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# Selected physical fitness variables and basketball performance

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### Abstract

The purpose of the study was to know the relationship of selected physical fitness variables and basketball performance of inter-collegiate basketball male players.

**Methodology:** To achieve the objectives of the study forty five male basketball male players, who had participated the visvesvaraya technological university inter-collegiate basketball tournament, were selected as subjects. From the data pertaining to the five physical fitness variables such as speed were measured by 50mt dash test and the score was measured in seconds, agility measured by 4 x 10mt shuttle run test and the score was measured in seconds, leg explosive power were measured by standing broad jump test and the score was measured in centimeters, shoulder strength measured by medicine ball throw test and the score was measured in centimeters, strength endurance measured by pushups test and the score was measured in numbers and playing ability assessed through subjective rating, by three experts, during the tournaments and the average was taken as criterion score. For analysis and interpretation of data, the investigator used person product-moment correlation was used.

**Results:** There was significant relationship found between selected physical fitness variables with basketball performance of inter- collegiate male basketball players.

Keywords: Basketball, physical fitness, performance

## 1. Introduction

Basketball is an extremely popular sport around the world. More people like to watch and play basketball than any other sport in the world. It is played in driveways, parking lots, back yards, streets, high schools, colleges and professional arenas. Basketball is included among the Olympic sports. Basketball is an athletic sport, usually played on an indoor court in which two competing teams of five layers each attempt to score by throwing an inflated ball. The team scoring the most such throws, through field goals or foul shots, wins the game. Because of its continuous action and frequent scoring, basketball is one of the most popular spectator as well as participant sports in the world.

Basketball has been called international sports. There is hardly a corner on the earth where people of all ages and both sex have not been attracted by this game of fast movement, amazing accuracy and sometimes thrilling extra ordinary finishes.

Basketball game is a combination of masterful skills and aesthetic body movement. The experts in the field believe that marked changes and advancement in the game's technique and tactics as well as multivariate strategies is the outcome of scientific approach. They suggest that the game should be segregated into different components for individualized training and then combined together to give peak performance.

Basketball players have an essential need, skillfulness, change of speed, sense and direction, passing ability, rebounding ability and shot must be carried out with the ball, a tool which is not easy to handle. For that a high degree of motor abilities like, strength, anaerobic and aerobic endurance, agility, speed of movement, reaction time, explosive power, flexibility etc. are the essential qualities required to be developed by the basketball players. Moontsir (1978) expressed that the basketball game demands, highly skilled player with the maximum physical conditioning. Today basketballs put them self through vigorous and varied training programs to meet the demands of the game.

In modern basketball trends, most of the teams are used to playing higher speed basketball and it depends primarily on speed and quickness. Practice without high speed, the ball handling

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drills and fast breaks drills has become very difficult to excel in the high level of performance during the game without errors and turnovers.

The importance of motor fitness is described in these words that "motor fitness and competitive performance go hand in hand with athleticism". Superb fitness level is a pre requisite in training for competitive basketball. Apart from the above motor fitness evaluations, motor skill is also very important factor in basketball playing ability. Each phase of skill development is related to the fulfillment of concrete tactical tasks that can arise in the game. Performance in basketball requires high degree of skill proficiency in passing, shooting, dribbling, rebounding etc. So, we can say that the skills are the soul of the game from technical, tactical and strategically point of view. As the nature of the game somebody once said" when the going got tough, the tough get going" to avoid a breakdown of skill like missing an easy shot, throwing a bad pass or losing your opposing player in defense etc. under the pressure of a competition game situation, require intensive training and experience in realistic and game conditions.

So, this present study was undertaken to measure the basketball performance with selected physical fitness variables such as speed, agility, leg explosive power, shoulder strength and strength endurance.

## 1.1 purpose of the study

The main purpose of the study was to know the relationship of selected physical fitness variables and basketball performance of inter- collegiate basketball male players.

# 2. Methodology

# 2.1 Selection of subjects

Forty-five male inter-collegiate basketball male players were

selected as subjects; all the subjects belonged the age group of 18 to 25 years. During the visvesvaraya technological university inter-collegiate basketball tournament.

# 2.2. Test administration

The subjects were tested for the physical fitness variables such as speed were measured by 50 meter dash test and the score was measured in seconds, agility measured by 10x4 meter shuttle run test and the score was measured in seconds., leg explosive power were measured by standing broad jump test and the score was measured in centimeters, shoulder strength measured by medicine ball throw test and the score was measured in centimeters, strength endurance measured by pushups test and the score was measured in numbers and playing ability assessed through subjective rating, by three experts, during the tournaments and the average was taken as criterion score. For analysis and interpretation of data, the investigator used person product moment correlation was

## 2.2 Statistical analysis

To determine whether relationship among the research variables exists or not person product- moment correlation was applied. The data was computed on the statistical package for the social sciences.

# 3. Results of the study

To find out correlation between selected physical fitness variables in relation with basketball performance of inter collegiate male players product moment method of correlation was used.

Table 1: Correlation between physical fitness variables in relation with basketball performance

Si no	Variables	Pearson correlation
1	Inter- collegiate basketball men players basketball performance and speed	0.564*
2	Inter- collegiate basketball men players basketball performance and agility	0.578*
2	Inter- collegiate basketball men players basketball performance and leg explosive power	0.685*
4	Inter- collegiate basketball men players basketball performance and shoulder strength	0.562*
5	Inter- collegiate basketball men players basketball performance and strength endurance	0.615*

<sup>\*</sup>Significant at 0.05 level.

The above table-1 shows that the correlations of selected physical fitness variables such as speed (r=0.564\*), agility (r=0.578\*), leg explosive power (r=0.685\*), shoulder strength (r=0.562\*), and strength endurance (r=0.615\*) significant correlation with basketball performance.

# 4. Conclusion

On the basis of findings of the study, the fallowing conclusions wear drawn.

There was a significant relationship found between the selected physical fitness variables such as speed, agility, leg explosive power, shoulder strength and strength endurance basketball performance of inter-collegiate basketball male players.

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