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A COMPARATIVE STUDY OF THE BODY COMPOSITION OF MALE AND FEMALE STUDENTS OF RURAL AND URBAN AREA

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Abstract : The purpose of this research study was a Comparative Study of the Body Composition of Male and Female Students of Rural and Urban Area. In this research study, the students of the rural and the urban schools of Sabarkantha district were selected as the samples, In this research study the students studying in standard 8, 9 and 10 were selected. In this research study, the boys and the girls students of the rural and urban schools of Sabarkantha district were selected. In this research study 200 male students and 200 female students total 800 samples were selected. In this research study the students between the age group 13 to 18 were selected. In the scale of measurement, the weight was measured with a weighing fork. Height was measured using a tape measure and body mass index was measured using a formula. In order to compare physical structure of male and female students of rural and urban area: "t" test was applied and relevance was checked at the level of 0.05 level. There was no significant difference in the weight, height and body mass index of the urban and rural boys. It can be said that the weight of both the groups was similar.

Introduction

The true knowledge of body composition can be derived from the decay of a dead body one of the methods to test the constitution of the body is by radiography. Bone, muscle, fat and skin can be detected by a ray of potassium. Potassium is the measure of radiation for the body Essential for body composition includes the underwater weight method. In which body density or indirectly the weight lost in body water is equal to the weight of water lost from our body. Body density can be measured by weight or volume once the density is measured then the percentage of fat can be calculated. It is based on the difference between the density of fat and the density of tissue without fat.

Another common measurement such as body diameter measurement is its thickness and can be calculated. Skin fold caliper and anthropometry are used to measure diameter Pressuise caliper is needed for the measurement of skin fold. Body composition is known through electric current through the machine.

Lack of health awareness when endocrine gland secretion is less than it should be digestion is disturbed, fat starts to accumulate and there may be mental causes We need to know how good our body is, how much blood pressure is there, the amount of hemoglobin, the amount of fat, the body should feel tired, we should also know whether the weight is right for your height or not. Figure showing the proportion of body weight and height To know the BMI of any person, it is necessary to maintain his weight in kilograms and height in meters. Weight and height name can be found in the following formula.

$$\text{Body Mass Index} = \frac{\text{Weight}}{(\text{Height})^2}$$

$$= \frac{18}{(1.80)^2}$$

$$= \frac{18}{(3.24)^2}$$

= It becomes 25 BMI

The above B.M.I can be compared with the following table in order to know weight in comparison to the height.

Index less than 18.5	-	less weight
18.5 to 249	-	Proper weight
25.0 to 29.9	-	More weight
30.0 and above	-	Over weight

If the identified index of the person is 25 when compared to the chart, then the weight of the individual is more than height.

The purpose of the Study

The purpose of this research study was a Comparative Study of the Body Composition of Male and Female Students of Rural and Urban Area.

Selection of Samples

In this research study, the students of the rural and the urban schools of Sabarkantha district were selected as the samples, In this research study the students studying in standard 8, 9 and 10 were selected. In this research study, the boys and the girls students of the rural and urban schools of Sabarkantha district were selected. In this research study 200 male students and 200 female students total 800 samples were selected. In this research study the students between the age group 13 to 18 were selected.

Standard of Measurement

Sr. No.	Variable	Process	Units
1	Weight	Wight Machine	Kilogram
2	Height	Measure tape	Centimeter
3	Body Mass Index	$\frac{\text{Weight}}{\text{Height}^2}$	Kilogram/ Weight^2

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Statistical process

In order to compare physical structures of male and female students of rural and urban area: "t" test was applied and relevance was checked at the level of 0.05 level.

Research of the Study

Table-1

Mean, variance, mean difference and 't' value of weight of urban and rural boys

Group	Mean	N	Variance	MD	't' Value
Urban Boys	36.865	200	11.795	0.090	0.271
Rural Boys	36.955	200	10.254		

't' $^{0.05}$ (398) = 1.965

It can be seen in Table-1 that the mean value of weight test of urban boys is 36.865 and rural boys is 36.955. The variance of urban boys is 11.795 and rural boys is 10.254. The mean difference is 0.090 and the calculated 't' value is 0.271, which is not significant at 0.05 level.

Graph-1

Graph showing the weight of urban boys and rural boys

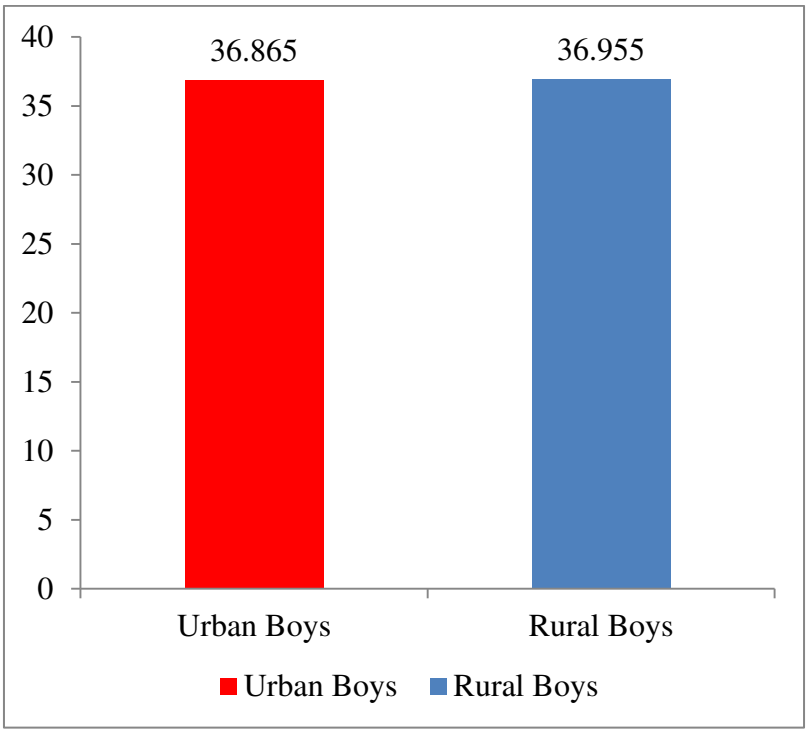

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Table-2

Mean, variance, mean difference and 't' value of height of urban and rural boys

Group	Mean	N	Variance	MD	't' Value
Urban Boys	143.91	200	13.083	0.280	0.745
Rural Boys	144.19	200	14.104		

't' $^{0.05}$ (398) = 1.965

It can be seen in Table-2 that the mean value of height test of urban boys is 143.91 and rural boys is 144.19. The variance of urban boys is 13.083 and rural boys is 14.104. The mean difference is 0.280 and the calculated 't' value is 0.745, which is not significant at 0.05 level.

Graph-2

Graph showing the height of urban boys and rural boys

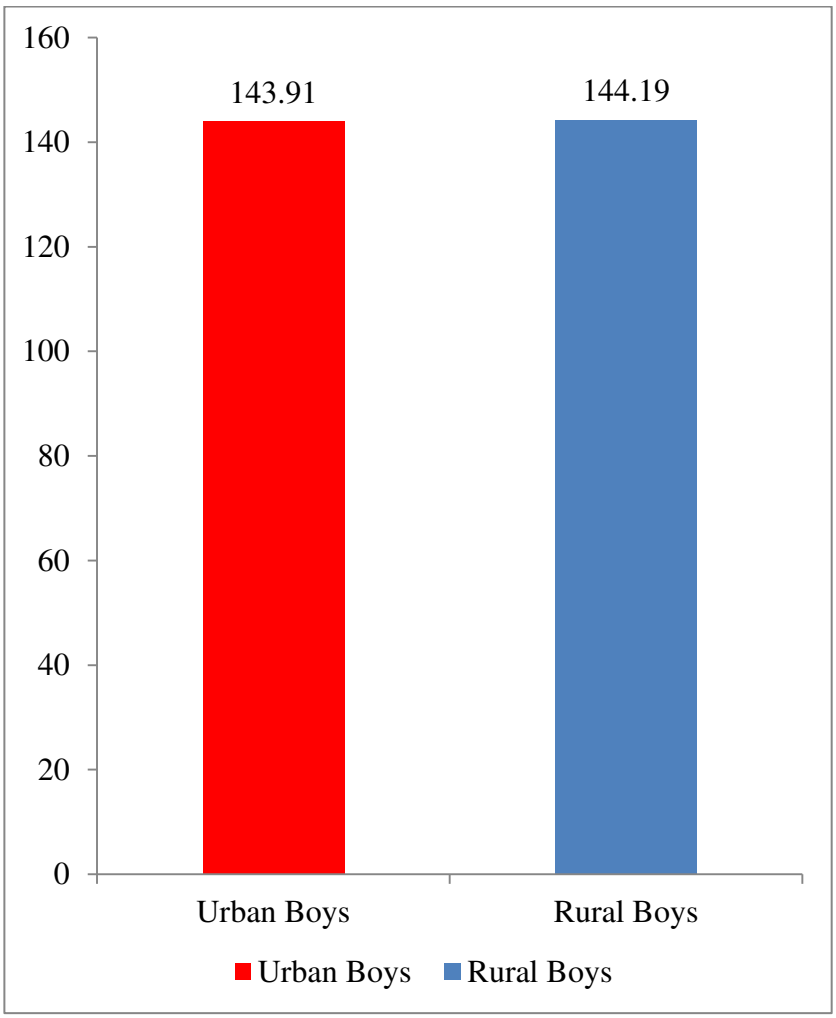

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Table-3

Mean, variance, mean difference and 't' value of BMI of urban and rural boys

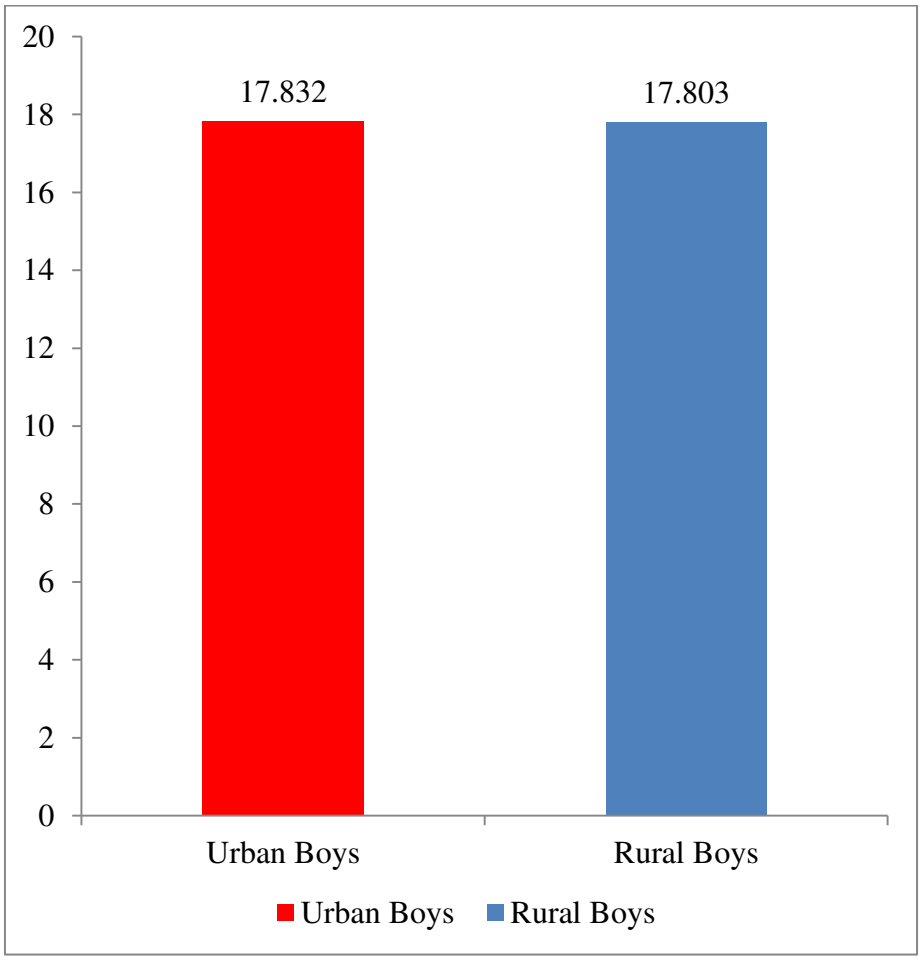
Group	Mean	N	Variance	MD	't' Value
Urban Boys	17.832	200	3.540	0.028	0.156
Rural Boys	17.803	200	3.000		

't' $^{0.05}$ (398) = 1.965

It can be seen in Table-3 that the mean value of BMI test of urban boys is 17.832 and rural boys is 17.803. The variance of urban boys is 3.540 and rural boys is 3.000. The mean difference is 0.028 and the calculated 't' value is 0.156, which is not significant at 0.05 level.

Graph-3

Graph showing the BMI of urban boys and rural boys



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Conclusion :

- There was no significant difference in the weight of the urban and rural boys. It can be said that the weight of both the groups was similar.

- There was no significant difference in the height of the urban and rural boys. It can be said that the height of both the groups was similar.

- There was no significant difference in the BMI of the urban and rural boys. It can be said that the BMI of both the groups was similar.

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