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COMPARISON OF SELECTED PHYSICAL FITNESS QUALITIES AMONG COLLEGE MEN VOLLEYBALL BASKETBALL AND HANDBALL PLAYERS

Dr. M. S. Muthuramalingam
Associate Professor and Head, AVVM Sri Pushpam College, Poondi, Thanjavur, Tamilnadu

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Abstract:

The purpose of this study was to compare the selected physical fitness qualities among college men volleyball, basketball and handball players. To achieve this purpose of the study, twenty men volleyball players, twenty basketball players and twenty handball players from AVVM Sri Pushpam College, Poondi, Thanjavur, Tamil Nadu, India were selected as subjects. The data were collected for all subjects on selected physical fitness qualities such as speed, agility and cardio respiratory endurance by using 50 mts run, shuttle run and cooper's 12 min run / walk test respectively. The one way analysis of variance [ANOVA] was used to find out the significant difference among college men volleyball, basketball 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

Introduction:

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Speed:

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

Table 1: The Mean, Standard Deviation and 'F' Ratio Values on Speed among College Men Volleyball, Basketball and Handball Players

Groups	Mean	Standard Deviation	Obtained 'F' Ratio
Volleyball Players	8.12	0.88	3.86*
Basketball Players	7.19	0.94	
Handball Players	7.41	0.92	

***** Significant at .05 level of confidence.
(The table value required for significance with df 2 and 57 was 3.138)

Table 1 shows that the mean values of college men volleyball, basketball and handball players were 8.12, 7.19 and 7.41 respectively on speed. The obtained 'F' ratio 3.86 was greater than the table value 3.138 required for significance with df 2 and 57. The results of the study showed that there was a significant difference on speed among college men volleyball, basketball and handball players. Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test to find out the paired mean differences and it was presented in table 2.

Table 2: The Scheffe's Test for the Differences between Paired Means on Speed

Volleyball Players	Basketball Players	Handball Players	Mean Differences	Confidence Interval Value
8.12	7.19	-	0.93*	0.41
8.12	-	7.41	0.71*	0.41
-	7.19	7.41	0.22	0.41

* Significant at .05 level of confidence.

The table 2 shows that the mean difference values between college volleyball players and basketball players and volleyball players and handball players on speed 0.93 and 0.71 which were greater than the confidence interval value 0.41. And also the mean difference value between college men basketball players and handball players on speed 0.22 which was less than the confidence interval value 0.41. The results of

the study showed that there was a significant difference between college men volleyball players and basketball players and volleyball players and handball players on speed. There was no significant difference between college men basketball players and handball players on speed.

Agility:

The mean, standard deviation and 'F' ratio values on agility among college men volleyball, basketball and handball players have been presented in table 3.

Table 3: The Mean, Standard Deviation and 'F' Ratio Values on Agility among College Men Volleyball, Basketball and Handball Players

Groups	Mean	Standard Deviation	Obtained 'F' Ratio
Volleyball Players	7.71	0.84	3.92*
Basketball Players	6.92	0.92	
Handball Players	7.15	0.9	

***** Significant at .05 level of confidence.
(The table value required for significance with df 2 and 57 was 3.138)

Table 3 shows that the mean values of college men volleyball, basketball and handball players were 7.71, 6.92 and 7.15 respectively on agility. The obtained 'F' ratio 3.92 was greater than the table value 3.138 required for significance with df 2 and 57. The results of the study showed that there was a significant difference on agility among college men volleyball, basketball and handball players. Since, three groups were compared, whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test to find out the paired mean differences and it was presented in table 4.

Table 4: The Scheffe's Test for the Differences between Paired Means on Agility

Volleyball Players	Basketball Players	Handball Players	Mean Differences	Confidence Interval Value
7.71	6.92	-	0.79*	0.39
7.71	-	7.15	0.56*	0.39
-	6.92	7.15	0.23	0.39

* Significant at .05 level of confidence.

The table 4 shows that the mean difference values between college men volleyball players and basketball players and volleyball players and handball players on agility 0.79 and 0.56 which were greater than the confidence interval value 0.39. And also the mean difference value between college men basketball players and handball players on agility 0.23 which was less than the confidence interval value 0.39. The results of the study showed that there was a significant difference between college men volleyball players and basketball players and volleyball players and handball players on agility. There was no significant difference between college men basketball players and handball players on agility.

Cardio Respiratory Endurance:

The mean, standard deviation and 'F' ratio values on cardio respiratory endurance among college men volleyball, basketball and handball players have been presented in Table V.

Table 5: The Mean, Standard Deviation and 'F' Ratio Values on Cardio Respiratory Endurance among College Men Volleyball, Basketball and Handball Players

Groups	Mean	Standard Deviation	Obtained 'F' Ratio
Volleyball Players	1432	0.99	4.81*
Basketball Players	1610	0.81	
Handball Players	1598	0.90	

***** Significant at .05 level of confidence.
(The table value required for significance with df 2 and 57 was 3.138)

Table 5 shows that the mean values of college men volleyball, basketball and handball players were 1432, 1610 and 1598 on cardio respiratory endurance. The obtained 'F' ratio 4.81 was greater than the table value 3.138 required for significance with df 2 and 57. The results of the study showed that there was a significant difference on cardio respiratory endurance among college men volleyball, basketball and handball players. Since, three groups were compared, whenever they obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test to find out the paired mean differences and it was presented in table 6.

Table 6: The Scheffe's Test for the Differences between Paired Means on Cardio Respiratory Endurance

Volleyball Players	Basketball Players	Handball Players	Mean Differences	Confidence Interval Value
1432	1610	-	178.0*	14.11
1432	-	1598	166.0*	14.11
-	1610	1598	12.0	14.11

* Significant at .05 level of confidence.

The table 6 shows that the mean difference values between college men volleyball players and basketball players and volleyball players and handball players on cardio respiratory endurance 178.0 and 166.0 which were greater than the confidence interval value 14.11. And also the mean difference value between college men basketball players and handball players on cardio respiratory endurance 12.0 which

was less than the confidence interval value 14.11. The results of the study showed that there was a significant difference between college men volleyball players and basketball players and volleyball players and handball players on cardio respiratory endurance. There was no significant difference between college men basketball players and handball players on cardio respiratory endurance.

Conclusion:

- There was a significant difference among college men volleyball, basketball and handball players on speed.
- There was a significant difference among college men volleyball, basketball and handball players on agility.
- There was a significant difference among college men volleyball, basketball and handball players on cardio respiratory endurance.

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