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A COMPARATIVE STUDY OF PHYSICAL FITNESS AMONG SPORTSMAN AND NON-SPORTSMAN

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Abstract

The purpose of present study was to compare the physical fitness variables among sportsman and non-sportsman. For the present study total 40 male (Sportsman=20 & non-sportsman=20) of Rajarshi Shahu College Pathri, Dist. Chhatrapati Sambhajnagar were randomly selected as a subject and their age ranged between 18 to 25 years. The data was collected through applying 50-meter dash run test for speed test and standing broad jump for strength test. For comparing the means of selected physical fitness variables, descriptive analysis and independent sample t-test were applied at 0.05 level of significant. All the statistical analyzed was carried out using version16.0 SPSS software. The result of the study showed that there was significant difference found in speed ($t=9.52 > 2.07$) and strength ($t=4.24 > 2.07$) among sportsman and non-sportsman. On the basis of findings, it was concluded that the sportsman has more physical fitness ability in speed and strength.

Keywords: Physical Fitness, Speed, Strength, Sportsman and Non-Sportsman

1. INTRODUCTION

Physical fitness is the capacity to carry out, reasonably well, various forms of physical activities without being unduly tired and includes qualities important to the individual's health and well-being also. Over the last two decades, numerous scientific studies have backed up on the importance of regular exercise as part of a healthy lifestyle. Any physical activity requires a basic level of physical fitness. Motor qualities like speed, strength, endurance and flexibility are essential for general physical fitness of an individual as well as for excellence in sports and games also.

Physical fitness is defined as the capability of body to serve effectively, to enjoy leisure, to healthy, to resist disease and to manage with exigency situations. Physical fitness is categorized into 2 categories that have similar meaning: health-related (health state and well-being), skill-related (the ability to perform certain aspects of sports or occupations) (Hian et. al., 2013). Physical fitness components like muscular strength (Ruiz et. al., 2009), flexibility, cardio respiratory fitness (Olds et. al., 2006; Photiou et. al., 2008) and speed (Ortega et. al., 2008) are strongly related to health in children and adolescent. It must be considered when assessing one's health status. These elements of physical fitness are useful for different games and sports physical fitness depends on several factors like heredity, hygienic living nutrition and body man ewers of an individual. Physical fitness is partially genetically determined but it can be influences by environmental factors also.

Physical activity is one of the most determinants of the physical fitness (Ruiz et. al., 2006; Hussey et. al., 2007). Life in areas with different popular size can be associated with different dietary habits, access to sports facilities and the possibility of physical activity among other things also. The degree of physical fitness may have an impact on lifestyle and cardiovascular risk due to environmental exposure (Roemmich et al., 2006; De Vries et al., 2007).

Physical fitness is very important to sport participation. Not only can it help to develop the skill of different physical activities physiologically but also psychologically. Physical fitness is a vital component of athletic performance, with distinct differences across various sports due to the specific physical demands each discipline places on the body.

Therefore, the aim of this present study was to compare the physical fitness among sportsman and non-sportsman.



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2. Review of Literature:

Literature related to the present study has been presented as follows

Dr. Pravinkumar S. et. al., (2025) conducted a comparative Study of Physical Fitness among Sportsmen and Non-Sportsmen Students of Belagavi District in Karnataka. They were reported that there was significant difference between sportsmen and non-sportsmen students of different selected physical fitness components.

In 2024, Harinderpal Singh conducted research on the relationship between physical fitness and health in both athletes and non-athletes. He was also reported that statistical analysis the comparison of muscular strength, muscular endurance between the athletes and non-athletes, it is found that there is significant difference. Evaluation of muscle strength and endurance in athletes versus non-athletes.

Dr. Maya Yadav and Kanta Rohilla (2014) studied the physical fitness levels of athletes and non-athletes among students in the Bhiwani district of Haryana. The results of his study showed that significant difference between sportsmen and non-sportsmen students of different selected physical fitness components.

Ajaz Ahmad Qureshi (2019) also conducted a study on physical fitness among sports and non-sports persons. He was stated that significant mean differences were found in physical fitness levels of Sports persons in comparison to non-sports persons. The result of this study indicated that Sports persons were found to have higher fitness levels than non-sports person.

Jaspal Singh & Ramesh Chand Kanwar (2020) examines physical fitness between sportsmen and non-sportsmen of Gidderbaha City of Punjab State. Result revealed that there was significant difference in physical fitness component like speed; there was significant difference between sportsmen and non-sportsmen. Based on the results it was concluded that sportsmen have better physical fitness as compare to non-sportsmen.

Mohd Iqbal Dar (2021) studied different variables between athletes and non-athletes of Kashmir Division. The findings indicated that a notable difference in explosive leg strength and speed was detected between athletes and non-athletes. Similar result also found by Mirza Fahim Beg (2021) on comparison of selected physical fitness components among athletes and non-athletes.

3. METHODOLOGY

3.1. Selection of Subjects

For this study, A total of 40 males (20 sportsmen and 20 non-sportsmen) from Rajarshi Shahu College Pathri, District. Chhatrapati Sambhajinagar were chosen at random as subjects, and their ages varied from 18 to 25 years.

3.2. Selection of Variables

3.2.1. Independent Variables - (a) Sportsman (b) Non-Sportsman

3.2.2. Dependent Variables - (a) Speed (b) Strength

3.3 Criterion Measures

Selected variables and their criterion measures –



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Variables	Test Items	Measurements
Speed	50-Meter Dash Run Test	In Seconds
Strength	Standing Broad Jump	In Meters

3.4. Statistical Analysis.

To determine the significant difference in specific physical fitness variables between male sportsman and non-sportsman at Rajarshi Shahu College Pathri, Dist. Chhatrapati Sambhajinagar was compared regarding speed and strength capabilities, and the data were examined using descriptive statistics and an independent sample t-test. The significance level was set at 0.05

4. RESULT OF THE STUDY

The scores were obtained by applying the 50-meter dash run test and standing broad jump test. All the individual 50-meter dash run and standing broad jump scores used to judge the level of speed and strength.

Table -1. Comparison of Speed among the male sportsman and non-sportsman

Variables	N	Mean	SD	DF	T-value
Sportsman	20	7.26	0.68	19	*9.52
Non-Sportsman	20	9.72	0.88		

*Significant at 0.05 level

The Table No. 1 shows that the comparison of speed among the male sportsman and non-sportsman. The Mean and Standard Deviation of Sportsman is 7.26 and 0.68. Where, as the Mean and Standard Deviation of Non-sportsman is 9.72 and 0.88. The 't' value of Sportsman & Non-sportsman on Speed is 9.52, which is more than tabulated value. It means there is significant difference between Sportsman & Non-sportsman with regards to their speed endurance.

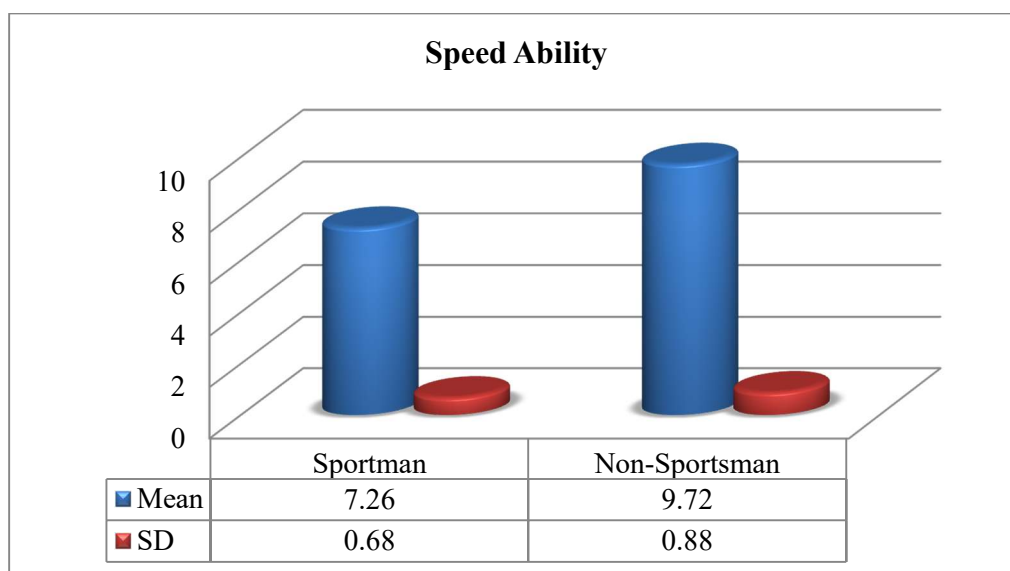


Fig. - 1. Graphical representation of Mean and Standard Deviation of male sportsman and non-sportsman in comparison to speed ability



Table -2. Comparison of Strength among the male sportsman and non-sportsman

Variables	N	Mean	SD	DF	T-value
Sportsman	20	2.09	0.21	19	*4.24
Non-Sportsman	20	1.81	0.14		

*Significant at 0.05 level

The Table No. 2 shows that the comparison of strength among the male sportsman and non-sportsman. The Mean and Standard Deviation of Sportsman is 2.09 and 0.21. Where, as the Mean and Standard Deviation of Non-sportsman is 1.81 and 0.14. The 't' value of Sportsman & Non-sportsman on strength is 4.24, which is more than tabulated value. It means there is significant difference between Sportsman & Non-sportsman with regards to their strength endurance.

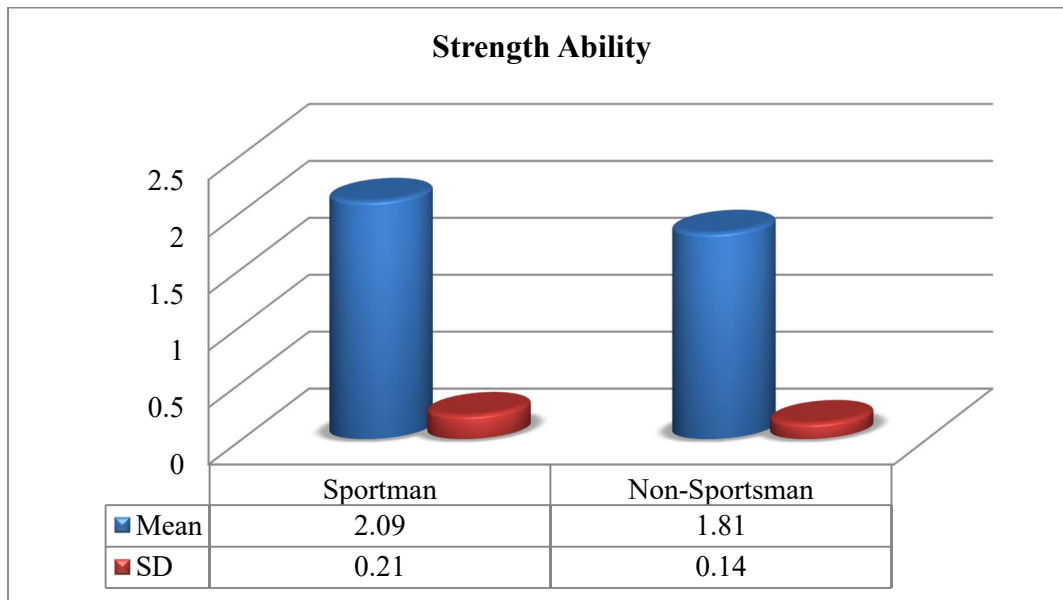


Fig. - 2. Graphical representation of Mean and Standard Deviation of male sportsman and non-sportsman in comparison to strength ability

5. DISCUSSION

This study was aim to compare the physical fitness of sportsman and non-sportsman. The results of the study showed that there was significant mean difference between the male sportsman and non-sportsman in compare to speed and strength ability of the players of Rajarshi Shahu College Pathri, Dist. Chhatrapati Sambhajinagar. Further, it is revealed that the male sportsmen were good speed and strength in comparison the male non-sportsman. Therefore, the difference occurs between the male sportsman and non-sportsman in comparison to speed and strength abilities.

Many studies have been carried out on the physical fitness among sportsman and non-sportsman.



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Dr. Maya Yadav & Kanta Rohilla (2014) studied physical fitness among sportsmen and non-sportsmen students in Haryana. They were concluded that sportsmen student having more speed and strength then non sportsmen students.

Jaspal Singh & Ramesh Chand Kanwar (2020) examines physical fitness between sportsmen and non-sportsmen of Gidderbaha City of Punjab State. They were concluded that sportsmen have better physical fitness as compare to non-sportsmen. Mohd Iqbal Dar (2021) studied different variables between athletes and non-athletes of Kashmir Division. He was concluded that the athletes are at higher levels of their physical and physiological fitness levels which enhance their performance in sports and also in daily life activities.

6. CONCLUSION

Based on the result following conclusions have been made-

- Significant difference was found between the male sportsman and non-sportsman in compare to speed ability.
- Significant difference was found between the male sportsman and non-sportsman in compare to strength ability.

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