



# Comparative Study Of The Agility Among Football And Handball Players of Rabindranath Tagore University Bhopal.

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## Abstract:

The main purpose of the study was Comparative Study Of The Agility Among Football And Handball Players of Rabindranath Tagore University Bhopal. Agility is a specific athletic attribute that is fundamentally important to sports Performance. The study was conducted only on football and handball players. only male players were taken into consideration. The age of the subjects were ranging above 20 to 25 years. The study was conducted on sixty male players only. The voluntary data which we got from the departments were divided into two groups according to their status of game. Some students are football players, while as the others are the handball players respectively. Tests were taken as per the time table of the school the subjects were selected by using simple random sampling method. The comparisons of both the variables are analyzed by the t-test. The level of significance was fixed at 0.05

**Key words:** football, Handball Agility

## Introduction:

Football is quite simple, the most popular sports in the world, a game where humanity comes alive with one goal. It inspires and enthuses millions upon millions of people all over the world. Football is requiring the highest levels of physical fitness, technical skill, courage, endurance and agility etc. The game has also evolved in terms of tactics and strategies, first articulated by Herbert Chapman. A continuous process of trying to bring the best out of eleven players and playing conditions. Football is a source of physical exercises to various parts of the body. It involves more time so it is tired game for the young age groups. Because this game requires much stamina and activeness their muscles movement. This game has developed by speedily and also developed all over the world. This game is offering outdoor activity. So this game is called the major game. For a bigger it requires much time it means not easy to learn in little time. It requires 3 to 5 years to become a football player. Football is also a game for the active, well runner and stamina players. This game is mostly developed by watching experienced and well famous players. While in action football being a fast game teaches the players self control quick movement, speed, running agility etc. tactics utilized by their mental and physical alertness during under pressure and prepared themselves to face the attack by opponent. Handball is one the world's oldest sports in the world. It a very strenuous body contact team sport that places heavy emphasis on running, jumping, running speed and throwing and requires substantial strength

level to hit, block, push and hold during game actions. Handball is played over 143 nations and by over 15 million participants over world. Handball is an athletic high scoring spectacular dynamic and exciting sport that requires team work, speed, athleticism, patience and fitness. The sport is sometimes known as Olympic handball or team handball or even European handball in North America.

Agility is a common term used in strength and conditioning and is often considered an essential element of many sports and activities. A boxer dodging a punch, a ballet dancer completing a pirouette, or a wrestler finishing a take-down could all be considered examples of agility. However, individuals involved in the development and improvement of sports performance often regard agility as a loco motor skill whereby an athlete changes direction.

#### Methodology:

The subjects were selected by using simple random sampling method. A total of 60 players who were at the age of above 20-25 years were used in this study. The subjects were collected from department of physical education.

Variable which was used in this study are as under:-

1. Squat thrust:- This test measures the rapidity by which one can change body position.
2. Shuttle run–To measure agility of subjects
3. Side step test:-This test is used to measure the agility of the body for lateral body movements
4. Semo agility test:– To measure agility ability of the subjects during forward, sideward and backward movements
5. Boomerang run test:This test is used to measure the agility ability in running and changing directions.
6. Dodging run test:- To measure the running ability of the subjects
7. Hexagon agility test-To test the ability to move with the maximum speed while maintain balance

#### Observation and Discussion:

**TABLE 1: SQUAT THRUST MEAN, STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D	T-TEST	M.D	M.D
FOOTBALL	15.8	0.77	0.45	0.01	58
HANDBALL	15.7	1.03			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-1 reveals that there is no significant difference between means of football players and handball players because mean of handball players is 15.7 is slightly less than mean of football players i.e. 15.8, and there mean difference is 0.01. Standard deviation was calculated between Football players and handball players. Football players S.D. = 0.77 and handball players S.D. = 1.03 was collected. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference between football players and handball players because value of calculated 't' = 0.45, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

**TABLE 2: SHUTTLE RUN MEAN, STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D	M.D	T-TEST	M.D
FOOTBALL	11.18	0.51	0.31	1.47	58
HANDBALL	10.87	0.45			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-2 reveals that there is least significant difference between means of football players and handball players because mean of handball players is 10.87 is slightly less than mean of football players i.e. 11.18, and there mean difference is 0.31. Standard deviation was calculated between Football players and handball players. Football players S.D. = 0.51 and handball players S.D. = 0.45 was collected. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference found between football players and handball players because value of calculated 't' = 1.475, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

**TABLE 3: SIDE STEP TEST MEANS, STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D	M.D	T-SEST	M.D
FOOTBALL	10.84	1.42	0.63	1.70	58
HANDALL	10.21	0.93			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-3 reveals that there is no significant difference between means of football players and handball players because mean of handball players is 10.21 is slightly less than the mean value of football players i.e. 11.18, and there mean difference is 0.63. Standard deviation was calculated between Football players and handball players. Football players S.D. = 1.42 and handball players S.D. = 0.93. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference found between football players and handball players because value of calculated 't' = 1.70, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

**TABLE 4: SEMO AGILITY TEST MEAN, STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D	M.D	T-SEST	M.D
FOOTBALL	14.07	0.79	0.24	0.96	58
HANDALL	14.31	0.92			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-4 reveals that there is least significant difference between means of football players and handball players because mean of handball players is 14.31 is slightly less than mean of football players i.e. 14.07, and there mean difference is 0.24. Standard deviation was calculated between Football players and handball players. Football players S.D. = 0.51 and handball players S.D. = 0.45 was collected. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference found between football players and handball players because value of calculated 't' = 0.96, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

**TABLE 5: BOOMERANG RUN TEST MEAN, STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D.	M.D	T-TEST	M.D
FOOTBALL	20.34	0.52	0.29	1.94	58
HANDALL	20.05	0.50			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-5 reveals that there is least significant difference between means of football players and handball players because mean of handball players is 20.05 is slightly less than mean of football players i.e. 20.34, and there mean difference is 0.29. Standard deviation was calculated between Football players and handball players. Football players S.D. = 0.51 and handball players S.D. = 0.45 was collected. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference found between football players and handball players because value of calculated 't' = 0.29, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

**TABLE 6: DODGING RUN TEST MEAN AND STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D.	M.D	T-TEST	M.D
FOOTBALL	18.56	0.43	0.07	0.04	58
HANDALL	18.49	0.48			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-6 reveals that there is least significant difference between means of football players and handball players. Mean of handball players is 18.49 is slightly less than mean of football players i.e. 18.56, and there mean difference was 0.070. Standard deviation was calculated between Football players and handball players. Football players S.D. = 0.43 and handball players S.D. = 0.48 was collected. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference found between football players and handball players because value of calculated 't' = 0.07, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

**TABLE 7: DODGING RUN TEST MEAN AND STANDARD DEVIATION AND T-TEST BETWEEN FOOTBALL AND HANDBALL PLAYERS:**

GROUP	MEAN	S.D.	M.D	T-TEST	M.D
FOOTBALL	10.63	0.43	0.17	1.55	58
HANDALL	10.46	0.46			

\*Level of Significance = 0.05

Tabulated 't' 0.05 (58) = 2.000

Table-7 reveals that there is least significant difference between means of football players and handball players. Mean of handball players is 10.46 is slightly less than mean of football players i.e. 10.63, and there mean difference was 0.170. Standard deviation was calculated between Football players and handball players. Football players S.D. = 0.43 and handball players S.D. = 0.46 was collected. To check the significant difference between football players and handball players. The data was analyzed by applying t-test. There was no significant difference found between football players and handball players because value of calculated 't' = 1.55, is less than tabulated 't' = 2.000 at 0.05 level of confidence,

### Discussion on findings

For the comparison of agility of all players from both groups selected for this study, who were instructed to give the true response in all the tests. After collecting the test sheets they were scored according to the instructions as given by the author of the test in its manual. The mean and standard deviations of both football players and handball players were found out and t-test values were calculated in order to find the significant differences between these groups. Table 1 shows mean and standard deviation score of football and handball players separately.

According to table-1 least significant difference is between means of football players and handball players in squat thrust. Where mean value of football players is 15.8 and that of handball players mean value is 15.7. The data was again analyzed by applying t-test. But before applying t-test, standard deviation was calculated. Standard

deviation of football players is 0.77 and that of handball players is 1.03. It was found that there is no significant difference in squat thrust between football players and handball players, because calculated 't' = 0.45, which is less than tabulated 't' = 2.000 at 0.05 level of significance.

According to statistical analysis, table-2 shows that there is no significant difference between football players and handball players in shuttle run. Where mean value of football players is 11.18 and that of handball players mean value is 10.87. Standard deviation of football players is 0.51 and that of handball players is 0.45. The data was again analyzed by applying t-test. It was found that there is no significant difference in shuttle run agility test between football players and handball players, because calculated 't' = 1.47, which is less than tabulated 't' = 2.000 at 0.05 level of significance.

Table 3 shows that there is least significant difference between means of football players and handball players in side step test. Where mean value of football players is 10.84 and that of handball players mean value is 10.21. The data was again analyzed by applying t-test. But before applying t-test, standard deviation was calculated. Standard deviation of football players is 1.42 and that of handball players is 0.93. It was found that there is no significant difference in side step agility test between football players and handball players, because calculated 't' = 1.70, which is less than tabulated 't' = 2.000 at 0.05 level of significance.

Table-4 shows that there is not significant difference between means of football players and handball players in semo agility test. Where mean value of football players is 14.07 and that of Hand Ball player Mean Value is 14.31, whose mean difference is 0.24. To check the significant difference between football players and Hand Ball players of semo agility test. The data was again analyzed by applying t-test. Standard deviation was calculated. Standard deviation of football players is 0.79 and that of Handball players is 0.92. After that t- test was applied. It was found that there is no significant difference in semo agility test between football and Handball players because calculated 't' = 0.96, which is less than Tabulated 't' = 2.000 at 0.05 level of significance.

Table 5 shows that there is least significant difference between means of football players and handball players in boomerang agility test. Where mean value of football players is 20.34 and that of handball players mean value is 120.05. The data was again analyzed by applying t-test. But before applying t-test, standard deviation was calculated. Standard deviation of football players is 0.52 and that of handball players is 0.50. It was found that there is no significant difference in boomerang agility test between football players and handball players, because calculated 't' = 1.94, which is less than tabulated 't' = 2.000 at 0.05 level of significance.

Table-6 also reveals that no significant difference between means of football players and handball players in dodging run agility test. Where mean value of football players is 18.56 and that of Handball player Mean Value is 18.49, whose mean difference is 0.7. To check the significant difference between football players and Handball players in dodging run agility test. The data was again analyzed by applying t-test. Standard deviation was calculated. Standard deviation of football players is 0.43 and that of Handball players is 0.48. After that t- test was applied. It was found that there is no significant difference in dodging run agility test between football and Handball players because calculated 't' = 0.04, which is less than Tabulated 't' = 2.000 at 0.05 level of significance.

Table-7 shows that there is no significant difference between means of football players and handball players in dodging run agility test. Where mean value of football players is 10.63 and that of Handball player Mean Value is 10.46, whose mean difference is 0.17. To check the significant difference between football players and Handball players in haxagon run agility test. The data was again analyzed by applying t-test. Standard deviation was calculated. Standard deviation of football players is 0.43 and that of Handball players is 0.46. After that t- test was applied. It was found that there is no significant difference in dodging run agility test between football and Handball players because calculated 't' = 1.55, which is less than Tabulated 't' = 2.000 at 0.05 level of significance.

The purpose of this was to compare the agility among football and handball players. Sixty players from department of physical education and sports authority of India of Dr Baba Saheb Ambedkar Marathwada University, Aurangabad were conducted for this study and they were divided into two groups "football and handball" according to their status of game. The six agility tests "shuttle run, squat thrust, side step test, semo agility test, boomerang test, dodging run agility test and haxagon run agility test" are conducted. To analyze the scores according to the nature of the tests. The statistical analysis used to test the data is reported as mean and standard deviation. The researcher had adopted the simple random method of sampling for the selection of subjects. The 't'- test was applying to find out the comparison of agility between variables of football and Handball players. The mean and standard deviation values are collected of both the groups. It was found that

there is no significant difference in agility among football players and handball players. Both the games are field games in all players need to have a good flexibility, endurance, speed and co-ordination of movements.

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