



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (RJIIF): 5.38
IJPESH 2023; 10(1): 455-457
© 2023 IJPESH
www.kheljournal.com
Received: 04-01-2023
Accepted: 06-02-2023

Dr. Sanjay Yadav
Associate Professor,
CSSS, PG College, Machhra,
Uttar Pradesh, India

International Journal of Physical Education, Sports and Health

A comparative study on agility assessment among hockey and soccer intercollegiate players

Dr. Sanjay Yadav

Abstract

Purpose of the study was to compare the agility of soccer, and field hockey intercollegiate players of CCS University. Total 30 subjects (N=15 from respective game), age ranged between of 18-25years were selected from CCS University, Meerut. The collected data on agility variables were analysed through descriptive statistics, independent t-test at the level of confidence 0.05. No significance difference was found among male soccer and field hockey intercollegiate players on selected on their agility. On the basis of the results and findings it was concluded that both players have similar level of agility at intercollegiate level.

Keywords: Physical fitness, agility, sports performance.

Introduction

Physical fitness, including strength, speed, endurance, flexibility, and coordination abilities, has been considered a crucial element for success in sports since ancient times (Harre, 1979; and Mal, 1982) [6, 8]. Physical fitness is crucial for athletes in intense games and sports, as it influences health and skill. Field games like soccer and hockey require complex physical fitness, including muscular strength, endurance, and cardiorespiratory endurance (Karpovich and Wayne, 1971) [11]. Different games require different endurance and other abilities, while football players' physical abilities vary based on their playing positions. The complexity of physical fitness depends on external conditions and the nature of the game (Secora *et al*, 2004; and Das and Sharma, 2016) [14, 3].

Physical fitness variables are essential physical attributes for optimal performance in various motor skills and activities. These include agility, balance, coordination, speed, power, and reaction time. Agility is crucial for sports like soccer, hockey and basketball, while balance is essential for stability in yoga and gymnastics. Coordination involves harmonious functioning of body parts, while speed is essential for sprinting and racing (Priya, and Murugavel, 2023) [12]. Further, Studies have examined the physical fitness components and performance variables of spasmodic sports players (Kariyawasam, 2019; Abdullah *et al.*, 2016; Singh and Rajendra; 2015; Mishra *et al.*, 2015; Saharan, *et al*, 2014; Gaurav *et al.*, 2011; and Gaurav and Singh, 2003) [7, 1, 15, 9, 13, 5, 4] respectively. They found that different combinations of fitness are needed depending on the game's pace and situation.

Purpose

The purpose of the study was to compare the agility between male intercollegiate soccer and field hockey players of CCS University, Meerut.

Hypotheses

It was hypothesized that, there will be no significance difference in agility of soccer and field hockey male intercollegiate players of CCS University, Meerut.

Selection of Subject

Total 30male participants (i.e. N=15 in soccer and N= 15 in field hockey) intercollegiate players of CCS University, Meerut, age ranged between 18-25 years were selected as subjects by using purposive sampling technique to assess the agility.

Corresponding Author:
Dr. Sanjay Yadav
Associate Professor,
CSSS, PG College, Machhra,
Uttar Pradesh, India

Selection of Variables**Dependent Variables:** Agility**Independent Variables:** Soccer and field hockey.**Criterion Measures**

10 Meters X 4 shuttle run test was used to assess agility and score was recorded in time i.e. nearest to 0.01 Seconds.

Collection of Data

Data on the physical fitness variables i.e. agility were taken on the university athletic ground with the permission of the authorities. Further, all the necessary information and demo was provided to the subjects well before the conduction of test.

Statistical Technique

Descriptive statistics, t-test were applied for the analysis of the selected physical fitness variables between soccer and field hockey intercollegiate male players and the level of significance was set at 0.05 level respectively.

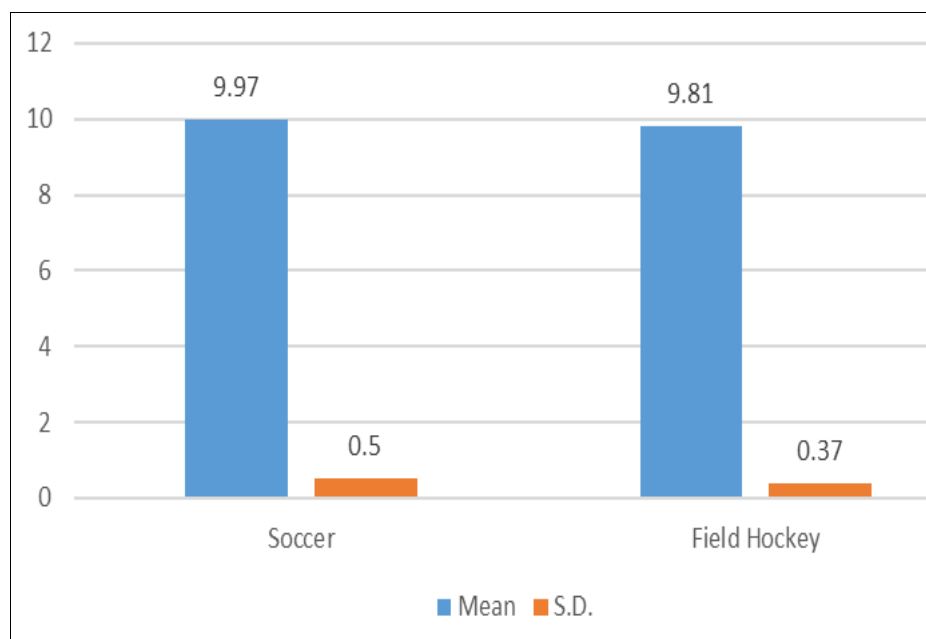
Table 1: Analysis of agility between soccer and field hockey intercollegiate players of CCS University, Meerut

Variable	Group	Mean	S.D.	Degree of Freedom	T-Ratio	Sig. Value
Agility	Soccer	9.97	0.50	28	0.98	0.34
	Field Hockey	9.81	0.37			

N=30

*Significant at 0.05 level.

Table 1 exhibits the mean and std. deviation of agility (9.97 ± 0.50) of soccer intercollegiate players. Further, the table also highlights the mean and std. deviation of agility (9.81 ± 0.37) of field hockey intercollegiate players. Furthermore, Table-1 also indicate the no significant difference among the soccer and field hockey players of CCS University, Meerut at intercollegiate level as the obtained P value (0.34) is higher than 0.05 ($T= 0.98, P>0.05$) at 0.05 level of significance. Further, the graphical representation of selected physical fitness variables i.e., agility of soccer and field hockey intercollegiate players are shown in figure no. 1.

**Fig 1:** Graphical representation of mean of agility between male soccer and field hockey intercollegiate players of CCS University, Meerut**Discussion of Findings**

This study was conducted in order to compare the agility between male soccer and field hockey players from CCS University at intercollegiate level. Further, the findings of the descriptive analysis from Table 1 were reveals that soccer intercollegiate players have greater mean value on agility than field hockey players. Moreover, Table 1 were also reveals the analysis of independent t-test and no significance difference were found among male soccer and field hockey intercollegiate players of CCS University, Meerut on selected physical fitness variables agility at 0.05 level of confidence. This insignificant difference in agility among soccer and field hockey players of present study was due to the similarity in nature and activities of these games. Further, similar level of participation of the subjects of both games i.e. soccer and field hockey have similar competition demands and physical fitness condition at intercollegiate level could be another reason for this insignificant difference in physical fitness variables. However, these findings were also supported by Nandgopal and Murugavel (2018) [10] who founded insignificant difference among handball and football

goalkeepers on their physical fitness variables. Moreover, Abdullah *et al* (2016) [1] also founded similarities in physical fitness related performance among amateur hockey and football players. Additionally, Singh (2013) [16]; Singh, *et al.* (2014) also concluded an insignificant difference in agility between hockey and football. Further, Chittibabu and Chandrasekaran (2014) [2] also not founded any difference in physical fitness between hockey and football players due to the similar nature of the games.

Conclusion

Study shows statistically insignificant differences between field hockey and soccer intercollegiate players in agility. Further, it is concluded that both sports players have similar level of agility at intercollegiate level.

References

1. Abdullah *et al.* Similarities and Distinction Pattern Recognition of Physical Fitness Related Performance between Amateur Soccer and Field Hockey Players. *Int J Life Sci. Pharma Res.* 2016;6(4):35-46.

2. Chittibabu B, Chandrasekaran S. Comparison of Aerobic and Anaerobic Power between University Men Football and Hockey Players. *Int J Phys Educ Fit Sports*. 2014;3(4):108-112.
3. Das A, Sharma R. Comparative Analysis of Health Related Fitness Among Female Vegetarian Athletes of Football, Basketball and Volleyball. *Am J Sports Sci*. 2016;4(1-1):27-30.
DOI: 10.11648/j.ajss.s.2016040101.15
4. Gaurav V, Singh A. Comparison of selected physical fitness variables of school level football and handball players. *Asian J Phys Educ Comput Sci Sports*. 2003;4(1):54-55.
5. Gaurav V, *et al.* Comparison of Physical Fitness Variables between Individual Games and Team Games Athletes. *Indian J Sci Technol*. 2011;5(4):547-549.
6. Harre D. *Training Slehre*. Sports Verlag Berlin; 1979.
7. Kariyawasam A, *et al.* Comparative study on Skill and Health Related Physical Fitness Characteristics between National Basketball and Football Players in Sri Lanka. *BMC Res Notes*. 2019;12:397-401.
8. Mal B. Scoring ability in football. *SNIPES J*; c1982, 22.
9. Mishra KM, *et al.* A Comparative Study of Vo2 Max among the Basketball, Football, Volleyball and Hockey Male Players. *Int J Appl Res*. 2015;1(11):245-247.
10. Nandgopal D, Murugavel K. Comparative study on selected physical fitness parameters between intercollegiate level male football and handball goalkeepers. *Rev Res*. 2018;7(9):1-4.
11. Karpovich PV, Sinning WE. *Physiology of Muscular Activity*. Philadelphia: W.B. Saunders Company; c183.
12. Priya PV, Murugavel K. Analysis of Motor Fitness Variables among Female University Football Players in Varied Topographical Environments. *Int J Res Pub Rev*. 2023;4(10):1074-1076.
13. Saharan S, *et al.* Comparison of selection motor abilities between the handball and basketball players. *Int Adv J Eng Sci Manage*. 2014;1(1):23-27.
14. Secora CA, *et al.* Comparison of physical and performance characteristics of NCAA division I football players: 1987 and 2000. *J Strength Cond Res*. 2004;18:286-291.
15. Singh D, Rajendra KR. A comparative study on selected physical and physiological fitness components of volleyball and football players. *Indian J Appl Res*. 2015;5(1):509-510.
16. Singh J. Comparison of motor fitness components among different game players. *Int J Mov Educ Soc Sci*. 2013;1:51-56.