

Comparative Study of Motor Fitness Components between Volleyball and Basket Ball Players

^aYounus Mohammad, ^bSarfraz Ahmad

^aPh d Research Scholar RTM Nagpur University, Nagpur, MS, India Research

^bScholar Annamalai University, TN, India

Abstract

The purpose of the study was carried out a view to compare the selected motor fitness components like speed, agility and flexibility between the volleyball and basketball players. For the purpose of the study, 20 volleyball and 20 basketball players were randomly selected from those who were taking part in the selection trails of intercollegiate for the session 2015-16 and their age was ranged between 18 to 25 years. For the collection of data the researcher administered test on Speed with the help of 50 yard dash, Agility with help of Shuttle run and Flexibility with the help of modified sit and reach test to obtain the require data. Both the group were tested and tabulation, then compare the performance score with the help of 't' ratio. The result showed that the mean value of volleyball and basketball players in 50 yard dash, shuttle run, and flexibility are (7.02,7.07), (10.06,9.91) and (6.95,6.05) respectively. Standard deviation value of volleyball and basketball players in 50 yard dash, shuttle run and flexibility are (0.50,0.42), (0.41,0.45) and (2.10,2.49) respectively. Value of 't' ratio of 50 dash, shuttle run and flexibility are (0.38,1.10 and 1.23). These values are not significant at 0.05 levels. To be significant at 0.05 level, the value of 't' ratio should be greater or equal to 2.02. This showed that there is no significant difference in motor fitness components between the volleyball and basketball players.

KEYWORDS: Motor Fitness components, Volleyball and Basketball Players

INTRODUCTION

The present study was conducted to comparative study of Motor Fitness Components between volleyball and basketball players. The researcher was very much interested to study on comparison of volleyball and basketball players. Thus, it can be concluded that the study will help full in selecting beginners in volleyball and basketball for their best positional play on the basis of certain motor fitness components. Holland predicted the selected variable in determine the agility to play basketball in small high school. The measures included speed, agility, Lipper arm strength, power, ball handling ability, passing ability and shooting ability. The weight index $R = 76$ was basketball ability score = (1.59) number of yeas experience + (123), score on speed durable + (0.26), score on wall volley + (0.15), score on shooting test + 10.11.

Tiwari in the present study an attempt has been made to compare of physical fitness components among Volleyball and Basketball female players of Govt. high school of Gulbarga district Karnataka state in India. The test of Physical Fitness components was administered on the 400m track and modified sit-ups trunk flexion in P.G. Gymnasium of Gulbarga University, the criterion measurement comparison was used with suitable modification. The comparison for physical fitness components of endurance between basketball and volleyball players are greater than the volleyball players.

MOTOR FITNESS

Motor fitness is frequently chosen to achieve desirable goals. Motor fitness may be defined as the successful adaptation to stresses of one’s lifestyle. The requirement of fitness is highly specific for different sports. It is quite possible to feel fit when a few scientific states would prove that one was far from it in physiological terms. A player may go to play a match knowing that by all standard of measurable fitness he is the fittest among the others and yet be quit unfit. It is also possible that one quit very fit is one of the sports such as basket ball and volleyball, but when one swims a 100 meters quickly he/she gets out breath and feel quite tired. An athlete faces different types of physical stresses based on the nature of the activity concerned. For instance a wrestler, weight lifter, a boxer and a footballer need more strength, endurance than a long jumper or a thrower does. But obviously strength is the requirement of all the sports and games.

MATERIAL AND METHODS

The present study is the descriptive survey method. For the purpose of the study 20 volleyball and 20 basketball players were randomly selected and their age was ranged between 18 to 25 years. For the collection of data the researcher administered tests on speed with the help of 50 yard dash, agility with the help of shuttle run and flexibility with the help of modified sit and reach test. Comparative analysis was done by finding out the ‘t’ ratio.

RESULTS

Table - 1

Table showing the comparison between the means of volleyball and basketball players in 50 yard dash (Sec.) on the basis of ‘t’ ratio

Test	Teams	Mean	Standard deviation		S.E.M	‘t’ ratio
50 yard dash	Volleyball players	7.02	0.50	.05	0.13	0.38
	basketball players	7.07	0.42			

Significant at 0.05 level of confidence

The mean value of volleyball and basketball players in 50 yard dash is 7.02 and 7.07 respectively. Standard deviation is 0.50 and 0.42 respectively. Value of ‘t’ ratio is 0.38, this value is not significant at 0.05 level. To be significant at 0.05 level, the value of ‘t’ ratio should be greater or equal to 2.02.

Table-2 showing the comparison between the means of volleyball and basketball players in shuttle run (Sec.) on the basis of ‘t’ ratio.

Test	Teams	Mean	Standard deviation		S.E.M	‘t’ ratio
Shut	Volleyball players	11.06	0.41		0.11	1.01

Shuttle Run	basketball players	9 .91	0 .45	.15	13	.10
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Significant at 0.05 level of confidence

The mean value of volleyball and basketball players in shuttle run is 10.06 and 9.91 respectively. Standard deviation is 0.41 and 0.45 respectively. Value of 't' ratio is 1.10, this value is not significant at 0.05 level. To be significant at 0.05 level the value of 't' ratio should be greater or equal to 2.02.

Table-3 showing the comparison between the means of volleyball and basketball players in modified sit and reach test (inches) on the basis of 't' ratio.

Test	Teams	Mean	Standard deviation	S.E.M	't' ratio
sit and Reach Test	Volleyball players	6.95	2.10	0.73	1.23
	basketball players	6.05	2.49	0.73	

Significant at 0.05 level of confidence

The mean value of volleyball and basketball players in modified sit and reach test is 6.95 and 6.05 respectively. Standard deviation is 2.10 and 2.49 respectively. Value of 't' ratio is 1.23; this value is not significant at 0.05 level. To be significant at 0.05 level, the value of 't' ratio should be greater or equal to 2.02.

SUMMARY AND CONCLUSION

In these days of explosive population growth and high technology, there has been considerable concern in education. In education a citizen to maintain optimal level of physical and motor fitness for personal efficiency and national progress all over the world. The health and fitness has been claimed as one of the most essential requirement of personality development. Thus a certain level of fitness is needed for every individual.

The present study was carried out a view to compare the selected motor fitness components like speed, agility and flexibility between the volleyball and basketball players. It was hypothesized that there is a significant difference in the motor fitness components between the volleyball and basketball players. For the purpose of the study, 20 volleyball and 20 basketball players was randomly selected from those who were taking part in the selection trials of in the selection trials of intercollegiate for the session 2015-2016 and their age was ranged between 18 to 25 year. The players were tested on Speed with the help of 50 yard dash, Agility with the help of shuttle run and Flexibility with the help modified sit and reach test. After analysis of data, it was found that there is no significant difference in motor fitness components between the volleyball and basketball players.

CONCLUSION

After comparing the selected motor fitness components of the volleyball and basketball players of college level, the coaches and physical education teacher are able to utilize motor fitness components as one of the training means to bring about desired development in their sportsmen. On the basis of the findings, the following conclusions are drawn:

- In Speed there is no any significant difference between the volleyball and basketball players.
- In Agility there is no any significant difference between the volleyball and basketball players
- And in Flexibility there is no any significant difference between the volleyball and basketball players.

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