



COMPARISON OF BODY COMPOSITION OF SCHOOL CHILDREN OF VARANASI DISTRICT

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ABSTRACT

The Main Purpose of the study was to analyze difference in terms of Body Composition of school going children of Varanasi District in Uttar Pradesh. Total one Hundred (Fifty male Subjects each from Urban area and Rural area School) were selected randomly as subjects of study. From Urban area the subjects were taken from Jai Narayan Inter College, Varanasi whereas in terms of Rural area the subjects were taken from Kisan Inter college, Varanasi. The age group of the subjects ranged from 12 to 14 years. The data was collected during school hours (8 a.m to 12 noon) by administering Harpenden Skinfold Callipers. Independent t Test was employed to analyse the difference in terms of Body Composition of school children. By using Independent t Test it was found that there was significant difference among Body Composition of school children. The t value of Body Composition was found to be ($t=6.28$) at 0.05 Level of Significance which clearly shows that there was a Significant difference among Body Composition of school children.

Keywords: Skin Fold Callipers, Body Composition, Urban and Rural.

INTRODUCTION

Today developed countries are facing major problems of Overweight and obesity which ultimately leads to diseases such as Hypertension, diabetes, coronary heart disease, sleep apnea, osteoarthritis, stroke, gallstones, high cholesterol, Infertility and even cancer but now smaller and developing countries are also facing the same problem mostly in urban areas. Obesity is the abnormal accumulation of excessive weight or body fat that produces adverse effects or impair health of an individual. Obese children compared to normal weight youth are less physically active and tend to obtain less benefits of physical activities whereas physically active youths become more active as they mature. Participation in regular physical activities during childhood and adolescence results in healthy outcomes like improving bone health, and improves risk factors for some chronic diseases, reduces fat deposits. It is therefore necessary to obtain recommended amounts of muscle strengthening exercises.

METHODOLOGY

Total one Hundred (Fifty male School children each from Urban area and Rural area School) were selected randomly as subjects of study. From Urban area the subjects were taken from Jai Narayan Inter College, Varanasi whereas in terms of Rural area the subjects were taken from Kisan Inter College, Varanasi. The age group of the subjects ranged from 12 to 14 years. The data was collected during school hours (8 a.m to 12 noon). Besides this all the subjects enjoyed good health as per the records of respective school. Sole variable selected for the study was Body Composition. Body Composition was assessed with the help of Harpenden Skinfold Callipers and Skinfold Thickness Measurement of Biceps, Triceps, Subscapular and suprailliac region will be recorded in MilliMeters. Total sum of skinfold of all sites was converted into percentage fat using Durnin and Rahman Skinfold Equation. The data was collected by administering the test on male school children of urban and rural school of Varanasi district, Uttar Pradesh. The data was collected during school hours (8 a.m to 12 noon) Besides this all the subjects enjoyed good health as per the records of respective school.



ANALYSIS OF DATA AND RESULTS

The statistical analysis of data collected on 50 Male school children each from urban and rural area school to analyse the difference in Body Composition have been presented in this chapter. The data presenting difference in Body Composition of urban and rural school children was examined by using Independent t Test. The Independent t Test values were tested for significance at 0.05 level. The mean, standard deviation and Test values were computed to analyze the data statistically. The results have been presented in the following tables:

TABLE-1
DESCRIPTIVE STATISTICS OF BODY COMPOSITION OF RURAL & URBAN SCHOOL CHILDREN

Children	Mean	Std. Deviation	Mean Difference	Std. Error	T Value
Rural	12.70	.330	2.55	0.406	6.28*
Urban	15.25	2.84			

* Significant (98)0.05 =1.98

Table 1 indicates that the Mean and Standard Deviation of Rural school children is 12.70+- .33. Table 1 indicates that the Mean and Standard Deviation of Urban school children is 15.25 +- 2.84. It also indicates that the Mean Body Composition of Rural school children (12.70) is lesser than Mean Body Composition of Urban School Children (15.25). Table 1 reveals that the value of t is 6.28. Thus, the null hypothesis of equality of means of two groups is rejected and concluded that the Body Composition of Rural and Urban School Children are different.

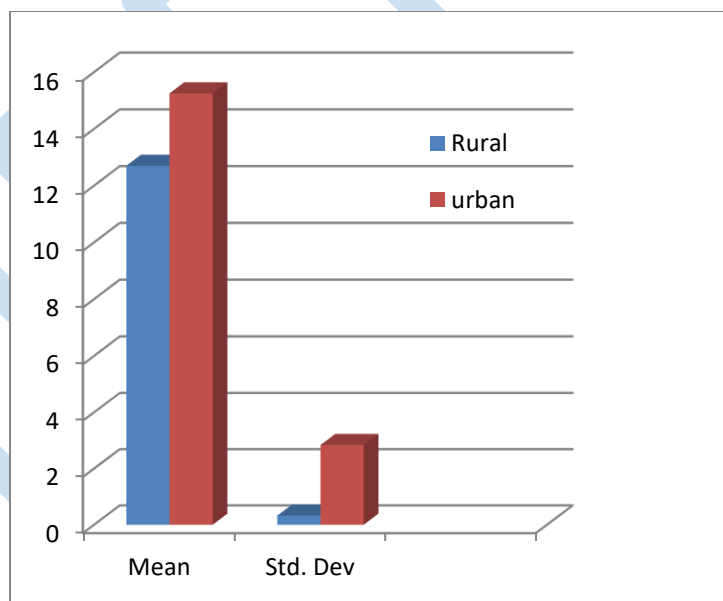


Fig. No 1: Graphical Representation of Mean & Standard Deviation of Rural & Urban school children on Body Composition.



DISCUSSION ON FINDINGS

Significant difference was found between Rural and Urban School children in Body Composition. The Mean value of subjects belonging to Rural area school was lower than their Urban counterparts. Therefore Rural School Children Performed better than Urban School children in body composition. This may be result of their more ability to do physical work and participation in Physical activities, most of them were from lower socio economic status and most of the children use to carry out regular physical work which improved their physical fitness. Most of their daily works were performed manually instead of machinery. Similar result where found by Sylejmani (2019), Kai-Yang Lo et al., (2017) and Singh et.al. (2017) and Rajkumar Sharma and Devarshi Kumar Choubey (2016)

CONCLUSION

Based on the data collected and the research findings the following conclusions may be drawn:-

Significant difference was found between Rural and Urban School children in the Body Composition. The Mean value of subjects belonging to Rural area school was Lower than their Urban counterparts. Therefore Rural School Children Performed better than Urban School children in body composition. This may be attributed to their more involvement in Physical work, they were all belonging to the middle class families and much of the children use to participate in regular physical activity which made them more physically fit.

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