

## COMPARATIVE STUDY ON AGILITY AND LEG STRENGTH BETWEEN COLLEGE FOOTBALL AND HOCKEY PLAYERS

V. Manobala , P. Selvam and R. Muniyappan

M.Phil Scholars in Department of Physical education, Bharathiar University,  
Coimbatore.

### Abstract:

*The study was to find out the comparative study on agility and leg strength between college football and hockey players. To achieve that subjects aged from 18-28 years from Ramakrishna mission vivekananda university, faculty of general & adapted physical education and yoga, Coimbatore. I have selected for male football and hockey players. The difference on the physical variables such as Agility, leg strength. The analysis of 't' ratio was used to determine any significant difference was present among the independent variables. The study revealed that the selected independent variables such as agility, leg strength. That there was significant difference for football and hockey players.*

### KEYWORDS:

1.Agility 2.Leg strength

### INTRODUCTION

#### FOOTBALL

In primitive days, some kind of football was part of man's life. Stories go about gruesome tradition, that in historic times some races used their enemies severed heads as footballs. The Romans are said to have fostered football as a part of their military training. It is generally assumed that Roman soldiers brought the game to Britain. The game of football is one of the most popular and simple games in the world. Although the modern game of football emerged in England, in its primitive form it had undoubtedly been played for centuries. The game began in England in the 12th century but Edward II banned it in 1324. His successor Edward III in 1349, Richard II in 1389 and Henry IV in 1401, as also the Scottish rulers forbade people from playing football. The monarchs could not stop the interest of people and started taking a lenient view and football became popular, at least in the public schools. Here were no definite rules of the game, each team played with its own. Dubey (1999).

#### HOCKEY

Hockey is a field game played by both men and women. Each teams has 11 players, who use a stick with a hook, which forms the head to hit the ball along the ground. The object of the game is sending the ball into the opponent's goal, and the team to score the greater number of goals wins. Narang (2003)

Hockey at any level is a thriller game enjoyed by players of all ages. The vast majority plays the game primarily for social reasons and do not normally have the opportunity for the sort of coaching that could significantly improve both their individual skills and overall performance.

### AGILITY

Agility is a motor fitness variable, Physical ability enables an individual to rapidly change the body position and direction in a precise time. "Agility is the ability of the body or parts of the body to change directions rapidly and accurately' Barrow and Rojema megee (1973).

### LEG STRENGTH

Leg strength improves foot speed and stabilizes the ankle during high velocity running, lowering the risk of injury. The two most important factors for success in the sprinters are strength potential and mechanics potential. The goal of any strength training programme for sprinters should be to improve the intramuscularly co-ordination and the inter muscular Co-ordination. Hokisson (1993).

### METHODOLOGY

#### SELECTION OF SUBJECTS

To achieve the purpose of these study 15 hockey players and 15 football players from, Vivekananda university, faculty of general & adapted physical education and yoga, Coimbatore were selected as subjects randomly.

#### SELECTION OF VARIABLES

The investigator reviewed the available scientific literature pertaining to the problem under study from books, journals, magazines, and research papers and also taking into consideration of the feasibility criteria of the availability of instrument and relevance of the variable to the present study. The following variables were selected.

1. Agility
2. Leg Strength

#### SELECTION OF TESTS

Primary concerned of this study is to compare the agility and leg strength among college football and hockey players. As per the available literature the following standardized tests were used to collect the relevant data on the selected variables and they were presented in the table I.

**TABLE -I**  
**SELECTION OF TEST**

VARIABLES	NAME OF TEST	UNIT OF MEASUREMENT
Agility	Shuttle Run	In Seconds
Leg Strength	Leg Dynamometer	In numbers/ seconds

### RESULT AND STATISTICAL TECHNIQUES

The data collected were statistically examined. To compare the agility and leg strength among hockey and football players, independent 't' test was used as statistical technique, to find out whether there was any statistical difference. According to Clarke the 't' ratio is the ratio for the difference between mean and standard error of difference. In all the cases to test the significance at 0.05 level of confidence was used.

**TABLE – II**  
**THE 't' RATIO FOR HOCKEY AND FOOTBALL**  
**PLAYERS ON AGILITY**

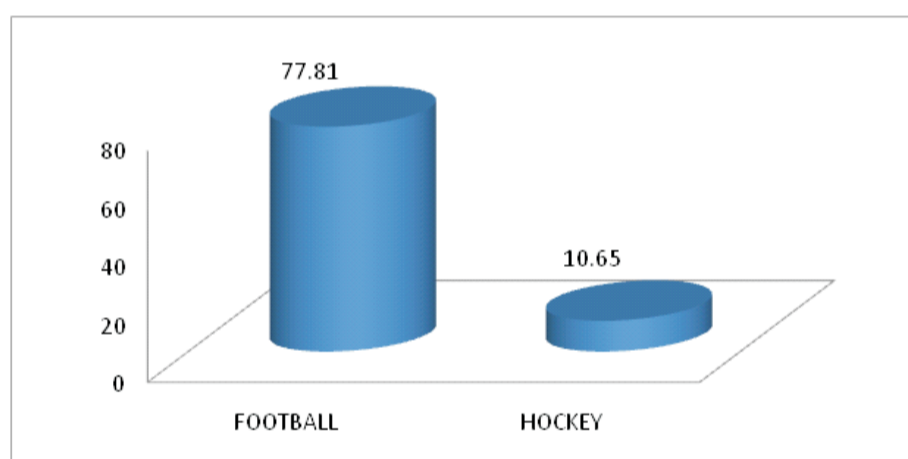
Variable	Game	Mean	Standard Deviation	Mean Difference	t' Ratio
Agility	Football	77.8153	67.6466	67.164	15.7427*
	Hockey	10.6513	2.8422		

\*Significance at 0.05 levels, df= N-2; 30-2=28 is 2.056.

**RESULTS OF AGILITY**

Table II indicates the mean value of hockey players and Football players, which are 77.81 and 10.65 respectively. The obtained 't' value 15.7427 and the table value is 2.05 at 0.05 level of confidence. Since the obtained 't' value is higher than the table value it is concluded that there was a significant difference between the hockey players and football players on agility. So it indicates that hockey players are more agility than the football players.

**FIGURE – I**  
**THE MEAN SCORES OF AGILITY FOR FOOTBALL AND HOCKEY PLAYERS**



**TABLE – III**  
**THE 't' RATIO FOR HOCKEY AND FOOTBALL**  
**PLAYERS ON LEG STRENGTH**

Variable	Game	Mean	Standard Deviation	Mean Difference	t' Ratio
Leg Strength	Football	41.5333	5.0049	8.4666	5.3224*
	Hockey	33.0667	3.5854		

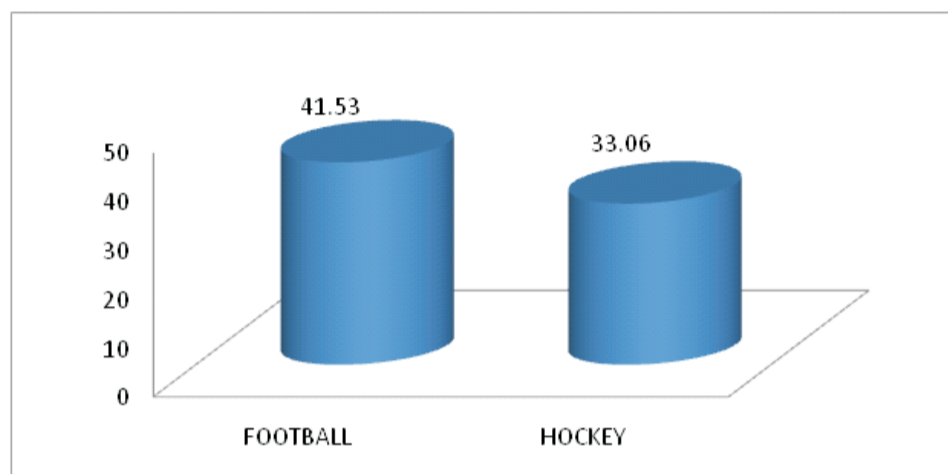
\*Significance at 0.05 levels, df= N-2; 30-2=28 is 2.056.

**RESULTS OF LEG STRENGTH**

Table III indicates the mean value of Football players and hockey players which are 41.5333 and 33.0667 respectively. The obtained 't' value 5.3224 and the table value is 2.05 at 0.05 level of confidence. Since the obtained 't' value is higher than the table value it is concluded that there was a significant

difference between the football players and hockey players on Leg Strength. So it indicates that football players have more Leg Strength than the hockey players.

**FIGURE – II**  
**THE MEAN SCORES OF LEG STRENGTH FOR FOOTBALL AND HOCKEY PLAYERS**



#### DISCUSSION ON FINDINGS

The finding of the study indicates that college Hockey players are having more Agility than college Football players. Being the Hockey players they should have more agility, being it is the kicking ability of football players who involve in this game to perform better. There is a significant difference shown in agility and leg strength between the football and hockey players.

1. The Hockey players are having more agility.
2. The Football players are having more leg strength.
3. The result of the study showed that the college football and hockey players have significant difference in agility and leg strength.

#### DISCUSSION ON HYPOTHESES

On the basis of the result, the hypotheses stated in first chapter were discussed here.

1. The first hypothesis states that there was a significant difference between football and hockey players in leg strength. Hence the first hypothesis was accepted.
2. The second hypothesis states that there was a significant difference between football and hockey players in agility. Hence the second hypothesis was accepted.

#### CONCLUSION

The following conclusions were drawn based on the study.

1. There was significant difference between football and hockey players in agility
2. There was significant difference between football and hockey players in leg strength.

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**V. Manobala**  
M.Phil Scholars in Department of Physical education, Bharathiar University,  
Coimbatore.



**R. Muniyappan**  
M.Phil Scholars in Department of Physical education, Bharathiar University,  
Coimbatore.