

## A Comparative Study of Selected Physical Fitness among University Level Hockey and Football Players

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### Abstract

The purpose of the study was to comparison of selected physical fitness among university level hockey and football players. Only male players were selected randomly from the hockey and football, who had participated in university championship held at Banaras Hindu University Varanasi. The age of players ranged between 18-24 years. Speed and Agility were selected as a variable for investigation of present study. The data for the purpose of this study was collected at the field of Banaras Hindu University Varanasi by administering the speed and agility. Hockey and football players were not found statically different with regard to speed. There was significant different was found in agility of hockey and football players. The football players were more Agile. No significant different has been found between speed variable of hockey and football player. Significant different has been found between agility variable of hockey and football player.

**Key Words:** Physical Fitness, Speed, Agility.

### 1. Introduction:

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

#### **Benefits of Physical Fitness**

1. It helps in maintain and increase muscle strength, improving balance, overall co-ordination, reaction time and flexibility. Some physical activities even improve mental concentration.
2. To Controls Weight, improves mood, boost energy, and promotes better sleep.
3. It combats health conditions and diseases.
4. It reduces the incidence of illnesses such as coronary heart disease, hypertension, stroke, type2 diabetes and osteoporosis.

#### **Definition of the Terms**

**Speed:** The rapidity of muscle movement or the rate of change of body movement is known as muscular speed. Literally speed is measured by dividing distance by time in short runs.

**Agility:** The speed with which an individual may change his body positions or fastness in changing directions while moving as known as agility.

#### **Objective of the Study:**

1. To find out the speed ability to Hockey and Football players.
2. To find out the agility to Hockey and Football players.

#### **Hypothesis of the Study:**

1. There was no significant difference between speed variable of Hockey and Football player.
2. There was no significant difference between agility variable of Hockey and Football player.

## 2. Research Methodology:

### Sample Size:

15 Hockey players and 15 Football players has been taken for the study.

### Variables and Tests

Variables	Test	Unit of Measures
Speed	50 Meter Dash	Seconds
Agility	Shuttle Run	Second

### Data Collection:

Prior to data collection field marking was done. All subjects were asked to go for warm-up. The tests for speed and agility were demonstrated and instruction to complete the test was given to the subjects. When subjects were ready for the test, the data was recorded by the administering the tests.

### Statistical Analysis:

The collected data was analyzed by using independent *t*-test to find out the significant difference between Hockey and Football players on speed and agility. SPSS (v.17) statistic software was used for all statistical computation. The level of 0.05 was set for statistical significance differences.

## 3. Result of the Study:

**Table 1: Descriptive and t value of Hockey and Football players**

Variables	N	Groups	Mean	SD	t value
Speed	15	Hockey	7.41	0.26	3.62*
	15	Football	7.60	0.26	
Agility	15	Hockey	14.46	0.13	1.55
	15	Football	14.61	0.16	

\*Significant

Tab  $t_{0.05} (28) = 2.05$

The reading of table 1 clearly shows that mean value of speed for Hockey and football players were 7.41 and 7.60 respectively. The obtained *t* ratio on speed is 3.62, which is greater than the required table value (2.05) with 28 df and at 0.05 level of confidence. This shows that there is significance difference exist when speed is considered among Hockey and Football players. This is also indicated that Hockey players showed greater sprinting ability when compared with Football players.

Further examination of the table it was found that mean value of agility for Hockey and Football players were 14.46 and 14.61 respectively. The obtained *t* ratio on agility is 1.55, which is less than the required table value of 2.05 with 28 df. So, there is no significant difference on agility between Hockey and Football players.

**Figure 1: Illustration showing Speed of Hockey and Football players**

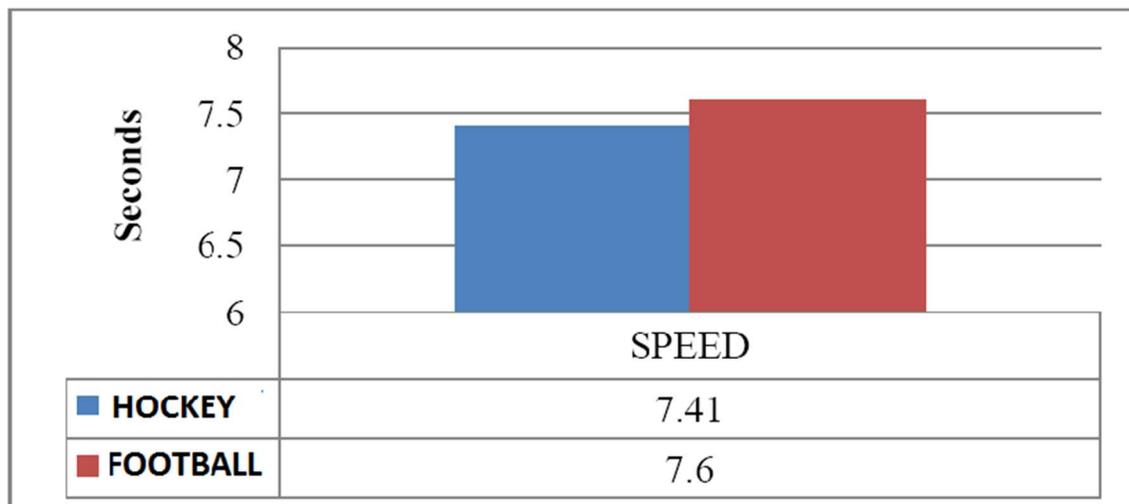
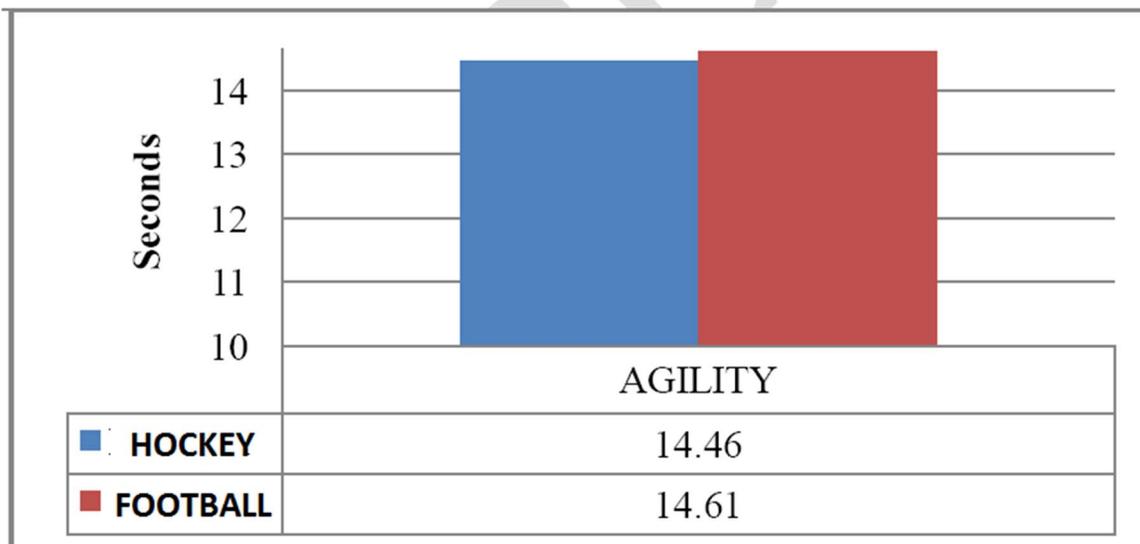


Figure 2: Illustration showing Agility of Hockey and Football players



**4. Discussion:**

Obtained results of the study showed that there is a significant difference exist among Hockey and Football players as for as speed is concern. However, no significant difference was elicited between Hockey and Football players for the variable of agility. This indicated that Hockey players showed greater sprinting ability when compared with Football players. Similar types of the results were reported by Pawan (2013); Singh, Kumar, Bal, & Singh (2014); Brechue, Mayhew & Piper (2010); Saharan, Singh & Singh (2014). An insignificant difference in agility between Hockey and Football was also obtained. The results of the study are in agreement with the findings of Singh (2013); Singh, *et al.* (2014).

**5. Conclusion:**

With the limitations of the study it might be concluded that, there is a significant difference in speed between hockey and football players and it shows that Hockey players are better in the speed ability than Football players. Hockey players scored higher scores in speed, but on the other hand there was no difference in agility. Speed and agility are vital to the performance of fundamental motor skills like throwing, kicking, jumping, striking, hopping and skipping.

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