

## **Study on Percentage Body Fat of 13 Years School going Boys in Nashik District**

**Dr. Sopan Kangane:** Ex. Dean, Faculty of Physical Education, University of Pune & Associate Professor, M.Ms. Chandrashekar Agashe college of Physical Education, Pune-37, Maharashtra (India),

**Dr. Sunil More:** Director of Physical Education, BYK College, Nashik, Maharashtra (India)

### **Abstract**

The purpose of the study was to **study the Percentage Body Fat of 13 years school going boys in Nashik District.** Three Thousand Eight students (n=3008) of Rural, Tribal, & Urban schools were selected randomly as sample by employing Fishers random Table. The subject's **age group was 13 years.** The score in each criterion measure (% Body Fat) were taken. **Descriptive statistics** have been applied to process the data prior to employing inferential statistics **One way ANOVA.** Further, **Scheffe's post hoc** test was employed for comparison among school students. The result summarized that there was significant different among school students.

**Key words:** % Body Fat

### **Introduction**

Considering the new trend, "Physical Fitness" is one of the aspects of physical education, which can be easily measured and evaluated in view of the existing facilities. Physical fitness is a product of physical activity, and can play a positive role in the prevention of many diseases. Thus we need to develop and structure a programme that includes an emphasis on fitness developing activities.

As result of various surveys done in India and abroad, the definition of physical fitness has changed considerable over the years AAHPER (American Alliance of Health, Physical Education and Recreation) in 1958, which is now known as AAHPERD (American Alliance of Health, Physical Education and Recreation and Dance), though the Youth Fitness Tests, has tried to measured fitness abilities. Here health criteria were not central to the selection of test items<sup>1</sup>.

Through the years, various test items have been included as well as discarded from the test to evaluate one's level of Physical fitness. In recent past, physical education became sports oriented that preferred Physical fitness towards "skill related" rather than "health related".

The remarkable change has been noted in the evolution of definition of physical fitness, when United States of America declared the year 2000 as the "year of public Health" and simultaneously AAHPERD, being an organization of physical education, has received full responsibility for the improvement of national public health. The current definition of fitness as recognized by AAHPERD (1994) includes those parts of fitness that relate to good health specially the essential components of physical fitness are cardio-respiratory fitness, flexibility, muscular strength, endurance and body composition.

India is basically a rural country with agricultural base and hence about 70 percent of the population is tribal & rural while only about 30 percent is urban. The educational system does not differentiate between these two strata. However, there is a district difference in lifestyle of the tribal rural and urban areas in India. The exposure received by the urban population of school

*Variorum Multi-Disciplinary e-Research Journal*  
*Vol.,-04, Issue-II, November 2013*

going children is positively more and varied as compared to the tribal & rural school going population with regard to physical education. Also the facilities and the infrastructure required in the school are definitely inadequate in this sector. This has a bearing on the performance of the tribal & rural population in the physical activities as compared to their urban counterpart. There also exists a wide culture gap between the two sections thereby leading to the orthodox attitude prevalent amongst the female sex. Participation of girls and boys in physical activities from the rural areas seems to be less as compared to the girls and boys from the urban areas<sup>2</sup>.

It, thus, becomes necessary to study their real status of health – related physical fitness and, to compare whether a significant difference exists in the fitness level between rural, tribal and urban school going boys.

It was, therefore, thought desirable to undertake the problem entitled, “**Study on Percentage Body Fat of 13 Years School going Boys in Nashik District**”.

### Material and methods

A survey was conducted in this study. Three Thousand Eight students (n=3008) of Rural, Tribal, & Urban schools were selected randomly as sample by employing Fishers random Table. The subject's **age group was 13 year** was surveyed for % Body Fat. The data was collected administering Omron Digital Monitor test for % Body Fat.

### Results

Descriptive statistics were used for obtaining normality of data (**Table 1**). The percentile method was used to prepare the norms and One Way ANOVA and Scheff's Post Hoc test was used for comparison (All values are significant at 0.05 level) (**Table 2**).

**Table 1 Descriptive Analysis of Rural, Tribal and Urban area 13 years Boys**

Test Items	Area	Mean	SD
1. % Body Fat	Rural	16.15	3.30
	Tribal	12.69	3.91
	Urban	14.48	3.21

From table 1, the mean scores & Standard deviation of 13 years Rural, Tribal and Urban boys in **Percent Body fat**, 16.15, 12.69, & 14.48 (SD=3.30, 3.91 & 3.21)

**Table 2 One Way ANOVA- Rural, Tribal and Urban area of 13 Years School Boys**

		Sum of Squares	df	Mean Square	F	Sig.
% Body Fat	Between Groups	6023.00565	3	2007.66855	165.2853826	0
	Within Groups	36707.26512	3022	12.14667939		
	Total	42730.27077	3025			

From Table 2, F value of Rural, Tribal and Urban area wise comparison of all variables i.e. 165.2853826 for % body fat, which are statistically significant at 0.05.

### **Discussion**

This study has a great impact in the field of physical education at the school level. The result of this study will help various academic and sports agencies in different manners. Suggestions from this study also guide the teacher education colleges to modify their curriculum according to current needs of the society. On the basis of the diagnostic tools (norms), Govt. can take immediate intervention to launch a suitable state Health Related Physical Fitness among the school students. This study throws a light on the importance of active lifestyle and prevention of lifestyle diseases, thereby motivating the parents, teachers & the students in adopting an active lifestyle.

### **Conclusion**

With the help of present investigation the following conclusion are drawn.

- % Body Fat of Rural Boys was higher than Urban and Tribal Boys.
- % Body Fat of Urban Boys was higher than Tribal and lower than the Rural Boys.
- % Body Fat of Tribal Boys was lower than the Rural and Urban Boys.

### **References**

1. AAHPERD. (1984). Health related physical fitness: technical manual. Washington, D. C.: American Alliance of Health, Physical Education, Recreation, and Dance.
2. Ajmer Singh, S. R. Gangopadhyay, (1991). Trends and practices in physical education in India. New Delhi: Friends Publications (India) P. 14
3. Best, J. W. & Kahn, J. V. (2006). Research in Education. (9th ed.). New Delhi: Prentice Hall.
4. Vincent, W. J. (1995). Statistics in Kinesiology. Champaign: Human Kinetics.
5. Safrit, M. J. (1998). Introduction to measurement in physical education and exercise science. St. Louis, Toronto, Boston: Times Mirror/ Mosby college publishing.