



## PHYSICAL FITNESS DIFFERENTIALS AMONG UNIVERSITY MEN BASKETBALL VOLLEYBALL AND HANDBALL PLAYERS

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### **ABSTRACT**

*The purpose of this study was to compare the selected physical fitness components among university men basketball, volleyball and handball players. To achieve this purpose of the study, twenty basketball players, twenty volleyball players and twenty handball players who represented Annamalai University were selected as subjects. The age of subjects were ranged between 18 to 24 years. The following variables namely speed and agility were selected as criterion variables. The data were collected for all subjects on selected physical fitness components such as speed and agility by using 50 mts run and shuttle run. The one way analysis of variance was used to find out the significant difference among university men basketball, volleyball and handball players. The Scheffe's test was used as a post hoc test to find out the paired mean differences, if any. In all cases, .05 level of confidence was fixed to test the significance, which was considered as an appropriate. The results of the study showed that there was a significant difference among university men basketball, volleyball and handball players on selected criterion variables namely speed and agility.*

### **INTRODUCTION**

Today life mostly depends upon science and technology. In such circumstances people need more exercise to keep the body and mind fit to execute the activity efficiently. A sport is in Man's blood. Sports is recreation as well as competition. Basically, sports are meant to revitalize in nature and provide opportunities to the individual to make the fullest and the most intelligent use of time. According to Clarke, "Physical fitness may be defined as the ability to carry out daily tasks with vigour and alertness, without under fatigue and to meet emergencies." To achieve this purpose of the study, twenty basketball players, twenty volleyball players and twenty handball players who represented Annamalai University were selected as subjects. The age of subjects were ranged between 18 to 24 years. The following variables namely speed and agility were selected as criterion variables. The data were collected for all subjects on selected physical fitness components such as speed and agility by using 50 mts run and shuttle run respectively. The one way analysis of variance was used to find out the significant difference among university men basketball, volleyball and handball players. The Scheffe's test was used as a post hoc test to find out the paired mean differences, if any. In all cases, .05 level of confidence was fixed to test the significance, which was considered as an appropriate. The results of the study showed that there was a significant difference among university men basketball, volleyball and handball players on selected criterion variables namely speed and agility.

### **METHODOLOGY**

The purpose of the study was to compare the selected physical fitness components among university men basketball, volleyball and handball players. To achieve this purpose of the study, twenty basketball players, twenty volleyball players and twenty handball players who represented Annamalai University were selected as subjects. The age of subjects were ranged between 18 to 24 years. The following variables namely speed and agility were selected as criterion variables. The data were collected for all subjects on selected physical fitness components such as speed and agility by using 50 mts run and shuttle run respectively. The one way analysis of variance was used to find out the significant difference among university men basketball, volleyball and handball players. The Scheffe's test was used as a post hoc test to find out the paired mean differences, if any. In all cases, .05 level of confidence was fixed to test the significance, which was considered as an appropriate. The results of the study showed that there was a significant difference among university men basketball, volleyball and handball players on selected criterion variables namely speed and agility.

**ANALYSIS OF THE DATA****Speed**

The mean, standard deviation and 'F' ratio values on speed among university volleyball, basketball and handball players have been presented in Table I.

**TABLE I**  
**THE MEAN, STANDARD DEVIATION AND 'F' RATIO VALUES ON SPEED**  
**AMONG UNIVERSITY VOLLEYBALL, BASKETBALL**  
**AND HANDBALL PLAYERS**

Groups	Mean	Standard Deviation	Obtained 'F' Ratio
Volleyball players	8.11	0.88	3.74*
Basketball players	7.10	0.94	
Handball players	7.31	0.92	

\* Significant at .05 level of confidence.

(The table value required for significance showed that there was a significant difference on speed among university with df 2 and 57 was 3.138)

Table I shows that the mean volleyball, basketball and handball players. values of university volleyball, basketball Since, three groups were and handball players were 8.11, 7.10 and compared, whenever the obtained 'F' ratio 7.31 respectively on speed. The obtained for adjusted post test was found to be 'F' ratio 3.74 was greater than the table significant, the Scheffe's test to find out the value 3.138 required for significance with paired mean differences and it was presented in df 2 and 57. The results of the study Table II.

**TABLE II**  
**THE SCHEFFE'S TEST FOR THE DIFFERENCES**  
**BETWEEN PAIRED MEANS ON SPEED**

Volleyball players	Basketball players	Handball players	Mean Differences	Confidence Interval Value
8.11	7.10	-	1.01*	0.40
8.11	-	7.31	0.80*	0.40
-	7.10	7.31	0.21	0.40

\* Significant at .05 level of confidence.

The table II shows that the less than the confidence interval value mean difference values between university 0.40.

volleyball players and basketball players and volleyball players and handball players on speed 0.01 and 0.80 which were greater than the confidence interval value 0.40. And also the mean difference value between university basketball players and handball players on speed 0.21 which was The results of the study showed that there was a significant difference between university volleyball players and basketball players and volleyball players and handball players on speed. There was no significant difference between university basketball players and handball players on speed.

### Agility

The mean, standard deviation and 'F' ratio values on agility among university volleyball, basketball and handball players have been presented in Table III.

**TABLE III**  
**THE MEAN, STANDARD DEVIATION AND 'F' RATIO VALUES**  
**ON AGILITY AMONG UNIVERSITY VOLLEYBALL,**  
**BASKETBALL AND HANDBALL PLAYERS**

Groups	Mean	Standard Deviation	Obtained 'F' Ratio
Volleyball players	7.69	0.84	3.81*
Basketball players	6.82	0.92	
Handball players	7.21	0.90	

\* Significant at .05 level of confidence.

(The table value required for significance showed that there was a significant difference on agility among university with df 2 and 57 was 3.138)

Table III shows that the mean volleyball, basketball and handball players. values of university volleyball, basketball and handball players were 7.69, 6.82 and 7.21 respectively on agility. Since, three groups were compared, whenever the obtained 'F' ratio was found to be 'F' ratio 3.81 was greater than the table significant, the Scheffe's test to find out the value 3.138 required for significance with paired mean differences and it was presented in df 2 and 57. The results of the study Table IV.

**TABLE IV**  
**THE SCHEFFE'S TEST FOR THE DIFFERENCES**  
**BETWEEN PAIRED MEANS ON AGILITY**

Volleyball players	Basketball players	Handball players	Mean Differences	Confidence Interval Value
7.69	6.82	-	0.87*	0.41
7.69	-	7.21	0.48*	0.41
-	6.82	7.21	0.39	0.41

\* Significant at .05 level of confidence.

The table IV shows that the mean difference values between university volleyball players and difference between university volleyball basketball players and volleyball players and basketball players and and handball players on agility 0.87 and volleyball players and handball players on 0.48 which were greater than the agility. There was no significant difference confidence interval value 0.41. And also between university basketball players and the mean difference value between handball players on agility. university basketball players and handball players on agility 0.39 which was less than the confidence interval value 0.41.

The results of the study showed that there was a significant

### CONCLUSIONS

1. There was a significant difference on speed among university volleyball, basketball and handball players.

2. There was a significant difference on agility among university volleyball, basketball and handball players.

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