



THE COMPARATIVE STUDY ON THE LEVEL OF FLEXIBILITY AND MUSCULAR ENDURANCE BETWEEN FEMALE BASKETBALL AND HANDBALL PLAYER

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ABSTRACT:

The present study aimed at compare the level Flexibility and Muscular Endurance between female Basketball and Handball player. The study was conducted on 60 subjects 30 from each from Handball and Basketball. The study was delimited to randomly selected Mangalore University inter collegiate Handball and Basketball female players only. The age of the subject ranged between 18-25 years. SPSS package were used to find out the mean, standard deviation and 't' test for analysing the data. Result relieved that there is no significant difference in flexibility but in other hand there is significant difference in muscular strength between Hand ball and Basketball players.

Key words: Flexibility, Muscular Endurance, Mangalore University, Inter collegiate etc...

INTRODUCTION

Flexibility Refers to the range of movement (ROM) the body's joints and muscles can perform. Flexibility is tested for a number of reasons. In all sporting activities the ability to increase range of movements is important in creating the most efficient use of the body's mechanics when performing specific movements. For basketball players flexibility helps with a wide range of activities from jumping to being able to perform a low and wide defensive stance and a high level of dynamic and static flexibility is important for handball players in order to have a good range of motion when playing and also to reduce the risk of injury.

Muscular Endurance Refers to the ability of the athlete to perform activities over a sustained and constant effort. Muscle endurance focuses on the repetition of tasks over a continued period of time. Examples of this type of endurance can be seen in a basket player's ability to repeatedly contest a rebound by jumping and handball being quite a physical game, players need to be able to hold themselves against opposition players, jump and shoot to score the goal. Sudhir Dnyaneshwarrao (2016) conducted a study to compare the minimal muscular fitness between handball and basketball players. The data pertaining from 25 male Handball players and 25 male Basketball players of Amravati University. The age of the subject was ranging from 18 years to 25 years To measure the minimal muscular fitness, Kraus-Weber Strength Test was conducted with its six test items as follow: 1) strength of abdominal plus psoas muscles; 2) strength of abdominal minus psoas muscles; 3) strength of psoas and lower abdominal muscles; 4) strength of upper back muscles; 5) strength of lower back muscles; 6) floor-touch test. To compare minimal muscular fitness between Handball and Basketball male players the independent 't' test was used at 0.05 level of significance. The study was conclude that, there was no significant difference in minimal muscular fitness between handball and Basketball Players.

METHODOLOGY

SELECTION OF SUBJECTS:

The present study was conducted on 60 subjects 30 from each from Handball and Basketball. The study was delimited to randomly selected Mangalore University inter collegiate Handball and Basketball female players only. The age of the subject ranged between 18-25 years.

Selection of test items and administration of test

Sl.No	Variables	Test
01	Flexibility	Sit and reach test
02	Muscular Endurance	Bent knee sit ups

The above variables and test were selected for data collection, the test conducted the help of physical education directors. The subjects were given brief introduction about the test and its purpose and also demonstration before the conduct of each test.

Statistical analysis and interpretation of the data

SPSS package were used to find out the mean, standard deviation and 't' test for analysing the data.

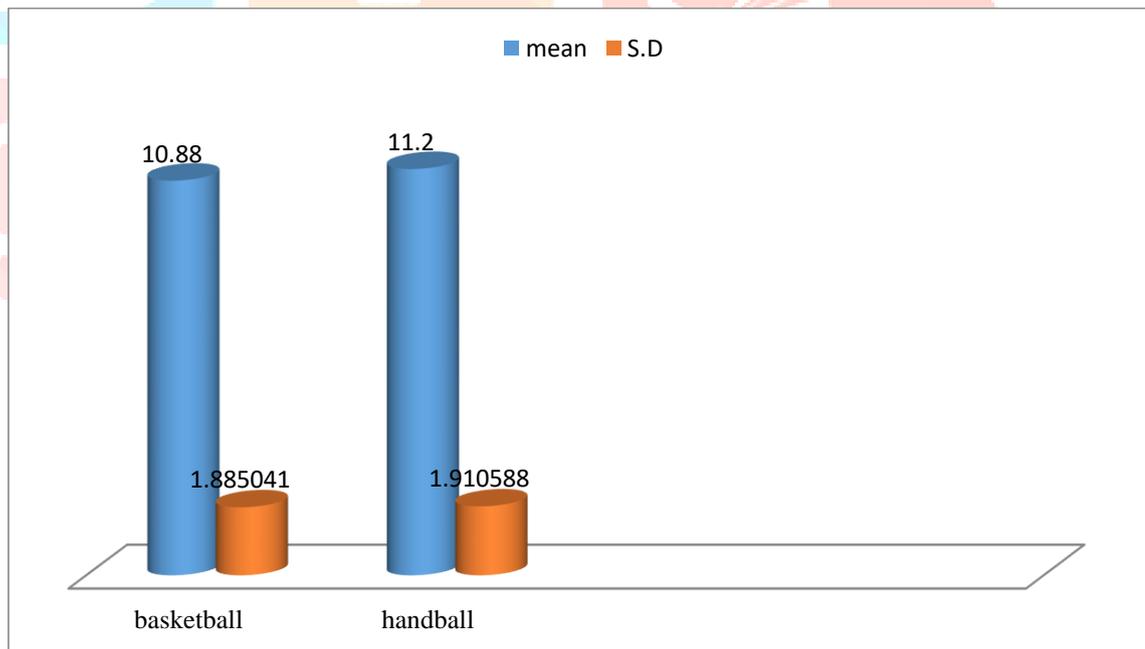
ANALYSIS AND INTERPRETATION OF DATA

Table: 1 Comparison the level of flexibility between female Basketball and Handball players of Mangalore University.

Group	Mean	S.D	t-Value
Handball	11.2	1.910588	0.653028
Basketball	10.88	1.885041	

Table: 1 explains about the comparison the level of flexibility between female Handball and Basketball players of Mangalore University. The t-value is 0.653028 it indicates that there is no significant difference between Handball and Basketball players.

Graph: 1. Comparison the level of flexibility between female Basketball and Handball players of Mangalore University



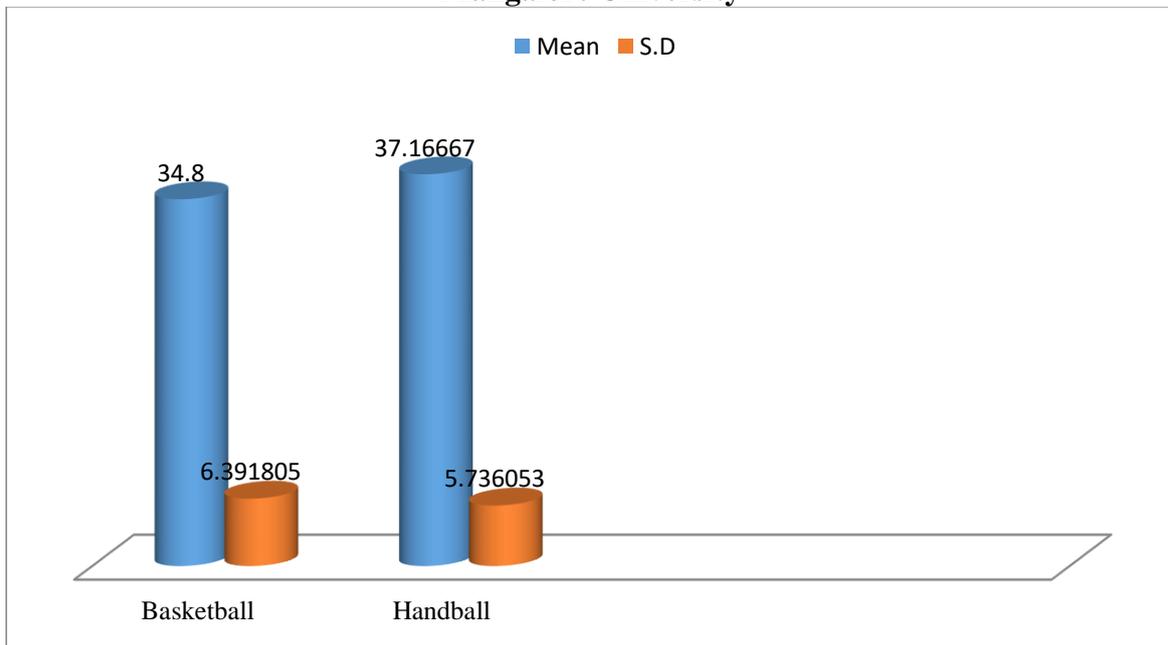
Graph 1: showing Mean Difference of flexibility among the female Handball and Basketball Players. Mean score of handball is 10.88 and Basketball is 11.2, mean difference vale is 0.32 only. It shows that there is no significant difference between Handball and Basketball players.

Table: 2 Comparison of Muscular Endurance between female Basketball and Handball players of Mangalore University

Group	Mean	S.D	t-value
Handball	37.16667	5.736053	1.509367
Basketball	34.8	6.391805	

Table: 2 Explains about the comparison between female Handball and Basketball players of Mangalore University on Muscular Endurance. The t-value is 1.509367, it indicates there is significant difference in Muscular Endurance between selected two groups.

Graph: 2 Comparison of Muscular Endurance between female Basketball and Handball players of Mangalore University



Graph 2 showing mean score of female basketball and Hand ball players. Basketball players have 34.8 and Handball players have 37.16667, difference mean value is 2.366. it's cleared that there is significant difference between muscular strength among two groups. Hand ball players have more muscular endurance than Basketball players. The Handball players have more Muscular Endurance because the game involves more body contact with opponent when compare to Basketball, basically all combat games like handball need more muscular related fitness.

SUMMARY, CONCLUSION AND RECOMMENDATION

The Scholar examined the level of Flexibility and muscular Endurance between Basketball and Handball female players of Mangalore University. Study was conducted on 60 subjects 30 from each from Handball and Basketball. The study was delimited to randomly selected Mangalore University inter collegiate Handball and Basketball female players only. The age of the subject ranged between 18-25 years. Mean and Standard deviation were calculated in order to study the differences in selected variables between female Basketball and Handball players. To assess the significance of differences between the means in case of significant "t values" test was applied. Result relieved that there is no significant difference in the level of flexibility but in other hand there is significant difference in muscular strength between Hand ball and Basketball players.

RECOMMENDATIONS

The following recommendations may be suggested on the basis of the result of this study for further research.

1. It may be suggested that give specific training to improve the muscular strength to Basketball players.
2. The same study may be conduct on different age group and different games.
3. It may be suggested that same study conduct on larger samples with more variables.

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