# Assessment of Selected Motor Fitness Components of Football and Hockey Players

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## ABSTRACT

*The purpose of this study was to investigate the selected motor fitness components of male Football and Hockey players. The selected motor components were explosive leg strength, shoulder strength and agility. The study was conducted on sixty male Football and Hockey players of Kurukshetra University. These players were selected through random sampling, during inter-collegiate championship. The required data for the study was collected by using philip J.C.R Motor Fitness Test. The statistical technique technique used were Mean, S.D. SED and 't' ratio to find out the significant differences between selected motor fitness components of Football and Hockey players. The results indicated significant difference in explosive leg strength and agility but no significant difference was found between selected motor fitness components of Football and Hockey players.*

## INTRODUCTION

Motor fitness refers to the ability of an athlete to perform successfully in their sport. The components of motor fitness are agility, balance, coordination, power and reaction ability. These motor components improve with practice and determine the level of athletic ability. These motor fitness components are as follows:

**i. Agility:** is the ability to change course, controlling the direction and position of your body while maintaining your momentum. Changing course while sprinting to hit a ball in Hockey and Football is an example of agility.

**ii. Balance:** Ability to stabilise your body, whether standing still or maintaining motion.

**iii. Coordination:** describes the synchronization of your senses and your body parts in a way that enhances motor skills. Kicking ball in Football is an example of leg-eye coordination.

**iv. Speed:** is the ability to move your body swiftly.

**v. Power:** is a combination of speed and muscular strength. A Football linebacker uses power to blast through a line of men.

**vi. Reaction time:** Rection time measures how you interpret and then react to expected and unexpected events happening around you.

In Football and Hockey these components are used frequently specifically explosive leg strength agility and shoulder strength.

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## METHODOLOGY

### Selection of Subjects

The sample of 30 Football and 30 Hockey players were selected for this study. The data was collected during inter-collegiate Football and Hockey chamionships.

### Tools used

For collecting the data for this study philip J.C.R. Motor Fitness Test was employed to test explosive strength of legs, shoulder strength and agility of Football and Hockey players. For measuring shoulder strength, explosive leg strength and agility: chin ups, vertical jump and shuttle run were used.

### Statistical techniques used

The statistical techniques used in this study are mean, SD, SED and 't' ratio. The level of significant was set of 0.0s level. The data was analysed by using SPSS version 20.0 according to objectives of the study.

## RESULTS & DISCUSSION

The details of comparative mean, SD, SED and 't' ration has been presented in Table 1,2,3,

**Table-1: Significance differences of explosive strength of legs of male Football and Hockey players, through vertical jump**

| Mean | Football Players | Hockey Players |
|---|---|---|
| SD | 7.97 | 7.18 |
| SD | 1.79 | 1.69 |
| SED | 6.44 | |
| t.value | 1.79 | |
| Significant at 0.5 level = 1.637 | | |

Table1 showed the significant difference of explosive strength of leg of Football and Hockey players. The mean value of Football players is 7.97 and 7.18 of Hockey players. The standard deviation of both team players was 1.79 and 1.69, respectively. The 't' test was 1.79 which was found significant at 0.5 level. it implies that Football players have better explosive strength of legs than their counterpart Hockey players.

**Table-2: Significance differences of shoulder muscular strength of Football and Hockey players, through chin ups**

| Mean | Football Players | Hockey Players |
|---|---|---|
| SD | 6.60 | 6.55 |
| SD | 1.47 | 1.79 |
| SED | 0.42 | |
| t.value | 0.12 | |

Table 2 indicated the means scores of male Football and Hockey players is 6.60 & 6.55, respectively. the SD was found 1.47 and 1.79. the 't'value as found 0.12 which is not significant at 0.5 level. Thus, it is concluded that there is no significant differences between Football and Hockey players on shoulder strength of motor fitness.

**Table-3 : Significant differences in Agility of Male Football and Hockey players through shuttle run**

| Mean | Football Players | Hockey Players |
|---|---|---|
| SD | 27.3 | 33.7 |
| SD | 9.26 | 10.5 |
| SED | 2.55 | |
| t.value | 1.80 | |
| Significant at 0.5 level = 1.67 | | |

Table 3 implied the mean stores of Football and Hockey players as 27.3 and 22.7. The SD of both team players was 9.26 and 10.5, respectively. The obtained 't' value 1.80 was found significant at 0.5 level. It means that there is significant difference in agility of both team players.

## CONCLUSION

From the analysis of collected data and results obtained, following conclusion can be derived from the present study:

1. Significant difference was found in explosive strength of legs between Football and Hockey players. Football players were found having greater explosive strength of legs than their counterpart Hockey players.
2. No significant difference was found between made Football and Hockey players on shoulder strength of motor fitness.
3. Significant difference were also found on agility between both the team players. Football players were found more agile than Hockey players.

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