.al 1990, Tun PA et al 1990 and Biessels GJ 1994).

Specific neural systems within the aging brain may be differentially sensitive to the toxic effects of chronic hyperglycemia (Rayan CM et.al 1993). Lincoln and his colleagues stated that controlling of hyperglycemia can prevent the obvious memory dysfunction in NIDDM patients (Lincoln NB et.al 1996).Some studies have proposed that serum total triglyceride levels correlate with memory performance and have shown that elevated triglyceride levels, especially in NIDDM patients, have negative effects on cognition (Perlmuter LC et.al 1998, Kuusisto J et.al 1993 and Koeing W et.al 1992). Most brain insulin comes from the pancreas and is transported through the blood to the brain via Insulin Growth Factor-1 (IGF-1) receptors. Reduced insulin or IGF-1 brain levels also reduce the brain neurotransmitter, acetylcholine, (acetylcholine helps memory and other cognitive abilities). Functional neuroimaging studies in humans (Gabrielli JDE et.al 1997 and Stern CE et.al 1996) have confirmed that medial temporal lobe structures such as the hippocampus and adjacent

parahippocampal regions are the principal structures involved with memory performance. Age-related declines are exhibited in processing speed, short-term memory, working memory, and long-term memory. These deficits have been associated with changes in brain structure and function (Hillman et. al.2006).As you grow older, your body stops making as much of the chemicals brain cells need. These changes can affect memory. Aging generally hampers recent memory so it is strongly recommended the assessment of medical condition periodically and brings blood glucose level within the normal range.

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Yoga and Stress Management

Dr.Anil Kumar Edward, Physical Director,
Govt. First Grade College Gangavati
Mr.Siddaram
Physical Director, BUB Degree College, Bidar.KARNATAKA

I. INTRODUCTION

Yoga

Yoga is a systematic process for an all round personality development of physical mental, intellectual, emotional and spiritual level. The ultimate aim of yoga is to get liberation. It is a living experience of the knowledge of the Vedas.Nowadays yoga is becoming more and more popular. It attracts the attention of the whole world. Thousands of people both men and women, who are aware of the importance of personal growing has adopted yoga as a part of their life. Gradually, yoga is becoming a lifestyle, almost a fashion of the modern world. People adopted yoga as tool keep the body and mind fit, to cure diseases by improving the functions of vital organs of the body. Yoga is practiced for peace of mind and also to improve beauty. Around 200 BC one of the great seers, Patanjali complied the essential features and principles of yoga in the form of aphorisms.

"Yoga Citta Vrtti Nirodah" i.e. yoga is a process of gaining control over the mind. So by controlling the mind, we reach our original state. One of the best texts on yoga, '*Manah Prasamanopayah Yoga Itayabhidhiyata'* i.e., Yoga is called a skill full trick to calm down the mind. Yoga provides ability to be balanced in all situations of life. Yoga is discipline; a disciplined mind and disciplined body is the main achievement of yoga. Yoga is capable le to bring about natural changes in every single individual in the world and that would-be a great revolution indeed.

It offers us a conscious process to solve such problems as depression, unhappiness, restlessness, emotional conflicts, hyperactivity etc. it helps to evolve the hidden potentialities of human beings in a systematic and scientific way so that the human being can rise intellectually it makes the mind and the b body so disciplined that one can effectively face the challenges of the modern technological era with its hectic speed and live happily without frustrations.

Yoga helps us to cope with life with life within ourselves with a more fit body and finer mine. The utility of yoga is unique. For tense people it gives relaxation, for the millions of sick people, especially those suffering from chronic diseases, it proves a boon with this highly promising; curative and preventive effects. Yoga also develops creative power, provides confidence and sharpens the knowledge. It creates more devotion towards the job. The athletes, sportsmen, wrestlers, boxers and mountaineers, it enhances physical stamina and the presence of mind by slowing down the metabolism of the body naturally.Yoga is a scientific process to reach the ultimate state of perfection. However yoga is defined also to be the states of higher powers and potentialities and even as the ultimate state of silence. Further yoga is also described as the power of creation. In various yoga texts, yoga is defined as a state through the practice of yoga, man leaps into higher states of consciousness and learns to stay peacefully and to act tuned to these states.

There are many paths towards ultimate yoga catering to the needs of different persons of the society. Although, all the paths lead independently to the same goal the ultimate union with the divine consciousness (SAMADHI) some of them are mentioned hereunder;

Jnana yoga	Union by knowledge.
Bhakti yoga	Union by love.
Karma yoga	Union by service. Act with an attitude of detachment of fruits action
Raja yoga	Union by mental control
Hath yoga	Union by bodily control and
Mantra yoga	Union by speech.

Every individual can achieve the goal by the choice of the path; most suited to him. But for the modern society HATH YOGA is most suitable as it gives a comprehensive systematic approach for the development of the body and mind.

Hath yoga works upon the body, purifying and perfecting if, and through the body upon the mind. Raja yoga works upon the mind, refining and perfecting it and through the mind on the body Patanjali lists eight limbs of raja yoga.

Yama :The disciplines.
Niyama: Theinjections
Asanas :The posture of the body
Pranayama: The control of life force.
Pratyahara: Restraint of senses from their objects of enjoyment
Dharna: Focusing of mind
Dhayana; Concentration
Smadhi: Super consciousness

Hath yoga provides a set of beautifulexercises, yogic suksham vyayama, yogic sthula vyayama, suryanamaskar, yogasana, pranayama(a set of breathing exercises) provides deep rest to each ;and every cell of the body and hence ;improves the functions of the body. The exercises should be practiced every day. Yoga exercises tones up nerves and muscles of the body. Provide alertness of the body and mind. Yoga is capable of dealing with psychosomatic and psychiatric disorders veryeffective.

b) <u>Stress</u>

Generally stress is perceived as 'the body's response to anything we perceive as dangerous. According to Mediros stress is a curious phenomenon. According to Selye stress is 'a generalized response to body to demand placed on it whether they are pleasant or unpleasant', who has been considered as father of stress who tried to analyze that different dimension of stress such as its intensity and its impact on the stressed students. In common parlance, however, the terms "stress" and "strain" are used synonymously in a non-scientific manner. The popularity of this concept has dwindled in the physiological field where it was first introduced, and the use of stress terminology continues to flourish in the psychological organizations. Mason (1975) reviewed literature on stress and concluded that there was confusion and a lack of consensus regarding its definition. The term stress has been used variously to refer toStimulus (external force acting on the organism),Response (changes in the physiological functions),Interaction (interaction between and external force and the resistance opposed to it, as in biology).

Environment is one of the basic factors causing stress. It plays a crucial role increasing stress because it has the potential of providing stimuli to the organism. It is the stimuli, which determine the response or behavior of an individual. If it is pleasant then the individual will feel happy and if it is unpleasant or challenging enough. He will be under stress.

c) Significance of the Study

The result of study will help physical education teacher, coaches and trainers to manage the stress of their students.
The result of the study will help to assess the stress level of the students.
The results of the study will help coaches and physical education teachers to plan training system for the students.

d) Limitation

No effort was made either to control or assess the life-style and other factors which are recognized as limitations of this study.
This study is purely limited to the sports persons of BUB College Bidar.
The sample of the study is relatively small.

e) Delimitation

The study was delimited to stress management of sports persons

II. METHODOLOGY

Statement of the Problem

To study the effect of Yoga on stress management among sportsmen of BUB college, Bidar.

Objectives of the Study

The objectives of the present study are as under.

To study the effect of Yoga on stress management among sportsmen of BUB college.

To analyze the influence of Yoga on stress management among sportsmen of BUB college.

Hypothesis of the Study

There may be a significant effect of Yoga on stress management among sportsmen.

There would be significant influence of Yoga on stress management among sportsmen.

The Sample

The research design in a 'Before and after' design, a sample of 31 respondents with different demographic background was drawn from BUB Degree College, Bidar. Attempts were made to select the respondents who do not practice yoga regularly. The respondents were administered stress test to determine the level of stress. Subsequently, they were subjected to practice yoga for 21 days. Soon after 21 days once again the stress level was measured.

Tools and Techniques:

Bio-data: The tools used for test are Bio-data, in which questionnaire was used to gather information from the respondents with regard to demographic aspects. This information will help to classify the sample based on age, sex, yoga practice, etc.;

Stress style test: developed by **D.Goleman** (1988). It consists of 14 items representing both of the manual. An individual is assessed in terms of the test scores obtained.

Statistical tool: The suitable statistical method like mean, SD and t-test are used to compare the differences between the sample subgroups.

III. RESULTS AND DISCUSSION

The major objective of the study has been to assess the effect of yoga on the management of stress. For the purpose the data were collected from sports persons of BUB college of Bidar, by administering the stress test. The study was conducted in two conditions: first, the stress was measured through test; second, the stress was measured after giving intervention of yoga exercises for a period of 21 days. Finally the stress in both the conditions was compared to examine whether the yoga has effected in managing the stress level. After statistical analysis, the results of the study are compiled and presented in the tables.

Table -1 stress scores in before (pre) and after (post) Yoga

Sex		Per Yoga	Post Yoga	t-values
Male	**M**	8.02	5.30	4.26**
	SD	1.46	1.81	
Female	**M**	8.56	4.61	10.77**
	SD	0.79	1.22	
t-values		1.13	1.10	

* Significant at 0.05 level ** Significant at 0.01 level

Results given in table- 1 clearly speak the effect of yoga exercises on stress management of sample. It is observed that mean scores of stress of male sample before yoga is higher (8.02) than that of after yoga (5.30) the t-value is (4.26) significant which speaks the impact of yoga which was given to the sample between two conditions of the study. The exercises like deep breathing, relaxations. Pranayama etc. are found to be effective in decreasing the stressful conditions of the male respondents. Similarly, the female respondents are before yoga is higher (8.56) than that of after yoga (4.61) the t-value is (10.77) significant which speaks the impact of yoga which was given to the sample have decreased their stress level as the scores clearly indicate. The t-value is also significant. However, there is no significant sex difference in the amount of stress experienced by the sample in both before and after yoga conditions. On these, the t-values are not significant.

Table -2 Stress scores in before (pre) and after (post) Yoga

Age		Pre yoga	Post yoga	t-values
<15 age	**M**	8.52	4.94	7.45**
	SD	1.38	1.54	
>15 age	**M**	7.91	4.91	6.12**
	SD	0.51	1.56	
t-values		1.74	0.05	

* Significant at 0.05 level ** Significant at 0.01 level

Finally, the sample was divided in to two groups on the basis of age below 15 years and above 15 years and the results are presented in the table- 2. It is observed that there is no inter age differences in both the conditions of the study. Results given in table- 2 reveals the effect of yoga exercises on stress management. It is observed that mean scores of stress in below 15 years sample

before yoga is higher (8.52) than that of after yoga (4.94) the t-value is (7.45) significant which speaks the impact of yoga which was given to the sample between two conditions of the study. Similarly, the above 15 years respondents are before yoga is higher (7.91) than that of after yoga (4.91) the t-value is (6.12) significant which speaks the impact of yoga which was given have decreased their stress level as the scores clearly indicate. The t-value is also significant

VI. CONCLUSION: It is necessary to reduce stress and manage it in order to make life ill less it is assumed that stress can easily and effectively be measured by adopting yoga exercises. With this objective, sample is selected from sportsmen of BUB college Bidar and the stress of the sample was measured initially and subsequently, yoga exercises were given to the sample for a period of 21 days. Soon after yoga exercises, again the stress level of the sample was measured. Result clearly indicated that yoga has significantly influenced the stress: stress scores were significantly lowered after yoga. Yoga predominantly proved to be a strong dose of stress reduction in the present study. Thus, the conclusions of the study are that there is significant influence of yoga on stress management of various sample subgroups, both male and female have significantly lower stress scores after yoga exercises than before yoga and the sample of two age groups has significantly reduced their stress when yoga exercises were given.

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An In-Depth Study Of Infrastructural Facilities In Primary Schools

Dr. D. Balaramulu, M.A., Ph.D.
Associate Professor, Department of Education, Institute of Advanced Study in Education
OsmaniaUniversity,Hyderabad-500007.

1. INTRODUCTION

An effective school facility is responsive to the changing programs of educational delivery, and at a minimum should provide a physical environment that is comfortable, safe, secure, accessible, well illuminated, well ventilated, and aesthetically pleasing. The school facility consists of not only the physical structure and the variety of building systems, such as mechanical, plumbing, electrical and power, telecommunications, security, and fire suppression systems. The facility also includes furnishings, materials and supplies, equipment and information technology, as well as various aspects of the building grounds, namely, athletic fields, playgrounds, areas for outdoor learning, and vehicular access and parking.

The School Register of Needs Survey (SRN) conducted in 1996 and 2000 resulted in the first comprehensive database on school infrastructure in the history of education in South Africa, providing information on physical facilities, basic services, learning material and equipment. During 2006, another assessment was conducted, expanding on the two previous surveys. The report, namely the National Education Infrastructure Management System (NEIMS) was published in September 2007. Subsequent to the publication of NEIMS in 2007, data clean-up and update was conducted and new reports generated. These reports will be updated on a quarterly basis based on assessment received from Provincial Education Departments.

Academic Infrastructure Facilities: The goal of infrastructure development in primary education is to increase school attendance motivation and to improve academic performance of students. It is assumed that favorable attitude towards school infrastructure quality facilitates the above two. This has been increasingly questioned in recent years. On this backdrop, current study examined attitude towards school infrastructure of students in primary schools and its relation with school effectiveness (school attendance motivation and academic achievement).

Need for the study: Education is the means of providing a series of learning experience to student in order to impart knowledge, values, attitudes and skills with the ultimate aim of thinking and making them productive members of the society. To realize this we need proper education management along with physical and academic infrastructure facilities. The purpose of physical and academic infrastructure facilities is to create a congenial environment for the attainment of the aims and objectives of the educational system. Knowledge of relevant management theories, principles, concepts, techniques and skills and their application to educational system is necessary.

Delimitations: The study is delimited to: (i) The opinions of government and private school male and female teachers of Primary School level teachers. (ii) The study covers only Ranga Reddy district.

Limitations: The present study was carried out with the following limitations. (i) The study confined only to the Primary Schools situated in Ranga Reddy district. (ii) The views of the respondents with regard to physical and academic infrastructure.

3. METHODOLOGY

There are many methods in educational research that are very commonly used in the field. The difference in the methodology is largely due to the difference in rational and approaches only. The investigator has selected normative survey method for the present study. Normative study is a method of research which concerns itself with the present phenomena in terms of conditions, practices, beliefs, processes, relationships or trends that are going on.

It is other wise called “Normative survey or descriptive survey or status survey”.

The following are the characteristics of normative survey research:

i. Normative survey research is not concerned with the characteristics of individuals but with characteristics of whole population or a sample there of.
ii. It adopts different types of tools like opinionaires, etc. to collect the data.
iii. Its scope is very vast.
iv. It collects data from a relatively large number of subjects.
v. It provides information useful to the solution of local problems.
vi. Survey may be qualitative or quantitative.

***Sample Size*:** In the present study, the population comprised of government and private male and female teachers working in primary schools of Ranga Reddy district. The list of the schools is presented in following table.

Sl. No.	Name of the school	Village
1.	Zilla Parishad High School	Hydersha Kote
2.	Zilla Parishad High School	Bakaram
3.	Zilla Parishad High School	Azeez Nagar
4.	Upper Primary School	Bandlaguda (WSC) MP Rajendranagar
5.	Ushodya High School	Hyderguda X Road, Attapur
6.	Sri Vidya Niketan	Attapur
7.	S.B.M.H. School	Shaikpet
8.	New Brilliant High School	Hyderguda, Rajendranagar (M)
9.	Vishwa Bharathi School	Kalimandir, Bandlaguda (Jagir)
10.	Adarsh Vidyalaya High School	NIRD Road, Rajendranagar

Variables: The present study "An In-depth Study of Infrastructural Facilities in Primary Schools of Ranga Reddy District" consisted of dependent and independent variables. They are physical facilities, human resources and management.

Collection of Data: The researcher personally went to the Mandal Parishad Primary Schools situated of Ranga Reddy District situated and motivated the female and male teachers to give their opinions on the selected topic. They were also given sufficient time to prepare themselves mark their choices 'yes' and 'no'. The research scholar maintained confidentiality of the data to use for the research purpose only.

Analysis of the Data: The information collected through opinionaires was combined for interpretation of variables, the percentages were calculated. The information collected through the opinionaires was presented in fourth chapter.

Statistical Techniques: The investigation under report studied the difference between the government primary schools male and female teachers and private primary schools male and female teachers with regard to physical infrastructure facilities and academic infrastructure facilities. To find out the difference between government primary schools male and female teachers and private primary schools male and female teachers with regard to physical and academic facilities means, standard deviations and finally T-test was computed using MS-OFFICE EXCEL package.

4. CONCLUSIONS

A perusal of the entire presentation with a special reference to the chapter covering results and discussion would help in drawing the final conclusions of the present investigation.

The conclusions were drawn for the present study as shown in the following paras.

1. It is concluded that physical infrastructure facilities (building, classroom, separate rooms, compound wall) in primary schools of R R district have shown significant difference among government male teachers and private female teachers, government female teachers and private female teachers. But on the whole government and private teachers have shown more significant.
2. It is concluded that significant difference was found between government male teachers and government female teachers with regard to physical infrastructure facilities (play ground) in primary schools of R R district. A significant difference was also found among government and private teachers of primary schools.
3. It is concluded that insignificant difference was found between government teachers and private teachers with regard to physical infrastructure facilities (sports materials) in primary schools of R R district.

4. It is also concluded that no significant difference was found between government teachers and private teachers with regard to physical infrastructure facilities (furniture) in primary schools of R R district.
5. It is concluded that significant difference was not established between government teachers and private teachers with regard to physical infrastructure facilities (school library) in primary schools of R R district.
6. It is concluded no significant difference was found between government teachers and private teachers with regard to physical infrastructure facilities (sanitary material) in primary schools of R R district.
7. It is concluded that no significant difference between government teachers and private teachers with regard to physical infrastructure facilities (cycle stand and school garden) in primary schools of R R district.
8. It is concluded that no major difference was created between government teachers and private teachers with regard to academic infrastructure facilities in primary schools of R R district.

5. RECOMMENDATIONS

The following recommendations were suggested.

1. Similar studies may be conducted on large scale.
2. Similar studies may be conducted leading to Ph.D. degree.
3. Similar studies may be conducted on other selected academic infrastructure facilities.
4. Similar study may be conducted taking the opinions of parents.
5. A similar study may be carried out drawing the sample from other districts of Telangana region, state wide and nation wide

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The Effect Of Yogic Exercises On Speed & Muscular Power

Prof.P. Ramesh Reddy, Head Dept. Of Phy. Edn. Kakatiya Institute of Tech. & Science,Wgl
Dr. P. Ravi Kumar, Director of Physical Education NIT, Warangal.
Dr. R. Srinivas Reddy, Asst. Professor of physical Education KU Warangal.

INTRODUCTION: Many people are attracted towards yoga to keep their bodies fit and look themselves good and attractive. Some come seeking relief from specific complaints like stress, tension and backache etc. But in time, any one continues with regular practice of yoga develops his all round personality and becomes a fit citizen of the society. Sri Aurobindo laid stress on a comprehensive growth of personality at the physical mental, intellectual, emotional and spiritual levels. It is now a universal truth that the Indian physical culture i.e., yogic techniques mainly meant to aid the all round development of a man.

A lot of studies were done on various yogic techniques with relation to cardiorespiratory systems particularly the lung capacity. Kapalbhati, Uddiyana Bandha, relaxation and breath control lowers the oxygen consumption which helps divers to cope with awkward situations such as slow yielding. (1)

Yoga can control and prevent some chemicals which adversely affect the heart and brain.

Yogic training enhances the Flexbility and Circulo – Repsiratory Endurance (3)

Yoga is a wonderful ancient Indian gift to the people of India in particular and to the people this universe in general through which a human being can make things merry as far as health and fitness is concerned.

Healthy subjects who consistently oblige conducting yogic practices, which were designed for the High school level, were choosen after careful personal enquiry. The subjects of 12 years age group were selected randomly from A.P. Residential Girls School, Hasanparthy, Warangal Andhra Pradesh. Less weight girls students were eliminated from testing. The body weights of girls students whose matching weight (+ or – 5 to 10 kgs) are taken into consideration.

PURPOSE: The purpose of study was to investigate the effect of yogic exercises on speed and Muscular Power.

MATERIAL METHODS: The present study was conducted on 30 girl students of 12 years age group (None of the student has previously done any yogic exercise). All the subjects were divided into two groups namely yogic exercise group and control group each group consists of 15 subjects. During the training period the experimental groups underwent their respective training programme i.e., yogic exercises of 45 minutes for 5 days week for 8 weeks. The control group did not participate in any specialized training programme.

Speed and muscular power was measured by AAHPERD youth fitness tests i.e., 50 mts. Sprint and standing, long jump respectively.

All the scores were recorded before and after the training. Appropriate statistical treatment was administered. The statistical derivations includes Mean, Standard Deviation and 'T' test.

RESULTS AND OBSERVATIONS:

The results are given in tables 1 and 2. The tables displayed the data of speed and mascular power. The difference between pre test mean and post test means are presented in each table and 'T' value is also indicated. The table I shows that the control group has no significant difference between the pre test and the post test means for both the parameters. The table 2 shows that the yogic (Experimental) group shows significant difference between the pre test and the post test at 0.01 level of significance for both speed and muscular power.

The present study establishes the fact that, the yogic training for the subjects enhances the speed and explosive muscular power.

TABLE – I

Variation of Means, Standard Deviation and 'T' Test of Control Group.

S. No.,	Parameters	Pre test		Post test		T Value
		Mean	Standard Deviation	Mean	Standard Deviation	
1.	Speed	9,75 Sec (15)	0.529	9.69 sec	0.50	0.31
2.	Mascular Power	56.53 cms (15)	4.35	57.2 cms	4.29	0.41

TABLE – II

Variation of Means, Standard Deviation and 'T' Test of Experimental Group.

S. No.,	Parameters	Pre test		Post test		T Value
		Mean	Standard Deviation	Mean	Standard Deviation	
1.	Speed	9,81 Sec (15)	0.374	9.35 sec	0.41	3.091
2.	Mascular Power	57.1 cms (15)	4.223	62.2 cms	4. 943	2.935

Note : Number of subjects is given in the parenthesis.

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Comparative Study of Physical Fitness Components of Women Wrestlers of Different Weight Categories

Ruby Malik, Assistant Professer Kurukshetra University Regional Centre Jind

ABSTRACT
The purpose of the present study was planned to find out the differences in physical fitness components among women wrestlers of different weight categories of SAI centers in Northern India. The samples consisted of 167 in all, who participated in different levels of wrestling. Their Selected physical fitness components strength, speed, agility, power and Endurance were taken with standard test of each component. Physical fitness tests were utilized to measure the selected physical fitness components of wrestlers. For analysis of the data Mean & SD were calculated and to examine the significance difference between the group mean of different physical fitness components, independent samples t-test was applied and level of confidence was set at 0.05 level. It has been found that that in shoulder strength wrestler belonging to Heavy Weight Categories were found better strength as compare to Low and Middle weight category wrestlers. Explosive Power wrestlers belonging to Middle Weight category were found better in power as compare to Low and Heavy weight category. Speed, Agility and Endurance wrestler belonging to Middle Weight Categories were found better as compare to Low and Heavy weight category wrestlers.
Keywords: Physical fitness, Speed, Agility, Endurance, Power, Strength.

Introduction

Wrestling offers excellent opportunities for long term physical, psychological and personality development. This is a very rigorous sport which demands self-discipline and self-reliance because the wrestlers are on his own in the ring: success depends on his intelligence, speed, strength and skill; each wrestler makes his own decisions and exercises his own initiative, determination and abilities in competition against an opponent. The pre-requisites of success in this sport, strength, endurance, flexibility, skill, coordination and good general body condition are a natural outcome of learning to wrestle correctly under effective teaching (Hunt and Miller, 1970).

Method

Sample: The investigation is survey type where the investigator conducted the survey on wrestlers of SAI centers of Northern India. The data was collected on various physical fitness components (Strength, Speed, Agility, Power and Endurance). In total 167 numbers of wrestlers consisting of three weight categories i.e. Light weight, Middle weight and Heavy weight who had participated in various wrestling competitions. The collected data was statistically analyzed to find out the results.
Tool Used: To collect the data for physical fitness components of wrestlers following test were used:-

Speed:	60 mt Run Test
Agility:	Shuttle Run Test
Endurance:	9 min Run/Walk Test
Strength :	8 lbs Shot Put
Power:	Standing Broad Jump

Administration of the test: The data was collected by administration of the test. Then test were conducted with the help of wrestling coaches of SAI centers of northern India, the test were explained by giving a demonstration to the subjects. A trial chance was also given to the subjects for each the test items. Sufficient warm-up time was also given to the subjects.
Reliability of the test: To establish the reliability of the selected test items of physical fitness components; test-retest method was used and the reliability for various test items have been ranged between 0.91 and 0.98 which is recommendable and reliable to collect the data.
Statistical Technique: Statistical technique such as Mean, SD., SED, and t-ratio were used to find significance differences in selected physical fitness components. The magnitude of significant differences for each item for the three weight categories was observed through the mean score of each category.
Results: The result for testing physical fitness components have been shown in the tables 1, 2, 3, 4 & 5. Strength, Power, Speed, Agility and Endurance of women wrestlers belonging to different weight

categories have been found highly significant. Wrestlers belonging to middle weight category have been found significantly high on Speed, Agility and Endurance as compare to other weight category.
Discussion of the Results: The results have been interpreted and discussed as under:-

TABLE – 1
t-Ratio Between Mean Strength Scores Of Light, Middle & Heavy Weight Wrestlers

Weight	N	Mean	t-ratio		
			A1	A2	A3
Light weight (A1)	62	6.63	-	*7.36	*16.07
Middle Weight (A2)	60	7.55	-	-	*9.40
Heavy Weight (A3)	45	8.70	-	-	-

Note: * denotes the significant at 0.05 level.

The results of t-test shows that there exist significance difference between Light Weight (A1) wrestlers and Middle Weight (A2) wrestlers, Middle weight (A2) wrestlers and Heavy Weight (A3) wrestlers and Heavy Weight (A3) wrestlers and Light Weight (A1) wrestlers, which are 7.36, 16.07 and 9.40 respectively. This implied that there exist significance differences in strength component between Light Weight, Middle Weight and Heavy Weight wrestlers. The mean of Heavy Weight wrestlers (8.07 mt.) is higher than the Middle weight wrestlers (7.55 mt.) and the Light Weight wrestlers (6.63 mt.). It further meant that Heavy Weight wrestlers were significantly better in strength component in physical fitness as compare to the Middle Weight wrestlers, who were better than the Light Weight wrestlers. This may be depending upon the body weight of the wrestlers which is gain with the increase in age and may decline in the early stage of the start of the training from light weight to heavy weight. The difference in the strength component of physical fitness of light, middle and heavy weight wrestlers is represented below in form of bar diagram.

TABLE - 2
t-Ratio Between Mean Power Scores Of Light, Middle & Heavy Weight Wrestlers

Weight	N	Mean	t-ratio		
			A1	A2	A3
Light weight (A1)	62	2.11	-	*6.10	1.28
Middle Weight (A2)	60	2.38	-	-	*6.32
Heavy Weight (A3)	45	2.06	-	-	-

Note: * denotes the significant at 0.05 level.

The results of t-test show that there exist significance difference between Light Weight (A1) wrestlers and Middle Weight (A2) wrestlers or Middle Weight (A2) wrestlers Heavy Weight (A3) wrestlers, which are 6.10 and 6.32 respectively. This implied that there exist significance differences in power component between Light Weight and Middle Weight or Middle Weight and Heavy Weight wrestlers. The mean of Middle Weight wrestlers (2.38 mt.) is higher than the Light weight wrestlers (2.11) and Heavy Weight Wrestlers (2.06 mt.). It further meant that Middle Weight wrestlers were significantly better in Power component in physical fitness as compare to Light Weight Wrestlers, who were better than Heavy Weight wrestlers. The difference in the Power component of physical fitness of light, middle and heavy weight wrestlers is represented below in form of bar diagram.

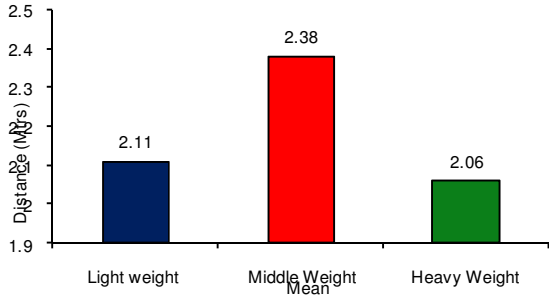


TABLE 3
t-Ratio Between Mean Speed Scores of Light, Middle & Heavy Weight Wrestlers

Weight	N	Mean	t-ratio		
			A1	A2	A3
Light weight (A1)	62	8.10	-	*2.55	0.20
Middle Weight (A2)	60	7.89	-	-	*2.24
Heavy Weight (A3)	45	8.12	-	-	-

Note: * denotes the significant at 0.05 level.

The results of t-test show that there exist significance difference between Light Weight (A1) wrestlers and Middle Weight (A2) wrestlers and Heavy Weight (A3) wrestlers and Middle Weight (A2) wrestlers, which are 2.24 and 2.55 respectively. This implied that there exist significance differences in Speed component of Physical Fitness between Light Weight and Middle Weight or Heavy Weight and Middle Weight wrestlers. The mean of Heavy Weight wrestlers (8.12 sec.) is higher than the Light weight wrestlers (8.10 sec.) and Middle Weight wrestlers (7.89 sec.). It further meant that Middle Weight wrestlers were significantly better in Speed component in Physical Fitness as compare to the Light Weight wrestlers, who were better than the Heavy Weight wrestlers. But Light Weight (A1) and Heavy Weight (A3) wrestlers not significant because the t-ratio shows there is no significant difference between them. The difference in the Speed component of Physical Fitness of Light, Middle and Heavy weight wrestlers is represented below in form of bar diagram.

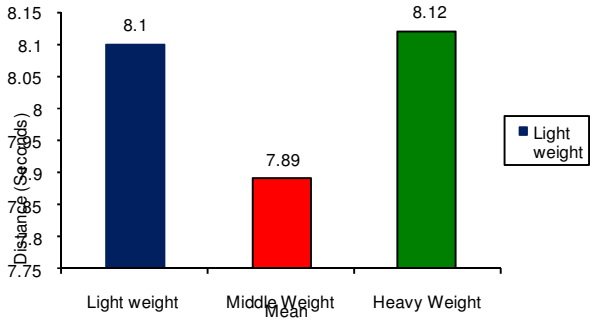


TABLE 4
t-Ratio Between Mean Agility Scores of Light, Middle & Heavy Weight Wrestlers

Weight	N	Mean	t-ratio		
			A1	A2	A3
Light weight (A1)	62	23.57	-	*2.29	1.31
Middle Weight (A2)	60	22.96	-	-	*3.23
Heavy Weight (A3)	45	23.87	-	-	-

Note: * denotes the significant at 0.05 level.

From the above table, the results of t-test show that there exist significance difference between Light Weight (A1) wrestlers and Middle Weight (A2) wrestlers and Heavy Weight (A3) wrestlers and Middle Weight (A2) wrestlers, which are 2.29 and 3.23 respectively. This implied that there exist significance differences in Agility component of Physical Fitness between Light Weight and Middle Weight or Heavy Weight and Middle Weight wrestlers. The mean of Heavy Weight wrestlers (23.87 sec.) is higher than the Light weight wrestlers (23.57 sec.) and Middle Weight wrestlers (22.96 sec.). It further meant that Middle Weight wrestlers were significantly better in Agility component in Physical Fitness as compare to the Light Weight wrestlers, who were better than the Heavy Weight wrestlers. But Light Weight (A1) and Heavy Weight (A3) wrestlers not significant because the t-ratio shows there is no significant difference between them. The difference in the Agility component of Physical Fitness of Light, Middle and Heavy weight wrestlers is represented below in form of bar diagram.

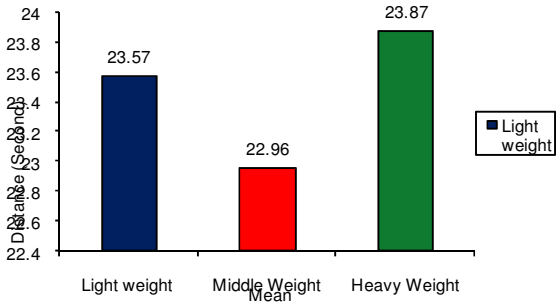
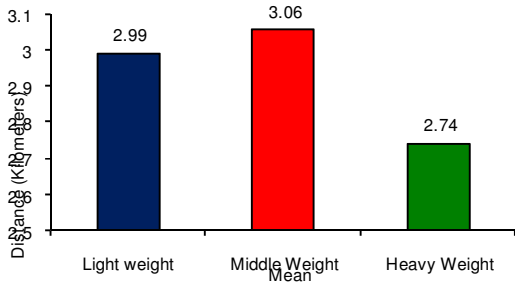


TABLE 5
t-Ratio Between Mean Endurance Scores of Light, Middle & Heavy Weight Wrestlers

Weight	N	Mean	t-ratio		
			A1	A2	A3
Light weight (A1)	62	2.99	-	1.26	*3.68
Middle Weight (A2)	60	3.06	-	-	4.62
Heavy Weight (A3)	45	2.74	-	-	-

Note: * denotes the significant at 0.05 level.

The results of t-test show that there exist significance difference between Middle Weight (A2) wrestlers and Heavy Weight (A3) and Heavy Weight (A3) wrestlers and Light Weight (A1) wrestlers, which are 4.62 and 3.68 respectively. This implied that there exist significance differences in Endurance component between Middle Weight and Heavy Weight or Heavy Weight and Light Weight wrestlers. The mean of Middle Weight wrestlers (3.06 km.) is higher than the Light weight wrestlers (2.99 km.) and Heavy Weight wrestlers (2.75 km.). It further meant that Middle Weight wrestlers were significantly better in Endurance component in physical fitness as compare to light weight wrestlers, who were better than Heavy Weight wrestlers. t-ratio shows that is no significant difference between Light Weight and Middle Weight wrestlers. The difference in the Endurance component of Physical Fitness of Light, Middle and Heavy weight wrestlers is represented below in form of bar diagram.



Conclusion of the Results

: It has been concluded meant that Middle Weight wrestlers were significantly better in Speed, Agility and Endurance component of physical fitness as compare to the Light Weight Wrestlers and Heavy Weight wrestlers. Heavy Weight wrestlers were significantly better in strength component in physical fitness as compare to the Middle Weight wrestlers, who were better than the Light Weight wrestlers. Middle Weight wrestlers were significantly better in Power component in physical fitness as compare to Light Weight Wrestlers, who were better than Heavy Weight wrestlers.

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Comparative Study on Physical Fitness among Offensives and Defensive Male Kabaddi Player of Karimnagar District

Dr.Rajesh Kumar, Associate Professor, Dept. of Physical Education,OU
Ravi Dommati, PhD Scholar, Department of Physical Education
Osmania University, Hyderabad, A.P (India)

ABSTRACT:
In the present study, an attempt has been made to compare physical fitness among offensive and defensive male Kabaddi players at Inter District Kabaddi Competition of Karimnagar District in Andhra Pradesh. For this study, experimental method and physical fitness tests (Speed–30 meters run, Agility (shuttle run)–30 meters run, Endurance–800 meters run) are applied to Kabaddi players to compare their physical fitness performance., 20 offensive and 20 defensive Kabaddi players at Inter District Kabaddi Competition of Karimnagar District were selected randomly for this study. The age group of the subjects was between 14 to 17 years. The data was computed and analysed by using descriptive statistics like mean, standard deviation and t-test in order to compare the significant difference between offensive and defensive Kabaddi players. The result reveals that the overall physical fitness performance of offensive Kabaddi players is high as compared to defensive Kabaddi players. The result indicates that there are significant differences between offensive and defensive kabaddi players at Inter District Kabaddi Competition of Karimnagar District.

Key words: Physical fitness, Kabaddi, Speed, Agility, Endurance, Offensive, Defensive.

Introduction:

Physical fitness is very necessary for a healthy and tension free life. Physical fitness includes diet, exercise and sleep. These three basic things have their own importance in each individual's life and everyone should be sensible with regard to these for a healthy life. As J.F. Kennedy rightly said, "Physical fitness is not only one of the most important keys to a healthy body, it is the basis of dynamic and creative intellectual activity." This statement clearly shows us the **importance of physical fitness**. In its most general meaning, physical fitness is a general state of good physical health. Obtaining and maintaining physical fitness is a result of physical activity, proper diet and nutrition and of course proper rest for physical recovery. In its simplest terms, physical fitness is to the human body what fine-tuning is to an engine. It enables people to perform up to their potential. Regardless of age, fitness can be described as a condition that helps individuals look, feel and do their best. Thus, physical fitness trainers, describe it as the ability to perform daily tasks vigorously and alertly, with left over energy to enjoy leisure-time activities and meet emergency demands. Specifically true for senior citizens, physical fitness is the ability to endure, bear up, withstand stress and carry on in circumstances where an unfit person could not continue. In order for one to be considered physically fit, the heart, lungs and muscles have to perform at a certain level for the individual to continue feeling capable of performing an activity. At the same time, since what humans do with their bodies directly affects the state of mind, fitness influences to some degree qualities such as mental alertness and emotional expression.

Benefits of Physical Fitness:

Condition of Heart and Lungs by increasing the oxygen available to the body therefore enabling the heart to use oxygen more efficiently.
Development of physical fitness components such as strength, endurance, agility, flexibility etc. and improvement of muscle tone.
Fosters correct posture, figure, body image and physical appearance.
Quick recovery after injury, illness and decrease the risk of cardio-vascular disease.
Reduces and controls body fat, exercise combined with a proper diet will reduce body fat and also fulfil proper nutritional requirement.
Increase energy level of a person and helps to maintain ideal body weight.
Through Participation in physical fitness program, leisure (free) time is properly utilized.

Improve mood and reduce depression and anxiety.
Postpones fatigue and reduces recovery time after vigorous activity.
Helps people to meet challenges of life, make them self confident and postpones ageing process.
The speed, agility, balance, cardio-vascular endurance, flexibility, strength, power, etc., of the body will be to peak if well and good fitness are achieved.

Objective of the Study:
The main objective of the study is;

To study the physical fitness among offensive and defensive male Kabaddi players at Inter District Kabaddi Competition of Karimnagar District.

Hypothesis:
Based above objective of the study, the following hypothesis has been tested.

There are significant differences in physical fitness among offensive and defensive male Kabaddi players at Inter District Kabaddi Competition of Karimnagar District.

Significance of the Study:
The study on physical fitness among Kabaddi players has more significance.
This study will help to compare the order of dominance components of physical fitness of offensive and defensive Kabaddi players.
This study also will help to physical education teachers for picking up talent persons for training then according to requirements.
The study may be helping in determining the student's weakness in a particular component.

Methodology:
The main aim of the present paper is a comparative study on physical fitness among male offensive and defensive male Kabaddi players at Inter District Kabaddi Competition of Karimnagar District in Andhra Pradesh. This study is based on primary and secondary sources of data. To collect the primary data through questionnaire on physical fitness among Kabaddi players, 20 offensive and 20 defensive Kabaddi players at Inter District Kabaddi Competition of Karimnagar District have been selected randomly for this study. The age group of the subjects was between 14 to 17 years. For this study, the experimental method has been used to compare the physical fitness among the offensive and defensive male Kabaddi players. The physical fitness tests (Speed-30 meters run, Agility (shuttle run)-30 meters run, Endurance-800 meters run) have been applied to Kabaddi players to compare their physical fitness performance. The data was computed and analysed by using descriptive statistics like mean, standard deviation and t-test in order to compare the significant difference between offensive and defensive male Kabaddi players.
Results and Discussion:
Physical fitness performance between offensive and defensive male Kabaddi players was showed in the table-1. Mean and Standard deviation and t-test values of the selected dimensions of offensive and defensive male Kabaddi players were computed and presented in the table-1.

Table-1
Physical Fitness Performance between Offensive and Defensive Kabaddi Players

Physical Fitness Components	Type of the Player	N	Mean	S.D	t - value	df	Sig.	Result
Speed	Offensive Player	20	0.049	0.0041	2.968	38.0	0.0050	Significant
	Defensive Player	20	0.046	0.0023				
Agility	Offensive Player	20	0.229	0.0099	0.656	38.0	0.5156	Insignificant
	Defensive Player	20	0.227	0.0138				
Endurance	Offensive Player	20	2.507	0.1264	- 3.114	38.0	0.0030	Significant
	Defensive Player	20	2.723	0.2841				

The result reveals s that the mean and standard deviation values on the speed variable for offensive players and defensive male Kabaddi players were recorded as 0.049, 0.0041 and 0.046, 0.0023 respectively. It shows that the offensive Kabaddi players have performed significantly better than their defensive Kabaddi players. The 't' value is 2.968 and it is statistically significant. It indicates that there is a significant deference between offensive and defensive Kabaddi players. The mean and standard deviation values on agility variable for offensive and defensive male Kabaddi players were recorded as 0.229, 0.0099and 0.227, 0.0138 respectively. It shows that the offensive Kabaddi players have performed slightly better than their defensive Kabaddi players. The 't' value is 0.656 and it is statistically insignificant. It indicates that there is no significant deference between offensive and defensive Kabaddi players. The mean and standard deviation values on the endurance variable for offensive players and defensive male Kabaddi players were recorded as 2.507, 0.1264 and 2.723, 0.2841 respectively. It shows that the offensive Kabaddi players have performed significantly better than their defensive Kabaddi players. The 't' value is - 3.114 and it is statistically significant. It indicates that there is a significant deference between offensive and defensive Kabaddi players.

Conclusion:

In conclusion, the results of the present study confirm that offensive male Kabaddi players are comparatively better than defensive male Kabaddi players of Karimnagar District in Andhra Pradesh. Offensive male Kabaddi players are superior to defensive male Kabaddi players in Speed and Agility where as defensive male Kabaddi players are superior to offensive male Kabaddi players in Endurance. This shows that regular energetic activity produces physical fitness improvements among Kabaddi players.

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A Comparative Study Of JCR Test Among Kabaddi And Kho-Kho Players

T.Vijay Sagar

INTRODUCTION:

.Physical fitness is the prime requisite to lead the optimum life and to live most and serve beast in this modern world. According to Nixon and Cozens the ability to cary out daily tasks with vigour and alertness, without undue fatigue, with ample energy to enjoy leisure pursuits. Hence, this concept of physical fitness directly conveys a meaning of healthful living performance in sport and games depends mainly on Muscular Strength,Muscular Endurance< Cardiovascular Endurance, Flexibility, Muscular Power, Speed, Agility Balanace Reaction time and Nuero Muscular Co-Ordination is the Speed and Accuracy with which the Nervours system acts with correct Muscular response to produce desire movement.

There are different types of fitness tests:

1.PHYSICAL FITNESS TEST

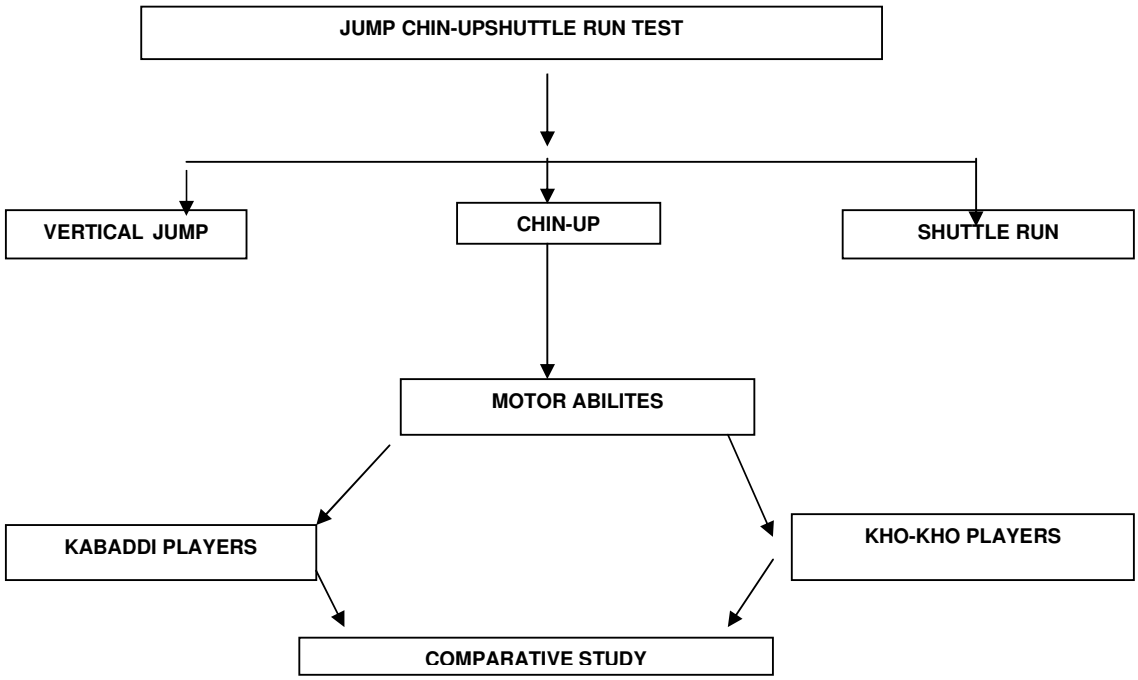
2.MOTOR FITNESS TEST

3.GENERAL MOTOR ABILITY TEST

The physical fitness of human beings is he main objective of Physical Education and Sport Programme. The main purpose of the study of to findout wheather the participation in Kabaddi and Kho-Kho will develop the motor ability of every individual. The vigorousparticipation in Kabaddi and Kho-Kho will develop (physical fitness) motor ability. Aperson physically fit he can do any thing through his mere participation in Kabaddi and Kho-Kho. A person can improve the physical fitness through related test batteries for development better performance in sports activities, but also meaning of healthful living. So te Kabaddi and Kho-Kho will develop the Physical fitness to the individuals which is of immense use in his living. The study was conducted on 50 boys of High School Boys and Girls regularly participants in Kabaddi and Kho-Kho gane. This age laming from 14years to 17 years, this Vertical Jump, Chinup, Shuttle Run, were considered. The boys who are studying in High Schools in different areas in Andhra Pradesh. The present study under report studied the physical fitness components such as Vertical Jump, Chin-up, Shuttle run, of the individual who regularly participate in Kabaddi, and Kho-Kho . Agood physique depends upon certain amount of physical strength along with the Mental Strength while Physical Strength determines one's abilities and capaciies potentialities, Agility, of and individuals on the other had the mental strength determines the Nuero Muscular co-ordination of the individual. From the obtained results it is very clear that the individuals who participate in Kabaddi and Kho-Kho will develop better Vertical Jump, Chin-Up ,and Shuttle Run.

STATEMENT OF THE PROBLEM :

"A comparativeStudy Jumping, Chin-up, Shuttle Run among Kabaddi and Kho-Kho players .The investigation has been under taken to find out the result to the following tests, and is there any differences between Kabaddi and Kho-Kho players.



HYPOTHESIS:
Is there any difference in Jumping, Chin-up, Shuttle Run between Kabaddi and Kho-Kho players.

DELIMITATIONS:
The study was delimited in the following aspects:The study was conducted on 50 boys and 50 girls who regularly participate in Kabaddi and Kho-Kho game. Their age laming from 14years to 17 years. The Vertical Jump, Chin-Up , Shuttle Run were considered for this study .

LIMITATIONS:
The study was limited Subjects diet regulation and previous experience were not considered and psychological factors ,health habits climate conditions also were not sonsidered for this study.

CONCLUSION AND RECOMMENDATIONS :

JCR Test represents animportant considerations in an individuals performance in Physical activity, not only I Physical Education and Sports but also in daily life. While JCR test is on of the number of determinants of the caliber of performance in Physical activity in many classes it may spell the diference between success and failure or even between life and death in emergencies.

The present study under report studied the physical fitness components such as vertical jump, chin-up, shuttle run, of the individuals who regularly participate in Kabaddiand Kho-Kho. A good physique depends upon certain amount of physical strength along with the mental strength while physical strength determine one's abilities and capacities the nuero muscular co-ordination of the individual. From the obtained results it is very clear that the individuals who participate in Kabaddi and Kho-Kho will develop better Vertical Jump, Chin-Up, Shuttle Run.

Hence it is finally concluded that the Kabaddi and Kho-Kho players are developing the J.C.R a bilities considerably. Kabaddi and Kho-Kho players have shown better J.C.R abilities than Kho-Kho-players as the mean differences of Kabaddi players are higher then Kho-Kho players.

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An Impact On The Development Of Body Composition, Hormone Profile, Physical Fitness, General Perceptual Motor Skills, Soccer Skills And On-The-Ball Performance In Soccer-Specific Laboratory Test Among Adolescent Soccer Players.

Syed Muneer Ahmed, GHMC, Hyd & Hassan Abdulkarim Al Moslim, KFUPM, Saudi Arabia

Introduction

Soccer is the most natural and popular game throughout the world. It is a unique sport where the leg-eye combination which is the most difficult one is used for play. Here a player has to keep his balance on one foot, watch his opponents and play with his own leg without any extra equipment like a racket, bat or stick. The most important variables for measuring performance in soccer are physical condition, technical skills and tactical performance (Rosch et al., 2000). General development of physical performance capacity during puberty is well documented in exercise literature. In research literature, adolescent growth spurt or, more precisely, peak height velocity is used as a milestone for timing the peak development of various physical performance abilities. Studies of adolescent males in the general population suggest that speed tasks (e.g. running speed and agility) attain maximal gain before peak height velocity is reached, aerobic power at peak height velocity and power and strength afterwards (Beunen and Malina, 1988; Malina et al., 2004; Tanner et al., 1966). Similar findings, with only minor differences in timing of power and strength gains, have also been reported for both adolescent athletes and soccer players (Mero et al., 1989; Phillppaerts etal., 2006).

A few qualities like decision making and perception are essential parts of motor performance in soccer and shouldn`t be ignored when players development is examined (Vaeyens et al., 2007; Ward and Williams, 2003). In general, the ability to process information becomes more efficient with increasing age (Kail, 1991). The actual visual system develops throughout childhood to reach the adult functional level at the age of 10-15 years (Crognale, 2002., Fukushima et al., 2000; Ishigaki and Miyao, 1994).

Physical Fitness variables effect differently at different level of performance and age. As a player's physical fitness capacity during puberty is mainly related to that player`s maturity, it has been suggested that the focus in youth soccer should be placed on ball-handling and game skills (Lindquist and Bangsbo, 1991). This suggestion receives support from skill research which has shown that the effect of age and maturation is less obvious in skill tests than in physical fitness tests (Eisenmann and Malina, 2003; Malina et al., 2005; Rosch et al., 2000; Vaeyens et al., 2006). It is difficult to separate the development of actual ball-handling skills from the development of physical performance. This is the case especially in many dribbling and passing tests which include a substantial proportion of running. Therefore, it is not surprising that the predictors of successful performance in various skill tests have been shown to depend on measured tasks (Malina et al., 2005)

.

Method

The participants of this study were 10-, 12- and 14-year-old male field soccer players (n = 12/group) from local clubs. Participants' height was measured by wall-mounted Stadiometer. Weight, body fat and muscle mass were analysed with the body composition analyser (Inbody 720, Biospace Co. Korea). Serum testosterone concentration was analysed from venous blood samples (sensitivity 0.5 nmol/l) taken between 7.30 and 8.30 a.m. after 12 hours of fasting (Immulite 1000, DPC Diagnostics Corporation, USA). Speed (10 m), agility (a figure 8 run) and explosive leg strength (counter movement jump = CMJ) were measured in order to examine players' physical fitness characteristics. A 10m run from a stationary start and agility test were measured with photo cells. Explosive leg strength was measured with CMJ on a jump mat. Participants' general perceptual motor skills were measured with peripheral awareness (PAT) and Eye-Hand-Foot coordination (EHF) tests (Coffey and Reichow, 1995; Erickson, 2007).Soccer skills were measured with the dribbling and passing tests used in the youth skill competitions. In traditional soccer skill tests, the participants were also instructed to perform three trials but at least one successful trial was required from each player. Trail was stopped immediately if the ball was lost. A laboratory test track was constructed in order to measure soccer-specific perceptual motor skills in simulated `on-the-ball` performance. One-way

ANOVA with Tukey's post hoc test was applied to detect differences between the age groups. With-in each age group Pearson's correlation coefficient was applied to examine the relationships between single variables and performance time in the soccer-specific laboratory test and between single variables and passing accuracy in the soccer-specific laboratory test. In addition, a linear regression was applied to examine the relationship between anticipation time and performance time in the soccer-specific laboratory test in order to estimate the role of soccer-specific perceptual skills in different age groups.

Results

The analysis of the data are presented in the tables 1and 2.

Table-1 showing the Effects of age for anthropometrical, hormone profile, physical fitness, general perceptual motor skill, soccer skill and soccer-specific laboratory test variables.

		Main Effect			Between age groups (p<)		
		$F_{(2,33)}$	p<	η^2	10y-12y	12y-14y	10y-14y
Anthropometrics	Height (m)	22.604	.001	.57	.01	.01	.001
	Weight (kg)	27.937	.001	.63	.01	.01	.001
	Fat (%)	1.203	ns.	.07	-	-	-
	Muscle Mass (kg)	30.866	.001	.65	.01	.001	.001
Hormone Profile	Testosterone (nmol/l)	31.778	.001	.66	.001	.01	.001
Physical Fitness	10m (s)	21.639	.001	.57	ns.	.001	.001
	Agility (s)	14.023	.001	.46	.05	.05	.001
	CMJ (cm)	13.903	.001	.46	ns.	.01	.001
General Perceptual Motor Skills	PAT (s)	1.555	ns.	.09	-	-	-
	EHF (times/30s)	21.371	.001	.56	.001	ns.	.001
Soccer Skills	Dribbling (s)	12.102	.001	.42	ns.	.01	.001
	Passing (s)	12.623	.001	.43	.05	.05	.001
	∑ Skill (s)	13.407	.001	.45	ns.	.01	.001
Soccer-Specific Laboratory Test	Time (s)	3.378	.05	.17	ns.	ns.	.05
	Anticipation (s)	15.012	.001	.48	ns.	.01	.001
	Dribbling (s)	1.087	ns.	.06	-	-	-
	Reaction (s)	2.895	ns.	.15	-	-	-
	Aiming (s)	1.581	ns.	.09	-	-	-
	Passing (s)	11.402	.001	.41	.05	ns.	.001
	Accuracy (penalty pts.)	2.504	ns.	.15	-	-	-

CMJ = counter movement jump, PAT = peripheral awareness, EHF = Eye-Hand-Foot Coordination

Table 1 shows the results of the measured variables. A significant main effect by age was found in the measured variables except in percentage of body fat and in peripheral awareness. More detailed analysis between consecutive age groups revealed that all other measured anthropometrical, hormone profile, physical fitness, general perceptual motor skill and soccer skill variables improved with age but the differences in 10m, CMJ and dribbling skill in the 10 to 12-year age group, and in EHF in the 12 to 14-year age group failed to attain statistical significance.In the soccer-specific laboratory test, a significant main effect by age was found in performance time, anticipation time and passing time . In reaction time, the differences just failed to attain a level of significance ($p = 0.069$). More detailed analysis between age groups revealed that in performance time ($p < 0.05$) and in passing time ($p < 0.001$), the 14-year age group was faster than the 10-year age group and, in anticipation time, was faster than the 10-year age group ($p < 0.001$) and the 12-year age group ($p < 0.01$). Only significant difference between 10 and 12 year groups was found in passing time ($p < 0.05$).

Table 2 shows the Correlation coefficients between soccer-specific tests variables (time and accuracy) and anthropometrical, hormone profile, physical fitness, general perceptual motor skill and soccer skill variables in different age groups.

		Performance time			Passing accuracy		
		10y	**12y**	**14y**	**10y**	**12y**	**14y**
Anthropometrics	Height	-.53	-.36	.10	.30	.06	.38
	Weight	-.31	-.24	.18	.59*	-.10	-.28
	Fat	.21	.02	-.02	.66*	-.47	-.24
	Muscle Mass	-.41	-.25	.17	.39	-.00	-.18
Hormone Profile	Testosterone	-.22	-.70 *	-.10	.07	-.17	-.11
Physical Fitness	10m	.57	-.05	.52	.71 **	-.26	.07
	Agility	.34	.03	.79 **	.35	-.02	-.21
	CMJ	-.35	.21	-.62 *	-.64 *	-.21	.03
General Perceptual Motor Skills	PAT	.72 **	.48	.33	-.13	.25	.08
	EHF	.17	-.35	-.44	-.43	-.10	.63 *
Soccer Skills	Dribbling	.13	.73 **	.80 **	-.01	-.27	-.26
	Passing	-.04	.73 **	.58 *	-.06	-.21	-.24
	∑ Skill	.02	.75 **	.70 *	-.04	-.24	-.26

CMJ = counter movement jump, PAT = peripheral awareness, EHF = Eye-Hand-Foot Coordination,
*p< 0.05, ** p < 0.01

Based on discriminant analysis 63.9% ($\lambda = 0.603$, $F = 4.600$, $p < 0.01$) of the players were classified correctly based on physical fitness and general perceptual motor skills into three ability groups originally classified with performance time in the soccer-specific laboratory test. Combined variables were not able to classify group membership of passing accuracy. With-in each age group the relationships between single variables and performance time in the soccer-specific laboratory test as well as the relationships between single variables and passing accuracy in the soccer-specific laboratory test are presented in 2. The relationship between anticipation time and performance time was significant only in the oldest, 14-year age group ($r = 0.764$, $p < 0.01$)

Discussion

The results of the present study suggested that soccer-specific perceptual skills became more important with age and general perceptual motor skills less so. In the 10-year-old group, general peripheral awareness explained 50 %, but soccer-specific anticipation time only 1 %, of the variance in performance time in the soccer-specific laboratory test. By the age of 14 years, these relationships had reversed. Soccer-specific anticipation time explained 61 %, and general peripheral awareness only 11%, of the variance in corresponding performance time. In practice, this means that the 10-year-old players were able to compensate weaker game-reading skills with better motor skills, but this was no longer the case with the 14-year-old age group. In addition, in the 14 year group better Eye-Hand-Foot coordination was actually associated with worse passing accuracy. These results confirms earlier suggestion that specific types of activities in sport training lead to the acquisition and development of sport-specific perceptual motor skills which are not directly related to general perceptual motor skills (Ward et al., 2007; Ward and Williams, 2003).

Conclusion

It is concluded that general and soccer-specific perceptual motor skills developed with age, and that soccer-specific perceptual skills became more important with age and general perceptual motor skills less important. Nevertheless, more research is warranted in order to understand the development of general and soccer-specific perceptual motor skills during growth and also during situations that players have to face in the real game.

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Kinetic And Kinematic Analysis Of Kicking In Soccer

Prof.Syed Ibrahim, Department of Physical Education, Osmania University, Hyderabad
Md. Kazim Ph.D Research Scholar, Osmania University

ABSTRACT: The purpose of the study was to find out whether there is any relationship between Soccer Kicking Performance and the selected Kinetic and Kinematic Variables namely Kinetic energy, Speed, Force, Power, Angle of lean and Angle of Projection. For this study, altogether 30 male footballers who have represented All India Coal fields Soccer tournaments and National Tournaments were selected as subjects. The selection of the subjects was made on random basis. The age of the subjects was below 25 years. The Zero Order Correlation was used to determine the relationship between Kinetic and Kinematic variables. To study the Combined effect of these variables to Kicking performance in Soccer, the multiple correlation was calculated with the help of Partial correlation. The level of significance was set at 0.05. It was found out that the Combined effect of all the Kinetic and Kinematic variables had a significant relationship with the Soccer Kicking performance. It was found out that the Kinetic and Kinematic variables had significant relationship with the Soccer Kicking performance. It was also found out there was significant relationship among the kinetic and kinematic variables.

Key Words: Soccer, Kinetic, Kinematic, Kicking performance.

INTRODUCTION: Soccer find the most significant place in the world of sports as a team event for a collective youth power, skill and display of entertaining performances. The game of Soccer is a thinking experience and fascinating blend of courage and leave the players exhilarated and keeps the players and the spectators spell found. The game of Soccer consists of many elements-passing, control, shooting, dribbling, goalkeeping and heading. This variety of techniques makes soccer exciting and enjoyable, but it also makes it challenging. Kicking in Soccer is considered as one of the main fundamental skills. The performance of soccer kicking is mainly based on the Biomechanical correlates such speed, Force, Power, Angle of lean, Angle of projection and Kinetic energy. Soccer is a passing and running game of an unpredictable and constantly changing pattern, demanding an acute awareness of other players and an ability to making quick decisions and act upon them without delay.

METHODOLOGY : The study was intended to find out whether there was any relationship between Soccer Kicking performance and the Kinetic and Kinematic variables. So the relationship technique was employed in the design. For the purpose of this study, 30 football players who have represented All India Coal fields Soccer tournaments and National tournaments were selected as subjects. The selection of the subjects was made on random basis and the age of the subjects was below 25 years.
The variables selected for this study were :
1. Criterion variable
(a) Kicking performance in Soccer
2. Experimental variables:(i) Speed (ii) Force (iii) Power (iv) Angle of lean(v) Angle of projection
(vi) Kinetic energy
The Sub-variables selected to find out the Experimental Variables were :
(a) Weight of the body of the football player (b) Mass(c) Acceleration(d) Timing of 50 meters run

The reliability of the data was ensured by establishing the reliability of the instruments, testers competency and subject reliability.

The calibration and reliability of the instruments were accepted for this study . Stop watches calibrated to one hundred of a second were used and were considered reliable. The reliability of the stop watch was found out by taking the time twice for the same footballer. Standard measuring tapes were used to measure the distance covered by the ball after the kick. Standard weighing machine was used to measure the weight of the players. Best quality footballs were used to record the kicking performance of the players.

To determine the reliability of the test, the performance of the subjects on the chosen variables was recorded twice under similar conditions by the tester. This was done by test re-test method. The scores thus obtained by test re-test method were correlated using Pearson's Product Moment Correlation.

ADMINISTRATION OF THE TESTS AND COLLECTION OF THE DATA:

The following data of the subjects was collected for this study.

(i) Total weight of each player was measured in Kilograms.

(ii) Kicking performance of the players was measured.

(iii) Speed of each player was measured by using 50 metres sprint time. The average speed of each player was obtained by dividing the total distance covered by the total time taken.

$$S = d / t$$

(iv) Force exerted by each player was calculated by multiplying the mass of each player by his acceleration.

Force = mass X acceleration

$$F = m\,a$$

(v) The power of the subjects were calculated by multiplying the force exerted by the player and his velocity.

Power = force x velocity

$$P = f \times v$$

(vi) To find out the Angle of lean the player was made to run around a 6 feet radium circle in anti-clockwise direction from a starting point and their timing was recorded.

The formula used to compute the Angle of lean of the player while kicking the ball.

$$\tan\theta = \frac{V^2}{g\,r}$$

where, θ = Angle of lean

v = Velocity of the player

That is, $v = \frac{\text{Distance travelled (circumference of the circle)}}{\text{Time taken to cover the distance}}$

(vii) To find out the Angle of Projection of the ball the spot to place the ball was marked. A semi – circle of radius 5 meters from the kicking spot was drawn and it was used as the run – way distance to take the kick. After taking the kick, the total distance covered by the ball in the air and time of flight of the ball till landing was recorded simultaneously.

The formula used to compute the Angle of projection f the ball :

$$\sin 2\theta = \frac{Rg}{V^2}$$

Where, θ = Angle of projection of the ball

R = Horizontal distance covered by the ball

That is, Point of kicking the ball in the air to the point of landing of the ball

g = Gravitational force (9.8 mts/sec/sec)

v = Velocity of the ball

That is, $v = \frac{\text{Horizontal distance covered by the ball}}{\text{Time taken to cover the distance}}$

(viii) The average velocity of a player was obtained by dividing the distance covered by the time taken

$$V = \frac{S}{t}$$

(ix) Acceleration of the player was calculated by using the formula :

$$\text{Acceleration} = \frac{2 \times \text{displacement}}{(\text{time})^2}$$

(x) Kinetic energy was calculated by using the formula :

$$K.E. = \tfrac{1}{2}\, mv^2$$

m = mass of the player

$m = w/g$

w = weight of the player

g = Gravitational constant (9.8 mts /sec /sec)
v = velocity of the body in the direction of the force.

After collecting the data for the kicking performance, the Speed, Force, Power, Angle of lean, Angle of projection and Kinetic energy of the players were measured individually. There after by using the statistical techniques, the relationship between the kicking performance and Kinetic and Kinematic variables was found out.

The formulae suggested by Clarke and Clarke were used.

PRODUCT MOMENT CORRELATION (r)

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

PARTIAL CORRELATION

$$r_{12.3} = \frac{r_{12} - r_{13} \cdot r_{23}}{\sqrt{(1 - r^2_{13})(1 - r^2_{23})}}$$

$$r_{13.2} = \frac{r_{13} - r_{12} \cdot r_{23}}{\sqrt{(1 - r^2_{12})(1 - r^2_{23})}}$$

$$r_{23.1} = \frac{r_{23} - r_{12}\ r_{13}}{\sqrt{(1 - r^2_{12})(1 - r^2_{13})}}$$

MULTIPLE CORRELATION:

$$R_{1.234567} = \sqrt{1 - (1 - r^2_{12})(1 - r^2_{13.2})(1 - r^2_{14.23})(1 - r^2_{15.234})(1 - r^2_{16.2345})(1 - r^2_{17.23456})}$$

The level of significance was fixed at 0.05 level. The correlation value at 0.05 level for df = N – M (i.e) 30 – 2 = 28 was 0.361.

Product Moment Correlation (Zero Order) was employed to find out the relationship between the kicking performance in soccer and the experimental variables such as speed, Force, Power, Angle of lean, Angle of projection and Kinetic energy. Also, First Order Partial Correlation, Second Order Partial Correlation and Multiple Correlation were employed to find out the degree of relationship between these variables and the Combined effect of all the Experimental variables to the Criterion variable

INTER CORRELATION MATRIX

	Speed	Force	Power	Angle of Lean	Angle of projection	Kinetic energy
Kicking performance	**0.43**	**0.77**	**0.78**	**0.45**	**0.82**	**0.77**
Speed		**0.44**	**0.63**	**0.38**	**0.44**	**0.49**
Force			**0.97**	**0.42**	**0.56**	**0.99**
Power				**0.46**	**0.60**	**0.97**
Angle of lean					**0.36**	**0.41**
Angle of projection						**0.60**

Significance at 0.05 level
df = 28
The value at 0.05 level = 0.361

The table of Inter Correlation Matrix showed that Kicking performance had significant and positive correlations with speed (0.43), Force (0.77), Power (0.78), Angle of lean (0.45), Angle of projection (0.82) and Kinetic energy (0.77). The table also showed that each variable had significant and positive Correlations with the other Independent variables.

COMBINED EFFECT OF SPPED, FORCE, POWER, ANGLE OF LEAN, ANGLE OF PROJECTION AND KINETIC ENERGY TO KICKING PERFORMANCE

Criterion Variable	Independent variables R 1.234567	Co-efficient of Multiple Correlation
Kicking Performance	Speed Force Power Angle of Projection Kinetic energy	0.92 Angle of lean

Significance at 0.05 level
d f = 23
The value at 0.05 level = 0.396

RESULTS AND DISCUSSIONS:

The Hypothesis point one says that the Combined effect of Kinetic and Kinematic variables namely Speed, Force, Power, Angle of Lean, Angle of Projection and Kinetic energy may have significant relationship with the Soccer Kicking performance. From the statistical analysis it was found out that the Combined effect of all the Kinetic and Kinematic variable had a positive and significant relationship with the Soccer Kicking performance (0.92) at 0.05 level of significance. Hence the Hypothesis point one is accepted.

The Hypothesis point two says that each variable may have significant relationship with the Criterion variable and also with the other Independent variables. From the statistical analysis it was found out that the Speed (0.43), Force (0.77), Power (0.78), Angle of Lean (0.45), Angle of Projection (0.82) and Kinetic energy (0.77) had significant relationship with the Soccer Kicking performance.

It was also found out that there was significant relationship among the Kinetic and Kinematic variables such as Speed and Force (0.44), Speed and Power (0.63), Speed and Angle of lean (0.38), Speed and Angle of projection (0.44), Speed and Kinetic energy (0.49), Force and Power (0.97), Force and Angle of lean (0.42), Force and Angle of projection (0.56), Force and Kinetic energy (0.99), Power and Angle of lean (0.46), Power and Angle of Projection (0.60), Power and Kinetic energy (0.97), Angle of lean and Angle of projection (0.36), Angle of lean and Kinetic energy (0.41), Angle of projection and Kinetic energy (0.60). Hence the Hypothesis point two is also accepted.

CONCLUSIONS:

There was a significant and positive correlation between Soccer Kicking performance and Speed (0.43)
Soccer Kicking was found significantly related to Force (0.77).
Power was found to be significantly related to Soccer Kicking performance (0.78)
There was significant positive correlation between kicking performance and Angle of lean (0.45)
Angle of projection was found to be significantly related to Kicking performance (0.82)
There was a significant positive correlation between Kicking performance and Kinetic energy (0.77)
The Combined effect of all the Kinetic and Kinematic variables with the kicking performance showed significant positive correlation (0.92)

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A comparative study on Selected Fitness Components of Tribal And Non-Tribal Sports Person of Rajasthan State

Dharam Singh Meena[1], Arvind kumar[2], Rakesh kumar[3]
1. Research Scholar, Singhania University, Jhunjhunu ,Rajasthan,
Email- dm116069@gmail.com
2. Research scholar,Mohan lal sukahdia university,Udaipur,Rajasthan,
Email- natharvindkumar@yahoo.com
3. Centre For Converging Technologies,University of Rajasthan, Jaipur
Email-rakesharya555@yahoo.com

Abstract:-
The study investigated the comparison of health related physical fitness components between Tribal and Non-Tribal sports persons of inter university level of Rajasthan State.200 sports persons of Govt. & private colleges were going to act as samples/ subjects for this particular study. Out of these 200 subjects, 100 subjects were tribal and 100 subjects were non-tribal. The age group of tribal and non-tribal Sports Persons was limited to 17 to 25 years. These subjects were selected through the random sampling technique ten from each govt. & private colleges. A total of 20 sports persons (10 tribal and 10 non-tribal) were selected from each college for this study, an attempt has been made to compare physical fitness components namely Strength, Flexibility, Co-ordinative Ability (Shuttle Run, Speed, Cardio Vascular Endurance (12 minute run),The data was analyzed and compared by using statistical procedures in which arithmetic mean, standard deviation (S.D.),t-test are calculated with the help of AAHPERD Youth Fitness Test. In this particular study it was found that tribal sports persons were superior in strength, endurance, speed and Co-ordinative Ability but there was no significant difference on Flexibility exists between the tribal and non-tribal sports persons.
Key words:- Flexibility, Co-ordinative Ability, Speed, Cardio Vascular Endurance, AAHPERD Youth Fitness Test.

Introduction:-
Physical fitness is the ability to function efficiently and effectively without injury, to enjoy leisure, to be healthy, to resist disease, and to cope up with emergency situations. It is the state of well-being with low risk of premature health problems and energies to participate in a variety of physical activities. (Tanaka et al., 2004). Health-related components of physical fitness include body-composition, cardiovascular fitness, flexibility, muscular endurance, neuromuscular learning and strength.Skill-related components include agility,balance,coordination, reactions, rhythm, power and speed. (Hopkins & Walker, 1988).Physical fitness is generally achieved through proper nutrition, exercise, and enough rest. Regular physical activities prevent or limit the body weight and gain in body mass index (BMI) (Kyle et al. 2001) Every person has a different level of physical fitness which may change with time, place of work, situation and there is also an interaction between the daily activities, and the fitness of an individual. Charles (2006) conducted a study on the "Differences in health for rural and urban Canadians". His report shows that Canadians living in rural areas generally have higher mortality rates than those living in urban areas. A higher level of physical fitness is associated with a lower risk of developing hypertension, which isrelated to coronary heart disease *(Marti, 1991).* From the physiological point of view physical fitness may say to be ability at the body to adopt and recover from strenuous exercise. Physical fitness can thus be considered as a prerequisite for good health and quality living.There are 5 major components of physical fitness namely Strength, Flexibility, Co-ordinative ability,Speed, Cardiovascular endurance.Strength,is the amount of force a muscles can exert against a heavy resistance. Barrow and McGee define strength as the capacity of the individual to exert muscular force.Present study was focused on comparison on the basis of these above physical fitness components between Tribal V/s Non-tribal sports person of Rajasthan state.

Procedures and Methodology
Sample:-Tribal and Non-Tribal sports persons of inter university level of Rajasthan State.200 sports persons of Govt. & private colleges were going to acted as sample/ subjects for this particular study. Out of these 200 subjects, 100 subjects were tribal and 100 subjects were non-tribal. The age group of tribal and non-tribal Sports Persons was limited to 17 to 25 years. These subjects were selected

through the random sampling technique ten each from govt. & private colleges. A total of 20 sports persons (10 tribal and 10 non-tribal) were selected from each college for this study.

Tool:- Physical Fitness:- AAHPERD Youth Fitness Test (Pull-ups, Situps, Standing Broad Jump, Shuttle Run, 50 Yard Dash, 600 Yard Run/Walk).

Statistical design:-The data was analyzed and compared using statistical procedures in which arithmetic mean, standard deviation (S.D.), t-test are analysed significant at 0.05 level of confidence.

Results:-

Arithmetic Means,standard deviations and 't' values of the selected fitness components of tribal and non-tribal sports persons were computed. Its results have been depicted in tables 1 to 5.

Table-1 :Difference Between Means Of Strength Of Tribal And Non -Tribal Sports Persons

Group	Means	SD	N	MD	DF	T-test
Tribal	6.43	2.62	100	2.21	198	6.00*
Non Tribal	4.21	2.59	100			

* Significant at .05 level of confidence.

Table - 1 reflects that a mean difference of 2.21 g existed on Strength between the tribal and non-tribal sports persons. Further the table indicates that the calculated value of 't' (6.00) is significantly higher than the tabulated t-value at .05 level (1.97). So it is understood that a significance difference on Strength exists between the tribal and non-tribal sports persons

Table -2 :Difference Between Means Of Flexibility Of Tribal And Non -Tribal Sports Persons Of Rajasthan State

Group	Means	SD	N	MD	DF	T-test
Tribal	6.43	2.62	100	0.47	198	0.84
Non Tribal	4.21	2.59	100			

* Significant at .05 level of confidence.

Table –2 reflects that a mean difference of 0.47 existed on Flexibility between the tribal and non-tribal sports persons. Further the table indicates that the calculated value of t (0.84) is significantly less than the tabulated t-value at .05 level (1.97) of significance. So it is understood that a non significance difference on Flexibility exists between the tribal and non-tribal sports persons

Table -3: Difference Between Means Of Co-Ordinative Ability Of Tribal And Non -Tribal Sports Persons Of Rajasthan State

Group	Means	SD	N	MD	DF	T-test
Tribal	*8.86*	*0.54*	*100*	2.70	198	21.62*
Non Tribal	*11.56*	*1.12*	*100*			

* Significant at .05 level of confidence.

Table –3 reflects that a mean difference of 2.70 existed on Co-ordinative Ability (Shuttle Run) between the tribal and non-tribal sports persons. Further the table indicates that the calculated value of t (21.62) is significantly higher than the tabulated t-value at .05 level (1.97) of significance. So it is understood that significance difference on Co-coordinative Ability (Shuttle Run) exists between the tribal and non-tribal sports persons.

Table -4:Difference Between Means Of Speed Of Tribal And Non -Tribal Sports Persons Of Rajasthan State

Group	Means	SD	N	MD	DF	T-test
Tribal	2.20	0.25	100	0.18	198	6.76*
Non Tribal	2.02	0.07	100			

* Significant at .05 level of confidence.

Table –4 reflects that a mean difference of 0.18 existed on Speed between the tribal and non-tribal sports persons. Further the table indicates that the calculated value of t (6.76) is significantly higher than the tabulated t-value at .05 level (1.97). So it is understood that a significance difference on Speed exists between the tribal and non-tribal sports persons.

Table -5 :Difference Between Means Of Cardio Vascular Endurance Of Tribal And Non -Tribal Sports Persons Of Rajasthan State

Group	Means	SD	N	MD	DF	T-test
Tribal	50.68	9.99	100	6.49	198	5.74*
Non Tribal	44.19	5.30	100			

* Significant at .05 level of confidence.

Table –5 reflects that a mean difference of 6.49 existed on Cardio Vascular Endurance between the tribal and non-tribal sports persons. Further the table indicates that the calculated value of 't' (5.74) is significantly higher than the tabulated t-value at .05 level (1.97) of significance. So it is understood that a significance difference on Cardio Vascular Endurance exists between the tribal and non-tribal sports persons.

Discussion:-

Physical fitness variables are very important for a sports person which form a condition for higher performance. Mal (1982) stated that the components of physical fitness like speed, endurance, flexibility and the various coordinative abilities are essential for a high technique and tactical efficiency. Depending upon the demand of the game, each factor of physical fitness should be optimally developed. In the present study there was significant difference observed between the tribal and Non-tribal sports persons in all the selected physical fitness components except flexibility. The analysis of results indicates a higher level of all physical fitness variables in the group of the examined tribal sports persons compared to Non-tribal sports persons .The present study showed that the group differences were found in Physical Fitness Components such as: Strength (6.00), Flexibility (0.84), Co-ordinative Ability (Shuttle Run) (21.62), Speed (6.76), & Cardio Vascular Endurance (12 minute run) (5.74), because calculated 't' value is higher than tabulated value (2.00) at .05 level of confidence, in Tribal VS Non Tribal sports persons of Rajasthan. The data presented in the present study carry immense practical application and should be useful in future investigations on player's selection.

Conclusion :-

Findings of this exploratory study suggested that tribal sports persons were comparatively better than Non-tribal sports persons. Tribal sports persons are superior to non-tribal sports persons in Strength, Co-ordinative ability, Speed and Cardiovascular endurance. But there were no significant difference on flexibility exists between the tribal and non-tribal sports persons. This shows that regular energetic activity produces physical fitness improvements. Tribal life style is more active in nature than the life in non-tribal areas which produced high level of physical functioning or fitness.

Recommendation:-

* The study may be repeated with more psychological variables,on girls as subject etc.
* Physiological variables like blood pressure, stroke volume, RBC Counts, hemoglobin level capacity, respiratory rate, skin fold etc. can also be included in similar type of study.

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Influence Of Centrifugal Force In Curve Running On Different Lanes Of Cinder And Synthetic Tracks

Prof. P. Venkat Reddy Dean, Faculty Of Education Osmania University, Hyderabad-07
Penki Sujatha,Research Scholar in Physical Education ,JNTUH, Hyderabad

Introduction:The elevation of athletics is a recognition that it is the sport of supreme endeavor, the sport where man pits himself not only against other men, but also against the limitations which nature has imposed up on him; the sport where frontiers of human endurance are attained and surpassed."
Certain forces, developed as a result of rotary motion, are an aid to performance in some activities, in others are a handicap that must be off set. These forces are called centrifugal forces. To counteract or nullify or neutralize the effect of centrifugal force, the athlete resorts to several maneuvers, depending on the characteristics of the action involved and the desired results. The purpose of the study was to analyse influence of centrifugal force thus finding out the angle of lean in curve running on different lanes of cinder and synthetic tracks. This is experienced by the athlete as the centrifugal force is acting on the body while running on the curves of cinder and synthetic tracks.

Hypotheses
1. It was hypothesized that the angle of lean might vary in relation to the different radii of the curves in cinder track.
2. It was hypothesized that the angle of lean might vary in relation to the different radii of the curves in synthetic track.
3. It was hypothesized that the angle of lean might vary in relation to height of the body at significant level in cinder and synthetic surface.
4. it was also hypothesized that the angle of lean may vary in relation to the speed of the athlete.

Delimitations
1. This study was confined to thirty men Inter college level athletes of Omania University, Hyderabad.
2. The athletes for this study were selected in the age group of eighteen to twenty one years.
3. The data for this study were collected in standard cinder and synthetic tracks only at Railway recreation club, Secunderabad for cinder and GMC Balayogi, Gachibouli Stadium, Hyderabad, for Synthetic track .

Limitations
1. The changes in climatie conditions such as air, temperature, atmospheric pressure and relative humidity during the testing period could not be controlled and their possible influence on the results of this study was recognized as a limitation.
2. Certain factors like daily routine, life style and food habits, which would have an effect on the performance of the athletes could not be controlled.

The investigator selected thirty inter-college level men athletes of Osmania University, Hyderabad as subjects for this study. Their age ranged between eighteen and twenty one years.

Administration Of The Test

For this study only one group of thirty athletes were selected. Since the data for this study were collected during the course of eight days and as no experimental treatment was involved, this study had been designed as a status study.

In order to evaluate the performance of the subjects in curve running eight lanes are marked in cinder and synthetic 400 (synthetic track making was already done and the same was utilized for collecting data) meters tracks. The width of each lane was one meter and twenty two centimeters. Each straight of the track eighty meter and the distance to be covered in both curves was totally 240 meters. In order to equalize the distance to be covered in the curves, the other lanes were staggered except the first lane.

Collection Of Data

The subjects were asked to run 400 meters in the cinder track and the time taken by each athlete in the first and second curves of each lane was recorded separately. For each athlete two time keepers were allotted, one for the first curve and the other for the second curve of each lane. The time keepers had taken a position in the axis of the curve so that they could have a clarity of the subjects starting and the finishing of the distance in the first curve and the second of each lane separately. In the same way each athlete was asked to run in all the eight lanes are in the morning in cinder track and are in the evening on synthetic track and the time was recorded. The time taken by each athlete to complete the curve running that was 240 meters was calculated by adding the time taken to finish the first curve and the second curve of the each lane. Thus, the data were collected both in the morning and evening sessions every day.

After collecting data, the angle of lean was computed for each athlete on different lanes of both cinder and synthetic tracks separately. The angle of lean was calculated by using the formula as suggested by Bunn and the corresponding angle was found out from the conversion table.

$\tan \theta = V^2/gr$

where ,

θ = angle of lean, V = Velocity, g = force of gravity, r = radius of the lane

The velocity was computed by using the formula.

$V = D/t$

Where

D = distance covered in curves, t = Time taken to cover the distance in curves.

Statistical Techniques For Analysis Of Data

To test whether there was any significant difference in the angle of lean between the different types of tracks (Cinder and Synthetic) t-ratio was computed.

$t = Dm/\sigma Dm$

't' ratio is the ratio of the difference between means and standard error of the difference between means.

The level of significance was fixed at 0.05 level of confidence, as no highly sophisticated or electronic equipment was used justifying more stringent levels of confidence.

The angle of lean on different lanes of cinder track, the angle of lean on different lanes of synthetic track and the comparison of angle of lean in respective lanes of cinder and synthetic tracks were illustrated.

RESULTS OF COMPARISON OF ANGLE OF LEAN ON RESPECTIVE LANES OF CINDER *AND* SYNTHETIC TRACKS

The obtained t-ratio of 0.398 for the first lane of cinder and synthetic tracks (Table I), the obtained t-ratio of 0.505 for the second lane of the cinder and synthetic tracks (Table II), the obtained t-ratio of 0.145 for the third lane of cinder and synthetic tracks (Table III), the obtained t ration 0.190 for the fourth lane of cinder and synthetic tracks (Table IV), the obtained t-ratio of 0.732 for the fifth lane of cinder and synthetic tracks (Table V) the obtained t-ratio of -0.898 for the sixth lane of cinder and synthetic tracks (Table VI), the obtained t-ratio of 1.190 for the seventh lane of cinder and synthetic tracks (Table VII) the obtained t-ration of -0.107 for the eight lane of cinder and synthetic tracks (Table VIII) were lower than that of the required t-value of 2.04 at 0.05 level of confidence.

Hence it was proved that there was no significant difference between the cinder and synthetic tracks in the angle of lean.

TABLE – I

MEAN GAIN IN ANGLE OF LEAN IN THE FIRST LANE OF CINDER AND SYNTHETIC TRACKS

Variable	MEAN		Difference between means	σ DM	't' - Ratio
	Cinder track	Synthetic track			
Angle of Lean	8.63	8.51	0.12	0.302	0.398

't' required for significance at the 0.05 level was 2.04 with df = 29 .

TABLE – II

MEAN GAIN IN ANGLE OF LEAN IN THE SECOND LANE OF CINDER AND SYNTHETIC TRACKS.

Variable	MEAN		Difference between means	σ DM	't' - Ratio
	Cinder track	Synthetic track			
Angle of Lean	8.57	8.41	0.16	0.032	0.505

't' required for significance at the 0.05 level was 2.04 with df = 29

TABLE – III
MEAN GAIN IN ANGLE OF LEAN IN THE THIRD LANE OF CINDER AND SYNTHETIC TRACKS.

Variable	MEAN		Difference between means	□ DM	't' - Ratio
	Cinder track	Synthetic track			
Angle of Lean	8.45	8.41	0.04	0.276	0.145

't' required for significance at the 0.05 level was 2.04 with df = 29

TABLE – IV
MEAN GAIN IN ANGLE OF LEAN IN THE FOURTH LANE OF CINDER AND SYNTHETIC TRACKS.

Variable	MEAN		Difference between means	□ DM	't' - Ratio
	Cinder track	Synthetic track			
Angle of Lean	8.36	8.30	0.06	0.316	0.190

't' value required for significance at the 0.05 level was 2.04 with df = 29

Discussion On Hypothesis

The results of the study indicated that the angle of lean in different lanes of cinder track was 8.63, 8.57, 8.45, 8.36, 8.64, 8.41, 8.67, and 8.63 respectively and the lean varied when the radius increased, and insignificant difference existed in relation to the first lane to all other lanes. Hence the hypothesis point one that the angle of lean may vary in relation to different radii of curves in cinder track was accepted.The angle of lean in different lanes of synthetic track was 8.51, 8.41, 8.41, 8.30, 8.40, 8.69, 8.30 and 8.64 respectively (Figure III) and the lean varied when the radius increased, and insignificant difference existed in relation to the first lane with all other lanes.

Hence the hypothesis point two that the angle of lean may vary in relation to different radii of curves in synthetic track was accepted. The results of the comparison of angle of lean on respective lanes of cinder and synthetic surfaces indicated that the obtained t-ratio's of 0.398, 0.505, 0.145, 0.190, 0.732, -0.898, 1.19 and -0.107 were lower than that of the required t-value of 2.04 at 0.05 level of confidence. Hence the hypothesis points three, four and five were rejected. This may be due to the fact that there was no difference in their speed while they were running on cinder and synthetic tracks.

Summary

The purpose of this study was to analyze the angle of lean in Curve running on different lanes of cinder and synthetic tracks. To test the significant difference in the angle of lean between the respective lanes of cinder and synthetic tracks, t-ratio was computed and tested for significance at 0.05 level of confidence.

Conclusions

From the results of the above study the following conclusions are drawn.

1. There was no significant difference in the angle of lean in relation to different radii of the curves, in cinder and synthetic tracks as well.

2. There was no significant difference in the angle of lean in relation to the surface of cinder and synthetic tracks.

Recommendations

Based on the findings of the study, the following recommendations are made.

1. Similar study can be undertaken for state and national level Men and Women athletes.
2. The same study may be conducted for the athletes representing Indian Universities.
3. Further, the same study may be conducted on banked tracks as in cycling velodromes to find out the lean in that curves.

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Stress Management through Exercises and Yogic Practices

Dr. K. RAJASIMHA** * K. Simhadri**
* Principal,Sri Krishna College of Physical Education Nalgonda Andhra Pradrash, India.
** Correspondence S.K.C.P.E.Nalgonda,Andhra Pradesh, India.

ABSTRACT

The purpose of the study was to compare Yogic exercises and physical exercises difference on Stress. The experimental design used for this study was random group design. In this study only two groups (n=30) thirty Yoga trained boys, thirty (n=30) gymnastics trained boys were randomly selected as subjects their age is between 12 to 16 years. All the subjects have represented Andhra Pradesh State in school games federation of India tournaments. The mean, standard deviation, mean difference and standard error on stress of Yoga and Gymnastics groups are 22.67, 24.67 and 4.20, 3.20 and 2.00 and 0.96 respectively the t' value is 2.07 was greater than table value of 2.01 at 0.05 level of significance. Hence, the null hypothesis was rejected. Further the results indicated that the mean value of Yoga group was significantly lower than the gymnastics group on stress.

INTRODUCTION

The human body is a marvel. Body is the temple of soul and to reach harmony of body, mind and spirit our body must be physically fit. Hence where there is a some body there we can ensure a sound mind. **Jyothi Joshi (2007).**

Physical exercise are as essential as food, rest and sleep for the maintenance of physical fitness. It is the condition that helps a person look and feel well carry out his daily duties and responsibilities successfully and yet have enough physical reserves to enjoy his other social, civic, cultural and recreational interests in addition fitness enables him/her to meet unusual or emergency demands. **James, (1999).**

Systematically performed physical exercise result in a great many changes in the organism. Training effects basically depends on intensity and volume of training that is way of exercise should be avoided and training should be a will controlled process **Viru and Melis Viru, (2000).**

Yoga is a scientific system of physical and mental practices that originated in India more than three thousand years ago. It's purpose is to help each one of us achieve our highest potential and to experience enduring health and happiness. The subtle body the heart of our emotional life and seat of our vital force is housed in an architecture of bone and musculature. The main need to-day is to develop systems through which effective fitness and rehabilitation care can be made both accessible and acceptable to the sports man, in this regard Yoga system may play a key role **Matthew Remnski (2008)**.

Sports psychology is defined as the scientific study of human behaviour in sport like the other disciplines within sport and exercise science, sports psychology can be applied to varied skilled movements, physical activities and exercise programs such as corporate fitness, exercise rehabilitation and health oriented exercise programs as well as traditional physical education and competitive sports and games. Sport of psychology that examines various aspects of sports activities and physical culture. It also studies the psychological aspects of the athlete's personality. Sports psychology is also designed to develop the psychological foundations of sporting skills by teaching optional locomotors habits and proper control of and all round development. **Petrovsky, (1985).**

The sports psychologists use psychological assessment techniques and intervention strategies in an effort to help individuals to achieve their optimal performance. Emotional factors like tension, anxiety, stress and motivation play an important part in sports psychology. **Suresh Kutty, (2004).**

STRESS

"Stress can be a stimulus, a transaction, and a response, which can result in physiological, emotional, intellectual, and spiritual responses among individual. **Yeage (2001).**

The primary purpose of present study is designed to examine **"Stress Management through Exercises and Yogic Practices among high school boys"**.

METHODS THE SAMPLE OF SUBJECTS

The experimental design used for this study was random group design. In this study only two groups (n=30) thirty Yoga trained boys, thirty (n=30) gymnastics trained Boys were randomly selected as subjects their age is between 12 to 16 years. All the subjects have represented Andhra Pradesh State in school games federation of India Tournaments.

STATISTICAL ANALYSIS

The data collected from the two groups Yoga and Gymnastics were statistically analyzed for significant difference if any, by applying analysis of t' test. To find out significant difference level of confidence was fixed at 0.01.

RESULTS AND DISCUSSIONS

The mean, standard deviation, standard error and t' valuation on stress of Yoga and gymnastics groups are presents in table–I.

't' TEST RESULTS FOR THE DATA ON STRESS of Yoga and Gymnastics students on stress (Scores)

Group	Mean	S.D	Mean Difference	Standard Error	t' value
Yoga	22.67	4.20	2.00	0.96	2.07*
Gymnastics	24.67	3.20			

* Significant at 0.05 level of confidence with df 58

The table value for significance at 0.05 level with difference 58 is 2.01.

Table-I shows that the mean values of yoga and gymnastics groups were 22.67 and 24.67 respectively. The mean difference and standard error for both the groups were 2.00 and 0.96 respectively. The obtained 't' value of 2.07 was greater than the table value of 2.01 at 0.05 level of significance. Hence, the null hypothesis was rejected. Further the result indicated that the mean value of the yoga group was significantly lower than the gymnastics group on stress.

The mean of yoga and gymnastics groups on stress is graphically presented in Figure–I.

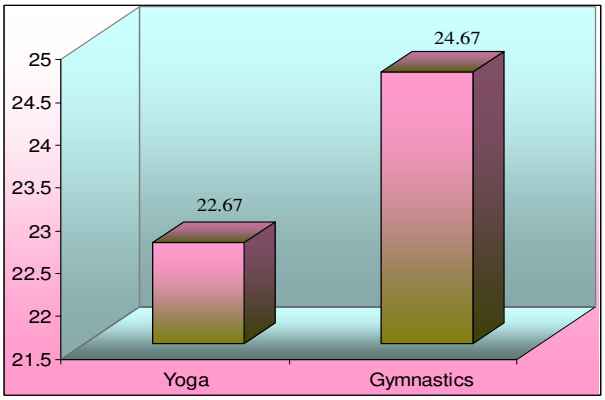

Figure -I Bar Diagram Showing The Mean Values Of Yoga And Gymnastics Groups On Stress.

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Physical Fitness Differences Among National Level Indian Talented Female Volleyball Players

Sangita Bose[1] & Brajanath Kundu[2]
[1]Research Scholar, Department of Physical Education, Visva-Bharati, Santiniketan-731235, West Bengal, India
[2] Department of Physical Education, Visva-Bharati University, Santiniketan, West Bengal, India

ABSTRACT

The aim of the study was to compare physical fitness characteristics among 12 to 17 years in age ranged national level talented female volleyball players belonged to six different states in India. 200 female volleyball players from six states namely West Bengal, Kerala, Delhi, Tamil Nadu, Haryana and Punjab who represented their state in junior and youth volleyball national championships were selected as subject of this study. Physical fitness of the subjects was measured by administering vertical jump, 20 m. dash, 9-3-6-3-9 m.agility run, seat-and-reach, block jump and spike jump tests using standard procedures. ANOVA followed by Post-hoc analysis among the state-wise female volleyball players showed significant differences in physical fitness measures except 20 m. dash and seat-and-reach. Female volleyball players representing Kerala state demonstrated overall superior performance in physical fitness measures than that of the other state female volleyball players.

Key words: Talented, Physical fitness, Block jump, Spike jump, State-wise comparison

INTRODUCTION:

The game 'Volleyball' was introduced basically with a view to serve the purpose of recreation. Gradually, it was turned into competitive sports that require an optimum level of fitness. Volleyball game requires not only efficient skills but also perfect tactics, good fitness, indominatable style, stable psychology and intelligence for better performance in the highly competitive situation.Physical fitness, psychological structure, anthropometric characteristics and the skill level of individual players are important factors which may limit the technical and tactical potential of a volleyball team for both men and women.Fitness testing is primarily used to determine an athlete's strengths and weaknesses, so as to design the most appropriate athletic training program. Another use of testing fitness is for talent identification, to direct the athlete to a better suited sport or to play in a more appropriate position or compete in a more appropriate event in their chosen sport.Volleyball is a sport where alternative anaerobic and aerobic activity, muscular strength and power, flexibility and agility are involved and at same time both skill and fitness play a very significant role. There would be different fitness demands whether playing indoor or beach volleyball, though this discussion is about fitness testing for volleyball in general. Volleyball is an intermittent sport that requires players to compete in frequent short bouts of high-intensity exercise, followed by periods of low-intensity activity. The high-intensity bouts of exercise, coupled with the total duration of the match, requires players to have well-developed aerobic and anaerobic alactic (ATP-CP) energy systems. Considerable demands are also placed on the neuromuscular system during the various sprints, jumps (blocking and spiking), and high-intensity court movement that occurs repeatedly during competition. As a result, volleyball players require well-developed speed, agility, upper body and lower body muscle power, maximal aerobic power, physiological efficiency with proper body composition and anthropometric characteristics. Smith et al (2001) compared physical, physiological, and performance characteristics of national-level and college-level volleyball players and found significantly higher block and spike jumps, 20-m speed, and VO2max in the national-level players. These findings suggest that physiological capacities play an important role in the preparation and selection of elite volleyball players. Although volleyball players rely on well-developed physiological capacities but the game requires high level of tactical and technical skills. However, studies of the technical skill and accuracy of volleyball tasks are limited, and most but not all studies employ general (and nonspecific) tests to

evaluate volleyball skill. Lidor, R and Ziv, G (2010) reviewed 31 numbers of studies on physical characteristics, physiological attributes and volleyball skills of male and female adolescent volleyball players and observed that vertical jump values were higher in starters versus nonstarters in both sex. The researcher recommended that a careful selection of physiological tests should be made at the time of assessing the abilities of adolescent volleyball players.

In a skill based training program Gabbet T, et.al. (2006) observed significant improvement in spiking, setting and passing accuracy and spiking and passing technique, speed and agility due to training. Thissen-Milder and Mayhew JL (2007) reported significant differences among freshmen, junior varsity, and varsity players for general volleyball-playing ability, as estimated from the number of passing, spiking, and setting ball contacts performed in 1 minute.Fleck,et.al. (1985) conducted a study to compare various physical and performance characteristics between the 1980 U.S. Women's National Volleyball Team and College Players who composed the 1979 U.S. Women's University Game Volleyball Team and observed that the National Team were significantly older, having a lower % body fat and possessing a large vertical jumping distance. They concluded that trainers of elite (national and international) volleyball players should consider including technique to reduce % body fat and increase vertical jumping distance.Therefore, the present study was carried out to compare physical fitness standards among the Indian national level talented female volleyball players of six states (West Bengal, Kerala, Delhi, Tamil Nadu, Haryana and Punjab).

OBJECTIVES OF THE STUDY:

To assess the physical fitness characteristics of national level female volleyball players selected from six states in India.

To compare standards of physical fitness of the national level female volleyball players among six states in India.

MATERIAL AND METHODS: Two hundred (N=200) national level (junior & youth) female volleyball players from six different states in India were selected as subject of the study. The subjects belonged from West Bengal (n=35), Kerala (n=36), Delhi (n=22), Tamil Nadu (n=42), Haryana (n=51), and Punjab (n=14). All the players were represented their respective states in the national level volleyball championship. The age range of the participants was from 12 to 17 years old. The subjects were well informed about the aim of this study and their consent was obtained. Necessary permissions from the institution as well as from the coaches were also obtained. To assess the physical fitness vertical jump, 20 m. dash, 9-3-6-3-9 m. agility run, seat & reach, block jump and spike jump tests were administered on the selected subjects using standard procedures.

Administration of the test:

a) Vertical Jump:

To assess leg explosive power of the subjects vertical jump test was administered. The subject was asked to stand erect facing sideways to the wall. Her dominant fingertips were marked with color chalk powder. Then the subject had taken a vertical jump by bending knees and swinging hands and marked the wall by her fingertips. She would not allow to taking any run or hop. Each subject had performed three jumps and the best performance was recorded. The maximum distance (among all three trials) between the standing reach height and jumping height was recorded as the score of the test in nearest cm.

b) 20 m. Dash:

T o measure speed of the subject 20 m. dash test was applied. The time was recorded in 1/10 of a second.

c) Modified Seat-and-Reach:

The modified sit & reach test was conducted to measure trunk flexibility as well as extension of the hamstring muscle of the subjects. A fifteen inches line was drawn on the floor and the yard stick was placed on the line of the floor. The subjects were asked to sit down on the floor (long sitting position) so that the near age of the heel were placed just behind the marked line and the sitting position was beyond the zero end of the yard stick with knees locked and heels not more than five inches apart. The performer then stretched forward and touched the fingertips of both hands as many inches down the stick as possible. An assistant was involved to hold the knees of the performer to remain in locked position. The best of three trails measured to the nearest quarter of an inch was recorded as the score of an individual's flexibility.

d) 9-3-6-3-9 m. Agility Run:

To assess agility of the subjects 9-3-6-3-9 m. agility run test was administered on the subjects. The subject was asked to stand outside of the end line of the marked volleyball court. After a signal, the subject started running and touched attack line, then came back and touched the end line; again ran towards the centre line and after touching the centre line came back to touch attack line. After that the subject had went to the centre line and then finally came back to the end line. The time taken by a subject from starting to finish of the agility run was the score of the test. The time was recorded in 1/10 sec.

e) Block Jump:

To assess the block jump the subject was asked to stand erect facing towards the wall. Both hand fingertips were marked with color chalk powder. Then the subject took a jump forcefully by bending both knees and swinging her hand from the chest level and marked the wall by both hand's fingertips at the maximum height. The distance between jumping height to standing reach height was the score of the block jump test and recorded in nearest centimeter.

f) Spike Jump:

To measure spike jumping ability the subject was asked to stand on the floor 3-4 m. away from the wall. With the signal the subject took a approach run towards wall and jumped with a full spiking action and kept a mark on the wall with color chalk dust by the palm of the spiking hand. A normal run up of volleyball spike was allowed. The score of spike jump was recorded to nearest centimeter by subtracting the jumping height to the standing reach height of the subject. Three trials were given to each subject and best of them was recorded as the score of the test.

Statistical analysis: Descriptive statistics, analysis of variance and post-hoc tests were utilized to compare groups, and statistical significance was set at p <_ 0.05 using SPSS software, verson-17.

RESULT AND DISCUSSIONS:

Table: 1:Mean (M) and Standard Deviation (SD) of physical fitness tests of the nationallevel female volleyball players belonging to six state

State		Vertical Jump (cm.)	20 m. Dash (Sec)	Agility Run (Sec.)	Seat & Reach (cm.)	Block Jump (cm.)	Spike Jump (cm.)
West Bengal	**M**	249.94	3.60	13.02	5.46	242.26	251.91
	SD	11.63	0.41	0.53	1.08	13.92	3.10
Kerala	**M**	263.31	3.62	12.01	5.60	259.00	269.89
	SD	14.00	0.47	0.99	1.11	13.88	17.73
Delhi	**M**	247.49	3.78	12.08	5.00	243.14	249.94
	SD	12.75	0.55	0.77	0.70	16.46	17.03
Tamil Nadu	**M**	256.98	3.75	11.77	5.80	252.64	261.32
	SD	11.22	0.36	0.77	1.14	11.05	11.60
Haryana	**M**	255.63	4.02	12.61	5.73	255.22	259.63
	SD	11.53	0.49	0.80	1.46	11.67	13.36
Punjab	**M**	245.84	4.00	14.00	5.00	241.30	248.74
	SD	8.10	0.22	0.85	0.78	10.82	8.82

It was observed that female volleyball players of Kerala were superior in leg explosive power (263.31 cm), block jump (259.0 cm) and spike jumping abilities (269.89 cm) whereas West Bengal females were faster in acceleration abilities (3.60 sec) and Tamil Nadu players were found more agile (11.77 sec) and flexible (5.80 cm) than that of the other states.

Table: 2:ANOVA of physical fitness tests among the female volleyball players belonging to six states (West Bengal, Kerala, Delhi, Tamil Nadu, Haryana and Punjab)

		Sum of Squares	df	Mean Square	F	Sig.
Vertical Jump(cm)	Between Groups	2939.187	5	587.837	4.145	.003
	Within Groups	7658.111	54	141.817		
	Total	10597.298	59			
20 m. Dash (sec)	Between Groups	1.688	5	.338	1.635	.166
	Within Groups	11.147	54	.206		
	Total	12.835	59			
9-3-6-3-9 m. Agility Run (sec)	Between Groups	49.193	5	9.839	14.581	.000
	Within Groups	36.436	54	.675		
	Total	85.629	59			
Seat & Reach (inch)	Between Groups	9.033	5	1.807	1.288	.283
	Within Groups	75.726	54	1.402		
	Total	84.759	59			
Block Jump (cm)	Between Groups	2906.664	5	581.333	3.868	.005
	Within Groups	8116.408	54	150.304		
	Total	11023.072	59			
Spike jump (cm)	Between Groups	3211.038	5	642.208	3.552	.008
	Within Groups	9763.136	54	180.799		
	Total	12974.174	59			

State-wise and physical fitness test-wise comparison revealed that significant differences ($p < .05$) were existed in vertical jump, agility run, block jump, and spike jump tests and the other two i.e. 20m.dash and seat-and–reach were found insignificant. Results indicated that the acceleration ability and flexibility of the female volleyball players representing different states were more or less similar whereas they differed among themselves in leg explosive power, agility, block and spike jumping abilities significantly.

Table: 3:Pairwise comparisons of Phy.fitness tests between the female players representing six states (Gr.-1: West Bengal, Gr.-2: Kerala, Gr.-3: Delhi, Gr.-4: Tamil Nadu, Gr.-5: Haryana, Gr.-6: Punjab)

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Vertical Jump(cm)	1	2	-12.324	5.32573	0.387	-30.7192	6.0712
		3	6.95	5.32573	0.886	-11.4452	25.3452
		4	1.8	5.32573	1	-16.5952	20.1952
		5	-3.4	5.32573	0.995	-21.7952	14.9952
		6	8.92	5.32573	0.729	-9.4752	27.3152
	2	1	12.324	5.32573	0.387	-6.0712	30.7192
		3	19.27400*	5.32573	0.034	0.8788	37.6692
		4	14.124	5.32573	0.237	-4.2712	32.5192
		5	8.924	5.32573	0.729	-9.4712	27.3192
		6	21.24400*	5.32573	0.014	2.8488	39.6392
	3	1	-6.95	5.32573	0.886	-25.3452	11.4452
		2	-	5.32573	0.034	-37.6692	-0.8788

			19.27400*				
		4	-5.15	5.32573	0.966	-23.5452	13.2452
		5	-10.35	5.32573	0.586	-28.7452	8.0452
		6	1.97	5.32573	1	-16.4252	20.3652
	4	1	-1.8	5.32573	1	-20.1952	16.5952
		2	-14.124	5.32573	0.237	-32.5192	4.2712
		3	5.15	5.32573	0.966	-13.2452	23.5452
		5	-5.2	5.32573	0.965	-23.5952	13.1952
		6	7.12	5.32573	0.875	-11.2752	25.5152
	5	1	3.4	5.32573	0.995	-14.9952	21.7952
		2	-8.924	5.32573	0.729	-27.3192	9.4712
		3	10.35	5.32573	0.586	-8.0452	28.7452
		4	5.2	5.32573	0.965	-13.1952	23.5952
		6	12.32	5.32573	0.387	-6.0752	30.7152
	6	1	-8.92	5.32573	0.729	-27.3152	9.4752
		2	-21.24400*	5.32573	0.014	-39.6392	-2.8488
		3	-1.97	5.32573	1	-20.3652	16.4252
		4	-7.12	5.32573	0.875	-25.5152	11.2752
		5	-12.32	5.32573	0.387	-30.7152	6.0752

Table: 3 (Continued)

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Agility Run (sec)	1	2	1.243	0.36735	0.058	-0.0259	2.5119
		3	0.957	0.36735	0.255	-0.3119	2.2259
		4	1.73500*	0.36735	0.002	0.4661	3.0039
		5	0.551	0.36735	0.811	-0.7179	1.8199
		6	-1.053	0.36735	0.164	-2.3219	0.2159
	2	1	-1.243	0.36735	0.058	-2.5119	0.0259
		3	-0.286	0.36735	0.987	-1.5549	0.9829
		4	0.492	0.36735	0.874	-0.7769	1.7609
		5	-0.692	0.36735	0.619	-1.9609	0.5769
		6	-2.29600*	0.36735	0	-3.5649	-1.0271
	3	1	-0.957	0.36735	0.255	-2.2259	0.3119
		2	0.286	0.36735	0.987	-0.9829	1.5549
		4	0.778	0.36735	0.49	-0.4909	2.0469
		5	-0.406	0.36735	0.941	-1.6749	0.8629
		6	-2.01000*	0.36735	0	-3.2789	-0.7411
	4	1	-1.73500*	0.36735	0.002	-3.0039	-0.4661
		2	-0.492	0.36735	0.874	-1.7609	0.7769
		3	-0.778	0.36735	0.49	-2.0469	0.4909
		5	-1.184	0.36735	0.082	-2.4529	0.0849

		6	-2.78800*	0.36735	0	-4.0569	-1.5191
	5	1	-0.551	0.36735	0.811	-1.8199	0.7179
		2	0.692	0.36735	0.619	-0.5769	1.9609
		3	0.406	0.36735	0.941	-0.8629	1.6749
		4	1.184	0.36735	0.082	-0.0849	2.4529
		6	-1.60400*	0.36735	0.005	-2.8729	-0.3351
	6	1	1.053	0.36735	0.164	-0.2159	2.3219
		2	2.29600*	0.36735	0	1.0271	3.5649
		3	2.01000*	0.36735	0	0.7411	3.2789
		4	2.78800*	0.36735	0	1.5191	4.0569
		5	1.60400*	0.36735	0.005	0.3351	2.8729

Table: 3 (Continued)

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Block Jump (cm)	1	2	-14.222	5.48277	0.259	-33.1597	4.7157
		3	3.266	5.48277	0.996	-15.6717	22.2037
		4	-0.1	5.48277	1	-19.0377	18.8377
		5	-8.6	5.48277	0.781	-27.5377	10.3377
		6	5.93	5.48277	0.946	-13.0077	24.8677
	2	1	14.222	5.48277	0.259	-4.7157	33.1597
		3	17.488	5.48277	0.088	-1.4497	36.4257
		4	14.122	5.48277	0.267	-4.8157	33.0597
		5	5.622	5.48277	0.957	-13.3157	24.5597
		6	20.15200*	5.48277	0.03	1.2143	39.0897
	3	1	-3.266	5.48277	0.996	-22.2037	15.6717
		2	-17.488	5.48277	0.088	-36.4257	1.4497
		4	-3.366	5.48277	0.996	-22.3037	15.5717
		5	-11.866	5.48277	0.465	-30.8037	7.0717
		6	2.664	5.48277	0.999	-16.2737	21.6017
	4	1	0.1	5.48277	1	-18.8377	19.0377
		2	-14.122	5.48277	0.267	-33.0597	4.8157
		3	3.366	5.48277	0.996	-15.5717	22.3037
		5	-8.5	5.48277	0.789	-27.4377	10.4377
		6	6.03	5.48277	0.942	-12.9077	24.9677
	5	1	8.6	5.48277	0.781	-10.3377	27.5377
		2	-5.622	5.48277	0.957	-24.5597	13.3157
		3	11.866	5.48277	0.465	-7.0717	30.8037
		4	8.5	5.48277	0.789	-10.4377	27.4377
		6	14.53	5.48277	0.237	-4.4077	33.4677

	6	1	-5.93	5.48277	0.946	-24.8677	13.0077
		2	-20.15200*	5.48277	0.03	-39.0897	-1.2143
		3	-2.664	5.48277	0.999	-21.6017	16.2737
		4	-6.03	5.48277	0.942	-24.9677	12.9077
		5	-14.53	5.48277	0.237	-33.4677	4.4077

Table: 3 (Continued)

Dependent Variable	(I) Group	(J) Group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Spike jump (cm)	1	2	-14.762	6.0133	0.319	-35.5321	6.0081
		3	5.31	6.0133	0.977	-15.4601	26.0801
		4	0.37	6.0133	1	-20.4001	21.1401
		5	-4.4	6.0133	0.99	-25.1701	16.3701
		6	7.802	6.0133	0.889	-12.9681	28.5721
	2	1	14.762	6.0133	0.319	-6.0081	35.5321
		3	20.072	6.0133	0.065	-0.6981	40.8421
		4	15.132	6.0133	0.292	-5.6381	35.9021
		5	10.362	6.0133	0.705	-10.4081	31.1321
		6	22.56400*	6.0133	0.025	1.7939	43.3341
	3	1	-5.31	6.0133	0.977	-26.0801	15.4601
		2	-20.072	6.0133	0.065	-40.8421	0.6981
		4	-4.94	6.0133	0.984	-25.7101	15.8301
		5	-9.71	6.0133	0.759	-30.4801	11.0601
		6	2.492	6.0133	0.999	-18.2781	23.2621
	4	1	-0.37	6.0133	1	-21.1401	20.4001
		2	-15.132	6.0133	0.292	-35.9021	5.6381
		3	4.94	6.0133	0.984	-15.8301	25.7101
		5	-4.77	6.0133	0.986	-25.5401	16.0001
		6	7.432	6.0133	0.908	-13.3381	28.2021
	5	1	4.4	6.0133	0.99	-16.3701	25.1701
		2	-10.362	6.0133	0.705	-31.1321	10.4081
		3	9.71	6.0133	0.759	-11.0601	30.4801
		4	4.77	6.0133	0.986	-16.0001	25.5401
		6	12.202	6.0133	0.538	-8.5681	32.9721
	6	1	-7.802	6.0133	0.889	-28.5721	12.9681
		2	-22.56400*	6.0133	0.025	-43.3341	-1.7939
		3	-2.492	6.0133	0.999	-23.2621	18.2781
		4	-7.432	6.0133	0.908	-28.2021	13.3381
		5	-12.202	6.0133	0.538	-32.9721	8.5681

Using Scheffe's post-hoc test, the pair-wise comparison showed that female volleyball players representing Kerala state demonstrating significantly superior performance in vertical jump in comparison to volleyball players of Delhi and Punjab states. Also, Kerala female volleyballers showed significantly better performer in block jump and spike jump than the Punjab players. On the other hand, Tamil Nadu female volleyballers exhibited significantly faster in agility run than the West Bengal and Punjab players. Punjab players were also significantly slower in agility run in comparison to the Kerala, Delhi and Haryana state female volleyball players.

CONCLUSIONS:

1. Female volleyball players belonging to six states in India to some extent differed among themselves in physical fitness.
2. Overall Kerala state female volleyball players were noticeable better in physical fitness qualities than the other state players.
3. Coaches and officials of the concerned states may be taken care of their schedule of training programme for achieving optimum level of physical fitness to attain the goal.

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"A Comparative Study of Emotional Intelligence among Sportsmen and Non-Sportsmen"

Dr. Quadri Syed Javeed
Head & Associate Professor in Psychology
M.S.S. Art's Commerce & Science College,
Jalna – 431203 (M.S.) India.
Prof.L.B.Laxmikanth Rathod
Secretary, Inter University Tournaments, O.U. Hyderabad

ABSTRACT
The present study was undertaken to investigate differences between emotional intelligence among sportsmen and non-sportsmen. Sample of the study 200 sportsmen and non-sportsmen. The purpose of the study was to examine the emotional intelligence among sportsmen and non-sportsmen. Hypothesis of the study is Sportsmen have significantly high emotional intelligence than the non-sportsmen. Pedhe and Hyde's emotional intelligence test was used the study. Besides these, a PDS was used to get the other necessary information relating to the respondents. It was conclusion that Sportsmen have significantly high emotional intelligence than the non-sportsmen.

Introduction:

There is a growing interest in emotional intelligence in sport (Meyer and Zizzi, 2007). Recent research found emotional intelligence related to emotions experienced before successful and unsuccessful performance (Lane et al., 2009b). Lane et al. (2009b) found that emotions correlating with successful performance vigor, happiness, and calmness, whereas emotions associating with poor performance include confusion, depression and fatigue. Emotional intelligence correlated positively with pleasant emotions and negatively with unpleasant emotions. Further, Lane et al. (2009c) found emotional intelligence scores correlated with frequent use of psychological skills. Athletes reporting frequent use of psychological skills (Thomas et al., 1999) also appear to report high scores on the self-report emotional intelligence scale (Schutte et al., 1998).

According to theoretical proposals by Salovey and Mayer (1990), emotional intelligence could explain the process through which people recognize which emotions appear to help performance and which emotions might hamper performance. Furthermore, emotional intelligence might also help explain why some people appear to initiate strategies to reduce the discrepancy between current emotions and ideal emotions. Recent research has argued that people learn from their emotional experiences (Baumeister et al., 2007). Baumeister et al. propose previous emotional outcomes and current emotional states contribute people selecting actions according to anticipated emotions. For example, an athlete who failed to achieve his/her competitive goals is likely to feel unhappy and angry after competition. These feelings prompt the athlete to consider how she/he could improve performance to avoid similar outcomes in the future. At the next competition, should the athlete experience mild anger and unhappiness, even anticipatory in nature, then he or she will initiate thoughts or behaviors to regulate these emotions, possibly by using psychological skills. In sport psychology, the notion that emotions provide feedback and those individuals learn to associate certain emotions with successis consistent with suggestions made by Hanin (2003). Hanin argued that individuals develop meta-emotional beliefs regarding which emotions associate with optimal performance and emotions associate with dysfunctional performance.

Objective of the Study:

1. To find out the emotional intelligence among sportsmen and non-sportsmen.

Aim of the Study:

1. To Examine out the emotional intelligence among sportsmen and non-sportsmen.

Hypothesis:

1. Sportsmen have significantly high emotional intelligence than the non-sportsmen.

Sample:

For the present study 200 Sample were selected from Aurangabad city, Maharashtra State. The effective sample consisted of 200 subjects, 100 subjects were sportsmen and 100 subjects were non-sportsmen. The age range of subjects was 18 to 25 years.

Tools

Emotional Intelligence test:
Pedhe and Hyde was used for measuring Emotional intelligence. This test is developed and standardized by Pedhe and Hyde the 34 items are rated on a five point scale. The subjects were required to respond to each item in terms of "Strongly disagree" , "Disagree", "Neutral", "Agree", "strongly agree". This is well known test having high reliability and validity coefficients.

Procedures of data collection

One test 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- Players a) Sportsmen b) Non- sportsmen

Dependent Variable 1. Emotional Intelligence

Statistical analysis and discussion

Emotional Intelligence among sportsmen and non- sportsmen students Mean S.D. and "t" Value.

Group	Mean	S.D	N	df	't'
Sportsmen	83.22	11.29	100	198	7.65**
Non-sportsmen	71.43	10.48	100		

The results related to the hypothesis have been recorded. Mean of Emotional Intelligence score of the sportsmen Mean is 14.12 and that of the non- sportsmen Mean is 9.43 The difference between the two mean is highly significant ('t'= 8.50, df =198, P < 0.01) It is clear that sportsmen and non-sportsmen Differ Significantly From each other from the mean scores and graph it was found that the sportsmen have Significantly high Emotional Intelligence than the non- sportsmen. This Result Support the Hypothesis.

Conclusion:Sportsmen have significantly high emotional intelligence than the non-sportsmen Students

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Compare the various forms of Kabbadi played in different parts of India

Vijay Kumar H. Physical Education Teacher, B.L.R.College, Sirigere
Dr.Sateesh Dongre, Physical Director, Govt. First Grade College, Chitaguppa
Dr.Shashi Rekha,T. Guest Lecturer, Govt. First Grade Colelge, Humanabad

Introduction: Kabaddi in India is counted among the most common and widely played traditional sports. There is a popular belief that kabaddi originated in the Indian state of Tamil Nadu, almost 4,000 years ago. According to a legend, this game came into existence, when a boy hit another boy for his candy. The boy who was hit chased the boy who hit him, and hit him back and ran away. The feature of holding the breath while chasing, was added later when the game evolved. Kabaddi is the game, where one person play against seven people. Kabaddi is also known as the “Game of the masses” and it has simple, easy to comprehend rules. The game requires minimum equipment while having all the ingreadients of thrill and excitement and audience appeal. Sometimes, the people enjoy the game of kabaddi more than any other popular game, like Football or Basketball. This is a team game that requires both skill and power on behalf of the players , and it also combines the characteristics of wrestling and rugby.

Origin of kabaddi
Kabaddi is probably te only game of offence and defence in which attack is an individual attempt while defence is a combined effort. The Tamil language speaking people know the game in various names like kabaddi, sadugudu, gudugudu, palinjadugudu and sadugoodaathi (tamil). The word Kabaddi may have originated from the Tamil works kai(hand)and pidi (catch). Kabaddi is also known as Chedugudu or Hu-Tu-Tu in southern parts of India, Hadudu (men) and Chu – kit-kit (women) in eastern India, and as kabaddi in northern India. The sport has earned a lot of popularity in the other Asian nations like Nepal, Bangladessh, Sri Lanka, Japan and Pakistan.

Modern Day Kabaddi
In modern times, kabaddi in India attained National status in the year 1918. The state of Maharashtra is considered to be a pioneer for bringing the game to the National Platform. The standard rules and regulations for kabaddi were also formulated in 1918; however, the rules were brought out in print in the year 1923. An all India tournament was also organized at Baroda following these rules in 1923. Since then the journey of kabaddi in India has always been towards success and more popularity and numerous tournaments are now organized all over India throughout the year. The game got international exposure for the time during the 1936 Berlin Olympic Games. The game was also introduced in the Indian Olympic Games at Calcutta, in 1938.

Some of the most common forms of Kabaddi are as follows:

Amar:
This form of Kabaddi is played based on points scored by both sides. Here, the play field has no specific measurements and 9 to 11 players constitute each of the teams. In this form of Kabaddi, there is no out and revival system or Lona (a bonus of two points awarded to the team that gets all opponents out). However, it is a time bound game. According to the rules of this form of Kabaddi, all the players are bound to remain within the court throughout the match. By this, the players can give their best, without the fear of having to miss out a great deal of action.

Gemini / Gaminee:
In this form of Kabaddi, each of the sides comprises nine players and this form brings with it an inherent fear. The fear is of being called "out", as it literally means that the player has to go out of the court and wait there until all his opponents face the same fate or inflict the same consequence on his teammates. The team that becomes successful in getting all the opponents out is awarded a point. This system is being used in the modern version of Kabaddi also; however, there is a slight variation. In the modern version, a team successful in getting all the opponents out is awarded a bonus of two

points called the Lona. In the Gemini or Gaminee form of Kabaddi, a team is revived once all its members are dismissed, and the game continues till five or seven such points are gained by either of the teams. This game is not time bound, and sometimes it can be quite frustrating for a player who is out early, to wait until a Lona is achieved.

Surjeevani:
This is one of the forms of Kabaddi that has a lot of resemblance with the modern version of the game. In this form, the players who are out are instantly revived and the game lasts for 40 minutes with a 5-minute break in between. Each of the team comprises nine players in this form, and a Lona is usually awarded to the team that succeeds in getting all the opponent team members out. The team that earns the maximum points, after the limited duration of the game, is declared the winner. The Surjeevani form of Kabaddi is played on a bigger field in comparison to the other two forms of the game. The rules of this form of Kabaddi regarding out and revival system of a player, have great resemblance with that of Modern Kabaddi.

Modern Kabaddi:
This is the latest of all the forms of Kabaddi and it is actually a synthesis of all the other three forms, with notable changes with regards to rules and regulations. Here, each team consists of 12 players, out of which seven are on court at a time, and five in reserve. The two teams collect points by either touching or capturing an opponent member. Both the teams aim for higher points within the time limit of 40 minutes, by alternating in defence and offence. There are two halves, each of 20 minutes in this form of Kabaddi, with a break of five minutes. In modern form of Kabaddi, the playground is required to be level and soft and is also required to be made of earth, manure or saw dust. The measurement of the playing area is 12.50m x 10m, divided by a line into two halves. Each half of the ground measures 10 meters x 6.25 meters and there shall be strip of one meter wide on each side of the play field that is called lobby. The side that wins the toss first sends a `raider`, who enters the opponents` court chanting, `kabaddi-kabaddi`. The repeated clear sound of "Kabaddi" within the course of one`s respiration is called "cant".
In the modern form of Kabaddi, the main objective of a raider is to touch any or all players on the opposing side, and return to his court in one breathe. During this course, the person, whom the raider touches, is called out. On the other hand, the defending team always tries to hold the raider, and stop him from returning to his own court, until he takes another breath. If the raider fails to return to his court in the same breath while chanting `Kabaddi`, he is declared out. Each team alternates in sending a player into the opponents` court. A player can be declared out, if he goes out of the boundary line during the course of the play, or if any part of his body touches the ground outside the boundary, except during a struggle. A struggle means the situation when a raider touches a defender or a defender touches a raider.

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Chemistry of Gender determination in sports

*** Dr.Viplav Duth Shukla ** M. Ravinder Rao ***Dr.E.Yadaiah**
*** Lecturer in Chemistry, BJR Govt. Degree College, Bazarghat, Hyderabad.**
**** Physical Director, Govt. Degree College, Khairatabad, Hyderabad.**
*****Lecturer in Chemistry, Govt. Degree College, Khairatabad, Hyderabad.**

Abstract:
Gender verification has long been criticized by geneticists, endocrinologists, and others in the medical community. The combination of invalid screening tests, failure to understand the problems of intersex, the discriminatory singling out of women based only on laboratory results, and the stigmatization and emotional trauma experienced by individuals screened positive prompted organized objection among medical professionals toward gender verification in sports. Several methods of sex determination are in vogue but fuggy. Self determination of sex before the participation in sports is the social and moral responsibility of every individual citizen.
Key words: *Gender, sex determination, sports.*

Introduction:
Gender is a social construct that outlines the roles, behaviours, activities and attributes that a particular society believes are appropriate for men and women([1]WHO). The assignment of these roles and adoption of these traits can create gender inequities - differences between men and women that systematically favour one group to the detriment of the other.
Genetically determined sex differences in stature, sculature and cardiovascular capacity result in males having a substantial advantage over females in those sports which, in general, require strength, speed and power. It is well documented that differences in performance between highly trained men and women are considerably less than those that exist between average men and women" ([2]Wilmore and [3]Dyer). This justifies the continued segregation of men and women in all but a few sports (e.g. equestrian events and shooting).

Gender determination
Recognition of the problem as early as 1948 had led the British Women's Amateur Athletic Association, to require a doctor's letter verifying the sex of women competitors. This was later considered to be too open to abuse, to be effective against a determined imposter, and so in 1966, at the European Athletics Championships in Budapest, women athletes were required to undergo an inspection before a panel of three women doctors([4]Lamed). The 243 athletes who were all pronounced normal, understandably found this procedure demeaning.
Most of gender determination cases there was some ambiguity regarding the external genitalia and testicular maldescent and the androgen levels may have contributed to their success. These cases, together with rumours and innuendo generated at the Rome Olympics in 1960, prompted the International Amateur Athletic Federation (IAAF) and subsequently the International Olympic Committee (IOC) to consider establishing rules of eligibility for women athletes to ensure that 'the athletes are competing on an equal basis, considering their physical status'([5] Hay).
The first sex testing consisted of a visual examination of the genitalia of female athletes at various track and field championships in 1966 and 1967, in the 1966 Commonwealth Games in Kingston, Jamaica and the 1967 Pan American Games in Winnipeg ([6]Simpson and Ljungquist).

A manual examination of the external genitalia was performed by a gynaecologist in 1966 at Jamaica. Widespread resentment of these insensitive forms of examination prompted the IOC to consider other methods of testing gender; and sex chromatin test was proposed as a more acceptable means of assessing eligibility and prevent cheating' ([7]JAMA 1966)

IOC introduced chromosome testing at the 1968 Mexico City Olympic Games, after much criticism of the humiliating experiences created by earlier tests. The buccal smear, sex chromatin, or Barr Body test consisted of a swab extracted from the athlete's mouth. If the test was positive, then the athlete was certified to be female; if not, then she had to undergo blood tests and a physical examination. The sex chromatin test, also known as the buccal smear test, consists of a microscopic examination of epithelial cells scraped from the inside of the cheek. The cells are stained to reveal the presence or absence of the Barr body, which is caused by inactivation of one of the two X chromosomes in female cells and which appears in 20-30% of nuclei. Male cells do not show this Barr body as they have only one active X chromosome. The test therefore indicates the number of X chromosomes in the cell nucleus and thus reflects the sex chromosome constitution of the individual, normally XX in females and XY in males.

Normally a person's anatomical sex (and thus social and legal sex) is determined by the type of sex chromosome contributed by the father. However, there are a number of genetic disorders which interfere with the process of sex development and lead to paradoxical findings between anatomical sex and chromosomal sex. Thus some individuals with an apparently normal male chromosome constitution develop to adulthood as girls. These individuals are referred to as XY females. They are recognized after puberty because they fail to menstruate and remain infertile; the breasts may fail to form and the vulva and vagina do not mature. Many, however, grow into normal-looking women and, as they are otherwise healthy and sometimes taller than average, they tend to do well in sport. The two most common conditions are gonadal dysgenesis, in which only vestiges of the gonads remain and no male hormones are produced, and androgen insensitivity (or testicular feminization syndrome), in which the uterus is not formed and intra-abdominal testes produce normal amounts of testosterone. androgen insensitivity is due to failure of cells to respond to testosterone because they cannot form normal androgen receptors. Consequently, the secondary sex characteristics and musculature are female and pubic and axillary hair are sparse. The condition is due to a mutant gene carried on the X chromosome. The androgen insensitivity syndrome is the commonest abnormality detected by sex chromatin tests in sport, and is of most concern to those wishing to change the eligibility rules".([8] Chapelle and [9]Simpson)

The International Amateur Athletic Federation (IAAF) the governing body for track and field employed the Barr test until 1991, whereas the IOC Medical Commission replaced X chromosome with DNA-based testing, an analysis of the SRY gene on the Y chromosome to indicate that the athlete was male, used for the first time at the Winter Games in 1992 . The IAAF, after 1991, introduced a new policy through which challenges or suspicions could be raised against athletes. The athlete could then be subjected to a medical evaluation before a gynaecologist, endocrinologist, psychologist, internal medicine specialist, and an expert on gender/transgender issues[10] The point being, that a physical exam, similar to that conducted in the 1960s, could be part of the process. The IOC finally eliminated sex testing by the Sydney Olympics in 2000, reserving the right to sex test in the future if necessary. The social science literature, generally, concludes that sex testing was an invasion of the rights of athletes – humiliating and degrading to say the least and, in some circumstances leading to severe personal trauma among athletes whose physical circumstances were labelled 'abnormal' by the testing process. The cases documented anecdotal stories of gender variant athletes and some of the later consequences of sex testing. These include, but are not limited to, a history of improper diagnoses, pathologization, stereotypical labeling and, what the literature has determined to be, unfair disqualification of athletes ([11] Kevin).

Gonadal dysgenesis

There are several genetic causes of gonadal dysgenesis: some cases lack male determinants due to mutations of the testis-determining region of the Y chromosome, others may be due to X chromosome mutations. Similar conditions in animals are known to be due to mutations of the non-sex chromosomes. More common are a group of infertile males with Klinefelter's syndrome who have an XXY sex chromosomal complement. Variants of this condition occur in whom a proportion of the body cells have normal XX or XY sex chromosome complements – a condition referred to as mosaicism. Those mosaics who have normal female cells in addition to XXY cells, may be women with ambiguity of the external genitalia ([12]Ferguson).

Disorders of chromosomal sex

These occur when the number or structure of the X- or Y-chromosomes is abnormal as in (rare) true hermaphroditism (46,XX *or* 46,XY *or* mosaics); Klinefelter syndrome (47,XXY *or* 46,XY/47,XXY); XX males (46,XX); Turner syndrome (45,X *or* 46,XX/45,X); and mixed gonadal dysgenesis(46,XY/45,X *or* 46,XY) . The latter is the secondmost common cause of ambiguous genitalia in the newborn. Mosaicism for a Y-bearing cell line is responsible for most instances. Affected individuals usually have a testis on one side and a streak gonad on the other. The phenotype varies depending on the proportion of XY cells and their distribution. A majority of these individuals are raised as females ([13]Grumbach and [14]Barry).

Disorders of gonadal sex

These occur when chromosomal sex is normal but differentiation of the gonads is abnormal, resulting in conditions in which gonadal sex does not correspond to chromosomal sex ([13]Grumbach).

Conclusion

Some genetic and endocrine societies have supported the movement to stop sex chromatin testing. This has been resisted by the IOC Medical Commission on the grounds that the tests have succeeded in removing scandal and innuendo from international sport. What does not seem to be appreciated is the plight of those young female athletes erroneously excluded from competitive sport. Some opposed to sex chromatin testing for these reasons have suggested that a simple clinical examination should be used instead". However, many athletes believe that sex chromatin testing protects them against cheating and would not wish it to be replaced by any form of physical examination which they regard as an invasion of privacy. The purpose of eligibility testing is to exclude males from competing in women's events. It should be clearly understood that paradoxical findings may occur in women eligible to compete. Several methods of sex determination are in vogue but fuggy. Self determination of sex before the participation in sports is the social and moral responsibility of every individual citizen.

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A Study On Motivation Of Secondary School Physical Education Teachers In Relation To Their Work Values

Prasanna B K, PhD Research Scholar, Singhania University. Physical education Department Jhunjun Dist. Rajasthan State, India

Abstract: Motivation to participate in Physical Education (PE) and other types of we may speculate therefore about possible links between levels of motivation and participation. This study highlights the key role of PE teachers in seeking to redress the apparent disaffection of young people with engaging in physical activities, The instrument developed by Roth et al., was specially designed to study the autonomous motivation for teaching. However, to date, according to our knowledge, only Taylor et al., have investigated PE teachers' motivation toward work. They used the Work The pre-impact set is concerned with decisions made at the preparation stage before teaching, and involves subject matter, learning objectives, organization and presentation. The impact set includes decisions relating to performance and execution while the post-impact set includes evaluation of performance and feedback from learner to teacher The present study focuses on " A Study on work motivation of secondary school physical education teachers in relation in to their work values.
Key words; motivation of secondary school physical education teachers in relation in to their work values ;

Introduction

There has been growing concern in recent years about the low level of young people's participation in physical activity (PA). Significantly, there has also been a substantial increase in studies investigating students' motivation to participate in Physical Education (PE) and other types of PA, we may speculate therefore about possible links between levels to redress the of motivation and participation. This study highlights the key role of PE teachers in seeking apparent disaffection of young people with engaging in physical activities, which may lead to lifelong benefits. If people are to enjoy the benefits of physical health and wellbeing from school days throughout their adult life, it is imperative that schools establish a strong foundation in PA by impressing upon young people the importance of life-long PA. In preparing the students for lifelong PA (Corbinasserts that teachers must educate and motivate students by encouraging them to engage in PA during their leisure-time. Several studies have shown a strong correlation between students' motivation for in a school PE context being transferred into a leisure-time PA The autonomy-supportive behavior of teachers has an important role in this transfer of skills and motivation. Reeve and Jang, inner motivational resources. The characteristics of autonomy-supportive and controlling teaching behaviors have been identified by several authors taking into account student preferences, offering encouragement, and allowing them to work independently are characteristics of autonomy-supportive behavior have described the autonomy-supportive teacher as responsive (e.g. acknowledges the students' The pre-impact set is concerned with decisions made at the preparation stage before teaching, and involves subject matter, learning objectives, organization and presentation. The impact set includes decisions relating to performance and execution while the post-impact set includes evaluation of performance and feedback from learner to teacher. The teaching styles based on the degree to which the teacher or the student assumes responsibility for what occurs in a lesson. This describes a continuum, where at one extreme is the direct, teacher-led approach (reproductive style) and at the other lies a much more open-ended and student-centered style (productive style) where the teacher acts only as facilitator. Student-centered teaching styles can also be considered as autonomy-supportive behavior and teacher-centered teaching styles as controlling behavior *Measures of teacher motivation:* Unfortunately, there has been little research on teacher motivation to teach (Butler, 2007; Retelsdorf et al., 2010 investigated teacher motivation with an instrument based on Achievement Goal Theory (AGT), whereas studies by Roth et al Taylor et al., used instruments based on SDT. The instrument developed by Roth et alwas specially designed to study the autonomous motivation for teaching. However, to date, according to our knowledge, only have investigated PE teachers' motivation toward work. They used the Work Motivation Inventory determine the antecedents for teachers' motivation

This study aims to test whether the motivational dimensions developed on the basis of SDT will be appropriate for PE teachers from different European countries and how these are related with teachers' perception of their teaching styles. In terms of specific hypotheses, it is expected that the teachers' autonomous motivation is linked to the student-centered styles, and that non-autonomously motivated

Statement Of The Problem

The problem chosen for present study is " A STUDY ON WORK"

Scope of the problem:

It was intended to study the work motivation of secondary school Physical Education. The Independent variable selected for the study are -Work values, age , sex, type of management and experience.

Objective of the Study

1. To find out the relationship between work motivation and secondary school-Physical Education teachers their work values.
2. To find out whether difference in work values of secondary school physical education training would account for significant.

Delimitation

The study has following delimitation

1. The study was delimited tko Secondary School Physical Education teachers.
2. A few independent variable were selected due to scarcity of time.
3. 180 Secondary school physical Education Teacher wer selected for the present study.

Limitations Of The Study

1. They study is limited to only secondary school in the district of Chitradurga.
2. 180 -Secondary school physical education teachers were selected for the present research work.
3. The investigator could include only a few independent variables in the present study.

Hypotheses:-

Major-II :- Difference in work values of secondary school physical education teacher do not

Account for significant different in their work motivation of secondary school physical education teacher haling moderate work values and Si

There is no significant difference in work motivation of secondary private aided and unaided physical Education teacher

There is no significant difference in work motivation of secondary School in government and Private aided physical Education teachers.

There is no significant difference in work motivation of married and unmarried secondary school physical Education teacher.

Methodology

In the previous chapter the review of related literature and studies have been discussed. In this chapter an attempt is made to discuss the methodology of the study adopted in conducting the research.Research design indicates the design and method to conduct the research . It should be relevant , should have a positive approach and suitable to the research that is being conducted. The present study focuses on " A Study on work motivation of secondary school physical education teachers in relation in to their work values.

The methodology consists of

Operational Definitions,Discussion of variables,Sampling procedure,Research tools andCollection of data.

Analysis and interpretation

In the Previous chapter the methodology adopted for this study was discussed in detail. In this chapter, the Data collected has been analyzed and interpreted. These have been done for each independent and dependent variable wise. The analysis are presented in each table

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Influence Of Motor Fitness And Psycological Variables On Ability In Karnataka State Hockey Players

Prasanna B K, PhD Research Scholar, Singhania University. Physical education Department Jhunjun Dist. Rajasthan State, India

Abstract
Hockey has several fundamental skills such as Dribbling, hitting, shooting, stopping human activity that involves specific administrative organisation and historical background of rules which the objective at limit the Patten of human behaviour IN view of the limitation of the study they following conclusion may be drawn form the result of the study presented methodology chapter
The calculated value some show there is an signification relationship b/w hockey playing ability with selected motor fitness variables and psychological variables Psychological variable in the hockey playing ability of inter collegiate hockey men players in Karnataka. Psychological variable in the hockey playing ability of inter collegiate hockey men players in Karnataka. The same study be conducted on youth club, playerThe same study may be conducted on physical education to trainees the some may be conducted on the other game players also

Introduction
Education: It is the reconstruction of events the compose the lives of individuals. So that new happenings and new events venom more purposeful and more meaningful. Education institutions play a primary role in the development of the human resources of society, colleges and schools and some universities are clearly the most powerful and effective institutions of our society for the achievement of intellectual skills knowledge and logical analysis of problemPhysical education is an education process that has its aim in development through the Sport is a human activity that involves specific administrative organisation and historical background of rules which the objective at limit the Pattern of human behaviour.Physicians are relearning their dominant responsibility for the prevention of disease and optimization.Predication is anticipation and predictions are not change guesses rather they are based on constant and vigil observation
Fundamental Skills; Hockey has several fundamental skills such as Dribbling, hitting, shooting, stopping
Statement of the problem:
The purpose of study was intended to know influence of motor fitness and Psychological variable in the hockey playing ability of inter collegiate hockey men players in Karnataka.
Delimitation
The study was further confined to the following Psychological variables sports competition anxiety and self concept.
The study was confined to the following motor fitness variables, speed, Strength, Endurance ability of power.
This study was Delimited to 30 District open Hockey meet, male players
Limitations:-
Emotional factors were not taken into consideration
Activities were not controlled and might have affected their performance during the test Administration
Special motivation techniques was used during test lack of motivation may affect the performance and also on the results.
Hypothesis
This was hypothesized that the hockey playing ability may be predicted from motor ability and Psychological variables
This study select hockey players with skill mottor fitness variables psychological variables and would be easy to understand

Methodology

30 District hockey men players who belong to various Districts were selected as subjects for this study, the subjects were selected as subjects for this study, the subjects were in the age of up to 18-22 years up who has represented their respective open in meet Karnataka inter District Hockey meet of were different socio-Culture and political economic

The Purpose the significance of the study and requirement of the testing mint

All the subjective agreed voluntarily to co-operate the testing procedures to for them and to put in their best efforts in this best efforts

Selection is ability shooting Balancing moving

Motor ability is speed-comtsdash-power-standing broad jump-Ability 6 x10shuttle run

Psychological-Sport competition Anxiety (SCAR)

Self concept- mukth

Analysis of Data and Discussion

The statically analysis of data collected on hockey playing ability *motor filtnessabilty* speed, insurance strength agility and power Psychological variable such as sports conpetionanciety and self concept form.

30 District in Karnataka inter District Hockey men players was presented in this chapter

Level—the ascertain relationship obtained using person's product movement correlation, the level of significance was set at .05 level

Moving Ability	Min	Max	Mean	Standard deviation
Moving ability	3.52	7.18	4.69	1.13
Self concept	48.00	79.00	60.66	5.97
Shooting	2.00	8.50	4.37	1.71
Balance Ability	.08	5.31	1.79	0.88
Overall ability	165.70	201.31	182.05	7.95

Conclusion

In view of the limitation of the study they following conclusion may be drawn form the result of the study presented methodology chapter

The calculated value some show there is an signification relationship b/w hockey playing ability with selected motor fitness variables and psychological variables

Recommendations:

The same study be conducted on youth club, player

The same study may be conducted on physical education to trainees the some may be conducted on the other game players also

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A Comparative Study of Anxiety among Cricketers and Soft Ball Players of Osmania University

Dr.J.PrabhakarRao
Principal, University College of Physical Education, OU
Dr.V.Satyanarayana
Director of Physical Education, OU

Abstract:
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.The Purpose of the the present study to find out the anxiety among Cricketers and Soft Ball Players of Osmania University,Hyderabad.The sample for the present study is fifty Male Soft ball Players and fifty Male Cricketers those who have participated in the Osmania University Inter University Coaching Camp during the year 2011-12. Sinha's Comprehensive Anxiety Test are used in the study. The Questionnare were administered in small groups to Cricketers and Soft Ball Players. Prior to administration of test through informal talk was explained the subjects procedures of the tests.This study shows that Cricketersare having the low anxiety compare to Soft Ball Players.Itis concluded that that Cricketers are having the less anxiety to achieve the high level of performance.
Key Words: Anxiety,Cricketers, Soft ball Players etc.

Introduction:

In the modern sports, psychological preparation of a team / individual is as important as teaching as the different skills of a game with scientific methods. Most of the coaches agree that the physical characteristics, skills and training of the players are extremely important, but they also feel that good mental and Psychological preparation for competition is a necessary component for success.

Anxiety is a psychological and physiological state characterized by somatic, emotional,cognitive, and behavioral components. It is the displeasing feeling of fear and concern. The root meaning of the word anxiety is 'to vex or trouble'; in either presence or absence of psychological stress, anxiety can create feelings of fear, worry, uneasiness, and dread. It is also associated with feelings of restlessness, fatigue, concentration problems, and muscle tension. However, anxiety should not be confused with fear, which is more of a dreaded feeling about something which appears intimidating and can overcome an individual. Anxiety is considered to be a normal reaction to a stressor. It may help an individual to deal with a demanding situation by prompting them to cope with it. However, when anxiety becomes overwhelming, it may fall under the classification of an anxiety disorder. Anxiety can be confused with fear. However, fear is concrete, a real danger, whereas anxiety is the paranoia of something out there that seems menacing but it may not be menacing, and indeed may not even be out there.

Cricket is a bat-and-ball game played between two teams of 11 players on a field, at the centre of which is a rectangular 22-yard long pitch. One team bats, trying to score as many runs as possible while the other team bowls and fields, trying to dismiss the batsmen and thus limit the runs scored by the batting team. A run is scored by the striking batsman hitting the ball with his bat, running to the opposite end of the pitch and touching the crease there without being dismissed. The teams switch between batting and fielding at the end of an innings.

In professional cricket the length of a game ranges from 20 overs of six bowling deliveries per side to Test cricket played over five days. The Laws of Cricket are maintained by the International Cricket Council (ICC) and the Marylebone Cricket Club (MCC) with additional Standard Playing Conditions for Test matches and One Day Internationals.

Cricket was first played in southern England in the 16th century. By the end of the 18th century, it had developed into the national sport of England. The expansion of the British Empire led to cricket being played overseas and by the mid-19th century the first international matches were being held.

The ICC, the game's governing body, has 10 full members. The game is most popular in Australasia, England, the Indian subcontinent, the West Indies and Southern Africa.
Softball is a variant of baseball played with a larger ball on a smaller field. Invented in 1888 in Chicago as an indoor game, it was at various times called indoor baseball, mush ball, playground, softbund ball, kitten ball, and, because it was also played by women, ladies' baseball. The name*softball* was given to the game in 1926. A tournament (1933) at the Chicago World's Fair spurred interest in the game. The Amateur Softball Association of America (founded 1933) governs the game in the United States and sponsors annual sectional and World Series championships. TheInternational Softball Federation regulates rules of play in more than 110 countries, including the United States and Canada. Women's fast-pitch softball became an Olympic sport in 1996, but it (and baseball) was dropped in 2005 from the 2012 games. Despite the name, the ball used is not soft. It is about 12 in. (30 cm) in circumference (sometimes larger for slow-pitch), which is 3 in. (8 cm) larger than a baseball. The infield in softball is smaller than in baseball; each base is 60 ft (18 m) from the next, as opposed to baseball's 90 ft. (27 m). There are two types of softball: in the most common, slow-pitch softball, the ball, sometimes larger than the standard 12 in, must arch on its path to the batter, 10 players make up a team, and bunting and stealing are prohibited; in fast-pitch softball the pitch is fast, there are 9 players on a team, and bunting and stealing are permitted. Softball rules vary somewhat from those of baseball. Two major differences are that the ball must be pitched underhand—from 46 ft. (14 m) for men or 43 ft. (12 m) for women as compared with 60.5 ft. (18.4 m) in baseball—and that seveniinnings instead of nine constitute a regulation game.

Significance:

The present study will bring the importance of anxiety among Cricketers and Soft Ball Players of Osmania University.

Research Methodlogy:

The sample for the present study is fifty Male Cricketers and fifty Male soft ball those who have participated in the Osmania University Inter University Coaching camp for the year 2011-12. Prior to administration of test through informal talk was explained the subjects procedures of the tests.

Sinha's Comprehensive Anxiety Test :

Contains 90 items of manifest anxiety. It is highly reliable and valid. Time 15 to 20 minutes. Scoring is simple. Percentile norms are available on college students. Level Of anxiety may be classified in five categories, highly reliable and validin thislest.

Self conceptQuestionnaire :

Procedures of Data Collection:

Prior to administration of test through informal talk and instructions was given to the subjects , the tests were administered and a copy of each test were collected.

Results:

This study shows that Cricketers are having low anxiety compare to Soft ball Players

Discussion:

Table -I

Anxiety of Cricketers and Soft Ball Players

Players	Mean	S.D.	SE	N	df	"t"
Cricketers	37.62	3.95	0.56	50	98	6.02**
Soft Ball Players	42.76	4.56	0.64	50		

In Table I the Mean of anxiety score of Cricketers is 37.62 and Soft Ball Players is 42.76. Thus Cricketers are having the less Anxiety compare to the Soft Ball Players.

Conclusions:

It is concluded that Cricketersare having low Anxiety compare to the soft Ball players.TheCricketers are extraverts and they are having the desire to excel in the competition compare to the soft ball players. More matches in cricket lead to become less anxiety for the cricketers in the competition.

Suggestions: It is suggested that Cricketers and soft ball players must be given Psychological training to improve their psychological variables to excel in the competition.

References:

Cricket, Soft Ball, Anxiety Wikipedia

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Sports Injuries In Female Sports Persons

Dr.B.Sunil Kumar, Associate Professor, Department of Physical Education, OU
Dr.K.Deepla, Associate Professor, Department of Physical Education, OU
Dr.I.Balram Reddy Head, Department of Physical Education, OU

Introduction:
Sports injuries are commonly caused by overuse, direct impact or the application of force that is greater than the body part can structurally with stand. Chronic injuries are caused by overusing the same muscle groups or joints. Poor Technique and structural abnormalities can also contribute to the development of Chronic injuries.

Common Sports Injuries:

1. Ankle Sprain
2. Bruises
3. Concussion
4. Cuts and abrasions
5. Groin Strain
6. Hamstring Strain
7. Knee joint injuries
8. Nose injuries
9. Stress fractures
10. Head and dental injuries.

Discussion:
No injury strikes more fear into the hearts of athletes and coaches than an Anterior Crutiate Ligament tear.

Although, common in the male dominated sporting world, recent studies have shown that Anterior Crutiate Ligament tears occur at a disturbingly high incidence in female athletes! Many studies have documented a four-to-eight-fold increase in ACL tears.

It is no secret that men and women are inherently different both physically and physiologically; the cause of this “gender-bias” therefore, is multi-factorial. Intrinsic factors such as differences in anatomy, hormones, generalized laxity and neuromuscular function or extrinsic factors such as coaching, training, and conditioning techniques are implicated.

Anatomical differences like wider pelvis, knock-knees and foot pronation, all place the women's ACL at a mechanical disadvantage compared to men. With wider hips, there are increased angular forces involving the female athlete’s knee which may increase torque or rotational twist on the knee which again will stress the anterior cruciate ligament.

In general, women have greater ligamentous laxity than men. There are receptors for the female hormones estrogen and progesterone in the ACL. Some studies have shown that an increase in estrogen concentration may decrease the strength of the ligament,espl during the ovulatory phase (days 5 through 12) of the menstrual cycle.

Sports such as tennis, badminton, basketball, football and volleyball which require the jumping, cutting, pivoting and landing activities and knee position are more likely to cause ACL tears.

Another factor separating women athletes from male athletes is the so-called **“female athlete triad**.” This involves a combination of decreased energy availability due to disordered eating, bone

loss due to osteoporosis, and menstrual disturbances that interferes with health and performance of female athletes. Osteoporosis in itself increases the risk of stress fractures and chronic injuries like shoulder impingement syndrome.

Moreover, the combination of not having strong shoulder muscles, including the rotator cuff muscles, and having loose supporting ligamentous tissues can lead to instability of the shoulder joint. As a result, women playing sports such as badminton, swimming, softball or volleyball typically are at risk for rotator cuff weakness, and tears.

Can these injuries be prevented? Several training programs directed toward maximizing hamstring strength greater than quadriceps strength to improve the knee function and decrease an injury to the ACL have been developed.

The number of young girls and women participating in physical activity and sport is increasing. Female athletes may experience select musculoskeletal injuries or medical issues and with a greater understanding of the causes of these phenomena, we can move forward with effective prevention strategies. Implementing programs that address the unique needs of the female athlete will generate peak performances but not at the expense of the long-term health of the athlete.

Conclusion:
The female athletes must be given proper training for development of muscle groups and joints to avoid the sports injuries.
Recommendations:
Studies can be conducted in all sports and games.

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Analysis of Injuries among Volley ball Players of West Godavari District in Andhra Pradesh

B.V.Narasimha Raju
Lect. In Physical Education
D.N.R. College, Bhimavaram
West Godavari Dist. A.P.

Abstract

Engaging in Sport activities has numerous health benefits but also carries the risk of injury. Sports trauma commonly effects joints of the extremities i.e.knee,ankle,hip,shoulder,elbow, wrist etc. The Objective of the study is to investigate the frequency of injuries among Volley Ball Players of West Godvari District. The sample for the study consists of 100 Male Volley Ball Players of West Godavari between the age group of 18 to 25 Years. All the players were given a Questionnaire regarding the Sports Injuries Occur while playing Volley Ball during the Practice and Competition.The Results of the Study shows that lower extremities injuries are 40%, Upper Extremities 40 %, Head 12%,Neck 4% and Spine 4%. It is concluded that Volley Ball Players must have good conditioning and prevention to avoid the injuries in the Game of Volley ball.This type of study is useful to coaches to give proper coaching for development of motor qualities for prevention of injuries in Volley Ball.

Key words: Injuries, lower extremities, upper extremities etc.

Introduction:

Engaging in Sports Activities has numerous health benefits but also carries the risk of Injury. At Every Age Sports Persons sustain a wide variety of soft tissue, bone, ligament, tendon and nerve injuries caused by direct trauma or repetitive stress. Different sports are associated with different patterns and types of injuries, whereas age, gender and type of activity influence the prevalence of injuries.Sports trauma commonly affects joints of the extremities i.e.knee,ankle, hip, shoulder, elbow, wrist and spine. The sports injuries that occur in competition or practice has loss of time for participation in Sport.

According to the TRIPP model (Finch, 2006), the first step in injury research is to understand the extend of the problem. The prevalence and prevalence proportion of sport injuries has been widely investigated across sports. Unfortunately, such studies have only included groups selected by either one or more criteria, such as specific sport (Jacobsson et al., 2012), level (Hall et al., 2013), age (Scase et al., 2012) or injury type (Maselli et al., 2015). The recruitment of selected groups has further limited the external validity of study results to the general population. In addition, knowledge about the prevalence of sports injuries on a general population level is, alongside injury severity and treatment costs, important in order to identify whether sports injuries are a public health burden, as well as to identify whether certain sports contribute to a larger number of injuries than others (Finch, 2006). To our knowledge, no studies have yet investigated the total prevalence of sport injuries in a general population-based sample, and subsequently compared the prevalence and prevalence proportion of sports injuries between different sports.

Purpose of Research:

The Objectives of the study is to investigate the frequency of injuries among Volley Ball Players of West Godavari Dist.This study was designed to investigate the most common types of injuries, mechanisms of injury, activities leading to injury, time and place of injury occurrence and time lost to injury.

Methodology

The sample for the study consists of 100 Male to investigate the frequency of injuries among Volley Ball Players of West Godvari District.between the age group of 18 to 25 Years

Research Instruments

All the players were given a Questionnaire regarding the Sports Injuries Occur while playing Volley Ball during the Practice and Competition. All the sports persons are doing regular practice since minimum last 2 years.

The Questionnaire consisting of the following Injuries.

1. Lower Extremities
2. Upper Extremities
3. Head
4. Neck
5. Spine

Results:

The Results of the Study shows that lower extremities injuries are 40 %, Upper Extremities 40%, Head 12%,Neck 4% and Spine 4%.

lower extremities injuries	Upper Extremities	Head	Neck	Spine
40	40	12	4	4

The majority of Sports Injuries are soft tissue in nature and because many of Injuries arise in Volley Ball is due to improper body mechanics and improper sport Techniques.Sprains and strains are the most common lower extremity injuries in Volley ball. The severity of these injuries varies. Cartilage tears and anterior cruciate ligament (ACL) sprains in the knee are some of the more common injuries that may require surgery. Other injuries include fractures and contusions from direct blows to the body.Shin splints (soreness in the calf), patellar tendinitis (pain in the knee), and Achilles tendinitis (pain in the back of the ankle) are some of the more common in kabaddi.Injuries to the head, neck, and face include cuts and bruises, fractures, neck sprains, and concussions. A concussion is any alteration in an athlete's mental state due to head trauma and should always be evaluated by a physician.

Research Recommendations:

Sufficient warmup, proper technique, correct bio mechanics, proper conditioning, optimizing balance, coordination, optimizing reaction times, optimal diet, adequate rest, positive attitude will reduce the risk of injuries.Increase your flexibility by performing dynamic warm up prior to practice and competition followed by static stretching post activity.

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