

A COMPARATIVE STUDY OF DIFFERENT MOTOR ABILITIES AMONG COLLEGE LEVEL VOLLEYBALL AND HANDBALL FEMALE PLAYERS

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INTRODUCTION

Millions of people participate in sporting activities, watch, read and spend billions of rupees or dollars annually on sports related activities and equipments. The level of sports performance at top competitions is increasing day by day and it is very true that only a trifling margin makes the difference for the top positions. Intensity of competition in each and every field of sports goes on increasing as we move from the lowest level of domestic competitions to the highest level at Olympics. Only selected players take part in a game at the highest level. Motor abilities plays important role in achieving proficiency in games and sports. It is assumed that with participation in sports the level of motor ability also improves. Motor ability has been defined by Barrow (1964) as "the present acquired and innate to perform motor skills of a general and fundamental nature, exclusive of highly specialized sports and gymnastic techniques". Motor ability status would come about relatively slowly and over a period of time. 'Motor ability' and 'Physical fitness' are directly related each other and helps in achieving total fitness. Mathew's (1973) statement that "a child who is fit enjoys robust health, fine looking physique, a satisfactory level and emotional adjustment and a proficiency in basic skills of movement" seems apt in this context. Motor ability components play a vital role in achieving top level performance in different sports disciplines. To achieve International standard of physical abilities and the best training of individuals are important factors (Hirata, 1979).

HYPOTHESIS

It was hypothesized that there will be no significant difference between Volleyball and Handball female players in relation to speed, power and agility.

OBJECTIVE OF THE STUDY

The study deals with immediate objectives and certain goals as follows: to compare the speed, leg power, arm power, the flexibility, and the endurance of Volleyball and Handball female players.

METHODOLOGY

Sample

For the purpose of study 20 female players each for volleyball and Handball were selected who had played at college level from Punjabi University, Patiala. The age group of subjects was ranging between 18-24 years

Tools used

Standard test as explained by Johnson and Nelson (1982) in their book used to measure motor fitness components. List of test are as follows: Speed was measured by 50- Yard Dash Run test, Arm Power was measured by two hand Medicine Ball put test. Leg Power and agility were measured by Standing Broad Jump and shuttle run test respectively.

Method of Analysis

't' test was applied to find out the significant difference .

DISCUSSION AND FINDINGS

TABLE – 1

SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN VOLLEYBALL AND HANDBALL FEMALE PLAYERS ON THE SPEED VARIABLE

Group	Number	Mean	S.D.	Df.	't'
Volleyball	20	9.05	0.53	38	1.21
Handball	20	8.84	0.62		

* Significance at 0.05 Tab 't' at 0.5 = 2.02

A perusal of table-1 indicates that a mean and standard deviation values with regard to Volleyball on the speed variable were 9.05 and 0.53 whereas in case with Handball the same were recorded as 8.84 and 0.62 respectively. There were no significant difference between Volleyball and Handball players were found as the calculated t-value (1.121) was less than tabulated t- value (2.02) at .05 level.

TABLE – 2

SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN VOLLEYBALL AND HANDBALL PLAYERS ON THE LEG POWER VARIABLE

Group	Number	Mean	S.D.	Df.	't'
Volleyball	20	1.754	0.123	38	0.2679
Handball	20	1.74	0.098		

* Significance at 0.05 Tab 't' at 0.5 = 2.02

The table-2 indicates that the mean and standard deviation values with regard to volleyball on the leg power were 1.754 and 0.123 whereas in case with Handball players the same were recorded as 1.74 and 0.098 respectively. The results found shows insignificant difference between Volleyball and Handball players as the calculated 't' value (0.2679) was less than the table value of 't' (2.02) at 0.05 level.

TABLE – 3**SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN VOLLEYBALL AND HANDBALL PLAYERS ON THE ARM POWER VARIABLE**

Group	Number	Mean	S.D.	Df.	't'
Volleyball	20	2.54	0.165	38	0.6827
Handball	20	2.59	0.1942		

* Significance at 0.05 Tab. 't' at .05= 2.02.

The above table shows that mean and standard deviation values for Volleyball on the arm power variable were 2.54 and 0.165 respectively whereas in case with Handball the same were recorded as 2.59 and 0.1942 respectively. There were no significance difference observed between Volleyball and Handball players on the arm power variable as the calculated t- value (0.6827) was lower than tabulated 't' value (2.02).

TABLE – 4**SIGNIFICANCE OF MEAN DIFFERENCE BETWEEN VOLLEYBALL AND HANDBALL PLAYER ON THE AGILITY VARIABLE**

Group	Number	Mean	S.D.	Df.	't'
Volleyball	20	11.27	0.6219	38	1.28
Handball	20	11.54	0.6724		

* Significance at 0.05 Tab. 't' value at .05 = 2.02.

The table-4 reveals that mean and standard deviation values for Volleyball on the agility variable were 11.27 and 0.6219 respectively whereas in case with Handball 11.54 and 0.6724 respectively. There was insignificant difference noticed between Volleyball and Handball female players as the calculated 't' (1.28) was lower than tabulated 't' (2.02) at the 0.05 level.

CONCLUSION

From the statistical analysis the following inferences were derived:

- No significant difference was observed in the speed, arm power, and leg- power variable of Volleyball and Handball players.
- There were insignificant differences noticed on the agility variable between Volleyball and Handball players.
- Handball players are superior to Volleyball players on Speed arm power and agility Variable.

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