

A STUDY ON THE PHYSICAL FITNESS BETWEEN BADMINTON AND LAWN TENNIS PLAYERS IN UTTAR PRADESH

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Abstract:

The purpose of the present study was to compare the selected physical fitness variables of Badminton and Lawn tennis players of Uttar Pradesh. Total thirty subjects were randomly selected (Badminton players: N=15 and Lawn tennis players: N=15) from Uttar Pradesh were taken as a sample. Physical fitness tests were utilized to measure the selected physical fitness variables of players. For analysis of the data Mean & SD were calculated and to examine the significance difference between the group mean of different physical fitness variables, independent samples 't' test was applied, and level of confidence was set at 0.05 level. Study concluded that significant difference found between the means of selected physical fitness variables such as speed, explosive strength, and Agility of Badminton and Lawn tennis players.

KEY WORDS:

Speed, Explosive strength, Agility, Badminton, Lawn tennis.

INTRODUCTION

Physical fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue having reserve of strength and energy available to meet satisfactorily any emergency demands suddenly placed upon him. Physical fitness is a state of well-being that comprises skill related and health-related components. Skill related physical fitness refers to an individual's athletic ability in sports such as tennis and encompasses skill-related attributes like dynamic balance, power, speed and agility; the health-related aspect is a measure of cardiovascular endurance, muscle strength, endurance, and flexibility, and body composition (Hopkins & Walker, 1988).

Purpose of the study

Purpose of this study was to compare the selected physical fitness of Badminton and Lawn tennis players of Uttar Pradesh.

Subjects

Total thirty subjects were randomly selected (Badminton: N=15 and Lawn Tennis players: N=15) from Uttar Pradesh were taken as a sample.

METHODOLOGY

For the purpose of the present study 30 players (Badminton: N=15 and Lawn tennis players: N=15) from Uttar Pradesh Prior consent from the subject as well as permission from the concerned authorities of the State was obtained. The purpose of the study was explained to the State authorities and the

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subjects who in turn agreed voluntarily to undergo the testing programme.

Criterion Measures

The following criterion measures were under taken for the purpose of the study:

- ❖ Speed was measured with the help of 50 meter Run test.
- ❖ Explosive strength was measured with the help of standing broad jump test.
- ❖ Agility was measured with the help of shuttle run test.

STATISTICAL ANALYSES

Values are presented as mean values and SD. Independent samples t tests were used to test if population means estimated by two independent samples differed significantly. Data was analyzed using SPSS Version 20 (Statistical Package for the Social Sciences, version 20, SPSS).

RESULTS:

Table-1
Show the comparison of Speed of Badminton and Lawn tennis players of Uttar Pradesh

Players	N	Mean	SD	t-value
Badminton	15	7.21	0.45	3.38*
Lawn Tennis	15	6.68	0.40	

Level of Significance .05 level, $t_{.05}(2, 28) = 2.04$

The results of speed of Badminton and Lawn tennis players of Uttar Pradesh are presented in table-1. Analysis of data revealed significant differences were found for speed (3.38*). Thus it may be concluded that the speed of Badminton and Lawn tennis players of Uttar Pradesh were found to be statistically significant. The graphical representation of mean Values of speed of Badminton and Lawn tennis players of Uttar Pradesh has been presented in figure 1.

Figure-1

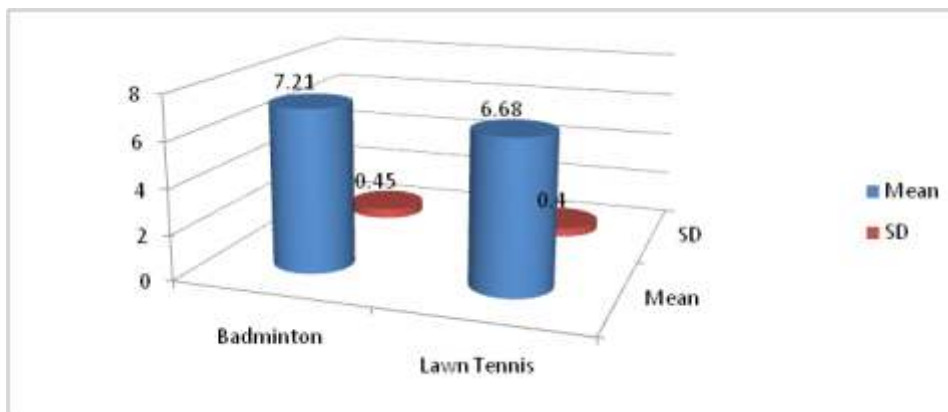


Table-2
Show the comparison of Explosive Strength of Badminton and Lawn Tennis players of Uttar Pradesh

Players	N	Mean	SD	t-value
Badminton	15	2.20	0.06	4.23*
Lawn Tennis	15	2.33	0.11	

Level of Significance .05 level, $t_{.05}(2, 28) = 2.04$

The results of Explosive Strength of Badminton and Lawn tennis players of Uttar Pradesh are presented in table-2. Analysis of data revealed significant differences were found for Explosive Strength (4.23*). Thus it may be concluded that the Explosive Strength of Badminton and Lawn tennis players of Uttar Pradesh were found to be statistically significant. The graphical representation of mean Values of Explosive Strength of Badminton and Lawn tennis players of Uttar Pradesh has been presented in figure 2.

Figure- 2

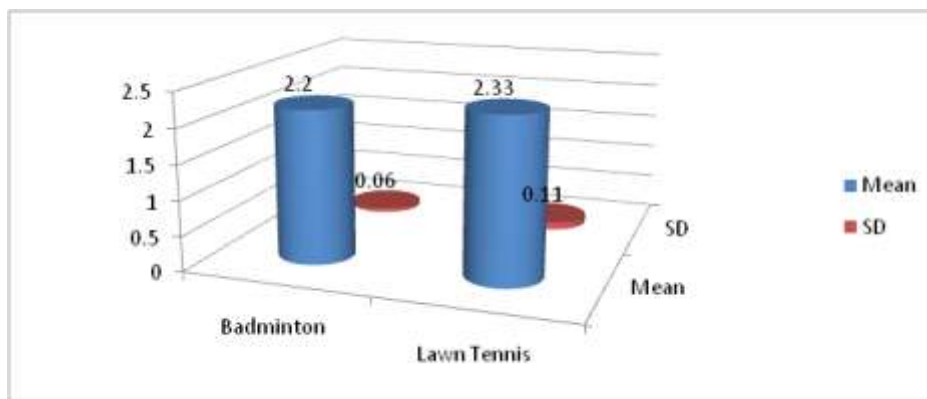


Table-3

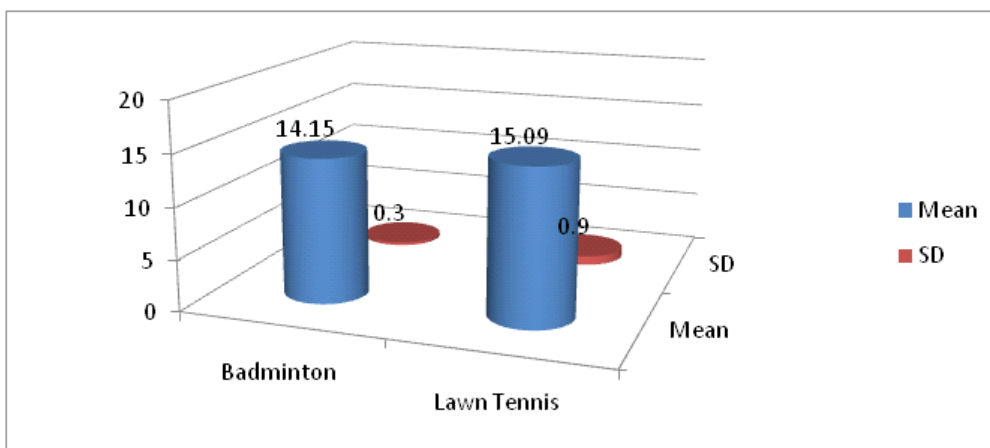
Show the comparison of Agility of Badminton and Lawn tennis players of Uttar Pradesh

Players	N	Mean	SD	t-value
Badminton	15	14.15	0.30	3.80*
Lawn Tennis	15	15.09	0.90	

Level of Significance .05 level, $t_{.05}(2, 28) = 2.04$

The results of Agility of Badminton and Lawn tennis players of Uttar Pradesh are presented in table-3. Analysis of data revealed significant differences were found for Agility (3.80*). Thus it may be concluded that the Agility of Badminton and Lawn tennis players of Uttar Pradesh were found to be statistically significant. The graphical representation of mean Values of Agility of Badminton and Lawn tennis players of Uttar Pradesh has been presented in figure 3.

Figure- 3



DISCUSSION

Physical fitness variables are very important in both athletes and form a condition for higher performance. Mal (1982) stated that the components of physical fitness like speed, Explosive Strength, and

Agility are essential for a high technique and tactical efficiency. Depending upon the demand of the game, each factor of physical fitness should be optimally developed. In the present study there was significant difference observed between the Badminton and Lawn tennis players in all the selected physical fitness variables. Different training program of both games players made these differences. The analysis of results indicates a higher level of all physical fitness variables in the group of the examined Lawn Tennis players compared to Badminton players. The present study showed that the differences were found for speed (3.38*), Explosive Strength (4.23*) and Agility (3.30*). These results are in conformity with the study carried out by Das, et al. (2007) to compare the physical fitness components of junior footballers and sprinters of Kolkata, of the age group 14 to 16 years. The data presented in the present study carry immense practical application and should be useful in future investigations on player's selection.

CONCLUSION

In conclusion, the present study suggests that speed, Explosive Strength, and Agility of Badminton and Lawn tennis players found to be statistically significant. Different training program of both games players made these differences.

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