

**A COMPARATIVE STUDY OF FOOTBALL PLAYERS AT DIFFERENT LEVELS OF PERFORMANCE IN RELATION
TO THEIR PHYSICAL FITNESS COMPONENTS.**

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ABSTRACT : The study was conducted to find out the comparison in Physical Fitness Components between performances at different levels of Football players. The sample consisted of 300 Football players were selected as subjects. To assess the Physical Fitness variables of Football players AAPHER Physical Fitness test was used. Data was analyzed through F-test and it was found that higher level of players were better in their performance.

Keyword: Fitness, Football, Player

INTRODUCTION

Physical fitness is the motor abilities of men namely strength, speed, endurance, flexibility and coordinative abilities. These motor abilities and their complex form (e.g. strength, endurance, explosive strength etc.) are the basic pre-requisites for human action. Each sport requires a different type and level of physical condition and as a result a different type of training or condition is required for different sports (Singh H. 1991).

Physical fitness is an important component of total fitness. The term 'Physical fitness' means efficient performance in exercise or work and a reasonable measure of skill in the performance of selected physical activities.

Andrew (1976) conducted the study to compare the performance level and physical fitness of Canadian High School basketball player as indicated by the performance on the AAPHER Physical Fitness Test Battery. The study revealed that the players who are physically better fit have significantly higher level of performance than those with low fitness level.

STATEMENT OF THE STUDY

“A Study of Football Players at Different Levels of Performance In Relation to their Physical Fitness Components.”

OBJECTIVES OF THE STUDY

To compare the independent and interactive effects of Physical Fitness Components of football players playing at different levels of performance.

HYPOTHESES OF THE STUDY

Keeping in view the objectives of the study the following hypotheses have been formulated:-

- There may exist significant difference between Physical Fitness Components of football players playing at different levels of performance.

METHODOLOGY

The subjects of the present study consisted of 300 male football players in the age group of 18-25 years from Haryana, Punjab and Chandigarh, who have participated in inter-college, inter-university and national level tournaments in football. To select the subject, the random sampling technique was used.

To collect the data for physical fitness, the AAPHER Physical Fitness test batteries were used:

1. **Speed :** 50 Yard Run
2. **Strength:** Sit ups
3. **Agility & Flexibility:** Shuttle Run
4. **Power & Balance:** Pull ups
5. **Muscular Strength:** Standing Broad Jump
6. **Endurance:** 600 yard Run

Statistical Design:-

In order to achieve the objective of the present study, the investigator has applied ANOVA to made comparison among different level of performance in Football players.

Table No. 1
Mean Scores and SD of Football Players of the Physical Fitness components at different levels i.e. inter-college, intervarsity and national level

	Variables	Inter-college		Inter-varsity		National	
		Mean	SD	Mean	SD	Mean	SD
1.	50 Yards dash	7.2238	.22186	6.7584	.23946	6.0230	.26277
2.	Sit ups	34.01	4.197	34.78	4.153	35.19	4.067
3.	Shuttle run	12.5363	.46447	12.1107	.44285	11.2280	.45465
4.	Standing Broad jump	25.72	3.063	26.58	3.072	26.70	3.177
5.	Pull ups	10.98	1.429	11.14	1.589	11.49	1.425
6.	600 Yard run	97.246	10.5750	95.758	11.1146	93.706	8.5235

Mean values of physical fitness component test for all three different groups of football players have been presented in Table 1 for the purpose of analysis and understanding. The significance of difference in the mean value on all the physical fitness components of football players have been presented below.

To know the significant difference and to examine the data, the one way analyses of variance for each variable separately have been computed. The procedure of the computing as given by Clark and Clark (1972) were used in analyzing the data. The f-ratio obtained by one way analysis of various was tested for significance at the .05 level of confidence. In one way, analysis was tabulated F- .05 df. 2/297 for significant difference between groups equal to 3.03.

FINDINGS

Finding pertaining to each of the physical fitness components of groups, which were subjected to the analysis of variance and mean difference method have been given below:

Table No. 2
Analysis of Variance of the Mean difference in Physical Fitness Components (50 Yard Dash)

Source of Variation	Sum of squares	Df	Mean square	F
Between groups	73.311	2	36.656	626.197
Within groups	17.385	297	.059	

Significant at .05 level

Table reveals that there exists significant difference in physical fitness components (50 Yard Dash) among the three groups of football players. The f-ratio obtained were much higher value than the value of 3.03 required of F-ratio to be significant at .05 level with 2/297 degree of freedom.

Table No. 3
Analysis of Variance of the Mean Differences in Sit Up (Physical fitness Test Variables) among the Three Groups of Football players

Source of variation	Sum of square	Df	Mean square	F
Between groups	71.780	2	35.890	2.095
Within groups	5088.740	297	17.134	

Not significant at .05 level

Table 3 of this Section indicates the results of analysis of variance of mean difference in Sit ups. The F-ratio obtained 2.095 were below the value than the value required of F-ratio which is not significant at .05 level with (2/297) degree of freedom.

Table No. 4
Analysis of Variance of the Mean Difference in Shuttle Run

Source of variation	Sum of square	Df	Mean square	F
Between groups	89.065	2	44.532	216.174
Within groups	61.237	297	.206	

Significant at .05 level of confidence

Table 4.2.6 indicates that there is significant differences in Shuttle Run as obtained F-ratio of Shuttle run 216.174 which was higher value than the value 3.03 required of F ratio to significant at .05 level with (2/297) degree of freedom.

Table No. 5
Analysis of Variance of the Mean Difference in Standing Broad Jump

Source of variation	Sum of square	Df	Mean square	F
Between groups	57.638	2	28.819	3.991*
Within groups	2861.974	297	9.636	

Significant at .05 level

Table 4 shows the significant differences in standing Broad Jump among the three groups of footballer. The F-ratio as obtained 3.991 is higher than the tabulated value 3.03 required to F-ratio to be significant at .05 level with 2/297 degree of freedom.

Table No. 6
Analysis of Variance of the Mean Differences in Pull Ups Among the Three Groups of Footballers

Source of variation	Sum of square	Df	Mean square	F
Between groups	13.722	2	6.861	3.120*
Within groups	653.197	297	2.199	

Significant at .05 level

From table 4.2.10, it is observed that there were significant differences of pull ups between the groups of footballers. The F-ratio obtained 3.120 is much higher than the tabulated value 3.03 required of F-ratio to be significant at .05 level with 2/297 degree of freedom.

Table No. 7
Analysis of Variance of Mean Differences in 600 Yard Run/Walk (Physical Fitness Test) among the three Groups of Football Players

Source of variation	Sum of square	Df	Mean square	F
Between groups	631.882	2	315.941	3.077*
Within Groups	30493.468	297	102.672	

Significant at .05 level of confidence

Table 6 depict that there were significant differences in 600 yard run/walk test of physical fitness variables, as obtained F-ratio of 600 yard run walk is 3.077, which is a higher value than the value 3.03 required for F-ratio to be significant at .05 level with (2/297) degree of freedom.

DISCUSSION OF FINDINGS

From the analysis of data, it is evident that football players at national level perform better in physical fitness test than their counterparts at intervarsity and inter-college level. The significant differences were found between 50 Yard dash, shuttle run, standing broad jump, pull ups and 600 Yard run/ walk test. The insignificant differences between the three groups were found in sit ups among all the three groups. The results indicate that national level players have performed better than the inter-

college and inter-university level football players. Physical fitness is one of the important ingredients for performance at higher level in any kind of sports.

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