

A Comparative Study of Physical Fitness between forward and Defender Football Players

Priyanka Singh

Research Scholar, S.O.S in Physical Education, Pt. RaviShankar Shukla University, Raipur, India

Abstract

Objective: The objective of this study to assess and compare the Physical Fitness between Forward and Defender Football Players.

Method: To achieve this purpose of study, 80 Boys Football Players were selected in which 40 Forward and 40 Defender Football players between 15 to 17 years of age were selected from Senior Secondary School, Raipur, through purposive sampling technique. The pull up test used as a measure of upper body strength, sit up test measures the strength and endurance of the abdominals and hip-flexor muscles, Shuttle run test used as a measure of speed and agility, Standing long or broad jump used as a measure the explosive power of the legs, 40 yard dash (36.6 meters) used as a measure the acceleration, speed and also quickness between Forward and Defender Football Players. Independent 't' test used as a statistical technique. The level of significance was set at 0.05.

Results and Conclusions: Analyzed data showed that there was no significant difference found in Physical Fitness variables between Forward and Defender Football Players.

KEYWORDS: Physical Fitness, Football, Forward, Defender

INTRODUCTION

"Success Goes To Those Who Are Most Prepared. Success Goes To the One with Superior Forces At The Point Of Contact" -Sun Tzu, Art of War

Football is the very famous game in the whole world and it's also known as the Soccer. It's played in most countries in the world. Football is a team game, 11 players involved each side during match. Players use their legs, head and torso to pass a ball to his/her teammate or score goals. The nature of this game means that players use sometimes sprinting, fast or slow running, and sometimes they stand on one place during match according to match situation (Soccer, 2015). Physical fitness is most important factor for the player to perform in a game. Players who have knowledge regarding their game practically, they reach at the top of the game or sport but if they have not developed physical fitness components, they will unable to being a complete player. Aerobic endurance fitness is one of the most important physical fitness attributes for Football players. Players need to be able to maintain a high level of intensity throughout the 90 minute game. Another very important fitness component is anaerobic fitness, which means running speed and particularly repeat sprint ability. Players also need good agility, strength, power and flexibility (Fitness for Football, 2015).

MATERIAL AND METHODS

SELECTION OF SUBJECTS

To achieve this purpose of study, 80 Boys Football Players were selected in which 40 Forward and 40 Defender Football players between 15 to 17 years of age were selected from Senior Secondary School, Raipur, through purposive sampling technique. Independent t- Test used as a statistical technique for the data analysis. The level of significance was set at .05.

Table-1: Details of selected variables and tests to measure them.

S. No.	Test Used	Variables	Unit
1.	Pull up test	upper body strength	Nos/min
2.	Sit up test	strength and endurance of the abdominals and hip-flexor muscles	Nos/min
3.	Shuttle run test	agility and speed	Sec.
4.	Standing long or broad jump	explosive power of the legs	Cm
5.	40 yard dash (36.6 meters)	acceleration, speed and also quickness	Sec

Nos- Number, min- minute, Sec- Second & cm- Centimeter.

RESULTS

Table-2 indicates that a mean and standard deviation (SD) values with regard to Forward Players of the Pull ups were 9.3 and 3.16 while in case with Defender Players the same were recorded as 9.45 and 2.97 respectively. There was no significant differences were found between Forward Players and Defender Players as the calculated t-value 0.22 was lower than the tabulated value 1.99 at confidence level. The null hypothesis (Ho) is accepted.

Table-2 indicates that a mean and standard deviation (SD) values with regard to Forward Players of the Sit ups were 28.33 and 6.24 while in case with Defender Players the same were recorded as 29.53 and 5.9 respectively. There was no significant differences were found between Forward Players and Defender Players as the calculated t-value 0.88 was lower than the tabulated value 1.99 at confidence level. The Ho is accepted.

Table-2: Mean, SD and t-value of selected variables of Physical Fitness of Forward and Defender Football Players

Physical Fitness Variables	Mean	SD	Mean	SD	Df	t-value
	Forward players		Defender players			
Pull ups	9.3	3.16	9.45	2.97	78	0.22
Sit ups	28.33	6.24	29.53	5.9		0.88
Shuttle run	10.75	2.49	10.9	2.3		0.21
Standing long jump	207.15	21.83	206.05	20.51		0.23
40 yard dash	7.9	1.00	7.76	0.99		0.56

SD- Standard deviation, Df- Degree of freedom.

Table-2 indicates that a mean and standard deviation (SD) values with regard to Forward Players of the Shuttle run were 10.75 and 2.49 while in case with Defender Players the same were recorded as 10.9 and 2.3 respectively. There was no significant differences were found between Forward Players and Defender Players as the calculated t-value 0.21 was lower than the tabulated value 1.99 at confidence level. The null hypothesis is accepted.

Table-2 indicates that a mean and standard deviation (SD) values with regard to Forward Players of the Standing Long Jump were 207.15 and 21.83 while in case with Defender Players the same were recorded as 206.05 and 20.51 respectively. There was no significant differences were found between Forward Players and Defender Players as the calculated t-value 0.23 was lower than the tabulated value 1.99 at confidence level. The null hypothesis is accepted.

Table-2 indicates that a mean and standard deviation (SD) values with regard to Forward Players of the 40 Yards Dash were 7.9 and 1.00 while in case with Defender Players the same were recorded as 7.76 and 0.99 respectively. There was no significant differences were found between Forward Players and Defender Players as the calculated t-value 0.56 was lower than the tabulated value 1.99 at confidence level. The null hypothesis is accepted.

Figure-1. Comparison of Physical Fitness between Forward and Defender Football Players

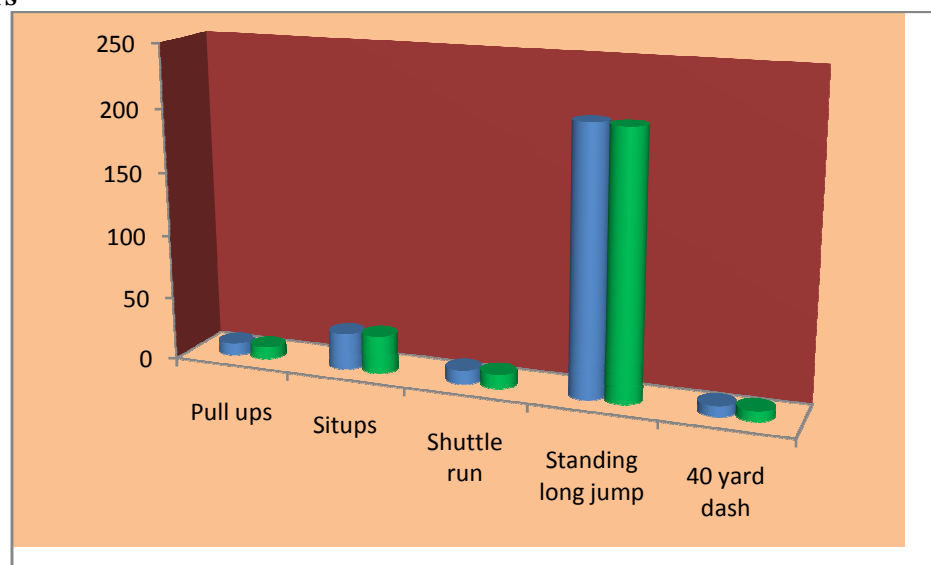


Figure-1 Shows mean value of Physical Fitness variables of Forward and Defender Football Players.

DISCUSSIONS

Rao, J.P (2012) conducted a study on the topic “A Comparative Study Of Speed Among Forward Football Players And Defending Football Players of Hyderabad District In Andhra Pradesh” The aim of the present study is to compare the speed among Forward Foot Ball players and Defending Football players of Hyderabad. 20 male Forward football players and 20 male Defending football players of Hyderabad were taken for the study. The 30 Meters Run test is used to measure the speed among Forward foot ball players and Defending foot ballplayers. This study is limited to male Football Players of

Hyderabad. This study shows that the Forward football players are having good speed compare to Defending foot ball players. **Kumar, A & Tejwant (2011)** a study conducted on the topic “A Study of Reaction Time and Speed in Football Players”. The aim of this study was to determine the relationship between reaction time (auditory & visual) and speed (20 meter sprint time) in male football players. A total of 45 male football players with an average age, height and weight of 21.38 ± 3.15 years, 170.34 ± 5.79 cm and 64.17 ± 6.45 kg, respectively, volunteered to participate in this study. Each subject’s reaction time and speed were measured, and the data analyzed using Pearson’s correlation and paired t tests. There were no meaningful correlations between reaction time and speed in the subjects. However, their auditory reaction times were significantly better than their visual reaction times, and there was a negative correlation between body weight and speed ($p < 0.01$). **Gaurav, V & Singh, A (2011)** a study conducted on the topic “Comparison of selected physical fitness variables of school level football and handball players”. The purpose of the present study was to compare the selected physical fitness variables of school level football and handball players. Total sixty subjects were randomly selected (football players: N=30 and handball players: N=30) from various Schools of Gurdaspur District of Punjab were taken as a sample. Their age ranged between 14-16 years. Physical fitness tests were utilized to measure the selected physical fitness variables of players. For analysis of the data Mean & SD were calculated and to examine the significance difference between the group mean of different physical fitness variables, independent samples ‘t’ test was applied, and level of confidence was set at 0.01 level. Study concluded that significant difference ($p < 0.01$) found between the means of selected physical fitness variables such as speed, Coordinative ability and Endurance (except flexibility) between school level football and handball players. **Srivastava, A & Tripathi, R (2013)** a study conducted on the topic “A comparative study of selected physical & physiological variables of school level footballers and swimmers”. The purpose of this study to compares selected physical & physiological variables of school level footballers and swimmers. Total 50 (20 footballers & 30 Swimmers) subjects from different CBSE schools were selected. Their age ranged between 14-18 years. The selected physical variables (speed, strength, endurance and flexibility) and physiological (pulse rate, vital capacity and peak flow rate). “t” test was applied, level of significance .05. Significant difference found between the mean selected physical (speed, endurance and flexibility) and nosignificant difference found between the mean physical (strength) and physiological (pulse rate, vital capacity and peak flow rate of footballers and swimmers.

CONCLUSIONS

Analyzed data showed that there was no significant difference in Pull ups, Sit ups, Shuttle run, Standing long jump and 40 yards dash between the Forward Players and Defender Players in relation to given Physical Fitness variables. No any significance differences were found in this study, it’s may be the cause of no any special training was given to the players according to their playing position (Forward & Defender). Further studies are needed on the above variables with physiological, biomechanical, and psychological variables for the assessment and finding for relationship between Forward Players and Defender Players with their performance. This study provides information about Forward Players and Defender Players of Football game. This study will be helpful for coaches, physical education teacher, players and trainers.

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