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## Assessment of nutritional status among adolescent girls

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#### Abstract

Diet is a crucial determinant of health and nutritional status of people. We took this paper to check the nutrition status of adolescent girls. In this we shall get to know whether the nutrition scale of the adolescent girls is normal or not through BMI testing. For this purpose to check. We took two objectives: To assess the nutritional intake with RDA, To assess overweight and underweight by energy.

To complete these objectives we did a survey on adolescent girls. Survey was having sample tool questionnaire and sample size was 30. In this survey the adolescent girls were given the questionnaire in which they were asked to give their one day diet history. Then after we calculated their diet history and compares it with RDA. Through which we got to know that their dietary intake was very poor, and 33.33% were underweight, 66.66% were normal BMI. We calculated and the result was 46.66% girls were underweight 30% having the problem of deficiency and 23.33% were normal.

**Keywords:** Nutritional status, adolescent girl, BMI

#### Introduction

Diet is a vital determinant of health and nutritional status of people. The dietary habits of individuals /families/communities vary according to socio-economic factors, regional customs and traditions. No realistic policies on food production procurements & distribution can be formulated without a thorough knowledge food habits. Recent years, economic have made use of the dietary energy data for defining poverty levels of population groups.

**Adolescent girls:** An adolescent (13-18 years) is a phase of life which has recently gained reorganization as a distinct phase of life with it on special needs. This phase is characterized by acceleration of physical growth and psychological and behavior changes thus bringing about transformation from childhood to adulthood.

Adolescent has been described as the transition period in life when an individual is no longer a child, but no yet an adult. Physical growth and development are accompanied by sexual maturation, often leading to intimate relationships.

Development characteristic of adolescents: - Physical, Emotional, Social

**Physical characteristics:** Rapid and dramatic physical development & growth marks adolescence, including development of sexual characteristics. Marked morphological change in almost all organs and systems of the body are responsible for the accelerated growth.

Development of breasts, broadening of hips and rapid growth in height usually bring about two and a half years before menarche.

**Emotional characteristics:** Hormonal changes are likely to result in thoughts pertaining to sex, irritability, restlessness, anger and tension. It requires development of a sense of balance and self-imposition of limits on expression of one's needs and desires. Bodily changes cause emotional stress & strain as well as abrupt and rapid mood swings.

**Social characteristics:** Searching for identity, infused by gender peer group, cultural background & family expectations.

#### Seeking more independence.

Looking for new experiences, may engage in more risk. Taking behavior. Thinking more about right & wrong.

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Influenced more by friends' behavior sense of self and self-esteem. Starting to develop and explore & a sexual identity. Adolescent girls are when girls are in 13-19 years they need high energy, high protein, high fat and other nutrients. In this project we are telling how much nutrient need for adolescent girl. Adolescence is the transitional period between childhood and adulthood. During this period individual moves towards physical and psychological maturity and economic independence and acquire their adult identity.

**BMI in Adolescents**

Anthropometry is especially importance during adolescence because it allows. The monitoring and evaluation of the hormone mediated changes in growth and maturation during this period weight for age is to considered uniformature or even misleading in the absence of information on height for the respective age. However, age and gender specific centiles of body mass index (BMI) were recommended for use in adolescence. The ratio of weight (in kg)\height2 (m) is referred to as BMI.

A study of diet and nutrition status among adolescent girls in Lucknow district. In this study the adolescent constitute about one fifth of the world's population. In india they account for 21% of the total population. The WHO has defined adolescence as the age group of 13-19 years. Objective of this study the nutritional status of adolescents' girl & factors effecting the health & nutritional status in adolescent girls.\

Mean weight of adolescent girls in all age group in both urban and rural school and showed significant difference with the ICMR means weight for respective ages 16, 17, 18 and 19 years in rural school girls. The mean height of adolescent girls in both urban and rural school better than ICMR standards except in age 13 to 19 years.

In the urban girls is prevalence of thinness where as in rural girls none of the girls were thin and urban girls the prevalence

of overweight1

**Objectives**

- To assess the nutritional intake with RDA.
- To assess the overweight and underweight by energy.

**Research methodology**

**Sampling design:** - A purposive sample is a non- probability sample that is selected based on characteristics of a population and the objective of the study. Purposive sampling is also known as judgemental, selective, or subjective sampling.

**Sample Tool**

**Questionnaire:** - A list of questions that are answered by many people. A questionnaire is used to collect information about a particular subject.

**Sample size**

Sample size of the survey is 30.

**Sample location**

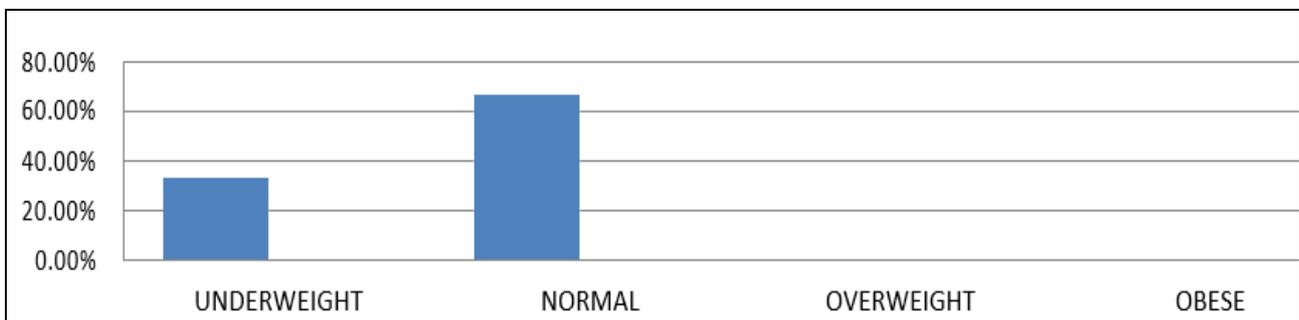
Keeping in the mind the age group of the subject, survey has been carried out in Rani Chennama girls hostel Swami Vivekananda Subharti University, Meerut city.

**Analysis**

A percentile is a measure used in statistics indicating the value below which is given percentage of observation in a group of observations fall.

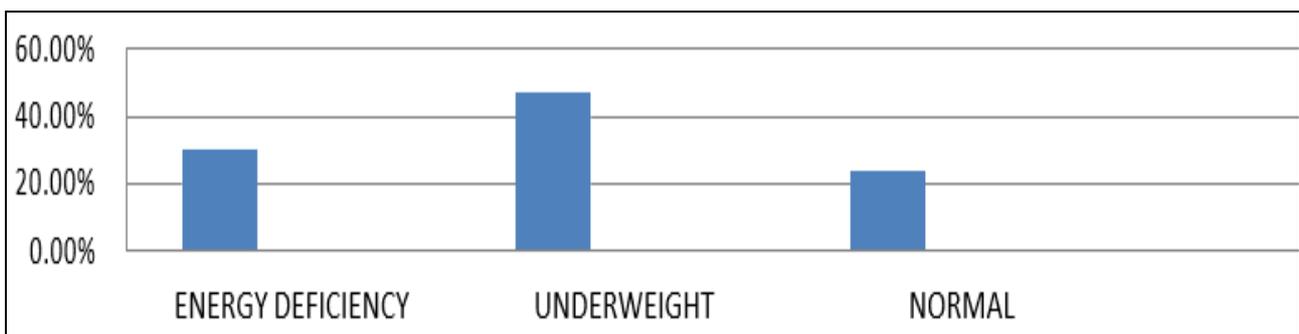
Data collection is a process of collecting information from all the relevant sources to find answers to the research problem

**Result and Discussion**



**Fig 1: BMI of Adolescent Girl**

Adolescent girls of our community are 66.66% normal and 33.33% underweight. Overweight and obese are nil (0.00%).



**Fig 2: Energy Intake of Adolescent Girl**

Adolescent girls of our community are energy deficiency 30%, underweight 46.66% and normal 23.33%.

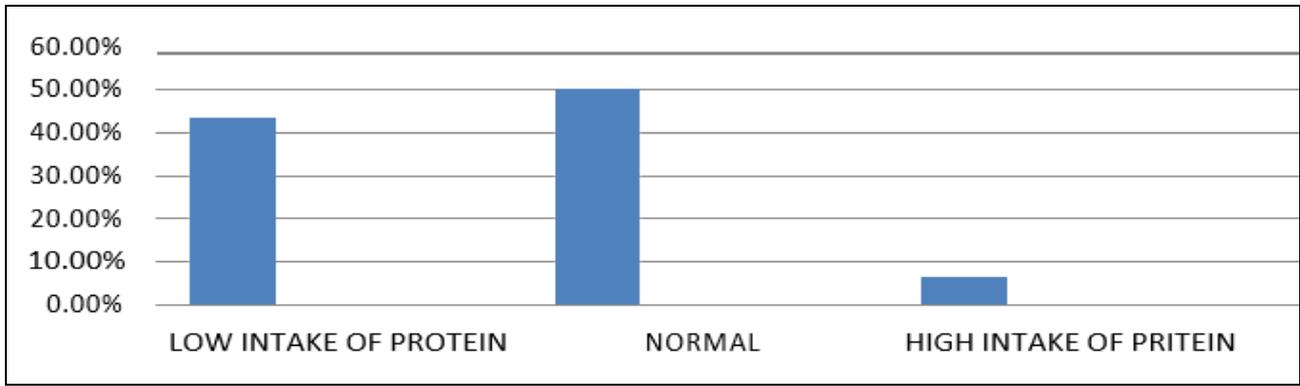


Fig 3: Protein Intake of Adolescent Girl

Adolescent girls of our community are low intake of protein 43.33%, normal 50% and high intake of protein 6.66%.

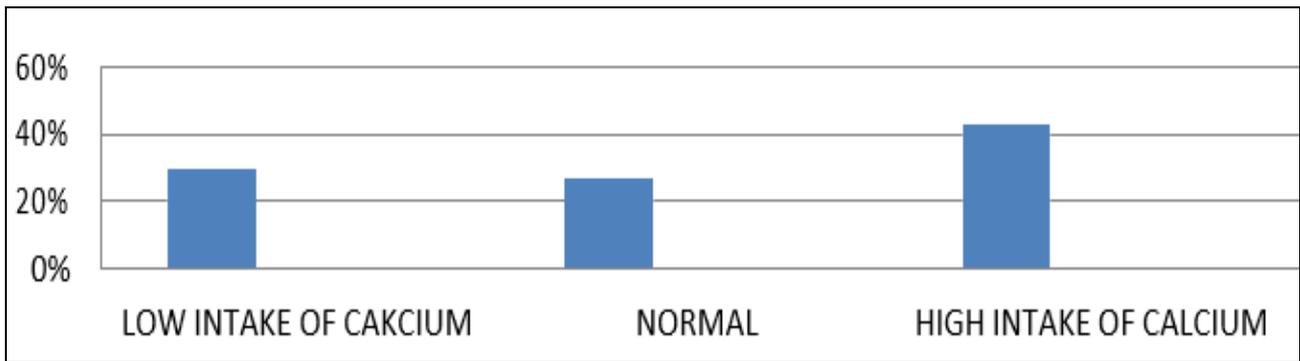


Fig 4: Calcium Intake of Adolescent Girl

Adolescent girls of our community are low intake of protein 30%, normal 26.66% and high intake of calcium 43.33%.

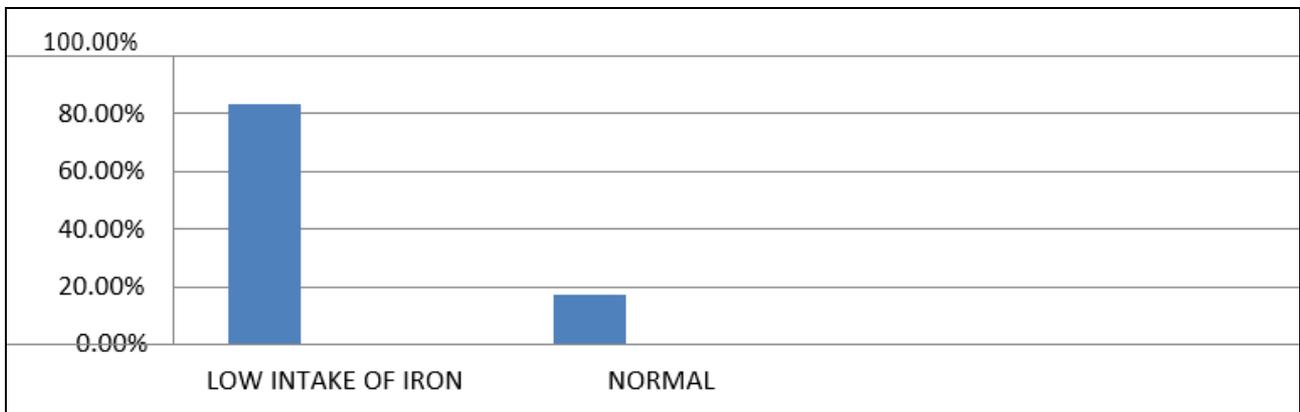


Fig 5: Iron Intake of Adolescent Girl

Adolescent girls of our community are low intake of iron 83.33% and normal 16.66%.

16.66% normal and 83.33% was anemic girls. If they will not take sufficient intake of iron then she will have chances of anemia.

**Result and Conclusion**

Adolescent girls of our community’s dietary intake was very poor. Because they do not consume enough nutrient. Girls of different categories of BMI- 66.66% was normal and 33.33% was underweight. Energy intake very poor, some are such as 46.66% was underweight, 30% was deficient and 23.33% was normal. If their daily amount of energy intake is poor then they become 30% chronic deficiency disease. Protein intake was 50% normal, 43.33% was malnourished and 6.66% was high protein in this condition stones are formulate and increase urea. Calcium intake was 26.66% normal, 30% deficient and 43.33% hypocalcaemia. Daily calcium intake for adolescent girls is very necessary otherwise there many be a chance of hypocalcaemia and hypercalcaemia. Iron intake

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