

## Comparative study on selected fitness test among the football referees and footballers

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### Abstract

The purpose of the study is to find out the comparison of fitness test among the football referees and footballers. In this investigation 15 active referees and 15 football players were selected as subjects. They were selected from Coimbatore, Nilgiris Districts and footballers from Sri Ramakrishna Institute of Technology. The age of the subjects ranged from 18 to 20 years. The following tests were performed to measure the physical fitness variables: 12min Run test was used to measure the endurance, 50 meters run test was used to measure the speed, 4x10 meters shuttle run test was used to measure the agility. A 0.05 level of significance was used to indicate statistical significance. The result of the study indicates that, there is a significant difference in the Endurance and Agility between the referees and footballers. The speed level is better to the footballers compare with the referees.

**Keywords:** endurance, speed, agility, football referees

### Introduction

The 'association football' which is more commonly known as only 'football' which is also known as 'Soccer' is one of the most popular games in the world. If we see the etymology of the word football, it is widely assumed that the word "football" (or "foot ball") references the action of the foot kicking a ball. There is an alternative explanation, which is that football originally referred to a variety of games in medieval Europe, which were played on foot. There are a number of references to traditional, ancient, or prehistoric ball games, played by indigenous peoples in many different parts of the world. The Ancient Greeks and Romans are known to have played many ball games, some of which involved the use of the feet. Various forms of "football" can be identified in history, often as popular peasant games.

### Pre-Independent

Football was introduced to India by British soldiers in the mid-nineteenth century. As per the records and data available, the first ever game on Indian soil was played between 'Calcutta Club of Civilians' and the 'Gentlemen of Barrack pore' in 1854. The first official football club of India, 'Calcutta Football Club', was established in 1872. Many of us might be unaware of the fact that Asia's oldest football tournament, which is also the world's third oldest football competition, has its roots in India. Branded as the "Durand Cup", named after the then Foreign Secretary of India, Sir Mortimer Durand.

### Post-Independent

The 1948 London Olympics was India's first major international tournament, where a predominately bare footed Indian team lost 2-1 to France in the opening match, failing to convert two penalties. Sarangapani Raman scored the only

goal for India in that match and thus the first Indian international goal ever in the Olympics. India qualified by default for the 1950 FIFA World Cup finals as a result of the withdrawal of all of their scheduled opponents. But the governing body AIFF decided against going to the World Cup, being unable to understand the importance of the event at that time. Reason shown by AIFF was that there was the cost of travel, although FIFA agreed to bear a major part of the travel expenses, lack of practice time, team selection issues and valuing Olympics over FIFA World cup.

The period from 1948 to 1962 is considered the golden era in Indian football. India became the best team in Asia. The Indian footballers brought glory to the country by winning the Gold medal in the 1951 Asian Games held in New Delhi. In 1952, India continued their form by winning the Colombo Quadrangular Cup held in Sri Lanka. Later that year they went on to participate in the 1952 Olympics. Then in 1956, India became the first Asian nation to register a semi-final appearance in Melbourne Olympic Games. India further established itself as the most dominating force to reckon with in the Asian sector with another Gold medal in the 1962 Asian Games held in Jakarta.

### Referee

Refereeing a high profile soccer game requires a unique blend of sports specific knowledge, physical abilities and mental skills. The referees play a crucial role in modern football and the importance of their decision during match-play can be critical for the final score of the match. They play a vital role for a success of a match. The referee has responsibility for control of players' behavior during competitive football and implementing the rules of the game. The referee and two assistant referees are accommodated to keep up with play. In professional matches the game is controlled by four officials,

the referee, two assistant referees and the fourth official. The referees are required to keep up with play at all times so as to ensure optimal positioning when viewing incidents.

The assumption that a Referee's training should be focused purely on aerobic conditioning is incorrect. Although referees do not require explosive power, they do require strength, agility and speed endurance to successfully meet the demands of their role.

Referees have to be in the right place at the right time, observe play closely, interpret the rules and make critical decisions. The spotting of rule violations may be considered critical for injury prevention [1-3].

Asagba (2004) [4] established that officiating officials in soccer have some moments of robust runs and sudden stoppages, intermingled with uneven walks and shuttles in different directions. Abass (2005) [5] supported that; aerobic ability cannot see a soccer referee through successfully in ball games because of these frequent changes of space and need for sudden sprints. Sumiya, Tashima, Nakahara, and Shohoji (2001) [6] submitted that attempt for referees to carry out their functions demands for maturity in terms of age, a biological parameter. They added that age poses strenuous task on the cardiorespiratory functioning of any individual and mostly referees and that soccer referees must be reaching and maintaining a high level of fitness. In this direction, therefore, referees must maintain a constant training programmed from time to time as they mature with officiating age.

**Footballers**

Wisloff, Helgerud and Hoff (1998) [7] the players are required to perform activities like jogging, running (forward, backward and sideways), kicking, turning, heading and throwing. Fitness is very important to everyone on the field. Football is one of those rare games which demands not only speed but also agility, strength, power and endurance. Players in football need not only physical fitness but also technical and tactical skills to succeed in their performances. Fitness is important at all levels of the game, while it is being essential for top level players, it is beneficial for beginners who will improve their performances through good standards of fitness Harre [8], for a high level of efficiency in techniques and tactics in most sports, a high level of physical fitness is most important. So for making selection in sports physical fitness is the most important factor and can't be neglected, Suresh and Parkash, made an investigation to compare physical fitness variables and found that Mysore district boys were superior to physical fitness variables compared to other district boys.

**Statement of the Problem**

The study under the investigation was intended to find out the comparative study on selected fitness test among the Football Referees and Footballers.

**Methodology**

**Selection of Subjects**

For this study, 15 active referees and 15 football players were selected as subjects. They were selected from Coimbatore, Nilgiris Districts and footballers from Sri Ramakrishna Institute of Technology.

**Selection of Variables**

The following tests were performed to measure the physical fitness variables:

- Endurance
- Speed
- Agility

**Criterion Measures**

- 12min Run test was used to measure the endurance
- 50 meters run test was used to measure the speed
- 4 x 10 meters shuttle run test was used to measure the agility

**Design**

For this study, 15 active referees from Coimbatore, Nilgiris Districts and 15 football players from Sri Ramakrishna Institute of Technology. The age of the subjects ranged from 18 to 20 years. The subjects were tested for Endurance, Speed and Agility.

**Statistical Technique**

The following statistical techniques were followed in this study only two groups belongs to the different atmosphere or attitudes are involved in this study. To find out the difference the two groups the “t” test is adopted.

**Table 1:** Analysis of selected fitness variables of Referees and footballers

S. No	Referees			Footballers		
	12min Run	50m Dash	4 x 10m Shuttle run	12min Run	50m Dash	4 x 10m Shuttle run
01	2680	6.5	9.4	2670	6.8	10.0
02	2540	6.9	9.4	2270	6.9	10.1
03	2700	6.4	10.1	2650	6.6	9.6
04	2720	6.6	9.9	2500	6.6	9.8
05	2520	6.5	9.6	2600	6.5	9.5
06	2500	6.5	9.6	2600	6.9	10.1
07	2750	6.7	9.8	2450	6.8	10.0
08	2770	7.0	10.4	2550	6.7	9.9
09	2750	7.0	10.1	2550	6.9	10.1
10	2600	6.4	9.3	2380	6.6	9.6
11	2400	6.6	9.8	2050	6.6	9.8
12	2450	6.9	9.6	2150	7.0	10.4
13	2720	6.0	8.9	2060	6.8	10.0
14	2750	6.7	9.0	2450	6.6	9.8
15	2700	7.0	9.0	2400	7.0	10.4

Graphical representation shows that the mean value for Referees and footballers on 12min Run, 50 meters dash and 4 x 10 meters shuttle run.

**Results on Endurance**

**Table 2:** (12 Min Run) Computation for “t” ratio for Endurance (12min run) between the Referees and Footballers

	Mean	SD	“T” ratio
Referees	2636.667	119.42.	3.49
Footballers	2422	204.59	

\* Significant at 0.05 level of confidence. Table “t” ratio

The table value at 0.05 level of confidence is 2.48 and obtained t value is 3.49. So, it is significance. The above table reveals that the referees have better endurance than the footballers. This may be due to maintain the regular fitness (endurance). In order to show their fitness to the concern authority.

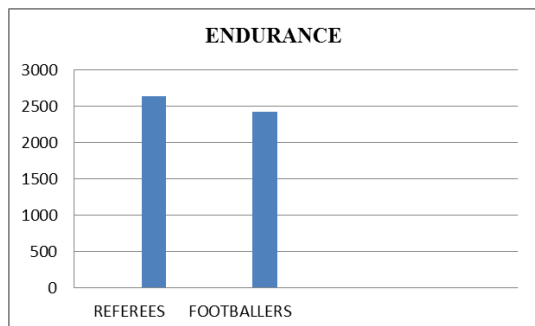


Fig 1

**Results on Speed**

**Table 3:** (50 Mts dash) Computation for “t” ratio for Speed (50 mts dash) between the Referees and Footballers.

	Mean	SD	“T” ratio
Referees	6.646	0.28	1.28
Footballers	6.753	0.16	

\* Significant at 0.05 level of confidence. Table “t” ratio

The table value at 0.05 level of confidence is 2.48 and obtained t value is 1.28. So there is no significance. The above table reveals that there is no difference between referees and footballers. So, the speed level of referees and footballers is equal.

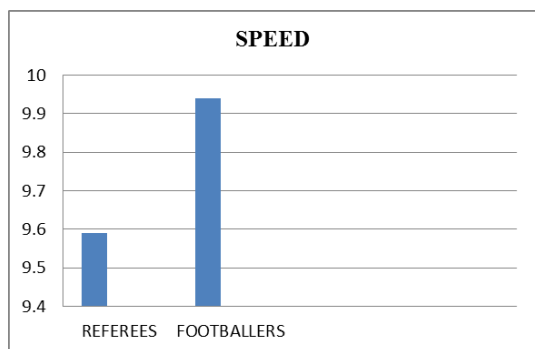


Fig 2

**Results on Agility**

**Table 4:** (4 X 10 Shuttle Run) Computation for “t” ratio for Agility (4 x 10 shuttle run) between the Referees and Footballers.

	Mean	SD	“T” ratio
Referees	9.59	0.42	2.75
Footballers	9.94	0.257	

\* Significant at 0.05 level of confidence. Table “t” ratio

The table value at 0.05 level of confidence is 2.48 and obtained t value is 2.75. So it is significance. The table reveals that the referees have better agility than the footballers.

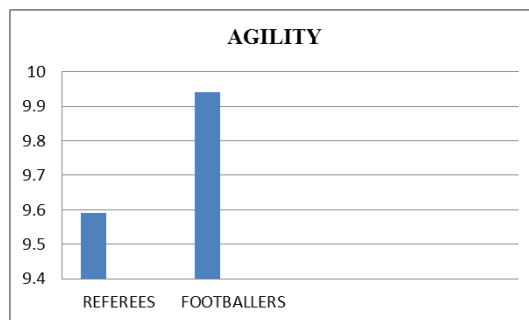


Fig 3

**Conclusion**

The result of the study indicates that, there is a significant difference in the Endurance and Agility between the referees and footballers. The speed level is better to the footballers compare with the referees. This study plays a substantial role to determine the fitness level of Endurance, Speed and Agility. Through the game is very strenuous and played for longer duration in larger area than the other game players.

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