



Comparative Study on Selected Physical Fitness and Psychological Factor among Basketball and Volleyball Men Players

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Abstract

The purpose of this study was to compare the selected physical fitness components and psychological variables among basketball and volleyball players. The investigator randomly selected 15 for each game at the age group of 21-24 years from YMCA College of Physical Education. The data for the psychological variable and physical components fitness test and were statistically analysed to find out the purpose of comparison whether there were any significant differences in the various selected components of physical fitness and psychological variables among basketball and volleyball players. To achieve the purpose of this study the investigator selected 15 basketball players and 15 volleyball players from YMCA College of Physical Education, Chennai. Their age ranged from 21 to 24 years. All the subjects have participated in intercollegiate tournaments and were well versed in their respective games. Physical fitness components were selected by reviewing and studying related literature in detail. A feasible analysis to which these variables could be taken for the investigation was made in consultation with the supervisor and the experts keeping in mind the availability of the equipment, acceptability of the subjects and the suitable time that would be devoted for test as well as to keep the entire study investigator. Since physical and psychological variables play an important role in almost all events as well as individual athletic potential ability. The collected data were tested using 't' test. There were no significant differences in speed, agility, aggression and self concept among men basketball and volleyball players.

Keywords: Physical fitness, Psychological, Basketball and Volleyball players.

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Introduction

A sport is an institution allied competition activity that involves vigorous physical exertion or the use of relatively complex physical skills by individual whose participation is motivated by a combination of intrinsic and extrinsic factors. Sports is an institutional physical activity in which the rules are fixed externally and before. It is conceded however, that the team sports is commonly used in its broad concept to embrace non-athletics, games, play, gymnastics and activities of an individual and team variety- both competitive and non-competitive. Sports and games have been part and parcel of culture and a reflection of a large macro system of the society within which the life exists. In an analysis of primitive societies, it was found that in the non-game culture which was more in number, the society was non-competitive, but it was characterized by a low level of activity.

Statement of the Problem

The purpose of this study was to compare the

selected physical components namely speed, agility and psychological variables namely aggression and self-concept among volleyball players and basketball players.

Hypothesis

It is hypothesised that there would not be any significant differences among basketball players and volleyball players in selected physical fitness components and psychology variables.

Methodology

To achieve the purpose of this study the investigator selected 15 basketball players and 15 volleyball players from YMCA College of Physical Education, Chennai. Their age ranged from 21 to 24 years. All the subjects have participated in intercollegiate tournaments and were well versed in their respective games. Physical fitness components were selected by reviewing and studying related literature in detail. A feasible analysis to which these variables could be taken for the investigation was made in consultation with the supervisor and the experts keeping in mind the availability of the equipment, acceptability of the subjects and the suitable time that would be devoted for test as well as to keep the entire study investigator. Since physical and psychological variables play an important

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role in almost all events as well as individual athletic potential ability. So, the following criterion variables were selected for this study.

Dependent Variables

Physical variables

1. Speed
2. Agility

Psychological variables

1. Aggression
2. Self-concept

Collection of Data

To archive the purpose of the study, fifteen college level men basketball and fifteen college level men volleyball player were selected. For all subjects speed (50 meter dash), agility (shuttle) aggression (Chauhan and Tiwaris) and Self Concept (Mukta Rani Rastosi (1979) test were conducted. Everyone was given a chance to practice and get familiarized with the above mentioned test items.

Table I. Tests Selection

S.No	Criterion	Name of the Test	Unit of Measurement
1	Speed	50meters dash	In seconds
2	Agility	Shuttle run	In seconds
3	Aggression	Chauhan and Tiwaris	Points
4	Self concept	Mukta Rani Rastogi	Points

Table II. Standard mean and independent 't' test for men basketball and volleyball on speed

Category	Number of subjects	Mean	Standard Deviation	't'- Value
Basketball	15	6.98	0.4179	2.75
Volleyball	15	7.066	0.2965	

*Significant at 0.05 level

(Table value required for significance at 0.05 level for 't' test with df 38 is 2.02)

From the table II the mean value obtained for men basketball and volleyball players were 6.98 and 7.066 respectively and 't' test value between the 2.75. Since the obtained 't' test value of 2.75 is greater than

the table value of 2.02 with df 38 at 0.05 level of confidence, it was conclude that the men basketball and volleyball players had significant difference in the performance of speed.

Table III. Standard mean and independent 't' test for men basketball and volleyball on agility

Category	Number of subjects	Mean	Standard Deviation	't'- Value
Basketball	15	12.00	2.0774	2.36
Volleyball	15	11.00	2.5547	

*Sisignificant at 0.05 level

(Table value required for significance at 0.05 level for 't' test with df 38 is 2.02)

From the table III the mean value obtained for men basketball and volleyball players were 12 and 11 respectively and 't' test value between the 2.36. Since the obtained 't' test value of 2.36 is greater than the table

value of 2.02 with df 38 at 0.05 level of confidence, it was conclude that men basketball and volleyball players had significant difference in the performance of agility

Table IV. Summary of mean and independent 't' test for men basketball and volleyball on aggression

Category	Number	Mean	Standard Deviation	't'- Value
Basketball	15	84.75	10.1145	2.21
Volleyball	15	77.35	10.9989	

*Significant at 0.05 level

(Table value required for significance at 0.05 level for 't' test with df 38 is 2.06)

From the table IV the mean value obtained for men basketball and volleyball players were 84.75 and 77.35 respectively and 't' test value between the 2.21. Since the obtained 't' test value of 2.21 is greater than

the table value of 2.02 with df 38 at 0.05 level of confidence, it was conclude that the men basketball and volleyball players had significant difference in the performance of Aggression.

Table V. Standard mean and independent 't' test for men basketball and volleyball on self concept

Category	Number of subjects	Mean	Standard Deviation	't'- Value
Basketball	15	11.85	2.3814	2.15
Volleyball	15	11.75	1.7252	

*Significant at 0.05 level

(Table value required for significance at 0.05 level for 't' test with df 38 is 2.02)

From the table V the mean value obtained for men basketball and volleyball players were 11.75 and 11.85 respectively and 't' test value between the 2.15. Since the obtained 't' test value of 2.15 is greater than the table value of 2.02 with df 38 at 0.05 level of confidence, it was conclude that the men basketball and volleyball players had significant difference in the performance of pull-ups.

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Conclusion

The following conclusions were based on the limitations and delimitations of the study:

- There were no significant differences in speed and among men basketball and volleyball players.
- There were no significant differences in agility among men basketball and volleyball players.
- There were no significant differences in aggression of men basketball players when compared with men volleyball players.
- There were no significant differences in self-concept of men basketball players when compared with men volleyball players.

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