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## Study of anthropometric measurement of adolescents girls, boys of schizophrenic patients in Raipur districts

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### Abstract

The data regarding the anthropometric measurement was collected using simple metric tape and weighing machine. The table number 1 and its subparts represent the calculated Body mass index table from the data collected during the research work, on anthropometric measurements of the patients suffering from Schizophrenia in state of Chhattisgarh. The table number 2 shown below gives the comparison between the average weight of healthy person as per NCHS (National Centres of Health Statistics) standards and observed average weight of schizophrenic patients as per their gender and age.

**Keywords:** Schizophrenia, anthropometric, NCHS, BMI

### Introduction

Schizophrenia is a disease that is not at all related to bad parenting or personal weakness but it has a biological basis as like of cancer and diabetics. Schizophrenia, as discussed above has no known cure but the patients of schizophrenia respond well to treatment's and if the routine is followed, the patients suffering from schizophrenia leads a satisfying and fulfilling lives (McAllister, 2014). To describe the disease in detail schizophrenia is a chronic, disabling and very severe brain malfunctioning disorders that has affected people in the past as well. Positive symptoms of schizophrenia marks the psychotic behaviours that are not observed in a person leading a healthy life. The patients showing positive signs are socially cut off. The symptoms are repetitive in nature and have a frequency of repeated appearance and disappearance. When repeated the symptoms are easily visible with prominent impact and sometimes one cannot observe the occurrence of symptoms (Christensen O., 1988) [1] Malnutrition in schizophrenic patients is widely visible due to their irregular day to day activities and improper consumption of food. Schizophrenia however is not a case resulting from malnutrition, but after the onsets of schizophrenia patients reportedly consume fewer amounts of necessary nutrients than needed. The patients then shows symptoms that are common when the body is deficient in those nutrients (National Institute of Health, 2009).

### Review of literature

(Beers, and Berkow, 1999), worked on effect of nutrients on behavioural characteristics of patient and stated that nutrients are normally divided into two categories, macronutrients, and micronutrients. While macro-nutrients often refer to protein, carbohydrates, fats, macro minerals, and water, micro-nutrients include vitamins and trace minerals. The amounts needed are small - micrograms or milligrams a day — so they are called "micro" nutrients. They are necessary for regulatory systems in the body, for efficient Energy metabolism, and for other functions. Malnutrition can be either at the macro level or the micro level, and most cases may involve a mixture of both. (Volavka, *et al.* 1990; Virkkunen *et al.*, 1995; Werbach, 1995), in their study of behavior Intake, stated that amino acids, the biochemical building blocks of protein, have been also implicated in aggressive and violent behaviour.

### Methodology

This is basically a qualitative study. "Descriptive observational non experimental research design and inferential Intake" was being set to perform this study. Random sampling was made. Data was collected with the help of close ended questionnaires. The current work was exploring the nutritional profile of the schizophrenic patient of Raipur districts. Study was conducted on 100 schizophrenic hospitalized patients of Raipur city. 50 Adolescent boys and 50 Adolescents girls aged between 16 to 19 years. Anthropometric Data was calculated to

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determine the standard value of Height, Weight and BMI of Adolescent boy's girls. height was be measured and compared with those under 19 year and up to 20 years of age were taken from Reference by NCHS of standard value. weight was recorded in kilograms and compared to NCHS Standard weight of patient in adolescent. Body weight and body height was measured. BMI was also be calculated by the method prescribed by ICMR. Body mass index (BMI) and relative body weight percentage were analyzed by using height and weight measurements of all subjects were Body mass index (BMI) was calculated with the BMI formula (weight in (kg) /height in m<sup>2</sup>). The relation suggested by Thunberg *et al.*

**Result and discussion**

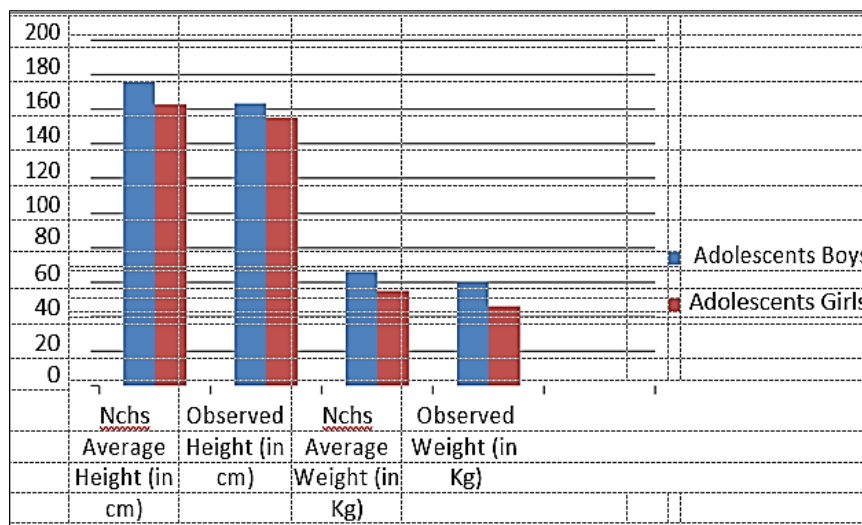
**Table 1:** BMI for Age as Criteria for Assessment of Nutritional Status of Adolescent

BMI Z Scores	Nutritional grades
<Median -3 SD	Sever Thinness
-3sd to -2 SD	Moderate Thinness
-2sd to +1 SD	Normal
+1 SD TO +2 SD	Over weight
Median ≥ +2 SD	Obesity

**Source:** Development of WHO growth reference for school aged children and Adolescent bulletin of the WHO 2007

**Table 2:** compare to BMI of adolescents boys and girls height and weight with NCHS value

	Adolescents Boys	Adolescents Girls
Nchs Average height (in cm)	176	163
Observed height (in cm)	163.16	155
Nchs Average weight (in Kg)	66.	55
Observed weight (in Kg)	60.02	45.8



The table number 1 and 2 below shows that there is no significant difference in the weight of the schizophrenic patients of young age and their healthy counterpart shows difference in weight whose significance is tested by t-test. the 't'-Test for testing statistically significant difference between Body mass index of Schizophrenic patients and the healthy person, belonging to both the sex and both the category.

**Conclusion**

That anthropometric parameters are closely related to dietary intake, more than admitted patients are under weight, overweight or normal detailed Intake is needed, which is not covered in scope of this study. Correlation between BMI with dietary intake i.e. calorie, protein, fat, carbohydrate, iron and fibre depicts significant association between BMI with some of the dietary intake in some study groups but not in all the study groups.

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