

# A Study on the Nutritional Status of High School Children in St. Xavier's School (Telugu Medium), Eluru

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**Abstract:** *By taking a proper diet which consists of all the major and minor nutrients in a proper balanced state, everyone can maintain a good health. A proper diet also helps to maintain a correct balance of both mental and physical health. But due to lack of proper nourishment, about 1/3<sup>rd</sup> of children under 3 years of age in the state of undivided Andhra Pradesh (currently divided as Andhra Pradesh and Telangana) were identified as under malnourished (as per NFHS - 3, 2005 - 2006) with 29.8% children are under weight, 38.4% children are stunted, 14.9% children are wasted and 79.6% of the children are anemic. Hence these children start going to school but remain under nourished and uncared. Some children due to good economic background, lack of outdoor games and other reasons mainly, lack of time for planning a proper diet and these effects the health of children mainly due to consumption of fast foods they become obese and over nourished and also many other complications are seen or noticed in this people or children. So these two conditions are like two sides of a coin which have to be carefully studied and understood. According to World Health Organisation, individuals between 10 and 19 years are considered adolescent. There are many physical and mental changes which results due to the influence of hormones. It is during in this period that the final growth spurt occurs with increase in height and weight. Physical and psychosocial pressures influence adolescents eating habits. Boy's fares better than girls in their large appetite and sheer volume of food leads him to consume adequate nutrients. Teenagers have the reputation of having the worst eating habits. They may skip a meal particularly breakfast. Adequate well balanced nutritious foods should be taken to prevent obesity or under nutrition. No meal of the day should be missed, as adolescence represents a period of active life. Junk food should be avoided. Avoid empty calories food such as carbonated beverages. Calories and protein rich foods should be taken to support the growth spurt. Include fruits and vegetables in the diet to meet the vitamins, minerals and fiber requirement. Eating habits should be independent of emotion. Parents should encourage the adolescents to cook at home, a nutritious and tasty food. Home based diets are best for children growth. Adolescents who eat high calorie and high fat foods become over weight and obese. Skipping meals at home and consuming foods that are junk also contribute to overweight. They may snack between meals. They may also include fruits and vegetables in their diets. ICMR surveys (2003) showed that 70% of adolescents are anemic. Anemia is the most common in all groups of adolescents irrespective of social class. Anemia is more common in poor class since intake is poor mainly due to non availability of healthy foods. In higher classes personal likes and dislikes and food taboos lead to anemia. Studies carried out by NNMB (2003) in the rural population revealed that the prevalence of under nutrition among adolescents, as assessed by weight for age is about 40 - 50% and that of iron deficiency anemia is about 70%.*

**Keywords:** Malnourishment, Undernourishment, Obesity

## 1. Introduction

School health has been acknowledged as an important aspect since the beginning of 20<sup>th</sup> century. Nutritional status is a major component of school health science. The health of children and youth is of fundamental importance. As today's children are tomorrow's world, their survival, protection and development are the prerequisite for the future development of humanity. Without ensuring optimal child growth and development, efforts to accelerate economic development significantly will be unsuccessful. Good nutrition is a basic requirement for good health and a living organism is a product of nutrition.

The principle aim of the nutritional assessment of a community is to map out the magnitude of both under and over nutrition as a public health problem and to compare the status of school children studying in private school and government schools and to analyze and to find out the reasons behind malnutrition, under nutrition, overweighted and also over nutritional status or any other deficiencies. The rates of overweight and obesity among children worldwide have been increasing dramatically in the last few years, with similar trends being observed in recent years among children and adolescents from developing countries. When we find so many cases of over nutrition and obesity on one hand, on the other hand approximately 60 million children are under weight in India and child malnourished children in the world

live in India. Malnutrition is more common in India than in sub - Saharan Africa. Given its impact on health, education and productivity, persistent under nutrition is a major obstacle to human development and economic growth in the country, especially among the poor and the vulnerable, where the prevalence of malnutrition is highest.

Nutrition is very important for everyone, but it is especially important for children because it is directly linked to all aspects of their growth and development; factors which will have direct ties to their level of health as adults. For example, a child with the right balance of omega fatty acids in their daily diet has a much better chance at creating a more solid foundation for their brain activity and capabilities later on. Likewise, a child who practices a low fat and cholesterol diet on a daily basis significantly improves their chances of preventing a heart attack; even if heart disease tends to be hereditary within your family. Good nutrition will allow them to partake in more activities and with greater enjoyment. People with high levels of health also consistently report that they enjoy elevated feelings of wellness and wellbeing.

## 2. Methodology

A group of 30 school going children were assessed to know their nutritional status. The Height and weight of students were measured by using standard techniques. From the

above information the BMI and IBW was calculated. The dietary habits were collected by an interview method. Information was collected regarding their likes and dislikes and economic status. Pilot study was conducted in St. Xavier's telugu medium school, Eluru.

$$BMI = \frac{\text{weight (kgs)}}{\text{height (m}^2\text{)}} \quad IBW = \text{Height in cms} - 100$$

Grading of obesity was done based on BMI

Grade III - > 40

Grade II - 30 - 40

Grade I - 25 - 29.9

Not obese - < 25

### 3. Results and Discussions

**Table 1: Based on BMI**

S. No	BMI Range	No. of students (30)	Percentage (%)
1	20 - 25 (Normal)	9	30
2	<20 (Underweight)	16	53.3
3	>25 (Obesity)	5	16.6

Discussions: Our present study reveals that 30% of students are found to be normal, 53.3% are found to be underweight and 16.6% of students are obese.

**Table 2: Based on Likes and Dislikes**

S. No	Category	No. of students (30)	Percentage (%)
1	Junk	10	33.3
2	Vegetarian	6	20
3	Non vegetarian	14	46.7

Discussion Based on the likes and dislikes, 33.3% of the total students (30) preferred junk food, 20% of them liked vegetarian foods and 46.7% of them Non - vegetarian food

**Table 3: Based on Economic Status**

S. No	Category	No. of students (30)	Percentage (%)
1	High income	6	20
2	Middle income	8	26.7
3	Low income	16	53.3

Discussion Based on the Economic status, 20% of the total students (30) are in High income group, 26.7% are in middle income group and 53.3% of them are in low income group.

### 4. Summary and Conclusion

School health has been acknowledged as an important aspect since the beginning of 20<sup>th</sup> century. Nutritional status is a major component of school health science. The health of children and youth is of fundamental importance. As today's children are tomorrow's world, their survival, protection and development are the prerequisite for the future development of humanity. Without ensuring optimal child growth and development, efforts to accelerate economic development significantly will be unsuccessful.

Our present study reveals that 30% of students are found to be normal, 53.3% are found to be underweight and 16.6% of students are obese. Based on the likes and dislikes, 33.3% of the total students (30) preferred junk food, 20% of them

liked vegetarian foods and 46.7% of them Non - vegetarian food. Based on the Economic status, 20% of the total students (30) are in High income group, 26.7% are in middle income group and 53.3% of them are in low income group

### 5. Suggestions

- 1) Gulp down gallons of water as water rejuvenates the cells and clears the bowel. Many children do not drink as much water as they have to. Encourage them to drink copious amounts of water.
- 2) The diet of school going children must necessarily contain sprouts, brown bread, sandwiches, whole wheat bread with cheese, rice, dhal, vegetable curries.
- 3) Dry fruits like almonds, pistas, figs, walnuts, raisins are excellent for children and they can be given in small amounts. Dates are also an excellent source of vitamins and minerals.
- 4) It is important to encourage breakfast, because a good night's sleep followed by food in the morning helps the children to stay active and concentrate at school.
- 5) Aim for some physical activity every day

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