

## Comparitive study on body mass index between college level men volleyball and basketball players

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### Abstract

Today the world is a competitive place, Sports teach to strive and compete for what a person wants out of life. By being introduced to compete at a young age, sportsmen are able to pursue their dreams. The longer part of their life is being healthy through exercise. Sports should become integral part of every one's life in schools and in home as well. Generally a healthy person is gifted with a will stronger than a physically week person. The overweight and obesity percentage of the population, as measured by body mass index (BMI), has been increasing in adolescents. It is hypothesized that greater unhealthy weight may be associated with poorer fitness and lower levels of neuromuscular control including balance and coordination, which could place those with elevated BMI at greater risk for injury. The present study is an attempt to find out comparison among the college level men volleyball and basketball players on Body Mass Index (BMI). So compare the body mass index of college level men volleyball and basketball players and find out the better one.

**Keywords:** volleyball, basketball, body mass index (BMI)

### Introduction

#### Body Mass Index

BMI is a screening tool that can indicate whether a person is underweight or if they have a healthy weight, excess weight, or obesity. If a person's BMI is outside of the healthy range, their health risks may increase significantly. Body Mass Index (BMI) is a person's weight in kilograms divided by the square of height in meters. A high BMI can be an indicator of high body fatness. BMI can be used to screen for weight categories that may lead to health problems but it is not diagnostic of the body fatness or health of an individual. When you look at professional athletes and compare a rugby player to a runner, chances are you are going to notice a big difference. The reason is that their bodies have different needs for varying sports. We'll go through the sports and see what each body demands for the best performance. It is common knowledge that injuries occur in sports, so identifying reducible risk factors is important to keeping sports safe and participant's active. Different intrinsic and extrinsic risk factors for sports injury have been previously investigated. Significant independent risk factors including age, sex, and previous injury, have been identified as increasing the risk of suffering a sports-related injury. The overweight and obesity percentage of the population, as measured by body mass index (BMI), has been increasing in adolescents. It is hypothesized that greater unhealthy weight may be associated with poorer fitness and lower levels of neuromuscular control including balance and coordination, which could place those with elevated BMI at greater risk for injury. The present study is an attempt to find out comparison among the college level men volleyball and basketball players on Body Mass Index (BMI).

### Statement of the problem

The purpose of the study is to compare the body mass index of college level men volleyball and basketball players.

### Hypothesis

- It is hypothesized that there will be a significant different between body mass index of college level men volleyball and basketball players

### Significance of the study

Volleyball and basketball are the most popular sports and more than millions of people participate in the sports at all levels of the competition.

The present study is compare the body mass index of volleyball and basketball players among college levels, the significance in following ways.

- The study may help to know the body mass index level of college level volleyball and basketball players.
- The study will help to understand the body mass index difference of college level volleyball and basketball players.

### Methodology

The purpose of the study was to compare the Body Mass Index of college level men volleyball and basketball players.

### Selection of subjects

For the purpose of the study 15 male college level men volleyball players and 15 men basketball players of 18 to 23 years of age from Christ College, Irinjalakuda were selected as the subjects.

### Sampling technique

The purposive sampling technique was used to select the subject.

### Collection of data

The data was collected on the selected subjects using weighing machine, stadiometer

### Statistical technique employed

To compare the significant differences between the two groups; independent t-test was employed for data analyses. For testing the hypotheses, the level of significance was kept at 0.05 of confidence.

### Analysis of Data and Results of the Study

The body weight and height among the volleyball and basketball players are collected by using weighing machine and stadiometer and personal interviews of players.

### Level of significance

For testing hypothesis, the level of significance was set at 0.05 level of confidence

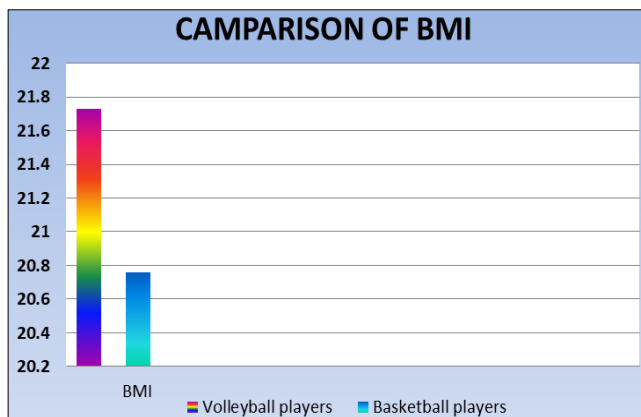
### Body Mass Index (BMI)

The data on BMI of Christ college men volleyball and basketball players were statistically analyzed by analysis of variance and the results are presented in Table.

**Table 1:** Significant Differences in the Mean Scores of volleyball and basketball players

Variables	Volleyball players		Basketball players		Mean Differences	Standard Error	t-ratio
	Mean	SD	Mean	SD			
Body Mass Index ( BMI )	21.73	1.31	20.76	1.29	0.97	0.11	2.05

\*Significant at 0.05 level



**Fig 1:** The t-value is 2.04679. The p-value is. 025085. The result is significant at  $p < .05$ .

The data were collected and analyzed using appropriate statistical technique. The following statistical procedure was adopted to compare the body mass index of college level men volleyball and basketball players. For the purpose of the testing significance of the difference between the means of volleyball and basketball players, analysis of independent t-

ratio was used.

### Conclusions

- There is a significant difference in body mass index among the college level volleyball and basketball players.

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