

## A Study of Physical Fitness between intercollegiate cricket players of Nagpur City and Nagpur District

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### Abstract

Fitness is the ability of the individual to live a full and balance life. It involves physical, mental, emotional, social and spiritual factors and capacity for their wholesome expression. The purpose of this study was to compare the physical fitness of intercollegiate cricket players of Nagpur City and Nagpur District. The purpose of this study was to compare the rural and urban intercollegiate cricket players and to find out which of these two categories is more physically fit in response to tests administered so as one can improve the standard and level of physical fitness in rural and urban intercollegiate cricket players. A total of 100 intercollegiate cricket players (Nagpur City 50, Nagpur District 50) were selected randomly from R.T.M. Nagpur University, Nagpur, during intercollegiate competitions. The research was a descriptive comparative method. The criterion measures adopted for this study were, muscular strength and Endurance, Flexibility and speed. The data collection tools used in the study were Sit Ups, sit & reach, 50 yard dash. Data of Physical Fitness Components between Nagpur city and District cricket players was compared by using independent Sample t test. The level of significance was kept at 0.05 level of significant. The statistical analysis of physical components revealed that in the parameters such as sit-ups, sit and reach, and 50 m dash there was significant difference between intercollegiate cricket players of Nagpur city and Nagpur district. The results also showed that all the physical fitness components the Muscular strength and Endurance, Flexibility and speed Nagpur district intercollegiate cricket players were found to be better than Nagpur city intercollegiate cricket players. Finally the researcher concluded that the Nagpur district intercollegiate cricket players are more fit as compare to Nagpur city intercollegiate cricket players.

**KEYWORDS :** Physical fitness, cricket player.

### **Introduction:**

General fitness implies the ability of a person to live most effectively with his/ her potentials, which depend upon the physical, mental, emotional, social and spiritual components of fitness which are highly interrelated. The primary components of physical fitness identified by the president's Council on physical fitness and sports were muscular strength, muscular endurance and cardio respiratory endurance. However, later on the President Council also included some other motor performance components namely agility, speed, flexibility and balance in physical fitness. But keeping in view the general opinion of the majority of the researchers, the author has not included the components such as speed, agility, power and balance ( which are more important for success in specified sports ) as essential components of basic physical fitness. The purpose of this study was to compare the physical fitness of intercollegiate cricket players of Nagpur City and Nagpur District. The purpose of this study was to compare the rural and urban intercollegiate cricket players and to find out which of these two categories is more physically fit in response to tests administered so as one can improve the standard and level of physical fitness in rural and urban intercollegiate cricket players.

**Sample:** A total of 100 intercollegiate cricket players (Nagpur City 50, Nagpur District 50) were selected randomly from R.T.M. Nagpur University, Nagpur, during intercollegiate competitions.

**Methodology:** The research was a descriptive comparative method. The criterion measures adopted for this study were, muscular strength and Endurance, Flexibility and speed. The data collection tools used in the study were Sit Ups, sit & reach, 50 yard dash.

**Analysis of Data:** Data of Physical Fitness Components between Nagpur city and District cricket players was compared by using independent Sample t test. The level of significance was kept at 0.05 level of significant.

Table No.1.1

**Descriptive statistics of Sit-ups, Sit & reach and Speed between intercollegiate cricket players of Nagpur city and Nagpur district**

Variables	Nagpur city				Nagpur district			
	N	Mean	Standard Deviation	St. Error Mean	N	Mean	Standard Deviation	St. Error Mean
Sit-ups	50	25.22	4.42	0.62	50	29.54	7.08	1.00
Sit & reach	50	15.65	4.93	0.69	50	20.91	3.97	0.56
Speed	50	8.461	0.93	0.36	50	8.17	0.43	0.45

Table No.1.2

**Independent sample 't' test of Sit-ups, Sit & reach and speed**

Physical fitness variables	't' value	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Sit-ups	3.659	98	0.001	4.32000	1.18063
Sit & reach	5.873	98	0.001	5.26000	0.89556
speed	1.987	98	0.049	0.28960	0.89556

From the table no 1.2, the results of this study revealed that in all the selected physical fitness components such as Sit-ups, Sit & reach and Speed there is no significant difference between intercollegiate cricket players of Nagpur city and Nagpur district.

## Discussion and Findings

The statistical analysis of physical components revealed that in the parameters such as sit-ups, sit and reach, and 50 m dash there was significant difference between intercollegiate cricket players of Nagpur city and Nagpur district. The results of descriptive statistics have indicated that the subjects mean scores in sit-ups, sit and reach and speed in case of Nagpur city cricket players were found (25.2200 ±

4.42299,  $15.6500 \pm 4.93245$ ,  $8.461 \pm 0.93$  respectively while in case of Nagpur District cricket players the mean scores in sit-ups, sit and reach and speed were found ( $29.5400 \pm 7.08033$ ,  $20.9100 \pm 3.97144$ ,  $8.17 \pm 0.43$ ) respectively.

This finding was supported by the Berger and Paradis (2010) compared the physical fitness of children in order to compare the physical fitness in 10WA and Tokyo Japan. They recorded that Tokyo children scored better in all motor performance tests accepts on lie sit-ups. They also found that Tokyo children had more chances for activity through physical classes than the 10WA group. Choudhri (2002) Studied the comparative physical fitness between students of residential and non-residential schools (aged 12-14 years) and had tested physical fitness index (PFI), BMI and anthropometry measures of 50 residential school children and 40 non-residential school children of Bijapur, Karnataka. They reported that non-residential school children had poor physical anthropometry and showed a less PFI score, as compared to residential school children. Patrick (1972) in their study on motor fitness test battery for girls in lower elementary grades, The items includes in this test were Clarks strength composite, Mc Cloys endurance ratio, leg extension and flexion, well's sit and reach, dodging run, bass length wire, stick balance and vertical jump. It measures the essential components of motor fitness, such as muscular strength, muscular endurance, cardio vascular endurance, flexibility, agility, balance and power. By comparing results with here with those obtained from Turkish survey which conducted by Agun *et al.* (1990) there appears to be some differences between the children at the age of 15 to 17 years old. Flexibility measured by sit & reach test showed that Pune and Kupwara students results are higher than their counterparts in Turkey in the age groups of 13 to 15 years old by 20 to 25cm respectively. Mahajan (2011) compared the physical fitness & skills of Korfball players from Pune city and Pune district zone. she concluded that there is significant difference found in girls in sit ups, shuttle run test but no significant difference in standing broad jump , field goal and speed pass test , in boys shuttle run field goal and shuttle run test show significant difference in sit ups, standing broad jump, accuracy and speed pass test.

In the present the results also showed that all the physical fitness components the Muscular strength and Endurance, Flexibility and speed Nagpur district intercollegiate cricket players were found to be better than Nagpur city intercollegiate cricket players. Finally the researcher concluded that the Nagpur district intercollegiate cricket players were more fit as compare to Nagpur city intercollegiate cricket players.

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