A Study of Nutritional Status in Adolescent Girls of A Rural Population

ORIGINAL ARTICLE

Authors
Dr. Kalpana Jha
Asst Professor
Department of Home science
Government Arts & Commerce Girls College
Devendra Nagar, Raipur, Chhattisgarh, INDIA

Mrs. Poonam Dubey
Department of Education
Shri Mahavir Medical College of Naturopathy
and Yogic Sciences
Nagpura, Durg, Chhattisgarh, INDIA

Abstract

In this present study protein energy malnutrition in adolescent girls from rural population was measured moderate and severe malnutrition was observed in adolescent girl of rural area on additional the illiteracy of the mother and the occupation of fathers of the girls analysed were student and was found that these condition may be the main reason for the PEM and anemia condition a wide variety of development actions are needed to improve the food security and nutrition of women prevalence of malnutrition with anemia and common ailments in an urban slum of India's modern city highlights the significance of developing integrated child illness management programs for the urban poor and strengthening nutrition intervention programs.

Key Words

Malnutrition, Adolescent, Girls, Population.

Introduction

Nutritional problems in India have their roots in poverty and inequality .poverty when restrains an individual or family to establish command over "commodity bundles with enough food" and inequality among other things places a disproportionable burden of ill health and under nutrition on women and children malnutrition and its associated disease conditions can be caused by eating too little eating too much , our eating an unbalanced diet that lacks necessary nutrients.

The problem arising from cultural political and economical realities must be addresses in tandem however significant steps should be taken to eradicate and to make them aware against the terrible problems of malnurition. malnutrition among women has long been recognised as a serious problem in India , but national level data on levels and causes of malnutrition deprivation is failure in growth and development. To evaluate the nutritional status up to the age of maturity sex and age based assessment of growth and development is necessary. Any nutritional disorder our deficiency leads to mental and growth failure and low activities. Therefore to estimate the prevelence of stunting, wasting of muscles and underweight we assessed anthropometric indices for adolescent girls in the rural area.

December 2024 to February 2025   www.amoghvarta.com
A Double-blind, Peer-reviewed & Referred, Quarterly, Multidiciplinary and Bilingual Research Journal

Impact Factor
SJIF (2024): 6.879

205

Problem

1. The first problem of the reaserch is poverty and inequality.

2. The second problem is illeteracy. and occupation of father and mother.

Hypothesis

H_1 It has been hypothesized that poverty play an vital role in malnutrition among adolescent girls.

H_2 It has been hypothesized that illeteracy is another important problem lack of knowledge of nutrient.

Methodology

Sample

A final sample of 50 adolesent girls were selected randomly from the rural areas in the durg district of nagpura chattishgarh on the basis of the world health organization (WHO) criteria for body mass index, categories malnutrition among subjects was calculated.

Different methods are used for the assessement of nutritional status of adolescent girls were:

Tools

1. Anthropometric Indices.
2. Hemoglobin Measurement.
3. Statisticel Analysis.

Anthropometric Measurement

Anthropometric measurement for the adolescent girls were performed with the help of trained investigater and medical officer body weight were measured . BMI was calculated as weight (kg) divided by height (m2) ,according to the united nation classification BMI <18 is considered severally malnourised, 18-20 is modertely malnourished ,21-24 is normal, 25-27 overweight , more than 27 is considered obese, BMI is a useful tool in both clinical and public health practice for assessing the nutritional status .

Chronic energy deficiency grade	Underweight grade	BMI k/m2
Normal	Normal	>18.5
Grade -1	Mild underweight	17.0-18.4
Grade - 2	Moderate under weight	16.0-16.9
Grade -3	Severe underweight	<16.0

Heamoglobin Measurement

To study the heamoglobin level of adolescent girls sahils acid hematin method and cyanomethemo-globin method was used. Anemia is diagnosed through blood test when less than 13.5 g/dl in man or less than 12 g/dl in a woman .

Measurement of Heamoglobin of Adolescent Girls of Rural Area

Age group	Total no. of girls	Normal level of Hb	Low level of Hb
12-17 years	50	28	22

(***Source:*** *Primary Data*)

Detection of BMI In Adolescent Girls From Rural Area

Age group	No. of girls	Under weight	Normal
12-17 years	50	25	25

(***Source:*** *Primary Data*)

December 2024 to February 2025   www.amoghvarta.com
A Double-blind, Peer-reviewed & Referred, Quarterly, Multidiciplinary and Bilingual Research Journal

Impact Factor
SJIF (2024): 6.879

206

Statistical Analysis

Mean and standard deviation of rural girls

Statistics	Girls (12-17 years)
No. of girls	50
Mean	19.16
Standard deviation	0.62

Results and Discussion

It is clear from above measurement that 25% of the sample are reported malnourished ,20% of adolescent girls are reported anemiac with low heamoglobin level. Education status on mother was investigated on which illiterate level was found to be higher. Economical condition is one of the important cause of malnutrition.

Growth assessment thus serves as a means for evaluating the health and nutritional status of children, just as it also provided an indirect measurment of the quality of life of an entire population.

In India the problems of malnutrition and anemia . exist in generator dimension among the young children of tribal communities, due to their low socio economic status and social isolation become highly vulnerable in this regard.

Conclusion

The causes of growth retardation are deeply rooted in poverty and lack of education, the extent of malnutrition can be counted by educating the parents with respect to the basic nutritional requirements of their children and encouraging them to consume locally available low cost nutritious foods.

References

1. Bansal R.D.; Mehra M. (1994) Malnutrition; A Silent Emergency, *Indian J Public Health*, 43; 2

2. Chatterjee M. (1990) Indian women; Their health and economic productivity, Dc world Bank Discussion, washington, p.109.

3. Goel K.M., Logan R.W. (1978) *The prevalence of heamoglobinopathies nutritional iron and folate deficiencies in native and immigrant children in Glasglow*, Health Bull (Edin), 36,176-182.

4. Jyothi Lakshmi A; Begum K.; Saraswathi G. Prakash (2001) Prevalence of Anemia in Indian Rural Preschool Childern Anaylysis of Associative Factors, *Indian J Nutr. Dietet,* 38,182-90.

5. Shetty P.S.; James W.P. (1994) Body mass Index; A measure of chronic energy deficiency in adults, food and agriculture organisation, *Food and Nutrition,* Rome, FAO; p. 56.

−−==00==−−

December 2024 to February 2025   www.amoghvarta.com
A Double-blind, Peer-reviewed & Referred, Quarterly, Multidiciplinary and Bilingual Research Journal

Impact Factor
SJIF (2024): 6.879

207