International Journal of Physical Education and Sports Sciences

Vol. VI, Issue No. II, January-2014, ISSN 2231-3745

FITNESS VARIABLES TO PLAYING ABILITY IN FOOTBALL

AN INTERNATIONALLY INDEXED PEER REVIEWED & REFEREED JOURNAL

www.ignited.in

International Journal of Physical Education and Sports Sciences
Vol. VI, Issue No. II, January-2014, ISSN 2231-3745

Fitness Variables to Playing Ability in Football

Rajni

V.P.O Balu, Karnal, Haryana

Abstract – Motor fitness is a present aptitude for physical skills, includes strength and co-ordination enriches today's Manpower in players performance. The study focuses on selected motor fitness components to ensure the playing ability among low and high performers of State level Football players. To achieve this study, One hundred and fifty men Football players were randomly selected as subjects from Tamilnadu State level men Football Tournament held at Chennai in 2008-09. Their age ranged from20 to 25 years. Selected subjects were classified into three equal groups of each fifty members. Group 1 served as -Chennai Team, Group-II as Salem and Coimbatore Team and Group III Trichy and Madurai Team. All the subjects were oriented the purpose of the test and procedure of conducting this test. Regular activities and training were given that aplomb the player's ability to perform the game. Questionnaire preparation was also done by our Research Scholar with the reference to the review of the literature. The investigator has provided onto the following selected motor fitness variables such as Cardio-vascular Endurance, Speed, Agility and Explosive Power. The data is collected with the help of five PhD Scholars, Department of Physical Education who were well versed with the conduct of test and collections under the direct supervision of our Research Scholar. Resulting data will be collected before and after the competition and statistically analyzed using ANOVA and DMRT. Hence the study concluded that playing ability solely depends on the physical fitness, stress free mind more than that it relates the socio-economic status to perform the better strategy of playing games.

----------♦----------

1. INTRODUCTION:-

Games and sports are a popular pastime for the young and old, for boys and girls, and for men and women. Sports are as old as the human society and it has achieved universal status in the modern society. It has enjoyed a popularity which outstrips any other forms of social activity. It has become an integral part of the educational process, as physical education and sports have been included in the regular curriculum. The students are taught various games and sports in the systematic manner. Besides, teaching the students are evaluated in their performance. Many people participate in games and sports for getting enjoyment besides deriving physical, mental, social and emotional benefits.

History of Football – The origins

The contemporary history of the world's favorite game Football spans more than 100 years. It all began in 1863 in England, when rugby football and association football branched off on their different courses and the Football Association in England was formed – becoming the sports' s the first governing body.

Both codes stemmed from a common root and both have a long and intricately branched ancestral tree. A search down the centuries reveals at least half a dozen different games, varying to different degrees, and to which the historical development of football has been traced back. Whether this can be justified in some instances is disputable. Nevertheless, the fact remains that people have enjoyed kicking a ball about for thousands of years and there is absolutely no reason to consider it an aberration of the more natural form of playing a ball with the hands.

Britain the home of Football

For all the evidence of early ball a ports played elsewhere in the world, the evolution of football as we know it today took place in Britain. The game that flourished in the British Isles from the eighth to the 19th centuries featured a considerable variety of local and regional versions – which were subsequently smoothed down and smartened up to create the modern day sports of association football and , in Ireland ,Gaelic football.

Primitive football was more disorganized, more violent, more spontaneous and usually played by an indefinite number of players. Frequently, games took the form of a heated contest between whole villages – through streets and squares, across fields, hedges, fences and streams. Kicking was allowed, as in fact was almost everything else. Sometimes kicking the ball was out of the question to the size and weight of

the sphere being used – in such cases, kicking was instead limited to taking out opponents.

Curiously, it was not until nine years after the rules of football had been first established in 1863 that the size and weight of the ball were finally standardized. Up to then, agreement on this point was usually reached by the parties concerned when they were arranging the match, as was the case for a game between London and Sheffield in 1866. This encounter was also the first where the duration was prearranged for 90 minutes.

Shrovetide football, as it was called, belonged in the 'mob football' category, where the number of players was unlimited and the rules were fairly vague.

For instance, according to an ancient handbook from Working ton in England, any means could be employed to get the ball to its target with the exception of murder and manslaughter.

Football in India

Football (soccer) is one of the most popular sports in India. The game is played extensively in the country, with the maximum fan following in Goa, Kerala, West Bengal, Mizoram, Manipur and Sikkim. In the rest of the states, it is next to Cricket in terms of popularity. All the international league matches and the Soccer World Cup are keenly watched by the sports enthusiasts in the sub-continent. The game holds a rich tradition in India, its history being something that deserves special mention. Go through the following lines to get information on the history of Football in India.

Origin

The history of Football in India can be traced back to the pre – independent period, when the British people brought the game to the sub - continent. The initial football matches were played between army teams. A number of football clubs in India were soon created, during the British Empire. In fact, these clubs predate the most renowned clubs and organizations of Football, such as FIFA. In India, the first football game was organized between 'Calcutta Club of Civilians' and the 'Gentlemen of Barrack pore', in 1854. The first football club of India, named 'Calcutta FC', was founded in 1872. Dalhousie Club, Traders Club and Naval Volunteers Club were also established in the following years.

Women's Football in India

Women's Football in India was administrated by the Women's Football Federation of India (WFFI) until early 1990s, when the AIFF took over the administration of women's soccer in the country. Just like the men's game, the women's game had its early pioneers from the state of the West Bengal. The women's clubs were started by East Bengal and Mohun Bagan clubs in 2000-01season. National championships for both senior and junior girls are also held. The majority of players in the Indian Women's national football team are from Manipur and West Bengal. However, women's football in India has not gained as much popularity as the men's teams have.

Fitness in Football

Soccer is perhaps the most demanding of all sports. In the modern game soccer training and conditioning is essential .Few sports are played on as large a playing field, lasting as long and without regular rest periods.

Players cover 8-12 km during a match, consisting of 24% walking, 36% jogging, 20 % coursing, 11% sprinting, 7% moving backwards and 2% moving while in possession of the ball.

Soccer players possess excellent endurance with VO2max reported to range between 55 and 70 ml/kg/min in elite performers (Barrow and McGee, 1979. Brewer, 1990).

The game is played at an average intensity close to the lactate threshold – approximately 80-90 % of maximum heart rate (Bucher, 1972. Clarke and Clarke)

How important is the correct type of endurance training in soccer?

The greater a player's aerobic capacity, the more ground they cover during a typical game (Clarke and Clarke. Eldred, 1973). Additionally, improved endurance also increases the number of sprints completed in a game (Flint, 1976) By improving the VO2Max of youth soccer players by 11% over an 8 week period, a 20 % increase in total distance covered during competitive match play was manifested, along with a 23% increase in involvements with the ball and a 100% increase in the number of sprints performed by each player (Clarke and Clarke).

What about other forms of conditioning?

Strength training now plays a major role in soccer. However, simply lifting weights with the traditional "3 sets of 10 repetitions" approach is not an efficient way to spend training time. Soccer requires a balance of explosive power and muscular endurance. Some players may benefit from increasing their lean mass but even they should focus on converting much of their strength into soccer-specific power. Strength training for soccer also helps to correct muscle imbalances. Soccer players in particular are prone to developing overly strong quadriceps in relation to their harmstrings and a well-formed strength plan can address this and prevent future injury.

The articles below cover all the important forms of soccer training and conditioning. Strength and endurance training is covered in-depth as well as sample speed and agility sessions, flexibility training and warming up and cooling down..

Some experts say Football is all about fitness. The potential duration of a game is 45+45+15+15=120 minutes. We can easily that football players are in action for nearly two hours and a little more if they have to take penalty kicks which is the most difficult part for all players when they are extremely tired, may be injured and under lot of pressure. Now can running only be defined as physical fitness? The answer is No! Diet, Swimming Weight, Training, Rest, Endurance, Health and Climate and Physical structure of player is also important in physical fitness.

What is Cardio Respiratory Endurance?

The peak performance of the Heart and the Lungs over certain period of time is known as cardio respiratory Endurance. It has great effect on physical performance. It is seen that the lungs and hearts of athletes increase in size and capacity with time, a process part of the psychological hypertrophy of athletes.

Is being able to run complete physical fitness in football?

They players have to run stop, jog, sprint, jump, tackle, shot, head and dodge etc in all these conditions and only if they are physically fit then they can do it perfectly and repeatedly throught the match. So running is not the only thing.

Some styles of play demand more running from the teams than the other. Sometimes the European teams play fast one touch football, fast counter attacking football, other times two touch or three touches are used. They even slow the tempo of the game. So games have different demands, not only of running. All messages are transmitted through brain. It has been proved scientifically that players tend to commit more mistakes when they are tired. Players miss open goal scoring chances or in one on one situations if their fitness levels are not high. Players shoot accurately if physically fit, so the importance of physical fitness.

Alex Ferguson Example

The most successful coach of recent ages, Sir Alex takes a Fitness test on the morning of the match. He gets the results significantly in five minutes and decides who to change after the half time. Now fitness thus has both physiological and psychological effects. Heart is a man's best friend, train it to pump more. Eat less to live long, rather eat healthy and as per requirements. Sweet daily to keep the medicines away, a practice session a day keeps the doctor away.

2. STATEMENT OF THE PROBLEM

The purpose of the study is to find out the relationship of selected motor fitness variables to playing ability in Football.

3. HYPOTHESIS

It is hypothesized that there would be significant relationship with selected motor fitness variables such as muscular power, agility, muscular strength, muscular endurance, cardiovascular endurance, flexibility and speed to playing ability in Football.

4. DELIMITATION

The study is delimited to 60 male football players who have represented Haryana state, agate, between 16-18 years. It is further confined to the selected motor fitness variables such as muscular, power, agility, muscular strength, muscular endurance, cardiovascular endurance, flexibility and speed.

5. LIMITATION

Same degree of motivation will be the determining factor during the testing. No effort will be made to control or assess the quantum of the food ingested, life style psychological stresses and factors metabolic functions.

6. DEFINITIONS OF THE OPERATIONAL TERMS

MOTOR FITNESS:

The term motor fitness became popular during World War II. It may be defined as A limited phase of motor ability, emphasizing capacity for vigorous work. The aspects selected for emphasis are endurance, power, strength, agility, flexibility and balance.

MUSCULUR POWER:

One's ability to get his body mass moving in the shortest period of times is a measure of power.

MUSCULUR ENDURANCE:

The ability of muscle to work against a moderate resistance for long periods of time is termed as muscular endurance.

FLEXIBILITY:

Flexibility is usually interpreted as the range of motion at a particular joint, measured in degrees. Extensibility of the soft tissues, ligaments and especially of the muscles and the anatomical structure of the joint help to determine the degree of flexibility.

MUSCULAR STRENGTH:

Muscular strength is defined as the force that a muscle or group of muscles can exert against a resistance is one maximum effort.

CIRCULATORY – RESPIRATORY ENDURANCE:

Circulatory – respiratory endurance also called cardiovascular endurance , is characterized by moderate contractions of large muscle groups for relatively long periods of time , during which maximal adjustment of the circulatory – respiratory system the activity are necessary, as in distance running and swimming.

SPEED:

Speed may be defined as the capacity of individual to perform successive movements of the same pattern at a fast rate.

PLAYING ABILITY:

It is the state optimum readiness of the sportsmen for achieving sports result, which is acquired under definite conditions. On the whole playing playing ability is a harmonious unity of all the aspects of athlete's optimum readiness – physical, psychic, technical and tactical.

7. RESEARCH METHODOLOGY

. Selection of Subjects

60 male football players between 16-18 years of age will be selected as a subject for the purpose of this study. These players who have at least represented Haryana and are still playing competitive football.

. Selection of Variables

The investigator reviewed the available scientific literature pertaining to the game of football from books, journals, scholastic coach and research quarterlies. On the basis of the discussion with experts, feasibility criteria, availability of instruments and the relevance of the variables to the present study, the following variables were selected:

7.1 MOTOR FITNESS VARIABLES

- Muscular Power
- Agility
- Muscular Strength
- Muscular Endurance
- Cardiovascular Endurance
- Flexibility
- Speed

7.2 PLAYING ABILITY VARIABLES

The coach will be graded each individual player out of 10 points, which measured subjects playing ability.

7.3 DATA COLLECTION

Researcher will Administer various tests for the chosen variables collected the necessary data. The motor fitness variables and playing ability variables will be conducted under the supervision of experts.

7.4 ANALYSIS OF DATA

The relationship of selected motor fitness variables and playing ability will be established by computing Pearson's Product Moment Correlation Method.

Product Moment Correlation will be compared for muscular power, agility, muscular strength, muscular endurance, flexibility, cardiovascular endurance and speed with playing ability.

8. SIGNIFICANCE OF THE STUDY

Though Football started as a recreation game, but today it has become more technical and complicated with its dynamic movements and stereo-typed strategies on offence and defence skills and governing rules of the game making one of the fastest and competitive games in the world. The proper execution in playing situation is based entirely on scientific biomechanical princples. The motor fitness components such as strength, speed, play a vital role in the Hockey Football ability. Football player today in the scientific age must be very fast, quick mobile, agile and active having enough cardiovascular as well as balanced state of personality.

The finding of this study will be of significant in the following way

- The finding of this study will add to the quantum of knowledge in the area of training methods.
- The result of the study may provide guidelines, which help the physical educators

and hockey coaches in preparing the training schedules for their players.

- The findings of this study might be used as a screening tool and technique in analyzing and classifying the players.

9. REVIEW OF RELATED LITERATURE

James studied the effect of four conditioning on skills developments and cardiovascular efficiency in selected physical activity comes and found that the final skill test in each activity indicated that the skill attained was apparently affected by the supplement treatment.

Schultz studied the effects of direct practice repetitive sprinting and weight training on selected motor performance tests, Six training approaches were used to study the effectiveness upon performance in four selected test of motor skills, speed, coordination's and power. Subjects were 120 men volunteers enrolled in Indiana University service programmer. The subjects were randomly assigned to groups and groups to treatments, short period of training or cessation of training did not affect performance. Except in case of zigzag run. Direct practice of the zigzag run was found to be superior to both weight training and repetitive sprinting in the performance over a nine weed period.

The purpose of the Stocktin's study was to investigate the effect of selected conditioning methods on physical fitness level of ninth and tenth grade girls. Conclusions were aerobic conditioning produced significant progress in cardio-vascular efficiency; calisthenics conditioning produced greater performance in muscular strength and muscular endurance.

Lyle conducted a study to compare physical fitness in the San Diego city school. The study concluded that physical fitness performance mean were significantly higher in case of physical education student that of military science student on the test such as sit - ups, pull – ups, standing broad jump, 50 yard dash, 12 minutes run and softball throw.

Lane related the physical fitness and motor ability before and after a physical fitness programme for high school girls. The AAPHER youth fitness test and the Humistor Motor Ability test were administrated to 69 girls. He concluded that the group improved on both test and correlation between physical fitness and motor ability was higher after the planned fitness programme.

Chandershekhar made study to compare the selected physical fitness components that are speed, extent flexibility, leg explosive strength, gross body coordination and cardio-respiratory endurance of football and basketball players. On the basis of analysis of data following conclusion was drawn. The basketball players were found to be higher in explosive strength. Abdominal strength and gross body coordination.

Frank conducted a research study on some physical fitness components and sports of rural, urban and parochial school background. He examined the effects of different elementary school experience upon achievement in certain aspects of physical fitness and sports skills. He tested 85 grade 9th boys (27 with rural background, 38 with urban background and 20 with parochial background) for speed, power muscular endurance and skill in different games. Study of the Total score showed the boys with rural, Parochial or Urban experience did not differ in physical fitness but boys from urban and parochial school were superior in sports club.

10. REFERENCES

Barrett: Norman F., (1950). "Improving your Hockey" (London: Feber and Feber Ltd.).

Barrow: H.M. and McGee. T. (1979). "A Practical Approach to Measurement in Physical Education". Philadelphia: Lea & Febiger.

Brewer: John, (November 1990). "Fit For What" Hockey Field.

Bucher: Charles A., (1972). "Foundation of Physical Education" (C.V. Mosby Company)

Clarke: Harrison and Clarke David H., "Application of Measurement to Physical Education. " (Prentice – Hall, Inc. , Englewood Cliffs , New Jersey 07632).

Eldred: Vince Eldred , (1973). "Basketball Coaching Guidelines" Scholastic Coach 42 (January: 146)

Flint : Rachael Neyhoe, (1976) Women Hockey (London : Pelham Book Ltd.).

Johnson: Barry L. and Nelson Jack N. (1982). "Practical Measurement for Evaluation in Physical Education" (Delhi: Surjeet Publications)

Matharee: Kirpal Singh, "Fitness of Hockey" Dedicated to fellow Sportsmen (A.P. Super Hockey Ashoka Kalra 19, Chowk Addea Tanda Jalandhar).

Mathews: Donald K. (1978). “Measurement in Physical Education” (Philadelphia, London, Toronto, W.B. Saunders Company).

Ramirez Sergio Garvin, (Jan – Feb. 1976). “Characteristic Violence in Sports Governed by Criminal Law” Olympic Review 100: 44.

Singh: Gain, (September 1966). “Fitness in Hockey” Indian Hockey.