



COMPARISON OF BODY MASS INDEX OF SCHOOL CHILDREN OF AZAMGARH DISTRICT

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Abstract

The Main Purpose of the study was to analyze difference in terms of Body Mass Index of school going children of Azamgarh 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 A. N Memorial Public School whereas in terms of Rural area the subjects were taken from Purva Madhyamic Vidyalaya, Azamgarh. The age group of the subjects ranged from 12 to 14 years. The data was collected by administering Digital Weighing Machine for Measuring Body Weight and Portable Stadiometer for Measuring Body Height. Independent t Test was employed to analyse the difference in terms of Body Mass Index of school children. By using Independent t Test it was found that there was significant difference among Body Mass Index among school children. The t value of Body Mass Index was found to be ($t=2.7$), Body Weight was found to be ($t=3.69$) and of Body Height was found to be ($t=4.0$) at 0.05 Level of Significance which clearly shows that there was a Significant difference among Body Mass Index of school children.

Keywords: Body Weight, Body Height, Body Mass Index, Urban, Rural.

Introduction

Physical activity and regular exercise is the path towards healthy living and wellbeing for an individual. Regular exercise has numerous

outcomes as it helps to build strong muscles, reduces cholesterol level in body, eliminates unwanted fat deposits, relieves us from anxiety and stress, allows proper sleep. The fitness and exercise program should be such that it is helpful and aiding towards most of the fitness components whether it is health related fitness component or skill related fitness component. Both components play a significant role in sports performance.

Some factors related to the environmental responsible for obesity among individuals are Excessive intake of calories, inappropriate lifestyle patterns, intake of unhealthy food stuffs, easy access to fast food and lack exercise and physical activity. It has now been essential to focus on perfecting and enhancing the performance as per the desired requirement of sports. A stable form and level of achievement is the ultimate goal which is to be the foremost criteria and limitation. Proper exercise aids us to achieve and improve our capacity in related areas.

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 A.N Memorial School, Azamgarh whereas in terms of Rural area the subjects were taken from Purva Madhyamic Vidyalaya, Azamgarh. The age group of the subjects ranged from 12 to 14 years. The variables selected for the study were Body Weight, Body Height, Body Mass



Index. The data was collected by administrating respective tests on male school children of urban and rural school of Azamgarh district, Uttar Pradesh. The data was examined by using Independent 't' Test. The Independent t Test values were tested for significance at 0.05 level.

Results

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

	Mean	S.D.	Skewness	Kurtosis	SE
Rural	33.24	6.74	0.385	-.497	0.95
Urban	38.55	7.57	.414	-.548	1.07

Table 1 indicates that the Mean and Standard Deviation of Rural school children is 33.24 ± 6.74 and of Urban school children is 38.55 ± 7.57 . It also indicates that the Mean Body Weight of Rural school children (33.24) are less than Mean Body Weight of Urban School Children (38.55).

TABLE 2
T TEST FOR EQUALITY OF MEANS

	T Sig (2 Tailed)	
Body Weight	3.69	0.000

Significant (98)0.05 = 1.98

Table 2 reveals that the value of t is 3.69. Thus t-value is significant as the p-value is 0.000 which is less than 0.05. Thus, the null hypothesis of equality of means of two groups is rejected and concluded that the Body Weight of Rural and Urban School Children are different.

TABLE 3
DESCRIPTIVE STATISTICS OF BODY HEIGHT OF RURAL & URBAN SCHOOL CHILDREN

	Mean	S.D.	Skewness	Kurtosis	SE
Rural	1.43	0.10	-.158	-.513	.014
Urban	1.51	0.8	-.161	-.572	0.1

Table 2 indicates that the Mean and Standard Deviation of Rural school children is 1.43 ± 0.10

and of Urban school children is 1.51 ± 0.80 . It also indicates that the Mean Body Height of Rural School children (1.43) is less than Mean Body Height of Urban School Children (1.51).

TABLE 4
T' TEST FOR EQUALITY OF MEANS

	T Sig (2 Tailed)	
Body Height	4.00	0.000

Significant (98)0.05 = 1.98

Table 2(a) reveals that the value of t is 4.00. Thus t-value is significant as the p-value is 0.000 which is less than 0.05. Thus, the null hypothesis of equality of means of two groups is rejected and concluded that the Body Height of Rural and Urban School Children are different.

TABLE 5
DESCRIPTIVE STATISTICS OF BODY MASS INDEX OF RURAL & URBAN SCHOOL CHILDREN

	Mean	S.D	Skewness	Kurtosis	SE
Rural	15.78	1.56	.666	-.075	.221
Urban	16.74	1.96	-.077	-0.227	.277

Table 3 indicates that the Mean and Standard Deviation of Rural school children is 15.78 ± 1.56 , and of Urban school children is 16.74 ± 1.96 . It also indicates that the Mean Body Mass Index of Rural School children (15.78) is less than Mean Body Mass Index of Urban School children (16.74).

TABLE 6
'T' TEST FOR EQUALITY OF MEANS

	T Sig (2 Tailed)	
Body Mass Index	2.7	0.008

Significant (98)0.05 = 1.98

Table 3 reveals that the value of t is 2.7. Thus t-value is significant as the p-value is 0.008 which is less than 0.05. Thus, the null hypothesis of equality of means of two groups is rejected and concluded that the Body Mass Index of Rural and Urban School Children are different.



Discussion on Findings

The major findings of the study are as follows
Significant difference was found between Rural and Urban School children in the variables on Body Weight, Body Height, Body Mass Index . 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 on all the Selected Variables .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.

Conclusion

Based on the data collected and the research findings the following conclusions are drawn:
Significant difference was found between Rural and Urban School children in the variables on Body Weight, Body Height , Body Mass Index .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 on all the Selected Variables .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.

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