



A comparative study of selected motor abilities of intercollegiate male football and handball players

Mythri CD

Physical Education Director, Government First Grade College, Harohalli, Kanakapura, Ramanagara, Karnataka, India

Abstract

The main Objective of the study to compare the selected motor abilities of intercollegiate male Football and handball players.

Methodology: To achieve the purpose of study 20 male players each for Football and Handball were selected Bangalore university Inter Collegiate tournament. The age group of subjects was ranging between 18-25 years. Test by Johnson and Nelson (1982) was used to measure motor fitness components. To find out the difference between means of the Football and Handball Groups 't' test was applied.

Results: The study revealed that the There is no significant difference in the speed variable of Football and Handball players. Differences were observed on arm power, leg- power and agility variables between Football and Handball players but these were insignificant. It was found that Football players are better in speed, leg power and agility whereas Handball players are superior to Football player on arm power.

Keywords: football, handball, motor abilities

1. Introduction

The Word 'Sport' comes from the old French word called Desport which means "Leisure", but this word has changed its connotation with the passing time. Now sports are no longer believed to be practiced only in leisure time. Today they are one of the major parameters to judge a country's development and growth and are fast becoming great career options for the future generations. The term "motor fitness" is most often used synonymously with physical fitness by the physical educators, but it is very important for the physical education student s to know the basic difference between physical fitness and motor fitness. Physical fitness is used to denote only four basic fitness components (muscular strength, muscular endurance, cardiovascular endurance and flexibility), whereas motor fitness is a more comprehensive term which includes all the ten fitness components like four fitness, one of the health- related fitness and five motor performance components, power, speed, agility, balance and reaction time, which is important for the success in sports. In other words, motor fitness refers to the efficiency of basic movements and also to the addition of physical fitness. Sports performance is indeed an aspect of complex human performance, which has several dimensions. Hence, several disciplines of sports sciences are required to work in a coordinated manner to explore the nature and the process of improving performance in the last few decades several disciplines of sports sciences have established e.g. Sports medicine, sports physiology, sports training, sports bio-mechanics, sports psychology, sports pedagogy, sports nutrition and so on. These sports sciences work as one integrated unit to give super sports performance. Physical fitness is a basic requirement for sports achievements. In sport theory and practice, the level of motor abilities is the key factor in majority of sports achievements. Motor ability, sprinting, jumping, flexibility and throwing velocity represent physical activities that are considered as important aspects of the softball game and contribute to the high performance of the team. Football is

probably the world's most popular sport, played in practically every nation at varying levels of competence. Football may be played competitively or for fun, as a career, a means of keeping fit or simply a recreational pursuit (Reilly, 1996). Modern football is very fast in its nature, the spectators and the players enjoy the game of football with a great amount of merriment. It is a game of constant action and requires continuous adaptation to changing situation by the team as a whole as well as by the individual players. Although it is a team game, there is an ample room for players to display their brilliance through team play involving improvisation and tactical knowledge. Handball can be played by everybody and everywhere, nothing more being needed than a ball, a playing-field and two goal posts. Handball is not an expensive sport. They need small playing fields or gymnasiums may be used, there is a comparatively smaller number of players and a simple outfit will do. Basically it is a game played by two teams of seven (six ground player and one goal keeper) whose object is to score goals by throwing a small ball towards a goalkeeper into the goal. The ball is passed around by players using their upper body only - any contact with the ball below the knee is a foul. A player can run with the ball, as long as they bounce it, - as in Basketball. However, they can take three steps without bouncing the ball. Players can not cross the D shaped goal area, and generally the goalkeeper stays within this D circle. This often results in players attempting to take their three steps and jumping into this area to shoot, which is allowed as long as they are off the ground when the shot is taken. Handball is mainly a contact sport, where defenders can block an opposing attacker to prevent them shooting. This tactic means that the defending team tends to guard their own D circle, whilst the attacking team passes the ball around to try to find a way to attack and run in to get a clear shot on goal. Once an attack breaks down, due perhaps to the defense intercepting a pass or the goalkeeper saving a shot, then the situation is reversed and players quickly counter attack to try to score a goal before the

opposing team has had sufficient time to organize their defense.

1.1 Purpose of the Study

The main Objective of the study to compare the selected motor abilities of intercollegiate male Football and Handball players.

2. Methodology

2.1 Selection of Subjects

To achieve the purpose of the study twenty male players each for Football and Handball were selected Bangalore university Inter Collegiate tournament. The age group of subjects was ranging between 18-25 years

2.2 Tools Used

Test by Johnson and Nelson (1982) was used to measure motor fitness components as described below:

- 1. **Speed:** 50- Yard Dash Run test
- 2. **Arm Power:** Two hands Medicine Ball put test
- 3. **Leg Power:** Standing Broad Jump
- 4. **Agility:** Shuttle run test

2.3 Statistical Technique

The obtained data were statistically analyzed by using ‘t’ test, to compare the selected motor abilities of intercollegiate male Football and handball players.

3. Results of the Study

The data was analyzed by ‘t’ test. The significance of mean difference found between score obtains on selected motor abilities of intercollegiate male Football and handball players.

Table 3.1: Mean Difference Between Inter Collegiate Football and Handball Players on Speed

Variable	Players	Numbers	Mean	Sd	Df	‘t’
Speed	Football	20	8.17	0.57	30	0.60
	Handball	20	8.29	0.69		

Table value at 0.5=2.02.

From table-3.1 it is clear that that mean and standard deviation values of Football players on the speed variable were 8.17 and 0.57 where as in case of Handball players it was 8.29 and 0.69 respectively. No significant difference was found between Football and Handball players as the calculated t-value 0.60 was less than tabulated value of 2.02 at 0.05 level of significance.

Table 3.2: Mean difference between inter collegiate football and handball players on arm power

Variable	Players	Numbers	Mean	S.D.	Df	‘t’
Arm Power	Football	20	2.68	0.17	38	1.23
	Handball	20	2.75	0.19		

Table value at 0.5=2.02

From table-3.2 it is clear that that mean and standard deviation values of Football players on the arm power variable were 2.68 and 0.17 whereas in case of Handball players it was 2.75 and 0.19 respectively. No significant difference was found between Football and Handball players as the calculated t-value 1.23 was less than tabulated value of 2.02 at 0.05 level of significance.

Table 3.3: Mean difference between inter collegiate football and handball players on leg power

Variable	Players	Numbers	Mean	Sd	Df	‘t’
Leg Power	Football	20	1.62	0.14	38	1.51
	Hand Ball	20	1.56	0.11		

Table value at 0.5=2.02

From table-3.3 it is clear that that mean and standard deviation values of Football players on the leg power variable were 1.62 and 0.14 whereas in case of Handball players it was 1.56 and 0.11 respectively. No significant difference was found between Football and Handball players as the calculated t-value 1.51 was less than tabulated value of 2.02 at 0.05 level of significance.

Table 3.4: Mean Difference Between Inter Collegiate Football and Handball Player on Agility

Variable	Players	Numbers	Mean	Sd	Df	‘t’
Agility	Football	20	11.12	0.64	38	1.57
	Handball	20	11.45	0.69		

Table value at 0.5=2.02

From table-3.4 it is clear that that mean and standard deviation values of Football players on agility variable were 11.12 and 0.64 whereas in case of Handball players it was 11.45 and 0.69 respectively. No significant difference was found between Football and Handball players as the calculated t-value 1.57 was less than tabulated value of 2.02 at 0.05 level of significance.

4. Conclusion

From the above study it may be concluded that there is no significant difference in the speed variable of Football and Handball players. Differences were observed on arm power, leg- power and agility variables between Football and Handball players but these were insignificant. It was found that Football players are better in speed, leg power and agility whereas Handball players are superior to Football player on arm power.

5. References

1. Basak S, Dutta S. A Comparative study of physical fitness parameters between general college student and training college students. *Int. J. Exp. Res. Rev.* 2016; 4:26-30.
2. Bathrellou E, Lazarou C, Panagiotakos DB, Sidossis LS. Physical activity patterns and sedentary behaviors of children from urban and rural areas of Cyprus. *Central European journal of public health.* 2007; 15(2):66.
3. Fauzee MSO, Ahmad RIRL, Rashid SA, Din A, Hod H. Sport science students' fitness level at University Malaysia Sabah. *European Journal of Social Sciences.* 2010; 12(4):538-544.
4. Kartal R. Comparison of Speed, Agility, Anaerobic Strength and Anthropometric Characteristics in Male Football and Futsal Players. *Journal of Education and Training Studies.* 2016; 4(7):47-53.
5. Kundra S. *Physical Education.* New Delhi: Evergreen Publications, Third Edition, 2009.
6. Mathew's, Donald K, "Measurement in Physical Education". Philadelphia Saunders, 3, 1973, 5.

7. Smith PJ, O'Keefe S. Fundamental Motor Skill Development. The Irish Scientist Year Book. Retrieved June 30, from the World Wide Web: <http://www.irishscientist.ie/p187ahtm>, 2006.
8. Thakur V, Kumar S, Chaurasia S, Singh PK. Comparative study of physical fitness components of table tennis and badminton male players from Maharishi Markandeshwar University, Mullana. International journal of sports science and fitness. 2012; 2(1):1009-1014.
9. Erikoglu O, Guzel NA, Pense M, Ozer GE. Comparison of Physical Fitness Parameters with EUROFIT Test Battery of Male Adolescent Soccer Players and Sedentary Counterparts. International journal of Science Culture and Sport (Int. JSCS). 2015; 3(3):43-52.
10. Trikha S. Comparative status of strength and speed between different team games. Global journal for research analysis. 2014; 3(7):253.
11. Welch H, "Athletic Training and Physical Fitness". Boston; Auyn and Bacon, 1974.
12. Yadav BS, Exercise and Fitness", SNIPES Journal. 1986; 9(3):43.
13. Zar A, Gilani A, Ebrahim K, Gorbani M. A survey of the physical fitness of the male taekwondo athletes of the Iranian national team. Facta Universitatis-Series: Physical Education and Sport. 2008; 6(1):21-29.