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ROOT CAUSE ANALYSIS OF MALNUTRITION AMONG ADOLESCENT GIRLS: A LITERATURE REVIEW

Abstract

According to the World Health Organization (WHO), malnutrition refers to deficiencies or imbalances in the intake of nutrients among people. Nutrition plays an important role in the proper growth and development of adolescents, women, and children. According to published studies, the prevalence of underweight, stunting, wasting is reduced among adolescent girls, although, nearly 70% of adolescent girls in India are still anaemic and half of the adolescents are below the body mass index (BMI). Moreover, nearly half of the adolescent girls are suffering from different micronutrient deficiencies. There are several factors i.e. adolescent age, environmental conditions, social-cultural economic factors, age at menarche, lifestyle, skipping a meal, early marriage, adolescent pregnancy, gender inequality, and food faddism having a significant influence on determining their nutritional status. The Burden of malnutrition is a predictable reality among Indian adolescent girls. As adolescent malnutrition is a public health problem, effective public health interventions must be implemented to combat malnutrition.

Keywords: Burden of Malnutrition, Adolescent Girls, Underweight, Stunting, Wasting, Body Mass Index.

Introduction

The world adolescence has been in usage since the 15th century, which has coined from adolescence, a Latin word to mean "grow up" or "to grow into maturity" (Lerner, R. M., & Steinberg, 2004). Adolescents constitute about 22.8% of the population in India (Aparajita et al., 2010). Malnutrition is posting a great threat to adolescents, especially in developing countries like India (WHO, 2016). In a position of countries from lowest to highest on stunting, India ranks 114 out of 132 countries, with the incidence of stunting at 38.7% and wasting, India ranks 120 out of 130 countries at 15.1 %(Bali, 2016). In India more than 1/3rd of the world's malnourished children. Half of the world's malnourished children reside in 3 countries like Bangladesh, India, and Pakistan "" (Narayan, John, & Ramadas, 2019).

Malnutrition affects body growth and development, especially during the important period of adolescence (Ka, Ss, Og, & Adama S, 2017). The consequences are underweight children, anaemic mothers, marasmic babies, scurvy, beriberi, pellagra, vitamin A deficiency blindness and other deficiency syndromes (WHO, 2000). So many different types of factors have

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Head of the Department, Department of Hospital Management, Hemchandracharya North Gujarat University, Patan, Gujarat affected both their nutrient intake and needs like environmental factors, socio-cultural factors, peer influences, the craze for fast foods, mood, body image and different changes in the lifestyle (Keats, Carducci, Gaffey, & Bhutta, 2017).

Objectives

- To find out the prevalence of malnutrition as a public health problem.
- To analyze causative factors for malnutrition.

This study is based on secondary data and data is collected through various journals, books, and newspapers and web sources.

Malnutrition as a Public Health Problem

According to the World Health Organization (WHO), malnutrition refers to deficiencies or imbalances in the intake of nutrients among people. Symptoms of malnutrition include both physical and mental tiredness, low weight concerning wasting (height) and stunted (shortness for age), diminished skin folds, and beating of elasticity of the skin.

As per the WHO classification of severe malnutrition in a community less than 5% indicates the least public health problems and more than 30% indicate severe public health problems –(WHO, 2010).

Review of Prevalence and Factors Associated with Adolescent Malnutrition

(Vilcins, Sly, & Jagals, 2018) revealed that environmental factors are connected with stunting. They found that lack of waste disposal, lack of sanitation at the society level, dirty floors, mycotoxins in food are directly associated with childhood stunting. –(Matariya, Lodhiya, & Mahajan, 2016) revealed the macro and micro environmental factors in predicting the incidence of under nutrition in children. The study concluded that water, sanitation, and hygiene-related environmental factors affect the nutritional status of the children. (Kumar, 2019) found 21.7%

of adolescents had slimness while 13% were obese. The study revealed an association of socioeconomic status with malnutrition. The need for effective community awareness programs to improve better food intake was suggested. (Kaur T & Kaur M, 2015) found 91.31% prevalence of anaemia in rural school-going adolescent girls from a low socio-economic background. Various overlapping and interacting factors i.e. physical, biological, social and cultural and economic were addressed for malnutrition.(Maji., 2016) did study to find out awareness regarding menstrual cycle before their menarche among late-adolescent girls. 45% of respondents knew about the menstrual cycle before their menarche. 60% of respondents were followed by mothers. Though the majority of respondents were aware of the use of sanitary pads, old clothes were used instead of sanitary pads. (Bhambhani, Bhambhani, & Thakor, 2017) conducted a study to assess the health profile of adolescents. The study revealed that adolescence is periods of critical growth and transition. Adolescent constitutes more than 23 % of the population in India. The need for health education and attention to adolescents are addressed in this study. (Harris, Bargh, & Brownell, 2009) found that 45% of adolescents eat snacks due to the influence of advertisements of foods. (Christian & Smith, 2018) they studied based on adolescent under nutrition global prevalence, physiology, and nutritional risks. They mentioned that physical growth is a key indicator of child health, and this holds for adolescence. The global prevalence of malnutrition has not reduced much in the past 3 decades. The lowest BMIs were noted in Ethiopia, niger, Senegal, India, Bangladesh, Myanmar, and Cambodia. While the least mean BMIs of children are found in east Africa, the least mean BMIs in adolescence are originated in South Asia. (Rani et al., 2018) mentioned that nutritional deficiencies have poor consequences, especially in adolescent girls. If their nutritional status is not met, they are likely to give birth to undernourished children, thus communicating under nutrition to future generations. Under nutrition among adolescent girls remains a public health problem, especially in developing countries. (Deka, Malhotra, Yadav, & Gupta, 2015) had conducted a study to assess the dietary pattern and nutritional deficiencies among adolescents. The study revealed 31.5% of boys and 46% of girls were underweight. According to the study, thinness is considerably higher in early adolescence than in late adolescence. (Schroeder & Sonneville, 2006) reported that huge numbers of adolescents in the Southeast Asian region suffer from nutritional deficiencies. Dietary intake for adequate accessibility of food in terms of quality and quantity, the capability to digest, absorb and utilize food and the social intolerance against girls can greatly affect the sufficient nutrition of adolescents. (Alavi, Eftekhari, Noot, Rafinejad, & Chinekesh, 2013) had surveyed to assess the knowledge of girls regarding major nutritional problems. A study found that around 48.4% didn't take breakfasts at all. 67.4% consumed bread and cereals regularly and 57.5% of girls consumed fruits and vegetables. It was also detected that common of the nutritional knowledge came through teachers and counsellors and for the adolescents to eat healthily, parents need to be educated. (Singla, Sachdeva, & Kochhar, 2012) had mentioned that all the girls had one thing in common they had working mothers which made the girls a slight independent in their food choices, they found that approximately 86.7 % of respondents consume junk food and a lot of girls amongst them were found bit obese, slightly heavier than the standard BMI. — (Barooah, 2012) found that late-adolescent girls were having the peer pressure that they need to look good to impress others. Staying in college for long hours, away from parents, develops in the tendency to skip meals and compensate for that by consuming snacks. Eating junk food habit avoiding important nutrients like calcium and iron gradually takes a toll on their immunity. (Ganasegeran et al., 2012) it was found that around 56% of the students had regular breakfasts but the remaining were lethargic in terms of taking meals and suffered from malnutrition. (Sethuraman & Duvvury, 2007) revealed that malnutrition and gender inequality were common in south Asia. A study showed an association between gender inequality and malnutrition.

Discussion

The adolescent age group is vulnerable to malnutrition because this age group is the window for the generation cycle. The consequences of adolescents undernutrition such as the increased risk of different communicable and

noncommunicable diseases reduced productivity, and adverse pregnancy outcomes have been well documented in the framework of India. After studying several studies it is evident that the majority of adolescents suffer from underweight, stunting and micronutrient deficiencies. Nearly half of the adolescent girls are having irondeficiency anaemia, zinc deficiency, and iodine deficiency. Education, economic status, demographic factors, dietary intake, accessibility of food, household status, age at menarche, lifestyle, skipping a meal, early marriage, adolescent pregnancy are the direct factors associated with malnutrition. Insufficient knowledge regarding diet, nutrition, influence of peer group, lack of health care accessibility also influences the status of malnutrition.

Conclusion

Malnutrition is a predictable reality among adolescent girls in India. Effective prevention and control of the prevalence of malnutrition among adolescents can bring a significant change in the nutrition status of a vulnerable population. Predefined, target specific strategies and public health interventions with continuous monitoring are required to addressed malnutrition. More attention is required for accurate implementation of nutritional programs, better coordination between various stakeholders and their policies and strong initiatives are required to promote knowledge enhancement of food choices.

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