



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2018; 3(2): 973-976

© 2018 Yoga

www.theyogicjournal.com

Received: 27-05-2018

Accepted: 29-06-2018

**Dr. Hanumanthayya Pujari**

Assistant Professor, Department  
of Studies in Physical Education  
and Sports Sciences  
Akkamahadevi Women's  
University, Vijayapura,  
Karnataka, India

## A study on agility level of volleyball and basketball players

**Dr. Hanumanthayya Pujari**

### Abstract

The purpose of the study was to compare the performance of agility of volleyball and basketball players. Physical fitness is essential for all games and sports. Physical fitness is the ability to carry our daily tasks with vigor and alertness without undue fatigue and with ample energy to engage in leisure time pursuits and to meet the above average physical strength, stress, muscular endurance and circulatory endurance, muscular power, agility, speed and flexibility and added to compose motor fitness. Then kinetic, arm-eye, foot eye co-ordination is needed for general motor ability

Agility is very much evolved in the game of basketball. Basketball players who pass his opponents stop quickly from one position to another or he does a complex routine. at the time of dribbling the players should change the movements in various ways. there are running in a zigzag manner and shifting the body position to maintaining balance and his ability at the hands and arms.

For the purpose this investigator selected 12 volleyball and 12 basketball players at the age of 18 to 25 year from Gulbarga university players. For measuring the agility performance shuttle run test (10.00 Mtrs x 4) was used. The collected data were analyzed by using the 't' ratio statistical technique. And the level of significant was indicates that the mean of the basketball players (12.06) and that of volleyball players (11.56), and 't' ratio (2.42) was shown not significant at 0.05 level of confidence and degree of freedom was 28.

The performance of agility of Basketball players is greater than that of Volleyball players. The result of the study shown there was a significant difference between Basketball and Volleyball players agility performance because both movements are not same.

**Keywords:** Agility, Volleyball, basketball

### Introduction

Since from the evolution of man "Physical Fitness" is playing very crucial role in the all-round development of man and mankind. Irrespective of the time be it ancient times, medieval times, or modern times, physical fitness is a very crucial and important component of human life. The importance of physical fitness was well known to our ancestors. In 360 B.C. Plato amply described the importance of physical fitness in the following words "Lack of activity destroys the good condition of every human being while movement and methodical physical exercise save it and preserve it."

The right kind and right amount of physical exercise develops organic and muscle power, stamina, vigor and the activity skills related to his development. There is a direct relationship between physical exercise and physical fitness.

"Physical Fitness is the ability of an individual to live and balanced life. It involves Physical, Mental, Emotional and spiritual factors and the Capacity for the wholesome knowledge.

One of the main components of the physical fitness is agility. Agility is the ability of a man to coordinate his movement and to synchronize them according to the requirements of changing conditions. In sports experts distinguish between and specific agility. General agility is expressed by the ability of a person to person any movements. Specific agility develops in accordance with the type of the body of the particular completion event previously it was believed that agility is a single factors by itself. Now is believed that agility is a combination of several athletics traits including strength, reaction time, and speed of movement, power and co-ordination. It is demonstrated to such movements as budging, zigzag running stopping and starting and changing body direction quickly.

"Agility is the ability of the body or parts of the body to change direction rapidly and accurately."

**Correspondence**

**Dr. Hanumanthayya Pujari**

Assistant Professor, Department  
of Studies in Physical Education  
and Sports Sciences  
Akkamahadevi Women's  
University, Vijayapura,  
Karnataka, India

2 teams of five players each play basketball. The purpose of the each team is to throw the ball into the opponent's basket and to prevent the other teams from securing the ball or scoring. The ball may be passed, thrown tapped, rolled or dribbled in any directions, subject to the restrictions laid down in the rules. There are many skills in basketball which are as follows; Low dribble, Medium dribble high dribble, Chest pass, Push pass, one handed push pass and bounce pass, overhead pass, jump pass, Lay up shot, hook shot and jump shot. A basketball player needs agility in maintaining the balance or turning into pick up the ball and getting the ball. Basketball is world's greatest ball game. The physical qualities which are needed for high level performance are quick reaction, quickness of the mark, speed over the distance, good balance, reasonable agility, etc.

Agility is very much evolved in the game of basketball. A basketball players who passes his opponents stop quickly from one position to another or he does a complex routine. At the time of dribbling the players should change the movements in various ways. There are running in a zigzag manner and shifting the body position to maintaining balance and his ability at the hands and arms.

The game Volleyball is played by two teams, each team has six players. The purpose of the each team is passing the ball to the opponents' court and to prevent the other teams from securing the point. The ball may be passed, tapped, smashed and serviced to the opponent's court, subject to the restrictions laid down in the rules. There are many skills in volleyball which are as follows the overhead pass, Upper hand pass, Jump shot, Dive pass, Underhand service, Tennis service. The volleyball players need agility in maintaining the balance or turning into pass the ball. Volleyball is the world's greatest ball game. Physical qualities, which are needed for high – level performance, are quick reaction, quickness of the mark, good balance, reasonable agility, etc.

**Definition of the Terms**

**Agility**

The ability to change the position of the body in a pace rapidly and accurately without loss of balance. Agility is important the sports where the obstacles or opponents have to be avoided it is recognized as a basic component of motor performance, but exact nature has not been determined.

Agility as often presented by the terms memory ability, mobility etc., it is the ability to change the directions of the body and its parts rapidly. Agility is the capacity of the individual to measure by the rate of change his position in pace.

**Methodology**

The purpose of investigator is of compare the agility performance of Gulbarga University Volleyball players and Basketball players. To execute the investigation of the investigator selected 12 male volleyball players and 12 male basketball players.

The age of the subjects was 18to 25 years. Shuttle run test was selected for measuring the agility of volleyball and basketball male players. Prior to start of the experiments the subjects were properly the researcher gave instructions that are how to run, and how to touch the line. The investigator through demonstration and explanation gave the training.

**Significance of the Study**

1. The result of this study will help physical education teachers, coaches and trainers to use the fitness activities

to develop the physical fitness of the Basketball and Volleyball players.

2. This study will help the coaches and Physical Education teachers to assess the inadequacies in the motor fitness of Volleyball and Basketball players.
3. Finally this study will provide useful and productive suggestions for the enhancement of motor fitness of the Volleyball and Basketball players.

**Statement of the Problem**

A Study on Agility level of Volleyball and Basketball players of Gulbarga University

**Hypothesis**

It is hypothesized that there is a significant difference of agility level between the Volleyball and Basketball Players of Gulbarga University.

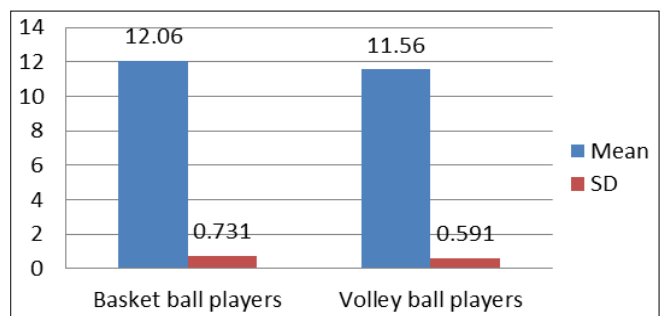
**Analysis of Data**

The statistical analysis of data related to selected performance of agility was collected from Male 12 Volleyball and 12 Basketball Players of Gulbarga University. For finding out the differences between the performance of agility of Volleyball and Basketball players the level of significance was set at 0.05 level of confidence. The mean and standard Deviation scores of volleyball and basketball players was presented in table and for find out the significant difference between the two groups the t-test was applied.

**Table 1:** The Significant difference between the Performance of agility of Volleyball and Basketball players

Teams	Mean	SD	't' ratio
Basketball players	12.06	0.731	2.42
Volley ball players	11.56	0.591	

Significant at 0.05 level of confidence degree freedom (28)



**Fig 1:** Agility of Volleyball and Basketball players

Table and graph reveals that the mean scores of basketball player is (12.06) and standard deviation is (0.731) and the volleyball players mean scores is (11.56); and standard deviation is (0.591) The t ratio is 2.42, which is significant at 0.05 level.

**Discussions of findings**

The analysis of the data on dependent variables generally supported to the proposed hypothesis of the study. That is the mean score of performance of agility of Basketball players is the higher than that of Volleyball player performance. The reason is that agility is important in all activities involving quick changes in positions at the body and the parts. Fast starts and stops and quick changes in direction are fundamental to good performance in practically all court, and field games, such as Basketball, tennis, badminton, Kho-Kho and Volleyball.

The especially of Basketball is that, it make players light

bodied, agile, ready witted, supple and daring. The game of basketball based on natural principles of physical development. It is vigorous health competitive among youth. Agility is foremost pre-requisite for Basketball players. The dribbler has to run fast in zigzag manner to escape from the defender. The runner cannot dribble in a straight – line. Otherwise the opponent can attack the ball easily. So agility is very essential for basketball players. Basketball deserves the most prominent place in court game. It gives very good exercises to both the team simultaneously. Never allow the defender to take rest.

Due to above said reason the basketball players agility's mean score lesser than volleyball players.

### Result

The result of the study was shown insignificant. Because there are so many reasons are there. Due to number of sample is smaller and only one agility test was used to compare their agility performance and another important reason that both game movements are not same. Due to these above said reason the study may shown not significant.

### Summary and Conclusion

The study was undertaken to assess the agility variable as a prediction of volleyball players and basketball players of Gulbarga University playing agility of the players. The subjects were drawn from the Gulbarga university volleyball team and basketball team.

The physical fitness is essential for all games and sports. Physical fitness components are as follows; Strength, Endurance, Flexibility Balance, Co-ordination, Muscular Endurance, Power, Speed and Agility, Explosive power. Balance co-ordination is the importance elements, which make of physical fitness. One of the main components of physical fitness is agility. Agility is the ability of man to co-ordinate is movement and to synchronies them according the requirements of changing conditions. In sports experts distinguish between general and specific agility.

General agility is expressed by the ability of the person to perform any movement from the entire variable range of sporting activities in a functional and resourceful manner. Specific agility develops in accordance with the type of body movement of the particular completion extent. Previously is was believed that agility is a combination of several athletic traits including strength, reaction time, speed, speed of movement, power and co-ordination. It is demonstrated to such movement as dribbling, faking, stopping and changing body the direction quickly. Hence agility is one of the important physical fitness components and essential for Volleyball and basketball players.

The purpose of the study was to compare the performance of agility of volleyball and basketball players. For the purpose this investigator selected 12 volleyball and 12 basketball players at the age of 18 to 25 year from Gulbarga university players. For measuring the agility performance shuttle run test (10.00 Mtrs x 4) was used. The collected data were analyzed by using the 't' ratio statistical technique. And the level of significant was indicates that the mean of the basketball players (12.06) and that of volleyball players (11.56), and 't' ratio (2.42) was shown not significant at 0.05 level of confidence and degree of freedom was 28.

### Conclusion

On the basis of the results, the following conclusions are drawn.

1. The performance of agility of Basketball players is greater than that of Volleyball players.
2. The result of the study shown there was a significant difference between Basketball and Volleyball players agility performance because both movements are not same.

### Recommendations

With the help of the results of the studies the following recommendations have been made;

1. Since the performance of Volleyball players is not up to mark when compared to the agility scores of Basketball players, more focus is required to train the Volleyball players. The department of physical education at the university level shall take note of this and prepare a scheme to strengthen the physical fitness of the players irrespective of their specialization.
2. It is observed that Volleyball players level of agility is not much satisfactory when compared to the agility of Basketball players. In this regard, it is necessary to improve the skills through providing rigorous training in modern methods.
3. Moreover, the simpler forms of exercise maybe undertaken to improve the skills both in cardiovascular endurance and Physical Fitness Index.
4. There shall be effective periodic coaching camps at the university level in order to develop full potentiality in the players drawing the services of specialized coaches from the different places for different specialization.
5. Similarly study may be conducted on different games on large members. The same study may be conducted on female players. The same study may be conducted on national level players.
6. The study will help the basketball players to improve their performance. The study may be conducted on different male and female age groups.
7. The results of the study will help the physical education teachers and coaches to plan training on coaching schedules of the basketball. The results of the study will help to select the players.

### Reference

1. Bushy Suzanne R. Relationship of modern dance performance agility balance, flexibility, power and strength The Research Quarterly. 1996; 37:3.
2. Clarke H Harrison. Historical Orientation physical fitness newsletter. 1957; 3:9-3.
3. Duda M Plyometrics. A legitimate form of power Training the physical & sports medicine, 1988, 16(13).
4. Fox LEB, Rowers WR, Mrerle IV. The physiological Basis of Physical Education & Athletics (4<sup>th</sup> Ed) Philadeophia PA Sanduers College Publishing.
5. Gambetta V. Track & Field Coaching Manual" West point NY Leisure Press.
6. Malhotra MS. Evaluation of General Physical Fitness.
7. McGee, Barrow. A Physical Approach to Measurement in physical Education.
8. Mathews K Donald. Measurement in physical Education (Philadelphia W.A. Sunder CO).
9. Mary J. Walkup: The predictability of success in bowling and Badminton, Completed Research in Health, physical Education and Recreation, 2:15.
10. Russle F. Wells The Relationship of leg strength / body weight and the length of lower limb segments to the vertical jump, completed Research in Health, Physical

Education and Recreation, 5:78.

11. Rule M. Barker the Relationship of Foot Leverage and Vertical Jumping Ability, completed Research in Health, Physical Education and Recreation, 7:39.
12. Hilsendager, Donald L Malcoin, Straw T, Kenneth J Ackrnan. Comparison of Speed, Strength and Agility Exercise in the development of agility The Research Quarterly. 1969; 42:1.
13. Lerroy GS. Agility performance and Physical Growth: The Research Quarterly. 1951; 22:2.
14. Mohar, Dorothy R, Martha V. Hauerick. Relationship between Height, Jumping, Ability and Agility to Volleyball skill The Research Quarterly. 1965; 27:2.
15. Richardson, Deane E. The Shuttle sun as a Football conditioner Athletic Journal. 1957; 38:1