

A Comparative study of Hip Flexibility between Football and Basketball players of Nalgonda in the age group of 18 to 21 years

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Abstract

The purpose of the study was to find out the “Comparison of Hip flexibility between Football and Basketball players. An educated individual is physically fit, mentally alert, intellectually sharp, emotionally balanced and socially well adjusted, physical well-being is an important factor for an individual. The present concept of physical well-being is not only freedom from disease, but also enough strength, agility, flexibility endurance and enough skill to meet the demands of daily life and sufficient reserve to withstand stress and strain. However educational planners and administrators have failed to give due importance to physical fitness in the educational programmers. Flexibility is one of the components of physical fitness and plays a major role in the efficient functioning of the body in day to day activities of the individuals. Flexibility is the basic prerequisite for a good execution of sports movements. Research work can be undertaken to explore the causes for better hip flexibility of basketball and football players. The same problem may be studied on large samples at different level and regions. More studies may be made to identify the involvement of hip flexibility in various activity groups. A parallel study can also be done on different sports groups.

Key Words: Flexibility, Goniometry, stamina and co-ordination.

1. Introduction:

We need physical fitness to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure time pursuits and to meet emergencies. “The term fitness implies a selection between the task to be performed and the individual capability top from it.” Fitness is used to refer to a pervasive syndrome of concerns related to optimum functioning of health and well being. Physical fitness is the quality of the body in term of its safe adoption to physical activity. The basketball and football players should possess the qualities, such as flexibility for better performance, in addition to basic components such as reaction time, movement time, speed, strength and endurance etc.

Basketball is probably the leading ball game in the world as far as action occurrence is concerned. More things happen for second than in any other comparable game. The word action implies movement and basketball is very much a movement oriented game. Whenever movement occurs, certain principles govern the way in which it happens, the effort needed to cause it the result occurring from it. Some of the principles can be called scientific embracing the laws of mechanisms, physiology, aerodynamics etc. others have merely evolved empirically- they just work though we may not know why if by principles we mean a fundamental truth then a knowledge of principles of basketball can help to solve the problems which make the game such a fascinating yet fruitful activity.

Foot ball is ideally suited to India as it does not require much equipment. Being a very strenuous game, it develops strength, endurance, stamina and co-ordination, team work inculcate team spirit and a high degree of sportsmanship. It is also as spectator’s game. The thrills of foot ball are enjoyed by all age groups who witness the game Foot ball is game of great skills which call for keen physical fitness and speed of movements. Skilful techniques result from careful and constant individual and team practice and add the enjoyment of the game to both players and spectators

Finally the investigator having read the journals, articles and books, was convinced that the dribbling is the most important skill compared to other skills in foot ball. It is also observed that the dribbling is very successful with the combination of agility and techniques. No one has attempted to have a study on the importance of agility and techniques

in relation to the execution of dribbling skills. Therefore the investigator motivated to have a study on the dribbling ability in relation to technique and agility.

Flexibility is one of the components of physical fitness and plays a major role in the efficient functioning of the body in day to day activities of the individuals. Flexibility is the basic pre-requisite for a good execution of sports movements. Flexibility can be classified into three types namely:

Active Flexibility, Passive Flexibility, Dynamic Flexibility.

Flexibility is commonly measured by such tests as touching and curls. It can be measured by means of flexometer and goniometer for shoulder, trunks, knee, hip and elbow. Normally the general body flexibility is represented by hip and back flexion. There are many tests to test trunk and hip flexibility namely Scott and French test well and Dillon sit and reach test Krauss Webber floor touch test.

1.1 Statement of the Problem:

The purpose of this study was to compare the hip flexibility between foot ball basketball players (men).

1.2 Delimitaion:

The study was delimited to basketball and football players of Nagarjuna Govt. Degree College, Nalgonda District only in the age group of 18 to 21 yrs. Goniometry was used to measure the flexibility, and only hip flexibility was tested. The literature was collected from the libraries of Physical Education Department Library, Osmania University, of Physical Education.

1.3 Limitations:

The subject's previous training, health habits and other psychological factors were not considered for this study. The climatic conditions were ignored purpose.

1.4 Hypothesis:

It was hypothesized that Basketball players would have better hip flexibility the footballers.

1.5 Significance of the Study:

1. This study might be useful for physical educationists and coaches to understand the degrees of importance of flexibility and technique in relation to foot ball and basketball ability.

2. This study might motivate the coaches to formulate a training programmed for improving the flexibility and technique so as to improve the players of respective filed of ability.

2. Review of Related Literature:

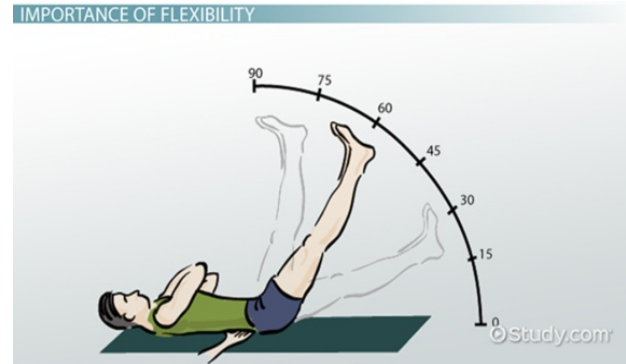
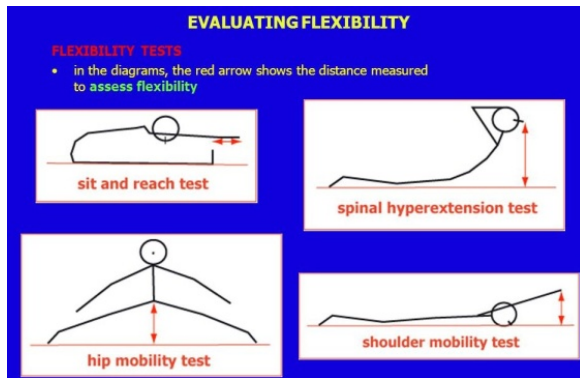
A study of relevant literature is an essential step to get a full picture of what has been done and said with regard to the problem under study. Such a review brings about a deep insight and a clear prospective of overall field. The present study is intended to investigate the comparison of hip flexibility between basket ball and foot ball players.

Flexibility is component of physical fitness that pertains to the functional capacity of the joints to move through a normal range of motion. It involves the muscular system as well as the bones and joints lack of adequate flexibility has often been linked with low back pain as well as with muscle and joints injuries. It is commonly measured by such tests as toe touching and back curls but these typical test assess the range of motion of certain specific joints.

Cureton defines flexibility as expressed by the range of motion in a given joint. It is influenced by three factors.

- a) The bone structure of the joint
- b) The amount of bulk surrounding the joint
- c) The extensibility of ligaments, tendons muscles and skin.

Importance of developing Flexibility:



The two common methods of developing Flexibility:

1. Ballistic Stretching technique
2. Static Stretching technique

Ballistic Stretching technique

In this method there are bouncing and jerking movements, and the force of the movements stretches the muscle. Generally it is not recommended, because of the amount of tension it creates in the muscle and much more likely to develop muscle soreness or tendon damage, if repeated movements are to be used for the development of flexibility. It is important that they are performed slowly.

Static Stretching technique

Here the stretching position is assumed slowly and gently and held for designated period. Care must be taken to move through the full range of motion until lightness is felt in the muscle. However is felt in the muscle extent that causes pain. Flexibility exercises are designed to alleviate pain not to create it. This technique results in at least amount of tension in the muscles.

3. Materials & Methods:

In this chapter the procedure adopted for the selection of the subjects test item collection of data and statistical procedure for analyzing the data have been described.

3.1 Subjects:

Nagarjuna Government Degree college Nalgonda, Male students thirty Basketball and thirty football disciples were selected.

3.2 Test Item:

Hip flexibility was compared with the help of Goniometer for both Basketball and Football players.

Normal Values for Range of Motion of Joints

Joint	Motion	Range (°)
Hip	Flexion	0–125
	Extension	115–0
	Hyperextension	0–15
	Abduction	0–45
	Adduction	45–0
	Lateral rotation	0–45

BASKETBALL

In the game of basketball each team is composed of five players. Two or more officials regulated the game. The purpose of the games is to score largest number of points than the opponent. The score is compiled from the field or three throw line. The ball is passed, bounced battled from one player to another.

FOOTBALL

Football is a game in which the objectives are to advance ball down field to score goal by causing the ball to pass between the posts and under cross bar. The ball is propelled by using the feet, head and body, except the goal keeper, the player may not handle with hand.

3.3 Administration of the Test:

Goniometer Test:

The subject was directed to stand erect and the apparatus was tied firmly over the hip with the help of the belt attached with the apparatus. Before starting the test the pointer was fixed at zero degree. In addition when the apparatus is ready for use the dial and the pointer pointed upward coincide. In this position subject was directed to bend downward at the maximum level. The direct reaching of the pointer on the dial was recorded immediately in the score sheet separately for basketball and football players.

3.4 Statistical Procedure:

The following statistical procedure was adopted to find out the difference of hip flexibility between basketball and football players.

For the purpose of testing the significance difference the means of groups the "t" ratio was computed. "T" ratio is the ratio of the differences between the means and standard error of the differences between the mean. To find out the mean the standard deviation and standard error of the means the following formulae are used.

MEAN

To find out mean from ungrouped data the following formula was used.

$$M = \frac{\sum x}{N}$$

$$\text{STANDARD DEVIATION } \sigma = \sqrt{\frac{\sum X^2}{N}}$$

4. Analysis of Data and Results of the Study:

The purpose of the study was to explore the hip flexibility of basketball and football players.

The obtained mean score of basketball and football players varied from 86.23 – 71.9. The highest mean score 86.23 was obtained by basketball players while the lowest mean value of 71.9 by football players. Since the highest mean is scored by basketball players it shows that they have better flexibility than football players. To compare with Football players, basket ball players have better hip flexibility than football players.

Analysis of Hip Flexibility of Basketball and Football Players:

SI No	Category	Subject	M	DM	SD	DM	"t" level of significance
1	Basketball	30	86.23		12.84		
				14.23		3.1508	4.55
2	Football	30	76.9		11.38		

5. Discussion of Hypothesis:

It was hypothesized that basket ball players have better hip flexibility than football players.

The hypothesis was up held as the "t" obtain for hip flexibility was significant at 0.05 levels

6. Summary:

The primitive man by the nature of his activities built a very strong body, superior to that of present civilized man. In advanced age due to labor saving devices, the modern man is no longer doing physical work. Hence there is a vast difference between the physical fitness of ancient and that of modern man. It is very clear that the progress of our nation in future mainly depends up on the physical fitness of present children. The purpose of the study was to compare the hip flexibility of Basketball and football players. It was hypothesized that basket ball players have better hip flexibility than football players.

The investigator included 60 players as subjects, out of which 30 players were Basketball. All the players were normal and healthy. The hip flexibility assessed with the help of Goniometer.

The scores obtained were tabulated under respective heads. The mean and Standard deviation was computed. In addition "t" was determined to find out the significant differences between the mean of hip flexibility of Basketball and football players.

7. Conclusions:

The basketball players have better hip flexibility than football players.

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