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## Comparative study of physical fitness of basketball and volleyball male players

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### Abstract

The study was conducted to evaluate the players of Physical fitness between Basketball and Volleyball Male Players. To carry out this study, 100 subjects 50 from Basketball and 50 from Volleyball were taken. The age limit of players was ranged between 14 to 16 years. The samples were taken from Nagpur District only. Only speed, explosive power of arms and agility were taken to measure the physical fitness components. Significance of differences between the means, 'T' test was applied. The level of significance was 0.05.

**Keywords:** Basketball players, volleyball players, physical fitness

### Introduction

The term physical fitness means more than muscular strength. Physical Education is the education which is gained through the activities of physical in various departments of sports and its related responses. Though the Physical Education the all round development of the individuals can be made. A man who is healthy may not be physically fit. In Physical Education most of the situations and conditions is always uncertain and the individuals have to response according to it. The amount of required physical fitness differs from one sport to another sport. Physical Education now a day is a very important subject but unfortunately in our state even in the country the subject does not get the due importance. Physical education helps to upgrade the sports culture. Without strong physical education background it is not possible to improve developed the sports performance and Physical Fitness. Physical fitness is generally achieved through proper nutrition, moderate-vigorous physical exercise and sufficient rest. Physical Education is the most diverse subject. Students have to study all kind of subject right from Philosophy to Information Technology. Each and every subject has the direct impact on the performance of the individuals. Physical Education provides a solid foundation preparing an individual to pursue a variety of careers, from chiropractic to teaching, from recreation leadership to athletic training, and from dance therapy to sports management. Today, Physical Education professionals have a very important role to play in the future of the health of our nation and the world.

### Method and Procedure

#### Selection of subjects

To carry out this study, 100 male players (50 from Basketball and 50 from Volleyball) were taken. The age limit of players was ranged between 14 to 16 years. The samples were taken from Nagpur District Only. Speed, explosive power of arms and agility were used to measure the physical fitness components. The mean was computed for comparison of players of Nagpur District. To assess the Significance of differences between the means in case of significant 'T' test was applied. The level of significance was 0.05.

#### Selection of variables

Following test was selected for the study:

1. 25 yards run Test- To measure speed ability.

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2. Medicine ball Test- To measure explosive power of arms.
3. Shuttle Run Test- To measure agility.

### Statistical Techniques

Mean and standard deviation were calculated to study the physical fitness components of the Basketball and Volleyball Male Players of Nagpur District. To assess the significance of differences between the means in case of significant 'T' test was applied. The level of significance was 0.05.

**Table 1:** Comparison of physical fitness components between the Basketball and Volleyball Male Players of Nagpur District

S. No.	Variable	N	Game	Mean	S.D	S.E.D	't'
1	Speed	100	Basketball	4.85	0.63	0.62	6.81
			Volleyball	4.33	0.43		
2	Explosive power of Arm	100	Basketball	4.23	1.57	1.54	1.08
			Volleyball	4.03	0.98		
3	Agility	100	Basketball	16.74	1.05	1.58	5.95
			Volleyball	16.02	0.60		

**Note:** Significant at 0.05 levels

Above Table 1 presents results regarding the Speed showed that the Basketball Players had better speed in comparison to the Volleyball players. It is the fact that speed is played higher role of physical fitness. The study revealed the Explosive power of arm that significantly higher strength was found in the Volleyball players than the Basketball players. The findings of the study in relation to Agility showed that the Basketball players had better agility in comparison to the Volleyball players. The comparative assessment showed that there is significant difference ( $P<0.05$ ) in the level of Physical Fitness amongst Basketball and Volleyball players. Specifically, it is clear from the data that Basketball players

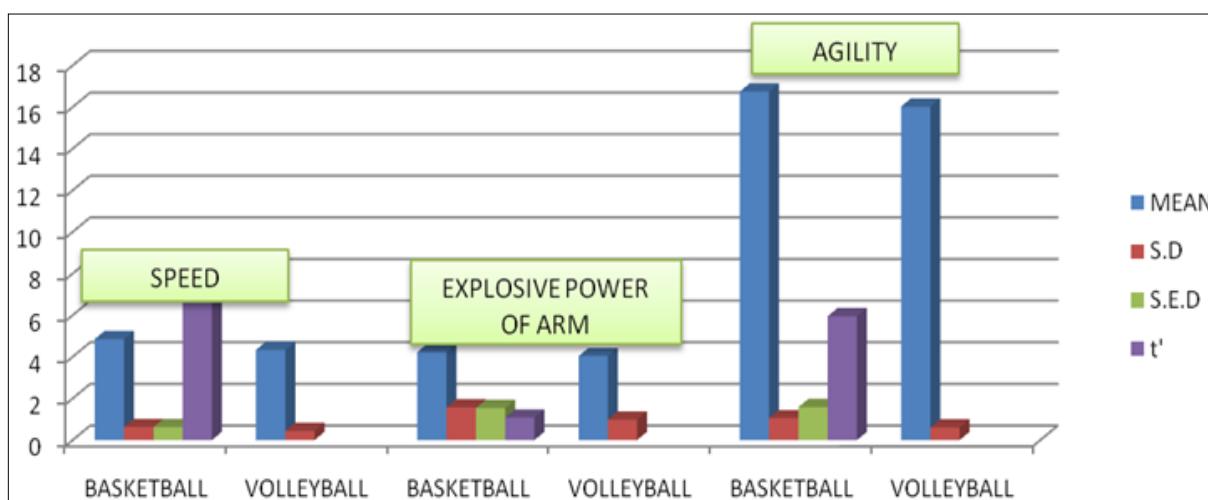
### Results and Interpretation

The Scholar examined the Physical fitness components Basketball and Volleyball Male Players of Nagpur District. The results of the study in general revealed that there were difference in all of the Physical fitness components, i.e. Speed, Explosive power of arm and Agility between Basketball and Volleyball Male Players of Nagpur District.

had higher level of Speed and Agility as compare with Volleyball players.

### Hypothesis Testing

- It is hypothesized that comparative study of Basketball players & Volleyball players will be significantly different in physical fitness.
- On the basis of the statistical analysis of the information received during the research study, it is observed that there is physical fitness significant difference in the level of Basketball players & Volleyball players.



**Fig 1:** Graphical representation of physical fitness components between Basketball and Volleyball Male players of Nagpur District.

### Conclusion

Nagpur District Basketball players had better speed and Agility in comparison to the Volleyball male players. Other than, Volleyball male players had found more explosive power of arms comparatively than Basketball players.

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