



COMPARATIVE ANALYSIS OF SELECTED PHYSICAL FITNESS COMPONENTS OF BASKETBALL AND VOLLEYBALL PLAYERS

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ABSTRACT

Physical fitness is a fundamental necessity for any activity. Motor qualities such as speed, strength, endurance, and flexibility are essential for general fitness of an individual as well as for excellence in Sports/Games. Physical fitness is a natural byproduct of daily living. Physical fitness status is one of the deciding factors of one's performance. Speed is the ability to execute motor action under given condition in minimum possible time. Agility to start, stop and move the body quickly and in different directions. Speed and agility are the important motor components that requires in every game for improvement of performances. Both games are unique sports that can improve overall fitness confidence for players of all age group. It realizes for speed, agility, flexibility and strength. The purpose of the study was to compare the selected physical fitness components between Basketball and Volleyball players. To achieve the purpose of this study thirty male players were selected as subjects various school around Nagapattinam District. Out of thirty players fifteen were Basketball players and fifteen were Volleyball players. The age of the subjects were ranged from 16 to 18 years. The data was collected on selected criterion variables such as speed and agility were measured by 50 meters dash and shuttle run test respectively. The data collected from the group on the criterion variables such as speed and agility were statistically examined to find out whether there was any significant difference between Basketball and Volleyball players. "t" ratio was employed. The level of significance was fixed at 0.05 level of confidence. It was concluded that the physical fitness of Basketball players was higher than the Volleyball players.



KEY WORD: Physical fitness, speed, agility.

INTRODUCTION

Physical fitness is a fundamental necessity for any activity. Motor qualities such as speed, strength, endurance, and flexibility are essential for general fitness of an individual as well as for excellence in Sports/Games. Physical fitness is a natural byproduct of daily living. Physical fitness status is one of the deciding factors of one's performance. It is one of the most important elements of leading a healthy life style. It is the ability to your body systems to work together efficiently to allow you to be healthy and performance activities of daily living. Physical fitness is an essential first and foremost criterion in every game. Maintenance of physical fitness is needed of the day in human society. In this age of stress and tension, low level of fitness leads towards, the exposure of degenerative and psychosomatic disorders including other in effective suffering. It may be you think it means being free from of disease and other health problem or having load of energy, a muscular body or the ability to finish a marathon. Actually, fitness refers to your own optimal health over well being to fitness is your own optimal health and over well being to fitness is your at its very best. Being fit defines every aspect of your health not just physically but also your

emotional and mental wellbeing. In fact they are inter connected smart eating active living are instrumental to all three. It is the ability to carry out our daily task, without under the fatigue. physical Fitness means the capacity of an individual to must the varied physical demands of their sports without reducing the athlete to a fatigue state. The components of physical fitness are strength, speed, endurance, flexibility and co-ordination.

The volleyball was invented by in 1895 by William G. Morgan. Speed is need to move quickly around the court to counter the speed of services and smashes. The agility to change direction in a split second in accordance to be ball direction is also crucial. The basketball was conceived in 1891 by Dr. Jamesnaisimith speed and agility training is crucial for basketball players to improve foot work skills as well as improve cardio respiratory stamina. Speed and agility are decreasing injury for Basketball players. Basket Ball is involved more in short running and agility type of movement in game. It is the one of the fast game.

Speed is the ability to execute motor action under given condition in minimum possible time. It is the ability to execute any work in the minimum possible time. It is the ability to rapidly and accurately change the direction of the body at Speed. It is the ability to proper the body or part of the body rapidly from one point to another. In order words the capacity of moving a limb or part of the body’s lever system or the whole with the greatest possible velocity.

Agility to start, stop and move the body quickly and in different directions. It is the ability to change body position and direction quickly and effectively. It is the ability to rapidly and accurately change the direction of the body at speed. It is the ability to change the position of our body quickly and to control body movement. It is the stability produced by the distribution of weight.

Speed and agility are the important motor components that requires in every game for improvement of performances. Both games are unique sports that can improve overall fitness confidence for players of all age group It realizes for speed, agility, flexibility and strength.

The purpose of the study was to compare the selected physical fitness components between Basketball and Volleyball players. To achieve the purpose of this study thirty male players were selected as subjects various school around Nagapattinam District Out of thirty players fifteen were Basketball players and fifteen were Volleyball players. The age of the subjects were ranged from 16 to 18 years. The data was collected on selected criterion variables such as speed and agility were measured by 50 meters dash and shuttle run test respectively. The data collected from the group on the criterion variables such as speed and agility were statistically examinee findout weather there was any significant difference between Basketball and Volleyball players. “t” ratio was employed. The level of significant was fixed at 0.05 level of confidence.

Table – I
Mean standard deviation and “t” ratio on speed Basketball and Volleyball players.

GROUP	MEAN	S.D	“t” RATIO	LEVEL OF SIGNIFICATION
Basketball	6.62	0.333	7.09*	0.05
Volleyball	7.44	0.482		

* Significant at 0.05 level of confidence. This table value for the significance is 2.54.

Table - I indicate the mean, standard deviation and “t” ratio of speed of Basketball and Volleyball players. The mean and standard deviation values were 6.62 and 0.333 for Basketball players and 7.44 and 0.482 for Volleyball players respectively and the “t” ratio for the value was the obtained “t” ratio for speed was found significant at 0.05 level of confidence. Since these values were higher than required table value of 2.54.

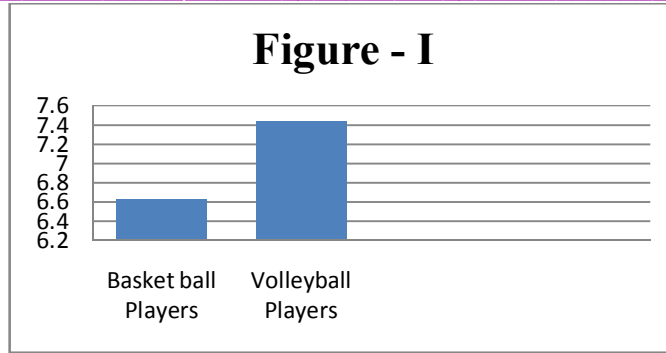


Figure - I Bar diagram showing the Mean difference between Basketball and Volleyball players on speed.

Table – II
Mean standard deviation and “t” ratio on agility Basketball and Volleyball players.

GROUP	MEAN	S.D	“t” RATIO	LEVEL OF SIGNIFICATION
Basketball	9.67	0.36	3.654*	0.05
Volleyball	10.25	0.49		

* Significant at 0.05 level of confidence the required table value for the significance is 2.54.

Table - II indicate the mean standard deviation and “t” ratio of Agility of Basketball and Volleyball players. The mean and standard deviation values were 9.67 and 0.36 for Basketball players and 10.25 and 0.49 for Volleyball players respectively. The “t” ratio for these values was 2.05. The obtained “t” ratio for agility was found significant at 0.05 level of confidence. Since these values are higher than the required table value of 2.05.

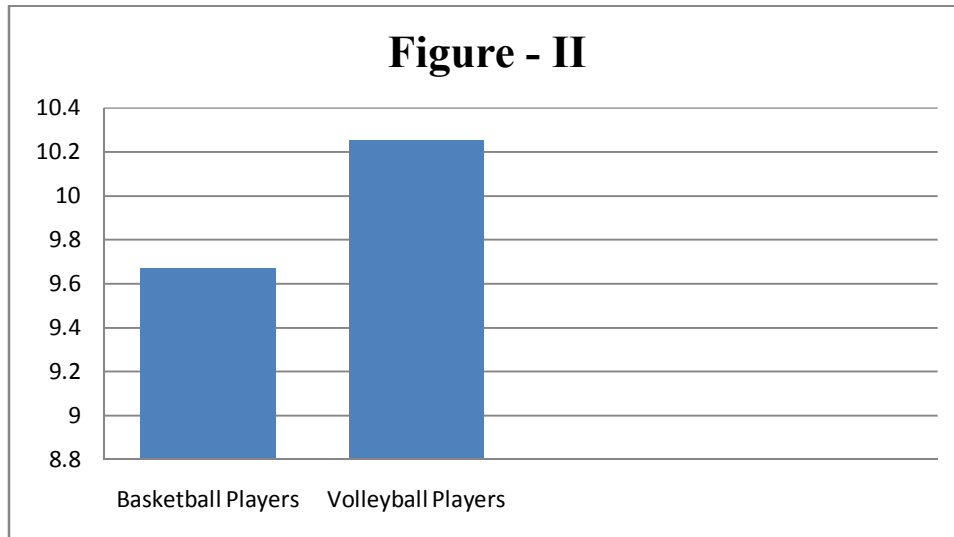


Figure – II Bar diagram showing the Mean difference between Basketball and Volleyball players on agility.

DISCUSSIONS AND FINDINGS:

It was observed from the analysis date and discussion on finds showed that the Basketball and Volleyball players they have a difference in speed and agility. Similar results were found in the study carried

out by suresh N.P and Prakash S.M (2011),Lalit Mohan et.all., (2012), Rajesh Karthi.S and Krishna Kanthan .S (2014), Akilan.N and mohd shafi sha C 2014) and Ajoy Bag et.all.,(2015).

CONCLUSION:

Within the limitation of the study and on the basis of the obtain results from this study the following conclusions has been drawn.The result of the study shows that significant difference exist between Basketball and Volleyball players in speed and agility. It was concluded that the physical fitness of Basketball players was higher than the Volleyball players. Speed and Agility play a vital role in both games. However Basket Ball players showed greater speed and Agility than volley Ball players. It may be because of difference in skills, nature of games, duration of training, individual difference etc. Hence Basket Ball and volley Ball Coaches should note the difference during selection.

REFERENCE:

1. Suresh N.P., prakash S.M ., comparision of physical fitness variables of 18-25 years old volleyball players Belonging to different District University of Mysore, Journal of Arts and culture (2018), 2(2);34-36.
2. Lalit Mohan Tiwari, Manoj singh and Bohawat singh ., comparative selected physical and physiological variables of male Basket Ball players in different level of competition, RSSS(2012), 1(1); 40 to 42.
3. Rajesh Karthi .S .,and Krishna Kanthan.S., comparative analysis of selected physical fitness variables Among football Hockey and Basket Ball players, Indian journal of Research (2014), 3(8); 157-158.
4. Akilan.N., and Mohd shafi shah .,comparison of speed and agility between Hand Ball and volleyball players International journal of physical Education and sports (2014), 3(3); 31-34.
5. Ajoy Bag., Aloke sen Borman., suprah das., Binod chawodhery comparative study of physical Fitness of volleyball and basketball players University level, Journal of sports and physical Education (2015), 2(5); 1-5.
6. <http://us.humankinetics.com>
7. www.indiatoday.in
8. <http://blong.nasam.org>
9. www.studyblue.com