

Nutritional Status Of Adolescent: A Case Study

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ABSTRACT

Nutritional is a determinant of Physical and mental Health status. Nutrition is a vital factor for girls who are in transformation stage of childhood to adolescent stage. Worldwide there are more than 1.2 billion adolescent; more than half of all adolescents live in Asia and India has the highest adolescent population than any other country. Adolescents face a range of health challenges; contributing to increased morbidity and mortality. Nutritional deficiencies are common in children of developing countries like India although the prevalence is reduced due to various steps taken by the Government and the health care personnel for the prevention and treatment of the same. India has the world's highest prevalence of iron deficiency anemia among women, with 60 to 70 percent of the adolescent girls being anemic. Adolescence is considered as a nutritionally critical period of life. The pre-pregnancy nutritional status of young girls is important as it impacts on the course and the outcome of their pregnancy. Hence, the health of adolescent girls demands special attention* due to under nutrition affect physical growth of Adolescent. Therefore, it is important to have all level studies to ascertain the nutritional status of adolescents so that appropriate intervention can be taken to render their requirements by the policy makers through proper policy. Hence the researcher took girls in a higher secondary school for studying the nutritional status based on anthropometric measurements. The 67 sample respondents were taken from 13-17 age group interviews with structured interview schedule. The results reveal that the adolescent's girls are under nutritional status and stunted in their growth. There is need to include this stage of female who are the land for future human capital in framing the Health Policy.

Keywords: Nutritional Status, Adolescents girls, Anthropometric measurements

1. INTRODUCTION

The word 'adolescence' has its origin from a Latin word 'adolescent' which means to 'grow' or 'grow to maturity'. It is the process of development from childhood to maturity and adulthood, its period beginning with the appearance of secondary **sex** characteristics and terminating with the cessation of somatic growth. Adolescence comprises nearly half of the total growth period of human life. It has its beginning by about 10 to 12 Y in boys and girls. The end of this stage 'adolescence' is not clearly delineated and it varies with physical, emotional, mental, social and cultural criteria that define the adult (Nelson, 1975). WHO (1989) defined adolescence as the period between 10 to 19 Years, while in India it has been defined as the period between 10 to 18 Years (NIPCCD, 1989).

The condition of health of a person that is influenced by the intake and utilization of nutrients is called nutritional status. If a body receives all the nutrients in appropriate amounts so as to meet the needs of the body, then the body is in the state of good nutrition. It is termed as a normal

nutritional status. When there is a lack or excess intake of one or more nutrients and/or faulty utilization of nutrients in our body, it leads to the state of imbalance in the body. This condition is known as malnutrition. There are two types of malnutrition. The condition of health of a person that results due to the lack of one or more nutrients is called under nutrition. However, when there is an excess intake of nutrients, it results in over nutrition.

2. REVIEW ON EARLIER STUDIES

"The field of nutrition of women in India, that has been sadly neglected mainly for the adolescent girls. The adolescent girl, the young woman, the mother-to-be represents an age group which experiences a crucial phase of growth" (Gopalan, 1989). Similar views were expressed by other researchers emphasizing the need for developing a body of data pertaining to this dynamics and potential human race (Narasinga Rao, 1989 and Raman, 1990). The meager literature that exists on the situation of the adolescent girls in India reflects neglect of this age group with repeated reference to the lost or wasted year of adolescence (The Hindu, Oct13th, 1996). Rasaki Aranmolate (2017) compared the prevalence of abnormal cholesterol in children, adolescent and adults in the United States. Data from the National Health and Nutrition Examination survey (NHANES) for 2011-2014 were obtained for the comparison. A T test statistical analysis was conducted at a significant level of $p < 0.05$ to check for differences in the groups. The results of high total cholesterol and low high density lipoprotein (HDL) were compared in children, adolescent and adults according to race, sex and ethnicity. A total of 27.9% of men had low level of HDL cholesterol, 10% of women had low HDL, 13.4% of children and adolescent had low level of HDL. Boys had low HDL (14.8%) while girls had 12%. The non-Hispanic black adults with elevated total high cholesterol was 8.6%, non-Hispanic white (12.5%), Hispanic adults (13.1%) while non-Hispanic black children and adolescent had elevated total high cholesterol, the non-Hispanic white and Hispanic adolescent and children had low total high cholesterol. The level of low HDL cholesterol was higher in children, adolescent and adult male population, the high total cholesterol was higher in the female children, adolescent and adults. R Balamurali Krishna, Dr. N Prathiba (2016) said that in Tamil Nadu, the myriad socio-economic and health factors undermine the ability of adolescent girls to lead full and productive lives. This is of particular concern given the sheer number of youngsters—an estimated 17.23% (1.24 Cr) of the state population is aged between 10-19 years (Census 2011). Their study outlines the various measures taken to ameliorate the adolescent health status through schemes and policies being implemented by the state with the support of Indian Government. Adolescent girls face a number of barriers in ensuring good adolescence outcomes at the individual, family, and community level, as well as at health-systems level. These barriers need to be addressed urgently if India is to realize its demographic dividend and have a healthy young population. Further the authors advise that further research is needed on exploring existing gender roles and addressing gender biases among parents and elders in the community, or the gatekeepers and their impact on adolescents.

3. METHODOLOGY, FINDINGS AND DISCUSSIONS

The process of determining the nutritional status of an individual or a group is known as nutritional assessment. There are a few simple ways by which anyone can know the nutritional status of himself or herself as well as of others. These procedures are –a). By measuring physical growth; b). By determining dietary intake; and c). By recognizing nutritional deficiency diseases. There are standard weights and heights which the child is expected to attain at a particular age. These are called references used for physical measures.

In order to control Malnutrition, several National Nutrition Programmes have been launched in India. The following programmes are provide nutritional benefits to susceptible groups in all states of India.

- Integrated Child Development Services (ICDS) Scheme
- Mid-Day Meal Programme (MDMP)
- National Control Programme for Prevention of Nutritional Blindness due to Vitamin A deficiency
- National Nutritional Anemia Control Programme (NNACP)
- National Iodine Deficiency Disorder Control Programme (NIDDCP)

The children in the stage of adolescent are included in the government program for to save the human capital of India. Here, the researcher made an attempt to assess the nutritional status of adolescent's girls alone who are going to be mother for next generation of human capital. The girls are selected based on purposive sampling by the researcher. The number of respondents selected are in the age group of 13 to 17 or who are studying in 8th,9th,10th,11th and 12th standard. The study was carried out as part of an ongoing research work leading to Ph. D. degree under Alagappa University by the author. The study area selected is a Girls Government Secondary Schools in Tiruchirappali. Tiruchirappali is famous for its clean and hygiene in national level. All anthropometric measurements were made by the corresponding author himself and a trained lady investigator had been engaged to collect the data from girls. Height, weight, body mass index (BMI), mid-upper arm circumference (MUAC), head circumference (HC), chest circumference (CC) was taken into consideration.

It was observed that a large proportion (52%) of adolescents under study was malnourished. This may be due to the low socio-economic status of their parents. In the present study, majority (52%) of the adolescents had grade 3 thinness, 23 % had grade 2 thinness, and 15.0% were grade 1 while only 10 % were normal. Over the years, the programs directed towards this have failed to achieve targets, and one of the major reasons may be poor nutritional status of adolescents. Arm circumference is generally associated with a specific and relative risk of malnutrition, in the present study, the prevalence of low arm circumference (72% in girls) was showed that together with been underweight and stunted, the adolescents also showed low fat and muscle reserve.

Among the respondents 97 percent of adolescent girls have any anemia. Twenty-nine percent of them are mildly anemic, 50 percent are moderately anemic and 18 percent are having severe anemia. Except mild and severe anemia, the occurrence of anemia in all other categories is found to be higher in rural areas than in urban areas. The results about anemia was found from hemoglobin of the respondents which was collected with help medical campaign conducted for creating awareness about the food intake, hand wash habits and behaviors related to hygiene.

4. CONCLUSION

From the study of selected respondent from study area, the adolescent children, are bother about their health and nutritional status which lead that lack of growth and anemia. Hence, the study concluded that the stage of adolescents should be considered for better human capital in Tamil Nadu and India.

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