



P-ISSN: 2394-1685  
E-ISSN: 2394-1693  
Impact Factor (ISRA): 5.38  
IJPESH 2019; 6(5): 93-95  
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www.kheljournal.com  
Received: 22-07-2019  
Accepted: 25-08-2019

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## A comparative study of speed and agility of volleyball and basketball girl players

**Ashiq Hussain Malla, Rameez Ahmad Bhat and Dr. Manoj Kumar Pathak**

### Abstract

The purpose of the present study was to compare the speed and agility among basketball and volleyball girls players. Total forty subjects were randomly selected (20 from basketball and 20 from volleyball) from various schools of Sopore District of Jammu and Kashmir was taken as a sample. The data was collected during interschool competition organized by department of youth services and sports, Jammu and Kashmir. The age of subject ranged between 12-17 years. Physical fitness tests were used to measure the selected physical fitness variables of players. All the subjects were informed about aim and methodology of the study and they volunteered to participate in this study. 'T' test independent was used to analysis the data, level of confidence was set at 0.05 level. Study concluded that insignificant difference found between the means of selected physical fitness variables such as speed and agility.

**Keywords:** Physical fitness, speed, agility, Basketball, Volleyball

### Introduction

Physical fitness is the most important thing in life. This is true whether we want it to be or not. As humanity has developed throughout history, physical fitness has become less critical to our daily existence, but no less important to our lives. Our physical fitness, more than any other thing we possess, still determines the quality and the quantity of our time here in these bodies. Whereas previously our physical fitness determined how much food we ate and how warm and dry we stayed, it now merely determines how well we function in these new surroundings we have crafted for ourselves as our culture has accumulated. But we are still animals – our physical existence is, in the final analysis, the only one that actually matters. A fragile man is not as happy as that same man would be if he were strong. This reality is offensive to some people who would like the intellectual or spiritual to take precedence. Physical fitness plays a Very important role in a normal individual as well as in an individual who is there participating in some kind of sports events [2] Volleyball is an Olympic sport which is played at all around in the world. This game made of movements like sprinting for short distance, change of direction, jumping, diving and hitting. Different people have different view regarding physical fitness. For a common man to have a good physique is a symbol of physical fitness. According to doctor, the proper functioning of physiological systems is physical fitness. In fact, physical fitness is a simple term with a wide meaning. For physical educationist Physical fitness means the capacity to do the routine work without any fatigue or exertion and after doing his work he has also energy to do some more work and the recovery is quicker. Physical fitness is more than the possession of strength and endurance. It means to maintain good physical fitness with the capacity to do ones everyday task to engage in recreational pursuits and to meet emergencies, when they arise. In fact, physical fitness is possessed by the individual with enthusiast with vigorous [8]. Extensive evidence signifies that physical fitness levels in children and adolescents are indicators of their standard of living and their cardio-metabolic health status and are the predictors of the potential threat of chronic ailments such as obesity, cardiometabolic problems, physiological and mental health [3]. The physical fitness was the sum of five motor abilities namely; speed, strength, endurance, flexibility and co-ordination abilities and their complex form like strength, endurance, maximum strength, explosive strength,

maximum speed, and agility that are necessary for motor action [1].

**Speed**

Speed is the ability of an athlete to move as fast as possible, through the optimal range of motion, in a deliberate and intentional manner, in a particular direction. Speed is not just measured on how fast a person is either; there are several components of measurement that give a complete picture of an athlete's speed.

**Agility**

“Agility can be defined as the ability of the individual to change the direction of his entire body or parts of his body accurately and rapidly.”

**Methodology**

**Selection of Subjects**

Total forty Girls subjects were randomly selected (20 Basketball players and 20 Volleyball players) from various Schools of Sopore District of Jammu and Kashmir were taken as a sample. The age of subjects were ranged between 12-17 years.

**Selection of Variables**

For the present study the investigator selected physical fitness variables.

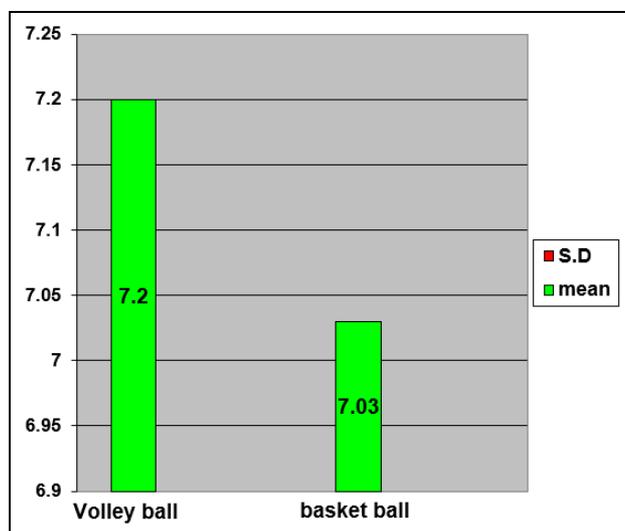
- Speed
- Agility

**Table 1:** Shows statistical comparison of Speed between volleyball and basketball girl players is as under

Group	N	Mean	SD	T-ratio
Volleyball	20	7.20	1.37	0.47
Basketball	20	7.03	0.76	

From the above table it is observed that the mean of volleyball and basketball group students is 7.20 and 7.03 respectively. After applying “t” test it is found that the t-ratio is 0.47 which was not significant at the 0.05 level of significance. So the hypothesis was rejected.

The Table no.1 shows that the mean of volleyball girl players is more than mean of Basketball girl players. Which proves that volleyball girl Players speed is merely more than Basketball girl players.



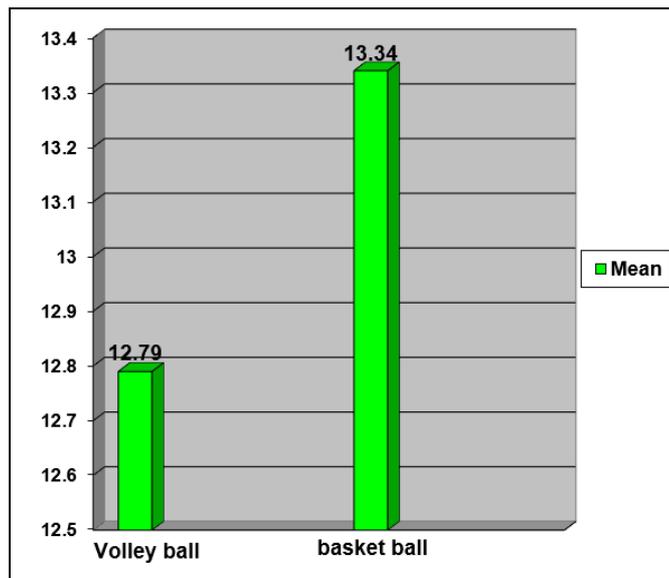
**Fig 1:** Figure showing the Mean difference of volleyball and basketball players on Speed

**Table 2:** Shows statistical comparison of agility between volleyball and basketball girl players is as under

Group	N	Mean	SD	T-ratio
Volleyball	20	12.79	1.20	1.48
Basketball	20	13.34	1.90	

From the above table it is observed that the mean of volleyball and basketball girl players is 12.79 and 13.34 respectively. After applying “t” test it is found that the t-ratio is 1.48 which was not statistically significant at 0.05 level of significance. So the hypothesis was rejected.

The Table no.2 shows that the mean of volleyball girl players is less than the mean of Basketball girl players. Which proves that Basketball girl Players agility is merely more than volleyball girl players



**Fig 2:** Figure showing the Mean difference of volleyball and basketball girl players on agility

**Conclusion**

The investigator analyzed the collected data as per the purpose of study. The statistical analysis of physical fitness components showed that in the parameters such as speed, agility, there were no significant difference between volleyball and basketball players of Sopore district of Jammu and Kashmir.

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