

A Comparative Study of Speed, Strength and Agility of Inter Collegiate Basketball and Volleyball Players

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Abstract

Motor fitness is a term that describes an athlete's ability to perform effectively during sports or other physical activity. An athlete's motor fitness is a combination of five different components, each of which is essential for high levels of performance.

There are many studies done to improve the level of speed strength and agility of volleyball and basketball players but very few studies have been conducted to find out the difference in speed, strength and agility between volleyball and basketball players. The research scholar is undertaken this descriptive study to compare the Motor Fitness variables strength, speed and agility between thirteen Volleyball and Basketball Players. The data collected by conducting speed test, agility test and strength test on the subjects.

The collected data were analyzed by using Independent Sample T-Test to compare the Motor Fitness of Volleyball and Basketball players. There was no significant difference in the motor fitness components of volleyball and basketball players.

Introduction:

Sports scientist and allied research have made the field of sports a highly competition and specialized in nature. Today therefore every sport including Volleyball and Basketball is played in very organized manner with specificity of playing and preparation of participant in various international events.

The Physical and Physiological symptoms such as slowing of reaction time, loss of strains in joints, muscle etc. could be minimized through improvement in physical and motor fitness where, Strength, Speed, and Agility etc. are the more important components in Volleyball and Basketball.

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Objectives of the Study:

- To find out the strength of the volleyball and basketball players.
- To find out the speed of the volleyball and basketball players.
- To find out the agility of the volleyball and basketball players.
- To compare the between volleyball and basketball players.

Significance of the Study:

- The study will also make addition to the already existing Knowledge of physical education and sports.

- The research will encourage the boy's population to practice Volleyball and basketball to improve speed, strength and Agility.
- It may help the coaches and teachers to select the students and motivated them according to their fitness components towards specific game.

Hypothesis

- H_1 : Volleyball players may have better strength than basketball players.
- H_2 : Basketball players may have more speed than volleyball players.
- H_0 : There may not be any difference in agility of volleyball and basketball players.

Delimitation

- The study was delimited to volleyball and Basketball players only.
- The study was delimited to inter collegiate players of university of Mumbai.
- The study was delimited to male Volleyball and basketball players only.

Limitation

- The hereditary and potential of students were not under the control of researcher.
- Socio-economic status and political situations are not taken into consideration
- This study was limited to climate condition.
- This study was limited to Diet habit, health and style of day to day living of the subject.

Methodology:

Selection of Subjects

For this study fifteen Volleyball and fifteen Basketballs male players are selected randomly from Somaya College, University of Mumbai. The average age of subjects is between 18 to 22 years.

Design of the Study

The research scholar is undertaken this descriptive study to compare the Motor Fitness variables strength, speed and agility between Volleyball and Basketball Players. For this study the scholar is taken the help of descriptive method and followed the method as described by different research scholars and physical educationists. The data collected by conducting speed test, agility test and strength test on the subjects.

Selection of the Variables

Since the purpose of the study was to compare the Selected Motor Fitness Components between Volleyball and Basketball players, therefore the following variables have been selected after consulting experts and referring various literatures like Strength, Speed and Agility .

Analysis and Interpretation of Data

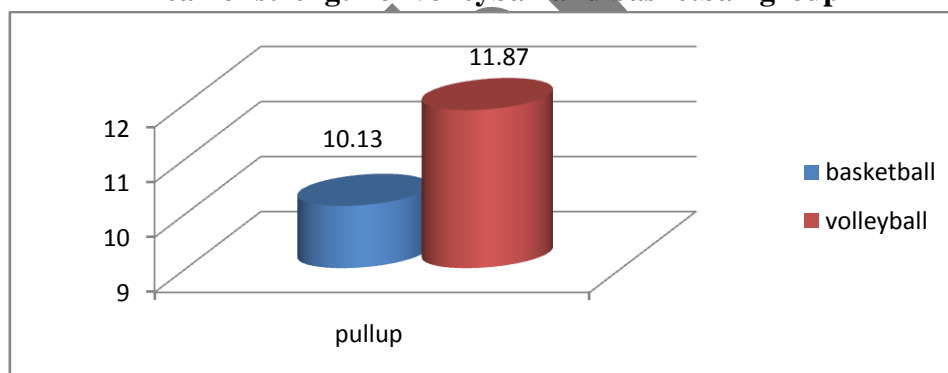
The data collected from the selected Volleyball and Basketball players and analyzed to find out any significance difference in mean of both group i.e. Volleyball and Basketball Players Group has been presented in Table and Figures according to the different Selected variables of Motor Fitness. The table also includes the significance level.

Comparison of Result of Selected Motor Fitness Variables between the Volleyball and Basketball Group

Table.1: Comparison of Mean of Selected Motor Fitness Variable between Volleyball group and Basketball group (between group n=15).Df = 28

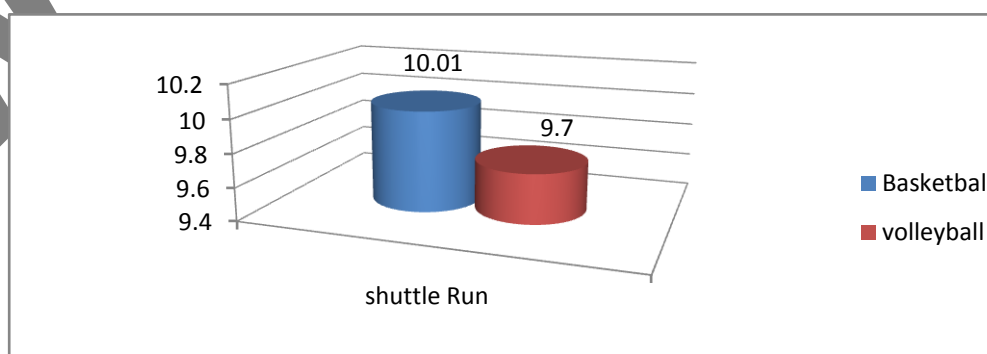
Variables	Group Compared	Mean	Mean Difference	Standard Error Mean	't' Value	Significance
Strength	Basketball Vs	10.13	1.74	.616	-1.854	.570
	Volleyball	11.87		.703		
Agility	Basketball Vs	10.0193	0.2586	.13039	-1.657	.015
	Volleyball	9.7607		.08587		
Speed	Basketball Vs	7.4567	0.3	.13093	-1.733	.459
	Volleyball	7.1560		.11383		

Mean of strength of volleyball and basketball group



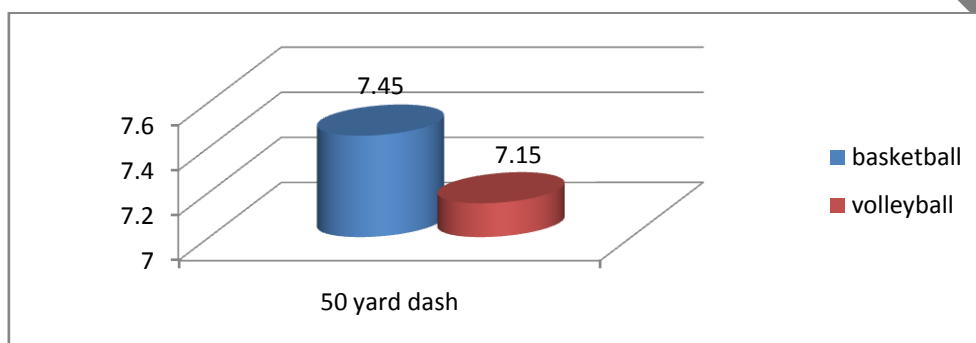
Pull Up test mean of the Volleyball Group and Basketball Group is 11.87 and 10.13 respectively, whereas the difference in the mean of both group is 1.74 which is in favor of Volleyball group whereas the 't' value of the same is -1.854 which is significant at .570 level.

Mean of agility of volleyball and basketball groups



Shuttle Run Test, The mean of the basketball ball Group and volleyball Group is 10.01 and 9.76 respectively, whereas the Difference in the mean of both group is 0.2586 which is in favor of basketball group whereas the 't' value of the same is -1.657 Which is significant at .015 levels.

Mean of speed ability of volleyball and basketball groups



50 yard dash, the mean of the Basketball Group and volleyball Group is 7.4567 and 7.1560 respectively, whereas the difference in the mean of both group is 0.3 which is in favor of basketball group whereas the 't' value of the same is -1.733 Which is significant at .459 levels

Findings:

From the above analysis and interpretation of the data, the findings may be drawn that there was no significant difference in the motor fitness components of volleyball and basketball players.

Recommendations:

The following recommendations were made in the light of this investigation for further research:

- On the basis of the findings it can be recommended that some more additional motor fitness variables can also be included for the further study.
- Similar studies in the line of present study may be undertaken on larger samples of difference age groups in future.
- The present study recommends the use of these findings to sports coaches, physical education teachers and sports scientists for training and assisting in preparing students for competitions.
- The subjects selected for this study were boys; hence a similar study could be conducted on girls.

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