

Assess the nutritional status among Adolescent girls at selected coastal community, Chennai

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Abstract

Adolescence is a particularly unique period in life because it is a time of intense physical, psychosocial, and cognitive development. Increased nutritional needs at this juncture relate to the fact that adolescents gain up to 50% of their adult weight, more than 20% of their adult height, and 50% of their adult skeletal mass during this period. Caloric and protein requirements are maximal. Increased physical activity, combined with poor eating habits and other considerations, e.g. menstruation and pregnancy, contribute to accentuating the potential risk for adolescents of poor nutrition.

The main nutrition problems affecting adolescent populations worldwide include under nutrition, Iron deficiency and anemia; Iodine deficiency; Vitamin A deficiency; Calcium deficiency and other specific nutrient deficiencies like zinc, foliate, and obesity

A study proposed to assess the nutritional status among adolescent girls at selected coastal community, Chennai, Tamilnadu. The objectives are to assess the nutritional status among adolescent girls at selected school and to associate the nutritional status of selected demographic variables of girls of 10-16 years, age group, a sample size of 320 girls were selected in the schools covering selected coastal area by using simple random sampling fulfilled the inclusion criteria were selected for the study. An extensive review of literature and guidance by experts formed the foundation to the development of the study. The data collection tool was validated and reliability was established. The data collection for the study was done from the collected data was tabulated and analyzed. According to WHO nutritional assessment criteria, children were classed as 41.47% had moderate stunting and 3.18% were severely stunted. 3.71% were extremely thin, 40.91% were thin, and 10.73% were overweight. The most common illness among study participants was conjunctival pallor (anaemia), followed by dental caries, 8.46% vitamin B complex deficiency, 3.8% angular stomatitis, and 0.84% vitamin A deficiency. There is a significant association of assessment of nutritional status among adolescent girls with demographic variables like age, type of family, monthly income, dietary habits, height in cm and weight in kg.

Key words: Assess, Nutritional status, Adolescent, Deficiency, nutritional assessment.

Introduction

The world population is believed to have reached over 6.6 billion, 19% of world's populations-around 1200 million persons are between 10-19 years of age. This proportion of population faces a series of serious nutritional challenges not only affecting their growth and development but also their livelihood as adults¹. Yet adolescents remain a largely neglected, difficult-to- measure, and hard-to-reach population, in which the needs of adolescent girls in particular are often ignored.

Adolescence is a particularly unique period in life because it is a time of intense physical, psychosocial, and cognitive development. Increased nutritional needs at this juncture relate to the fact that adolescents gain up to 50% of their adult weight, more than 20% of their adult height, and 50% of their adult skeletal mass during this period. Caloric and protein requirements are maximal. Increased physical activity, combined with poor eating habits and other considerations, e.g. menstruation and pregnancy, contribute to accentuating the potential risk for adolescents of poor nutrition. The main nutrition problems affecting adolescent populations worldwide include under nutrition, Iron deficiency and anemia; Iodine deficiency; Vitamin A deficiency; Calcium deficiency and other specific nutrient deficiencies like zinc, foliate, and obesity.

In India urban population is about 28% out of which around 45% are living in metropolitan cities. About 30% of the metropolitan population is living in slum clusters and resettlement colonies. Neglect of this huge population will have major repercussions in the future.

The United Nations' Sub Committee on Nutrition meeting held in Oslo in 1998 concluded that more data on health and nutrition of school age children are needed to assess their scale of problem. It also believed that the

scale of nutritional problems may have been previously under Consequently, if those requirements and quality of nutrients for adolescents are not met, malnutrition happens, which influences growth, development, and health of adolescents

Objectives:

- To assess the nutritional status among adolescent girls at selected school and
- To associate the nutritional status of selected demographic variables of girls of 10-16 years, age group

Materials & Methods

Study design and setting: An evaluative research approach was adopted for the study. The research design used in this study is Non-Experimental- Descriptive research design. The Accessible Population of the present study was adolescent girls studying in schools covering selected coastal area. The study was collected in studying in schools covering selected coastal area.

Sample size and sampling method: The study enrolled all students who were present on the day of the interview and examination. The goal of the study was described to school officials, and permission to perform the study was gained. All students' parents were also informed, and students whose parents refused to give consent were omitted from the study. All absent students were tracked down the next day, and if they were present, they were interviewed and evaluated.

Data collection: 320 pupils were questioned and assessed in all. To interview and assess all of the students who took part, a pre-designed and pre-tested questionnaire was employed. The questionnaire included student socio-demographic information, personal hygiene questions, and questions about frequent diseases in adolescent age. Following the completion of the questionnaire, anthropometric measures and a physical examination were performed. Any particular complaints made by students throughout the examination were also documented and evaluated.

Physical exam and anthropometric measurements: Body weight and height were measured using standardised methods. The Adolescents' weights were recorded using a weighing scale to the nearest 0.1 kilogramme (kg). A stadiometer was used to measure height to the closest one centimetre (cm). During both measures, students removed their shoes.

Every time a measurement was taken, the weighing scale was calibrated to zero. The World Health Organisation (WHO) guidelines for nutritional status classification were utilised.

Results:

According to WHO nutritional assessment criteria, children were classed as 41.47% had moderate stunting and 3.18% were severely stunted. 3.71% were extremely thin, 40.91% were thin, and 10.73% were overweight. The most common illness among study participants was conjunctival pallor (anaemia), followed by dental caries, 8.46% vitamin B complex deficiency, 3.8% angular stomatitis, and 0.84% vitamin A deficiency. There is a significant association of assessment of nutritional status among adolescent girls with demographic variables like age, type of family, monthly income, dietary habits, height in cm and weight in kg.

The study finding revealed that the

- ❖ Age of children(years) in which majority 14(46.6%) were belongs to the age between 14-16 years,11(36.6%) of them between 12-14 years and 5(16.6%) of them are between 10-12 years.
- ❖ Religion in which 14(46.6%) were belongs to hindu,8(26.6%) of them belongs to christian and 8(26.6%) were belongs to muslim.
- ❖ Type of family in which majority 16(53.3%) were belongs to join family and 14(46.6%) were belongs to nuclear family.
- ❖ Educational status of children in which majority 13(43.3%) were studying 8th std school children,12(40%) were studying 7th std and 5(16.6%) were studying 6th std.
- ❖ Occupational status of father in which majority 10(33.3%) were working in private job and other job,6(20%) were working in govt.job and 4(13.3%) were unemployed.
- ❖ Family monthly income in which majority 15(50%) were earning more than Rs.10000,12(40%) of them are earning between Rs.5000-10000 and 3(10%) of them are getting below Rs.5000.
- ❖ Dietary habits in which majority 26(86.6%) were non-vegetarian and 4(13.3%) were vegetarian.
- ❖ Heigh in cm in which majority 17(56.6%) were belongs to children between 145-155cm,10(13.3%) of children between 155-170cm and 3(10%) were between 135-145cm.

- ❖ Weight in kg in which majority 20(66.6%) were belongs to children between 35-45kg,6(20%) were between 45-55kg and 4(13.3%) were between 55-70kg.
- ❖ Standard BMI value in majority 16(53.3%) were underweight ,10(33.3%) were normal and 4(13.3%) were obese.
- ❖ According to WHO nutritional assessment criteria, children were classed as 41.47% had moderate stunting and 3.18% were severely stunted. 3.71% were extremely thin, 40.91% were thin, and 10.73% were overweight.
- ❖ The most common illness among study participants was conjunctival pallor (anaemia), followed by dental caries, 8.46% vitamin B complex deficiency, 3.8% angular stomatitis, and 0.84% vitamin A deficiency.
- ❖ There is a significant association of assessment of nutritional status among adolescent girls with demographic variables like age, type of family, monthly income, dietary habits, height in cm and weight in kg.

Conclusion:

It is concluded that there is a high prevalence of under nutrition among adolescent girls in this slum community. Health education and nutrition interventions are needed on priority basis. Almost half of the adolescents were stunted and most of them were thin. Problem of overweight was seen in less of adolescents. Factors typical to underdeveloped society seems to contribute to the moderate to high prevalence of under nutrition among adolescents. In the present study, under nutrition was a major problem among adolescent girls in study area.

There was statistically significant difference between the risk factors of nutritional status of adolescents and their BMI. Thus, the programs to support adequate nutrition for adolescents could provide an opportunity for healthy transition from childhood to adulthood and could be an important step towards breaking the vicious cycle of intergenerational malnutrition. Moreover, the focus should be given to Adolescent nutrition and interventions by considering the potential associated risk factors

CONFLICT OF INTEREST:

NIL

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ETHICAL CLEARENCE:

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