

# Comparison of selected physical fitness variables of school level Basketball and Volleyball male players

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## Abstract

The aim of the present study was to compare the selected physical fitness variables of school level basketball and volleyball male players. Total forty subjects were randomly selected (20 from basketball and 20 from volleyball) from various schools of Ghazipur District of Uttar Pradesh were taken as a sample. Their age ranged between 15-18 years. Physical fitness tests were used to measure the selected physical fitness variables of players. For analysis of the data Mean & Standard Deviation were calculated and to examine the significance difference between the groups mean of different physical fitness variables, independent t-test was applied, and 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, agility, endurance and flexibility between school level basketball and volleyball male players.

Key words: Physical fitness, Speed, Agility, Endurance and Flexibility.

## 1. Introduction

Physical fitness is ability to perform daily task with energy and alertness without under fatigue and still enjoy leisure time pursuits and to meet the unpredicted Emergencies. Physical fitness is defined as a set of ability to carry out physical ability. Regular physical exercise is an important part to remain fit and healthy. It keeps us active in the long run and we also feel better. Exercise can help you to remove some diseases like diabetes, prevention of cancer and heart problems (Rao, 2010).

Different people have a lot of view regarding physical fitness. Being 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 a common man, 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 then 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. (Sharma, 2010)

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 were the basic prerequisites of human motor action. Therefore, the sports performances depend to a greater extend on these abilities. (Ahmed, 2010) According to Bhowmick, (2002) conducted a fitness profile study of athletes participating in track and field, gymnastics, swimming and boxing. In total fitness, the gymnastics group had the highest fitness score whereas the swimming group had the lowest. In speed, the track and field, gymnastic and boxing groups were found to be better than the swimming group. Track and field and gymnastic groups were superior to that of the swimming and the boxing groups in legs explosive strength.

## 2. Methodology

## 2.1 Selection of Subjects

Total forty male subjects were randomly selected (20 Basketball players and 20 Volleyball players) from various schools of Ghazipur District of Uttar Pradesh were taken as a sample. Their age ranged between 15-18 years.

#### 2.2 Selection of Variables

For the present study the researcher selected physical fitness variables.

- Speed
- Agility
- Endurance
- Flexibility

#### 2.3 Criterion measures

The criterion measures were used to collect the data in a deal and systematic way to record in a correct unit and style for each test item.

- Speed was measured by 50 meter dash run test and scores were recorded in second.
- Agility was measured by 10x4 meter shuttle run and scores were recorded in second.
- Endurance was measured by 600 yards run/walk test and score were recorded in minutes.
- Flexibility was measured by sit-and-reach test and score were recorded in centimeters.

### 2.4 Statistical analysis

To find out the significance differences of selected physical fitness variables of male school level basketball and volleyball male players independent samples t-test used as a statistical technique for the data analysis. The level of significance was set at 0.05. All statistical analysis was done using SPSS version 16.0.

## 3. Results of the Study

#### Basketball players(N=20) Volleyball players(N=20) Variables SED t-value Mean S.D. Mean S.D. Speed 7.08 .20 7.23 .39 .09 1.15\*\* 14.09 .11\*\* Agility 14.11 .48 .75 .20 Endurance 2.42 .21 2.27 .21 .067 2.18\*\* Flexibility 12.43 .27 12.44 .15 .069 .21\*\*

 Table – 1

 Show the comparison of selected physical fitness variables of school level basketball and volleyball players

\*\*insignificant at 0.05 level, t.05 (df 38, 2.02)

The results of selected physical fitness variables of school level basketball and volleyball players are presented the results of selected physical fitness variables of school level basketball and volleyball male players are presented in the table. Analysis of data revealed not significant group differences were found for speed (1.15), Agility (.11), Endurance (2.18) and Flexibility (.21). Thus, it may be concluded that the selected physical fitness variables of school level Basketball and Volleyball male players were found to be statistically not significant.

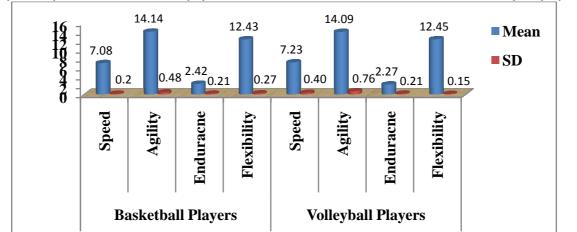


Fig. – 1 Graphical representation of selected physical fitness variables of school level basketball and volleyball players

## 4. Conclusion

In conclusion, the present study suggests that selected physical fitness variables i.e., speed, agility, endurance and flexibility of school level basketball and volleyball male players were found to be statistically not significant.

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