



A COMPARATIVE STUDY ON SELECTED PHYSICAL FITNESS COMPONENTS BETWEEN STATE AND NATIONAL LEVEL FOOTBALL REFEREES

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ABSTRACT

The purpose of the study was to compare the selected physical fitness components between state and national level football referees. In this investigation fifteen (n=15) active male state level football referees and fifteen (n=15) national level football referees were selected as subjects from Calcutta Referees Association (CRA) of West Bengal, India. The age of the subjects ranged between 24 to 30 years. For the criteria of the present study two physical fitness variables were studied i.e. speed and endurance. Speed was measured by 40 meter run, where as endurance was measured by interval run test. The obtained data was analyzed by descriptive statistics viz. mean, standard deviation, standard error of mean and further independent 't' test was also used for generalizing the statistical significant difference between state and national level football referees. The result shows that, there was significant difference found in endurance, while insignificant different found in speed between state level and national level football referees.

KEYWORDS : Physical fitness; Speed; Endurance; Football referees.

1. INTRODUCTION

Refereeing a football or soccer game requires a unique jumble of sports specific knowledge, physical abilities and psychological skills which enhances the higher level performance. During the football match referees play a crucial role in modern emerging football. The referees have the responsibility to control of players' and team officials behavior during competitive football and implementing the rules of the game. In this game one referee, two assistant referees, and another fourth referee are accommodated to keep up with play. Any professional matches the game is controlled by these four officials. The referees are required to keep up with play at every time, so as to ensure optimal positioning when viewing incidents. During the game referees have to be in the right place at the right time, observe play closely, interpret the rules and make a decisions quickly.

Fitness is having a powerful mind, body and spirit to allow a person to maximize his potential. Fitness generally influenced by motivation, physical abilities that achieve to the goals. Physical fitness is the ability to carry out tasks without undue fatigue. Physical fitness components are very much important not only living healthy life but also for the efficiency in higher level sports performance. Hare (1979) stated in his research that 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 that can't be neglected. In West Bengal, India football is very much popular since pre independence period. Now a day's various football tournaments has occupied, like ISL, I-League, Durand Cup, Santosh Trophy, Calcutta Super League that organized throughout the year. Therefore present researchers try to investigate the physical fitness levels between state and national football referees.

2. OBJECTIVES

The main purpose of the study was to compare the selected physical fitness components between state and national level football referees.

3. METHODS AND MATERIALS

In this investigation total thirty football referees were selected out of which fifteen (n=15) active male state level referees and fifteen (n=15) national level referees were selected randomly from Calcutta Referees Association (CRA) of West Bengal, India. The age of the subjects ranged between 24 to 30 years. For the criteria of the present study two physical fitness

variables were studied i.e. speed and endurance. Speed was measured by 40 meter run and recorded in second, where as endurance was measured by interval run test that recorded in total distance.

3.1 STATISTICAL ANALYSIS

The obtained data was analyzed by descriptive statistics viz. mean, standard deviation, standard error of mean and further independent 't' test was also used for generalizing the statistical significant difference between state and national level football referees.

4. RESULTS

Obtained results show that no significant difference found in speed (p=0.113) between state level and national level football referees. It is also found that the speed of state level referees (5.49±0.08) was slightly higher than the national level referees (5.54±0.11). Another component of fitness was endurance, which found statistical significance difference (p=0.045) found between state level and national level football referees. Details of the result are given to Table-1 and Figure-1.

Table-1: Comparison of physical fitness between state level and national level referee

	Group	N	Mean	SD	SEM	df	t-value	p-value
Speed	State referee	15	5.49	0.08	0.02	28	1.64	0.113
	National referee	15	5.54	0.11	0.03			
Endurance	State referee	15	4.48	0.36	0.093	28	2.10	0.045*
	National referee	15	4.71	0.21	0.055			

p-value < 0.05 is considered to be significant

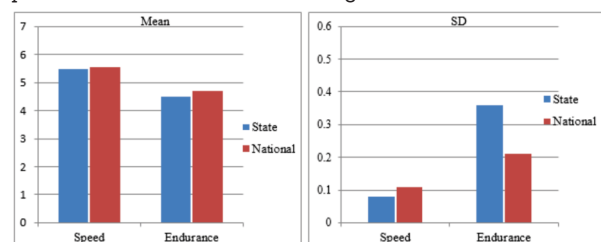


Figure-1: Comparison of mean and SD of physical fitness between state and national level referee

5. DISCUSSION

The obtained result indicates statistically no significant differences were found in speed between state level and national level football referees. Generally, speed is a motor component that regulated by the motor cortex of the brain. According to FIFA rules each category of referee has recommended the same fitness test criteria. Since, the basic qualification of referees is to pass that fitness test whether it is state level or national level, so they set their usual goal to meet that fitness test demands. This is why there is no scope of full exertion of efforts in the case of speed. Whereas, endurance result shows statistically significant differences between state level and national level referees. State level referees are involved with a low and moderate level match and the match temperature is comparatively moderate level. But national level match is a high profile and high temperature match where more crowds and the expectation require is more. In this situation, the national level referees are conscious about their fitness as an indicator marked of speed endurance. Another cause may be the national level referees trained with a more advance scientific training protocol due to their higher requirements, which may enhance the physical fitness level as well as endurance. National level referees are more experienced than the state level referees because their year of experience is advance and they already overcome the state level standards. National level referees have to perform with proper guidance according to high profile standards which may helps to significant to time management in different situation during the field. Whereas, state level referees are goes to a certain limited areas of matches and their requirements is comparatively less than the national level referees. This can be explained by the fact that national level referees have to undergo with many MA courses (Match Assessment Course) and fitness programme courses to develop and maintain their fitness level. Another reason is highly active role of referee assessors in national level matches where national level referees do basically conduct matches. This may be the reason of high level of endurance capacity of national level referees.

6. CONCLUSIONS

It is concluded that there is no significant differences found in speed, and significant differences found in respect of endurance between state level and national level football referees.

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