PREVALENCE OF MALNUTRITION AMONG SCHOOL GOING CHILDREN: A REVIEW

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ABSTRACT

Malnutrition among school-going children has been observed as a pressing global issue, with significant prevalence rates in various regions. A study conducted in Nepal's Dang district revealed that 25.7% of adolescents were malnourished, where underweight was the most common form. Factors such as religion, family type, and dietary habits were the influencing factors of malnutrition. In Bangladesh's haor areas, approximately half of the primary school children were found to be wasted, underweight, or stunted. In that study higher prevalence rates were found among girls. Age, family size, and timely introduction of complementary foods are some more additions in the influencing factors of malnutrition rates. Meanwhile, in India, a study among boys aged 5-18 showed low body weight, height, and BMI compared to international references, with 10% of boys being undernourished. To tackle this high prevalence rates of malnutrition among school and children proper nutrition education, support for parents, and targeted interventions are crucial.

INTRODUCTION

The child populace is an essential portion of society, requiring fastidious consideration because of their vulnerability. Their advancement and headway essentially shape the future direction of a country. For different physiological, social, and monetary reasons, any formative undertaking ought to focus on youngsters (Arora et al., 2015). Putting shrewdly in the well-being, sustenance, and schooling of kids lays the basis for the public turn of events. Neglecting to address kids' requirements will sustain a pattern of neediness and hardship for the two of them and their networks (UNICEF, 1991). A sound age of kids prepares for useful youthful people and grown-ups. Nourishment plays an urgent part in encouraging the physical, mental, and socio-economic development of kids. Babies and preschoolers are particularly defenceless to hindered development because of hunger, especially undernourishment. As per Rhode Jon E, appropriate sustenance is vital for general well-being. The underlying two years of steady development act as the foundation of long-lasting well-being. The inability to focus on pre-birth and youth care might bring about a country addressing the cost through malnourished, unwell, uninformed, and devastated people in the future who might have in any case understood their full physical and mental potential (Rattan, 1997).

MALNUTRITION AND ITS EFFECTS

Stunting and wasting are predominant issues among young kids in emerging nations. The high pervasiveness of hindering proposes a lack of enduring in both mental and actual turn of events, repressing youngsters from completely profiting from instructive open doors (Jamison et al., 2006). Epidemiological proof shows areas of strength for an among maternal and youth

undernutrition and an expanded gamble of constant illnesses in adulthood. Hunger ordinarily results from a blend of deficient admission and disease, prompting development disappointment in kids (Black et al., 2013). Malnourished youngsters are by and large more limited and surprisingly light for their age. Also, the commonness of hunger is high because of elements like neediness and HIV/Helps. Unhealthiness ought to be perceived as an indication of deficient arrangement of essential basic freedoms and reflects lacking venture and progress in different parts of human resources improvement. It likewise essentially impacts a country's future financial turn of events. A review led among younger students in Zambia uncovered that 28.9% were hindered, 14.5% were underweight, and 3.9% were squandered (Bhatanagar, Jain, and Mathur, 2002). Likewise, research in Nyambene Locale, Kenya, among students matured 5-10 years, detailed that young ladies enjoyed a slight upper hand over young men, albeit the thing that matters was not genuinely huge. One more concentrate in Pemba Island, Zanzibar, found that hindering expanded with age for both young men and young ladies. In Brazil, young men were essentially more hindered than young ladies of a similar age. Hindering was likewise seen to increment with age, with more youthful younger students having a commonness of just 2%, contrasted with 16% among more seasoned younger students in Bangladesh. One more concentrate in Brazil viewed that as 21% of young kids were hindered and 13% were underweight, with both records deteriorating as kids matured, especially among young men (ICDS, 1933).

Lack of healthy sustenance is characterized as a condition of defective or broken nourishment, happening when there's an irregularity between the body's supplement needs and admission. It appears in two structures: undernutrition, where supplement prerequisites aren't met, and overnutrition, where they're surpassed. Notwithstanding, the terms hunger and undernutrition are

frequently utilized reciprocally, as undernourishment is more predominant in our country than overnourishment. Hunger stays a critical reason for mortality among kids in non-industrial countries (Khalakdina, 1979), with youngsters and ladies being the most impacted.

Normal signs and side effects of lack of healthy sustenance incorporate physical and mental laziness, low weight comparative with level and age, reduced skin folds, conspicuous skeletal elements, and loss of skin versatility (Sharma, 1977). Protein-calorie ailing health, portrayed by lacking protein and calorie consumption, brings about side effects like dry and meager hair, skin staining, simple balding, facial enlarging, blurred eyes, dry eyes, edema, and kindled tongue. Furthermore, nutrient and mineral lacks are pervasive among a critical extent of youngsters.

The connection among's ailing health and hindered development has been tested by NIN Researcher Jaya Rau (1975), who contends that youngsters under five can adjust amazingly to unhealthiness, keeping up with typical body capabilities because of hormonal changes. As per this point of view, lack of healthy sustenance's belongings are restricted to trivial parts of the human framework, bringing about a minimal, feasible kid - alluded to as a "Soft cover" kid. In any case, this perspective has been reprimanded in a publication named "Soft cover Youngsters" (1975), which questions the cultural acknowledgment of having a populace of malnourished people. It stresses the significance of focusing on kids' prosperity and guaranteeing they get sufficient sustenance for ideal development and advancement (Sharma, 1977).

Malnutrition among school-going kids is an unavoidable worldwide issue, portrayed by deficient calorie consumption, prompting physical and profound torment. Regardless of whether outward indications of appetite are not obvious, youngsters getting just 66% of their calorie prerequisite might display hindered development and weakness to diseases because of low obstruction. Studies demonstrate that weighing under 60% of the standard is related with useful ineptitude (Govinder et al., 2021). This intricacy highlights the need of tending to hunger intentionally and thoroughly at different levels. This inadmissible circumstance incurs physical and close to home pain as well as blocks the advancement possibilities of impacted nations. Malnourished kids request additional concentrated consideration from their parental figures and are more averse to arrive at their full physical and scholarly potential as grown-ups. Moreover, it addresses an infringement of youngsters' basic liberties. In spite of broad settlement on the criticalness to battle ailing health, discusses persevere over its essential drivers and the best strategy mediations to reduce its pervasiveness rates worldwide (Ansuya et

INCIDENCE OF MALNUTRITION

Almost a quarter century prior, the previous Chief Head of UNICEF Award (1983) commented that if political pioneers overall were to visit a town in a non-industrial country, they would just recognize roughly 2% of kid unhealthiness cases. The issue is circumspect to such an extent that in late exploration, almost 60% of moms with malnourished youngsters accepted their posterity were developing and growing typically. Unhealthiness in the Third World is generally hidden, with noticeable signs being uncommon. Now is the ideal time to move past the threadbare picture of the gaunt baby addressing non-industrial countries and foster a more extensive worldwide understanding of the genuine ramifications of kid lack of healthy sustenance. As of now, a concealed hunger influences around one-fourth of small kids in the creating scene. quiet unhealthiness bit by bit drains kids' energy, hinders their development, and debilitates their resistance. Undernutrition remains as an unavoidable general wellbeing challenge, especially in ruined locales where adjusted eats less carbs are monetarily of reach for some (Jamison et al., 2006). Various overviews on sustenance and diet among grown-up populaces the country over affirm far and wide hunger among the least fortunate fragments.

Around 33% of youngsters under five in emerging countries experience the ill effects of ailing health (Global Food Strategy Exploration Organization 2005). Notwithstanding normal misguided judgments, the predominance of malnourished kids isn't

essentially in sub-Saharan Africa yet rather in South Asia. South Asia, with 46% of youngsters under five respectably or seriously underweight, outperforms sub-Saharan Africa's 28% (UNICEF 2005).

As per the Worldwide Food Strategy Exploration Organization Report (2005), half of youngsters in South Asia and 33% in sub-Saharan Africa neglect to meet their dietary necessities, bringing about hunger. Shockingly, South Asia faces this test notwithstanding higher per capita pay, schooling levels, innovation, and admittance to safe water contrasted with Sub-Saharan Africa. Three nations, Bangladesh, India, and Pakistan, harbor half of the world's malnourished kids (Rattan 1997). A UNICEF report (1997) features India as having the most elevated level of kids with hindered development, trailed by Bangladesh, Nepal, and Pakistan. This pattern perseveres notwithstanding declining ailing health rates in Asian nations, with similar countries proceeding to lead in unhealthiness

INDIAN SCENARIO: PERIODIC SHIFTS

Different organizations have reported the predominance of hunger throughout the long term, giving understanding into the condition in India. As per 1989 information from the Public Sustenance Observing Department, roughly 17% of youngsters under five in India experienced extreme unhealthiness, with a weight shortage surpassing 40%. Moreover, around 45% of kids in this age bunch experienced moderate lack of healthy sustenance, with a weight shortage going from 25% to 45% (UNICEF 1991). By 1997, UNICEF information uncovered that 65% of Indian newborn children matured 6 three years were impacted by hindered development, the most elevated among all South Asian nations. Additionally, 59% of babies in this age bunch were underweight. Resulting research in 2005 showed that the pervasiveness of hindered development among under-five youngsters was 46%, with 47% being underweight, including 18% seriously underweight, the most noteworthy extent in South Asia. Notwithstanding endeavors over many years, farming headways, instructive enhancements, and monetary advancement, almost 50% of Indian kids actually face deficient sustenance.

The rate of under-nourishment fluctuates across Indian states, with Bihar and Uttar Pradesh recording the most noteworthy rates of underweight and hindered kids in 1997. Kerala showed the most minimal paces of hunger among all states. In many states, the level of underweight youngsters surpassed those with hindered development. Also, concentrates on in Punjab featured that momentary hunger was more common than long haul unhealthiness (Naaz & Akram, 2017).

Malnutrition during elementary school age essentially influences wellbeing and instructive results. It adds to low school enlistment, high non-appearance, early dropout rates, and unfortunate scholastic execution. Public Family Wellbeing Overview information highlight the unsuitable wellbeing and healthful status of provincial young kids in India, with 53% being underweight. Notwithstanding vacillations, the level of underweight kids in the nation stayed high throughout the long term, showing the tirelessness of lack of healthy sustenance as a critical issue (Zerga et al., 2022). Adolescence undernutrition not just adds to high death rates in non-industrial countries yet in addition prompts long haul mental and wellbeing debilitations, decreasing people's personal satisfaction. Subsequently, understanding youngsters' nourishing status holds significant ramifications for the people in the future's prosperity and improvement (Handico et al., 2021).

CONCLUSION

Tending to kid lack of healthy sustenance is basic for public turn of events. Undernutrition essentially hampers physical, mental, and financial development, propagating patterns of neediness and blocking future efficiency. Powerful mediations should zero in on working on maternal and youngster nourishment through upgraded medical care, schooling, and financial help. Putting resources into kids' wellbeing and sustenance establishes areas of strength for a point for a better, more skilled populace. To break the pattern of hunger, thorough and supported endeavors are required, guaranteeing that all youngsters get the sustenance important to understand their maximum capacity and contribute decidedly to society's

- Ahmed, F., Zareen, M., Khan, M. R., Banu, C. P., Haq, M. N., & Jackson, A. A. 1998. Dietary pattern, nutrient intake and growth of adolescent school girls in urban Bangladesh. *Public health nutrition*, 1(2), 83-92.
- Ansuya, Nayak, B. S., Unnikrishnan, B., George, A., N, S. Y., Mundkur, S. C., & Guddattu, V. 2018. Risk factors for malnutrition among preschool children in rural Karnataka: a case-control study. *BMC public health*, 18(1), 283.
- Arora, S. K., Shah, D., Chaturvedi, S., & Gupta, P. 2015. Defining and measuring vulnerability in young people. *Indian Journal of Community Medicine*, 40(3), 193-197.
- Black, R. E., Victora, C. G., Walker, S. P., Bhutta, Z. A., Christian, P., de Onis, M., Ezzati, M., Grantham-McGregor, S., Katz, J., Martorell, R., Uauy, R., & Maternal and Child Nutrition Study Group 2013. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet (London, England)*, 382(9890), 427-451.
- **Bundy, D. A. 2009.** Rethinking school feeding: social safety nets, child development, and the education sector. world bank publications.
- Cronk, R., Slaymaker, T., & Bartram, J. 2015. Monitoring drinking water, sanitation, and hygiene in non-household settings: Priorities for policy and practice. *International Journal of Hygiene and Environmental Health*, 218(8), 694-703.
- **Druck, B. 2010.** The dance of climate change and hidden hunger. *The Sight and Life Magazine*, *3*, 40-59.
- Govender, I., Rangiah, S., Kaswa, R., & Nzaumvila, D. 2021. Malnutrition in children under the age of 5 years in a primary health care setting. South African family practice: official journal of the South African Academy of Family Practice/Primary Care, 63(1), e1-e6.
- Handiso, Y. H., Belachew, T., Abuye, C., Workicho, A., & Baye, K. 2021. Undernutrition and its determinants among adolescent girls in low land area of Southern Ethiopia. *PloS one*, 16(1), e0240677.
- **IIPS, O. 2007.** National Family Health Survey (NFHS-3), 2005-06: India. *Vol. I. Mumbai: International Institute for Population Sciences.*
- Jamison, D. T., Breman, J. G., Measham, A. R., Alleyne, G., Claeson, M., Evans, D. B., ... & Musgrove, P. (Eds.). 2006. Disease control priorities in developing countries.
- Kadiyala, S., & Gillespie, S. 2004. Rethinking food aid to fight AIDS. Food and Nutrition Bulletin, 25(3), 271-282.
- Meme, M. M., Kogi-Makau, W., Muroki, N. M., & Mwadime, R. K. 1998. Energy and protein intake and nutritional status of primary schoolchildren 5 to 10 years of age in schools with and without feeding programmes in Nyambene District, Kenya. Food and Nutrition Bulletin, 19(4), 334-342.
- Mwaniki, E. W., Mokokha, A. N., & Muttunga, J. N. 2014. Nutrition status and associated morbidity risk factors among orphanage and non-orphanage children in selected public primary schools within Dagoretti, Nairobi, Kenya. *East African Medical Journal*, *91*(9), 289-297.
- Naaz, H., & Akram, M. 2017. Nutritional status of children and adults in India: alarming revelations from NFHS-4. *Man India*, 97(23 Part 3), 655-65.
- Olack, B., Burke, H., Cosmas, L., Bamrah, S., Dooling, K., Feikin, D. R., & Breiman, R. F. 2011. Nutritional status of under-five children living in an informal urban settlement in Nairobi, Kenya. *Journal of health*, population, and nutrition, 29(4), 357.
- Parraga, I. 2006. Growth deficits in school age children in Brazil. American Journal of Clinical Nutrition, 50, 687-696.
- Parraga, I. M., Oliveira, A. M. D., Prado, M. D. S., Barreto, M. L., Reis, M. G. D., King, C. H., & Blanton, R. E. 1996. Gender differences in growth of school-aged children with schistosomiasis and geohelminth infection.
- Saha, J., Chouhan, P., Ahmed, F., Ghosh, T., Mondal, S., Shahid, M., Fatima, S., & Tang, K. 2022. Overweight/Obesity

- Prevalence among Under-Five Children and Risk Factors in India: A Cross-Sectional Study Using the National Family Health Survey (2015-2016). *Nutrients*, 14(17), 3621.
- Singh, P., Mohapatra, S. C., & Shankar, H. 2010. Nutritional status of school children in urban area of Varanasi, UP, India. *The Journal of Community Health Management, 4*(1), 1. Stoltzfus, R. J., Albonico, M., Tielsch, J. M., Chwaya, H. M., & Savioli, L. 1997. Linear growth retardation in Zanzibari school children. *The Journal of nutrition, 127*(6), 1099-1105. World Health Organization (WHO). 2010. Towards the realization of free basic sanitation: Evaluation, Review and Recommendations. *WRC Project*.
- Zerga, A. A., Tadesse, S. E., Ayele, F. Y., & Ayele, S. Z. 2022. Impact of malnutrition on the academic performance of school children in Ethiopia: A systematic review and meta-analysis. SAGE open medicine, 10, 20503121221122398.