

Malnutrition and Its Determinants among Adolescent Girls

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ABSTRACT:

Adolescence is an important stage of development that occurs between childhood and adulthood and plays a key role in human existence. This time is a vital physiological stage of life marked by an incredibly fast rate of physical and physiological growth and development. The nutritional status of adolescent girls, who will become mothers, has a significant impact on the nutritional status of people. The 2018 global nutrition report noted that the issue of malnutrition is still a serious one. According to a UNICEF research, half of Indian teenagers have a Body Mass Index (BMI) below normal and 70% of adolescent girls are anemic. In the country, 39.7% of children under the age of five are underweight, 39 % are stunted, and 25.1 % are wasted, according to the National Family Health Survey (NFHS-5) (2019-20). The global burden of malnutrition has substantial and long-lasting effects on people and their families, communities, and entire countries in terms of developmental, economic, social, and medical issues. The intergenerational malnutrition cycle is intricately woven together by nutritional problems, in particular undernutrition and overnutrition in children and adolescents in developing nations. According to the findings, malnutrition is still a serious health problem that needs to be treated as soon as possible in the susceptible age range.

Keywords: adolescent girls, malnutrition, factors of malnutrition.

INTRODUCTION:

Malnutrition, according to [1], is any problem of nutrition, regardless of whether it results from food excess (also known as over-nutrition) or dietary deficiency (also known as under-nutrition). An imbalance between the body's nutritional requirements and food intake leads to malnutrition. Irregular foetal growth, protein-energy malnutrition, iodine deficiency illnesses, vitamin A deficiency anaemia, overweight/obesity, and other diet-related non-communicable diseases are just a few examples of the conditions that fall under the category of malnutrition globally [2].

Malnutrition impacts body growth and development, especially during the critical adolescent years, according to a large body of research [3]. One of the most startling issues in the world is malnutrition. Malnutrition is defined as the destruction or death brought on by either a lack of nutrients in the body. It is an environmental issue. It is caused by a number of interrelated

and overlapping elements, including the physical, biological, social, cultural, and economic environments [4]. One or more of its many manifestations, including malnutrition, are frequently referred to as emergencies, both natural and man-made. Malnutrition of some kind quickly develops when the nutritional needs of the population or a population subgroup are not fully met, usually affecting the weakest or most vulnerable people. Underweight kids, anaemic moms, malnourished infants, scurvy, beriberi, pellagra, vitamin A deficiency blindness, and other deficiency diseases are the outcomes [5].

OBJECTIVES, METHODS AND MATERIALS:

- To understand the concept of adolescent malnutrition
- To find out the factors affecting the burden of malnutrition

Secondary data was collected from public sources, reputed journals, periodicals and literature, and web sources.

ADOLESCENT MALNUTRITION:

According to [6], Malnutrition is a challenging condition. Underweight, or malnutrition, is a severe public health issue that has been associated with a markedly higher risk of mortality and morbidity. Despite this, it doesn't usually result in death. Over time, malnutrition has increased in emerging nations. Just three nations Bangladesh, India, and Pakistan—are home to half of the world's hungry children. South Asian nations have higher rates of child malnutrition than sub-Saharan African nations. In a community, it often affects all age groups, but newborns and young children are particularly vulnerable due to their high nutritional requirements for growth and development. Pregnant women are another category to be concerned about, as an undernourished woman has a higher chance of having a low birth weight infant who will be more likely to experience growth failure and early childhood, as well as an increased risk of morbidity and early death. The intergenerational malnutrition cycle is intricately woven together by nutritional problems, in particular undernutrition and overnutrition in children and adolescents in developing nations. Because of the risk of malnutrition in women's lifetimes and also across generations (referred to as the intergenerational effect of malnutrition), it is essential that women, especially girls, are well-nourished at all phases of growth and development in life. [7].

FACTORS AFFECTING ADOLESCENT MALNUTRITION:

Numerous risk factors that are active at several levels, from the person to the home to the community, are primarily linked to malnutrition. Malnutrition is brought on by both inadequate nutritional intake and sickness at the individual level. Three factors make up food security: availability, access, and usage. While access and utilisation are more frequently assessed at the household and individual levels, respectively, availability is taken into account at the community level. [8]. At the local level, food scarcity, a lack of adequate medical care,

and unsanitary living conditions may all contribute to malnutrition. While the relationship between food consumption and general health may have an impact on an individual's nutritional status, the physical environment also has a significant impact on how easily resources and opportunities are accessed by people. Additionally, a different study revealed that people with low socioeconomic class frequently have poor nutritional status, and those who are at risk tend to congregate in dry, underdeveloped areas and in neighbourhoods with poor environmental quality. [9]. Other studies have shown that nutritional challenges are more likely to happen in families with the least resources, especially low access to food, cash income, portable water, sanitation facilities, and health care services.

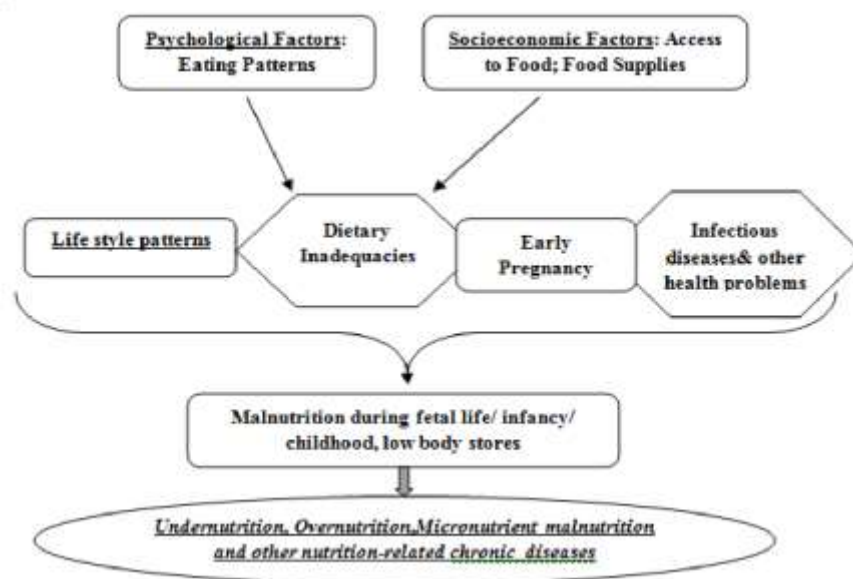


Figure 1a conceptual framework of nutritional problems and causal factors among adolescent girls.

Source: [10]

Environmental factors:

According to the information that is currently available, it can be said that almost half of all nutritional issues occur in rural households that are situated in places where environmental concerns have been identified. The highest rates of undernourishment and infant mortality are found in nations where agriculture is frequently threatened by natural disasters. There are direct dangers associated with frequent hurricanes, droughts, earthquakes, and frosts that prevent access to food, as well as indirect risks associated with the economic and social issues these occurrences produce. Children who are underweight frequently reside in homes that lack amenities like running water and proper hygiene. As a result, the risk of developing an infectious disease rises, especially the risk of parasite-borne and diarrheal infections, which feeds a vicious cycle of environmental factors that cause malnutrition to develop. Environmental influences include dwelling types, the primary source of drinking water, and a

similar pattern has been detected in subjects who have access to toilet facilities or not [11]. In the Andean countries, especially the prevalence of undernutrition in homes with water from unsafe sources is 11-15 %, and approximately homes with access to tap water are 6 %.

Social, cultural and economic factors:

Nutritional progress is complicated and interrelated with socio-cultural and economic (SCE) progress. However, a synthesis of the SCE factors of undernutrition in adolescents is deficient. Undernutrition is closely related to poverty. Poverty has an inhuman cycle, it leads to insufficient food intake, undernutrition, poor growth and development, impaired execution, and low productivity [12]. Low and lower middle class income as well as restricted access to food in terms of quantity, quality, or both are a few of the poverty-related issues linked to undernutrition. When conventional crops are replaced by more advantageous cash crops, it often leads to increased nutritional vulnerability and restricted access to food during periods of price decline or economic hardship. Important variables for the consequences of undernutrition included age, sex, birth order, religion, ethnicity, level of education and literacy, employment status, and marital status. Nutrition is harmed by low parental education levels, particularly among mothers, and a lack of information about nutrition, child development, and reproductive health. Also, occupation, household size and composition, income, socioeconomic status, and resources were associated with undernutrition. The consequences of adolescent undernutrition were mostly related to education and perception. For instance, children whose moms finished primary education have a 30–40% lower frequency of undernutrition. Another significant barrier is the lack of availability and poor quality of primary healthcare services, as well as targeted health and nutrition programmes. [13].

Age at menarche:

Age at menarche reflects the health significance of a population. This marks the creation of sexual maturation and is exaggerated by nutritional status and general environmental situations. In malnourished populations, the growth rate for the duration of adolescence is slower [14]. However, some factors have been seen to importantly influence menarche age and they also include different variables like genetics, environmental conditions, body stature, family size, body mass index, socioeconomic status, and the level of education. There are so many differences according to socioeconomic level, and that is not fully accounted for by environmental conditions.

Early marriage:

Every 3rd young woman in developing countries not including china continues to marry as a child that is before the age of 18. In South Asia, 46% and in Sub-Saharan Africa 38% of young women were married as children. The proposition is as high as 55% and 50% respectively in these rural areas of the two regions [15]. Globally indications show that child

marriage shows girls more risk of maternal mortality and difficulties during childbirth and pregnancy are most leading causes of death amongst adolescent girls because children born to young mothers and young mothers are also more likely to have poor nutrition and other health outcomes [16]. Early marriage is an old and worldwide trend. According to UNFPA indicate that 142 million girls' marriages will take place between 2011-2020, which means approximately 39000 girls' marriages daily, and 151 million in 2021-2030. Data shows that nine of ten countries with the highest rates of child marriage in the world [17]. The WHO has included the prevention of child marriages as one of the six primary goals. Child marriage does not only take away girls of their childhood and educational opportunities but also makes them at risk of the vicious cycle of domestic violence, sexual misuse, and poverty. The problems of early marriages can be distressing for young girls; stunting their educational and occupational opportunities for maternal and child health, and above all, it can be dangerous for the entire nation [18]

Adolescent pregnancy:

As per WHO [19] about 12 million girls aged 15-19 years and 777,000 girls under 15 years give birth every year most in low and middle-income countries. Difficulties for the period of pregnancy and childbirth are the leading cause of death for 15-19 years of adolescent girls globally. Every year estimated 5.6 million girls aged 15-19 years undergo unsafe abortions. Babies born to adolescent mothers face a higher risk of dying than those women aged between 20-24 years. NFHS-5 [20] reports in India, 17.5 % of urban and 31.5 % of rural areas total of 26.8% of girls were married before 18 years of age, and in the state of Uttar Pradesh 21.1%, Jharkhand 37.9%, west Bengal 41.6%, and Bihar 42.5% reported high occurrence of child marriage. Because child marriage ultimately affects adolescent growth and development nearly 1/3rd of babies born in India are low birth weight and high occurrence continue to be major nutritional anxiety as it concerns the intergenerational cycle of poverty undernutrition and different disease [21].

Eating patterns:

Adolescent food practice is the most essential factor in both their present and future health [22]. During adolescence, people are in a conversion period when they have increased to take over dependability on their eating practice. Adolescent eating is conceptualized as a reason for individual and environmental influences. Four levels of influences are described: individual, social-environmental, physical environmental, and societal, mainly in individual they affected psychosocial and biological influences, in social-environmental they affected families and peer groups, physical environmental, they affected schools and fast food-related outlets, and societal influences affected mass media, marketing, and advertising, social, and cultural norms [23]. various dietary patterns like daily snacking, frequently on energy-intense foods, extensive use of fast foods that are low in iron, calcium, vitamin A, riboflavin, folic

acid, and fibres, not much more eating of fruits and vegetables and faulty dieting are more general among the adolescents.

Skipping meals and snacking: Meal skipping was more prevalent among girls, older school-age children, families with lower socioeconomic status, families with fewer working members, and homes with a single parent worldwide. Although these dietary habits can raise the likelihood of developing chronic diseases in the future [24]. Various reasons for skipping breakfast were given, including the shortage of time in the morning, not wanting to eat food, or bodyweight control, especially by girls [25]. For children and adolescents in underdeveloped nations, skipping breakfast increases the likelihood of engaging in unhealthy snacking habits and has a negative impact on health. India is also seeing similar change, and an increasing number of students and adolescents are incorporating western eating practises and snacking habits. Numerous studies have shown that 62.1% of adolescents regularly eat between-meal snacks. Adolescents from families where both the mother and the father work tend to snack harmfully more frequently and miss meals more frequently. Another significant factor that is thought to influence young people's snacking and eating habits is stress. [26].

CONCLUSION:

The adolescent is a unique intervention stage in the human life cycle. Hence, we cannot neglect adolescents. Malnourished girls are undernourished during adolescence and adulthood. Adolescent girls are the mothers of tomorrow and no edifice can be built on a foundation that is so weak. Our biggest challenge is to reduce the prevalence of malnutrition among adolescents. These findings of determinants of malnutrition among adolescent girls are quite alarming and steps need to be taken to improve their nutritional status.

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