

Comparative Study of Motor Fitness Components between inter-collegiate volleyball and Basketball players of Punjabi University Patiala

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Abstract

Introduction: Motor fitness may be defined as the successful adaptation to stresses of one's life style. Keeping in view the concept, this study was taken to compare the levels of motor fitness between Volleyball and Basketball players. **Sample:** Total number of 40 Intercollegiate Volleyball and Basketball Players (20 Volleyball and 20 Basketball players) were selected randomly from Punjabi University, Patiala. **Method:** The present study is the descriptive survey. The criterion measures adopted for this study were Flexibility, Agility, Endurance and power. The data collection tools used in the study were Sit and Reach, Shuttle Run, 600mt. Run Walk and Standing Broad Jump. **Analysis of Data:** Data of Motors Fitness Components between Volleyball and Basketball players was compared by using independent Sample t test. The level of significance was kept at 0.05 level of significant. **Findings and Conclusion:** It was found that in Motor Fitness components like, Agility, Endurance and Power there was significant difference between Volleyball and Basketball players. But no significant difference was found in Sit and Reach between Volleyball and Basketball players. Mean scores showed that Basketball Players were better in Flexibility, Endurance and Power as compare to Volleyball Players. While as Volleyball Players were better in Agility as compare to Basketball Players. Based on the results it was concluded that Basketball Players are good in Flexibility, Endurance and Power, while as Volleyball Players are better in Agility.

KEYWORDS: Motor Fitness, Volleyball Players and Basketball Players.

Introduction

Motor Fitness refers to the development of general body control , fine motor skills of large muscle movements such as running , jumping and throwing.” Motor fitness is frequently chosen to achieve desirable goals. Motor Fitness may be defined as the successful adaptation to stresses of one's life style. In other words, Motor fitness refers to the efficiency of basic movements in addition to the physical; fitness. **Agility:** Agility may be defined as the ability to change direction accurately and quickly moving rapidly. Agility is generally defined as the ability to change quickly and effectively while moving as nearly possible at full speed. **Speed:-** Speed is quickness with which one is able to move his body from one point to another. According to Barrow and McGee (1971), speed is defined as “one's ability to perform successive movement of the same pattern at a fast rate.” **Flexibility:-** Flexibility is the ability of an individual to move the body and its parts through a wide range of motion as possible without undue strain to the articulation and muscle attachments. Johnson and updyke defined that flexibility is a component of physical fitness that pertain to the functional capacity of the joints to move through a normal of motion. **Strength:-** Strength is defined as force that a muscle group or a muscle can exert against a resistance in a single maximum contraction. According to Watson, “Strength is the maximum force that can be developed during muscle contraction” or strength is defined as the capacity of the individual to exert muscular force. Motor fitness may be defined as the successful adaptation to stresses of one's life style. Keeping in view the

concept, this study was taken to compare the levels of motor fitness between Volleyball and Basketball players.

Sample:

Total number of 40 Intercollegiate Volleyball and Basketball Players (20 Volleyball and 20 Basketball players) were selected randomly from Punjabi University, Patiala.

Method:

The present study is the descriptive survey. The criterion measures adopted for this study were Flexibility, Agility, Endurance and power. The data collection tools used in the study were Sit and Reach, Shuttle Run, 600mt. Run Walk and Standing Broad Jump.

Analysis of Data:

Data of Motors Fitness Components between Volleyball and Basketball players was compared by using independent Sample t test. The level of significance was kept at 0.05 level of significant.

Table no 1.1

Descriptive Statistics of Motor Fitness Components of between inter-collegiate volleyball and Basketball players

Volleyball				Basketball players		
Motor fitness components	N	Mean	Standard Deviation	N	Mean	Standard Deviation
Flexibility	20	7.01	0.61	20	8.01	0.44
Agility	20	9.71	0.62	20	10.57	0.8
Endurance	20	1473.20	280.09	20	1372.00	183.93
power	20	2.17	0.17	20	2.98	0.19

Table no 1.2

Independent sample 't' test of Motor Fitness Components of between Volleyball and Basketball players

Components	't' value	df	Sig. (2-tailed)	Mean Difference
Flexibility	2.03	38	0.058	1.00
Agility	3.10	38	0.045	0.86

Endurance	0.55	38	0.037	1.01
Power	1.20	38	0.022	0.81

From the table no 1.2, the results of this study revealed that in Motor Fitness components like, Agility, Endurance and Power there was significant difference between Volleyball and Basketball players. But no significant difference was found in Sit and Reach between Volleyball and Basketball players.

Findings and Conclusion: It was found that in Motor Fitness components like, Agility, Endurance and Power there was significant difference between Volleyball and Basketball players. But no significant difference was found in Sit and Reach between Volleyball and Basketball players. Mean scores showed that Basketball Players were better in Flexibility, Endurance and Power as compare to Volleyball Players. While as Volleyball Players were better in Agility as compare to Basketball Players. This finding is supported. Berger and Paradis (2010) compared the physical fitness of children in order to compare the physical fitness in 10WA and Tokyo Japan. They recorded that Tokyo children scored better in all motor performance tests accepts on lie sit-ups. They also found that Tokyo children had more chances for activity through physical classes than the 10WA group. Choudri (2002) Studied the comparative physical fitness between students of residential and non-residential schools (aged 12-14 years) and had tested physical fitness index (PFI), BMI and anthropometry measures of 50 residential school children and 40 non-residential school children of Bijapur, Karnataka. They reported that non-residential school children had poor physical anthropometry and showed a less PFI score, as compared to residential school children.

Based on the results in the present study it was concluded that Basketball Players are good in Flexibility, Endurance and Power, while as Volleyball Players are better in Agility.

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