

# Comparative Study of Agility and Explosive Power between Volley Ball Players and Basket Ball Players in Pondicherry University

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**Abstract:** *The aim was to compare the agility and explosive power for volleyball players and basketball players. The study to Find out whether the volleyball players good physical working capacity compare than the basketball players. Study was confined to 15 university students were selected random basis from Pondicherry University. Study was conducted only to the Pondicherry university students. It was concluded that there was significant difference between basketball players than volleyball player on agility. It was concluded that there was significant difference between basketball players than volleyball player on explosive power.*

**Keyword:** Agility, Explosive power, Volleyball players, basketball players. Shuttle run, standing broad jump

## 1. Introduction

### Volleyball

A game played by two teams on a rectangular court divided by a high net, in which both teams use up to three hits to ground the ball on the opposing team's side of the net.

Game played by two teams of six players each, in which an inflated ball is volleyed over a high net. Each team tries to make the ball touch the court within the opposing side's playing areas before it can be returned.

### Basketball

A game played on a court by two opposing teams, points are scored by throwing the ball through an elevated horizontal hoop.

A game played between two teams of five players each, the object being to throw a ball through an elevated basket on the opponent's side of a rectangular court. Players may move the ball by dribbling or passing with the hands.

### Agility

Agility is the ability to move and change direction and position of the body quickly and effectively while under control.

### Explosive Power

Muscular power is the ability to release maximum muscular force in an explosive manner that is in one shortest possible time.

### Statement of the Problem

The purpose of this study was to analysis the agility and explosive power for volleyball players and basketball players.

### Hypothesis

The investigator rather enthused to find out whether the volleyball players good physical working capacity compare than the basketball players. It was hypothesized that physical

working capacity of Pondicherry university students selected for the study could be understood by this experiments by using shuttle run and standing broad jump.

### Significance of the Study

- 1) This study may provide help to society in gaining knowledge about agility, explosive power volleyball players and basketball players.
- 2) This study might provide opportunity for awareness about agility and explosive power.
- 3) This study might provide opportunity for ways of improving the agility ability and explosive power ability during continuous play

## 2. Methodology

In this chapter the selection of subjects, selection of variables, criterion and description of test, criterion variable, independent variables, reliability of equipment, test and subject reliability of equipment, administration of test and collection of data are explained with sufficient details in this chapter.

### Selection of Subjects

The purpose of study was to find out the relationship of agility and explosive power on the performance among volleyball players and basketball players. To achieve this purpose of these study fifteen volleyball players and fifteen basketball players were randomly selected from Pondicherry university physical education student. The subjects aged (22 - 25) were above twenty - two years and below twenty - five years as per the records. The subjects assured their voluntary participation for the treatment or measured. The selected thirty subjects were game group. As the subjects were expected to have almost uniform standard in playing the events, the investigator found him self satisfied with the information random.

### Selection of Variable

The scholar reviewed the available scientific literature pertaining to skill test on agility and explosive power on the

performance volleyball and basketball test from books and journals and also discussed with the experts, about the importance of agility and explosive power. I the situation of volleyball and basketball test and also feasibility availability of instruments and equipments. Hence the research, scholar selected only the agility and explosive power as a variable for this study.

**Selection of Test**

The following test was employed to find out the relationship between agility and explosive power on the performance volleyball and basketball players.

- Illinois test
- Standing broad jump

**3. Analysis of Data**

This chapter is the crucial one for this only study. The collected data was subjected to statistical techniques employed and the results obtained are presented in this chapter. Also the research analyzed the result and interpreted them. It also deals whether the hypothesis formulated previously were accepted to reject as the whole chapter revealed significance of the study. The data collected were statically analyzed by using “t” ratio for significance.

**Table I:** Computation of mean, standard deviation, mean difference and “t” ratio for agility between volleyball and basketball players

Group	Mean	Standard Deviation	Mean Difference	‘t’ Ratio
Volleyball Players	15.839	.2330	1.086	3.748
Basketball players	16.923	.8043		

Further “t” ratio is calculated for all the scores (Illinois test, standing broad jump) the calculated data was analyzed statically and the results are present in this chapter.

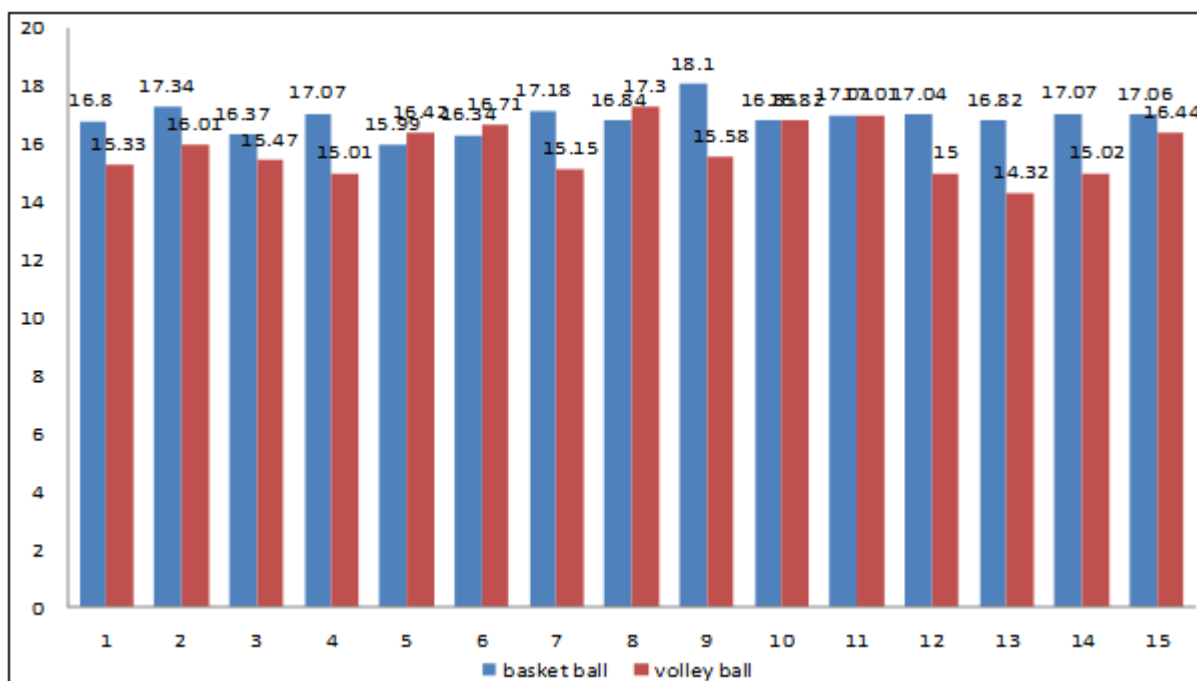
\*The table value is 2.048.

\*The level of confidence 0.05

It may be seen from the table above that there is a significant difference in the level of agility between volleyball and basketball players.

Since the calculated value 3.748 is higher than the table value i. e., 2.048 at 0.05 level of confidence. Hence the hypothesis accepted.

It was concluded that the level of agility of the basketball players is found to be significant than the volleyball players



**Figure I:** Bar diagram showing the differences of agility between volleyball players and basketball players

**Table II:** Computation of mean, standard deviation, mean difference and “t” ratio for explosive power between volleyball and basketball players

Group	Mean	Standard Deviation	Mean Difference	‘t’ Ratio
Volleyball Players	1.9673	.0866	0.0603	2.208
Basketball players	2.278	.1469		

\*The table value is 2.048.

\*The level of confidence 0.05

It may be seen from the table above that there is a significant difference in the level of agility between volleyball and basketball players.

Since the calculated value 2.208 is higher than the table value i. e., 2.048 at 0.05 level of confidence. Hence the hypothesis accepted.

It was concluded that the level of explosive power of the basketball players is found to be significant than the volley ball players.

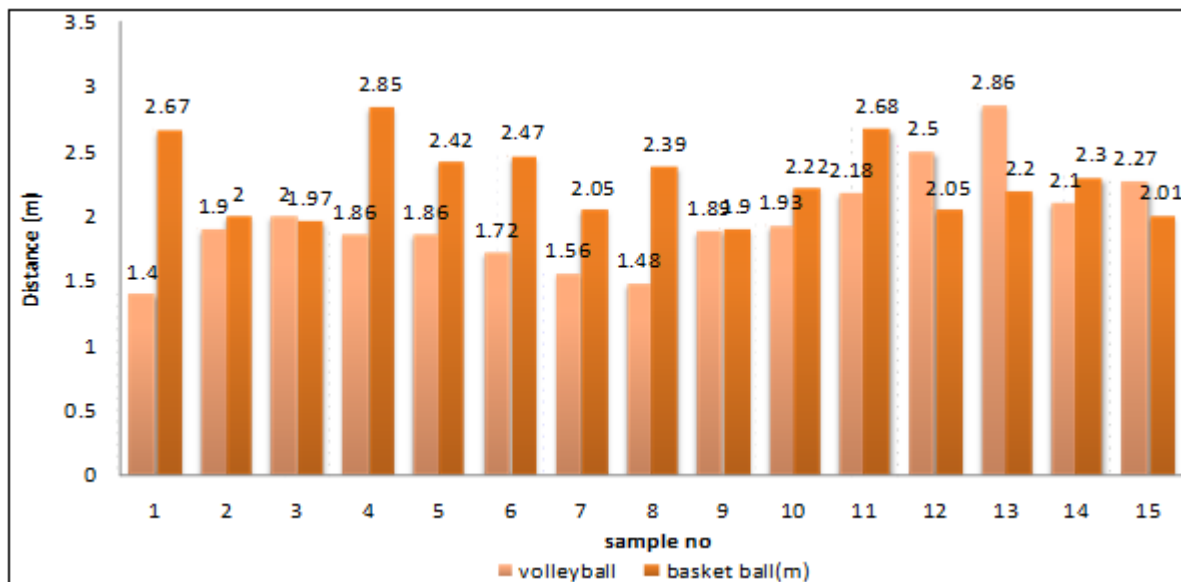


Figure II: Bar diagram showing the differences of explosive power between volleyball players and basketball

#### 4. Discussions

The comparative analysis of data from Pondicherry university physical education students. They were at the age group of 22 to 25 years. The data collected for this study was from 15 volleyball players and 15 basketballs players from Pondicherry university physical education students. The data collected were analyzed and statically interpreted in this chapter

#### 5. Results

- It was concluded that there was significant difference between basketball players than volleyball player on agility.
- It was concluded that there was significant difference between basketball players than volleyball player on explosive power.

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