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A study on anthropometric measurement of rural and urban school going adolescent students

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Abstract

The main aim of this study was to find out the differences of anthropometric measurements between urban and rural school going adolescent students. 40 boys' students have been selected for this study. Anthropometric measurements have been taken. Weight, height and percentage of fat were taken as the variances of this study. Selected age group 14-18 was taken for this study. After completing the research, the researcher found that significance mean difference found between Urban and Rural school going adolescent boys. The researcher found that there is significance difference of fat percentage between rural and urban boys. The percentage of fat of urban school boys (17.40) is more than rural boys (15.12). Mean weight of urban school boys (45.8 kg) is more than the school going rural boys (44.15 kg).

Keywords: Anthropometric measurement, Rural and Urban students

Introduction

Anthropometry is scientific study of the measurement and proportions of the human body. Anthropometry helps to determine the relationships between various body measurements like height, weight, percentage of body fat etc. The researcher was trying to find out the anthropometric differences of school going urban and rural adolescences. In this research the researcher found that the fat percentage of urban school going boys is slightly higher than school going rural boys. The main aim of the researcher was to observe the anthropometric measurement differences of school going urban and rural adolescences not to find out the reason behind it. Therefore more study is needed to find out the reason of higher percentage of fat in urban boys.

Objectives

Objectives of this study was to find out the differences of anthropometric measurements between urban and rural school going adolescent boys.

Methodology

Total 40 students were selected for this study. Only boys have been taken for the study. Height, weight and percentage of fat have been taken of all subjects.

Tools- Skin fold caliper, weighing machine

Procedure- There were two groups: 1 rural, 2 urban.

20 students have been taken from rural area and other 20 students have been taken from urban area. Anthropometric measurement have been taken of all this 40 students

Result

Percentage of fat

Mean fat percentage of rural school going adolescent boys is 15.12%

Mean fat percentage of urban school going adolescent boys is 17.40%

From table 1 significance mean difference of height (2.05 inch) was found between urban and rural boys. The mean height of rural boys (59.15 inch) is slightly higher than the urban boys (57.1 inch). Table value of $t = 2.09$ whereas $df = 19$.

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Table 1: t-test for significance of difference in height between rural and urban

	Mean	Mean difference	Std error Diff.	t value
Rural	59.15	2.05	1.21	1.69
Urban	57.1			

Table value of t (df=19) =2.09

Table 2: t-test for significance of difference in weight between rural and urban

	Mean	Mean difference	Std error Diff.	t -value
Rural	44.15	1.65	1.66	0.99
Urban	45.8			

Table value of t(df=19)=2.09

From table 2 significance mean difference of weight (1.65 kg) was found between urban and rural boys. The mean weight of rural boys (44.15 kg) is slightly lower than the urban boys (45.8 kg). Table value of t =2.09 whereas df=19.

Table 3: t-test for significance of difference in fat percentage between rural and urban

	Mean	Mean difference	Std error Diff.	t -value
Rural	15.12	2.28	1	2.28
Urban	17.40			

Table value of t (df=19)=2.09

From table 3 significance mean difference of fat percentage (2.28%) was found between urban and rural boys. The mean fat percentage of rural boys (15.12%) is slightly lower than the urban boys (17.40%). Table value of t =2.09 whereas df=19.

Conclusion

From this study the researcher found that there is very slight difference of anthropometric measurements between urban and rural school going adolescent boys. The percentage of fat of urban boys is slightly higher than the rural school boys.

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