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COMPARISON OF SELECTED COMPONENTS OF PHYSICAL FITNESS BETWEEN BADMINTON AND BALL BADMINTON PLAYERS

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ABSTRACT:

The purpose of the study was to compare selected components of physical fitness between male badminton and ball badminton players. The present study was conducted on a sample of fifty (N=50), which includes twenty five each, male badminton and ball badminton players of age group 18-25 years was selected. All the participants were assessed for selected physical fitness components. Speed was determined by 50 meters dash and ball transfer test was used to determine

the eye-hand co-ordination. The independent samples t-test was applied to assess the differences between badminton and ball badminton players. The results of present study indicated that badminton players had significantly greater speed ($p < 0.05$) and coordination ($p < 0.05$) than ball badminton players.

KEYWORDS: Physical fitness, badminton, ball badminton, speed, coordination.

INTRODUCTION

Badminton and ball badminton are among the popular team sports. Successful participation in these sports requires a high level of technical and tactical skills as well as suitable physical fitness characteristics. Badminton and ball badminton players require well-developed speed and co-ordination. These physical fitness components are important for both badminton and ball badminton players to achieve higher levels of performance. Physical fitness, in a very broad sense, determined by the individual's capacity for maximum motor and sport performance (Astrand &

Rodahl, 1986). Physical fitness implies relation between the task to be performed and the individual capabilities to perform it (Lawrance, 1976). Physical fitness characteristics of the players are more important as these have marked effects on the skill of players and the tactics of the teams because ball games require repeated maximum exertion such as striking and jumping (Tsunawake, 2003). Players are required to have good physical fitness that will enable successful performance at the competitive level. The physical fitness of a player however can be a decisive determinant of success during competition (Smekal et al., 2001). The scientists collected the data of player's physical fitness

characteristics, and based on the data, they provided the profiles of the top-ranked athletes in specific sports events (Fleck, 1983; Puhl et al., 1982). Thus, the purpose of this study was to compare the selected physical fitness components between badminton and ball badminton players.

MATERIALS AND METHODS

Subjects:

A sample of fifty (N=50), which includes twenty five each, male Badminton (N₁=25) and male ball badminton (N₂=25) players of age group 18-25 years was selected. The purposive sampling method was used to select the subjects for the present study.

Methodology:**Measurements of selected Physical Fitness Components:**

The study was conducted on selected physical fitness components i.e. speed and coordination. The necessary data was collected by administering tests. The 50 meters dash test was used to determine speed and ball transfer test was used to determine the eye-hand co-ordination.

Statistical analysis:

Data was analyzed using SPSS Version 16.0 (Statistical Package for the Social Sciences, version 16.0, SPSS Inc, Chicago, IL, USA). Mean values (\pm SD) of male badminton and ball badminton players are presented. Independent samples t-test was used to test if population means estimated by two independent samples differed significantly.

RESULTS

Table-1. Comparison of Selected Physical Fitness Components of Badminton and Ball badminton Players.

VARIABLES	Badminton Players (N ₁ = 25)		Ball badminton Players (N ₂ = 25)		Mean Difference	SEDM	t-value
	Mean	SD	Mean	SD			
Speed	6.73	0.44	8.28	0.53	1.55	0.14	11.17*
Co-ordination	16.65	0.24	17.20	0.50	0.55	0.11	4.94*

*Significant at 0.05 level

Table 1 presents the physical fitness components of male badminton and ball badminton players. The badminton players had significantly better speed ($p < 0.05$). Similarly co-ordination ($p < 0.05$) was significantly greater in badminton players as compared to ball badminton players.

DISCUSSION & CONCLUSION

In the present study physical fitness components of badminton and ball badminton players have been evaluated and compared with each other. Overall results showed that badminton players had significantly better speed and co-ordination as compared to ball badminton players. Cabello et al, (2003) stated that badminton players require jumping and changing directions for optimal performance. It is concluded that significant differences were found between male badminton and ball badminton players with observe to selected physical fitness components. The badminton players had better speed and co-ordination when compared to ball badminton players.

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