



Malnutrition Among Women in India: A Public Health, Social, and Cultural Analysis

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Abstract

Malnutrition among women in India represents one of the most pressing public health challenges facing the nation. Despite significant economic growth and development initiatives, India continues to grapple with alarming rates of female malnutrition that span across all age groups, from adolescence through reproductive years and beyond. This paper examines the multifaceted nature of malnutrition among Indian women, exploring its epidemiological dimensions, underlying socio-cultural determinants, economic implications, and policy responses. Through comprehensive analysis of available data and research, this study reveals that malnutrition among women in India is not merely a health issue but a complex phenomenon rooted in gender discrimination, poverty, inadequate healthcare systems, and deeply entrenched cultural practices. The paper argues for a multi-sectoral approach that addresses both immediate nutritional needs and underlying structural inequalities to achieve sustainable improvements in women's nutritional status.

Keywords: Malnutrition, improvements, among women, nutritional status

Introduction

India is home to approximately 679 million women, constituting nearly half of the world's second-largest population. However, the nutritional status of Indian women presents a paradox in the context of the country's rapid economic development. While India has made remarkable strides in various sectors, the prevalence of malnutrition among women remains disproportionately high, reflecting deep-rooted gender disparities and systemic failures in healthcare delivery and social protection systems.

Malnutrition among women in India manifests in various forms, including undernutrition, micronutrient deficiencies, and increasingly, overnutrition in urban areas. The National Family Health Survey (NFHS-5) data reveals that 18.7% of women aged 15-49 years have a Body Mass Index (BMI) below 18.5 kg/m², indicating chronic energy deficiency. Simultaneously, anemia affects approximately 57% of women in the same age group, highlighting the pervasive nature of micronutrient deficiencies. These statistics underscore the urgency of addressing malnutrition as a critical public health priority.

The consequences of female malnutrition extend far beyond individual health outcomes. Malnourished women face increased risks during pregnancy and childbirth, leading to higher maternal mortality rates and adverse birth outcomes. Furthermore, the intergenerational transmission of malnutrition perpetuates cycles of poverty and poor health, affecting the overall development trajectory of the nation. Understanding the complex interplay of factors contributing to malnutrition among women is essential for developing effective interventions and policies.

Literature Review

The body of research on malnutrition among women in India has evolved significantly over the past decades, shifting from a

narrow focus on dietary inadequacy to a broader understanding of the social, economic, and cultural determinants of nutritional status. Early studies primarily concentrated on caloric and protein deficiencies, often attributing malnutrition to food scarcity and poverty. However, contemporary research has revealed that malnutrition persists even in food-secure households, pointing to the critical role of intra-household food distribution, women's autonomy, and social norms in determining nutritional outcomes.

Sen and Sengupta's seminal work on gender and nutrition highlighted how cultural preferences for male children and discriminatory feeding practices within households contribute to female malnutrition. Their research demonstrated that women often eat last and least within families, particularly during periods of food scarcity. This pattern is reinforced by social norms that prioritize male family members' nutritional needs over those of women and girls.

Recent studies have also emphasized the importance of women's education, employment, and decision-making power in determining nutritional outcomes. Research by Headey and colleagues found that women's education was strongly associated with improved nutritional status, suggesting that empowerment interventions could be crucial for addressing malnutrition. Similarly, studies on women's participation in self-help groups and microfinance programs have shown positive associations with nutritional improvements, indicating the potential of economic empowerment strategies.

The epidemiological literature has documented significant regional and socio-economic variations in malnutrition prevalence among women. States in the north and east of India, particularly Uttar Pradesh, Bihar, and Jharkhand, consistently report higher rates of malnutrition compared to southern and western states. These variations are often attributed to differences in women's status, healthcare infrastructure, and implementation of nutrition programs.

Epidemiological Overview

The epidemiological landscape of malnutrition among women in India is characterized by its complexity and heterogeneity. According to the latest NFHS-5 data, the prevalence of undernutrition among women aged 15-49 years varies dramatically across states, ranging from 8.7% in Mizoram to 27.4% in Jharkhand. This variation reflects the diverse socio-economic conditions and cultural contexts across the country.

Chronic energy deficiency, indicated by a BMI below 18.5 kg/m², affects nearly one in five women nationally. The highest rates are observed in rural areas and among women from scheduled castes, scheduled tribes, and economically disadvantaged backgrounds. Age-specific analysis reveals that adolescent girls and young women face particularly high risks, with implications for their reproductive health and the health of their future children.

Micronutrient deficiencies represent another critical dimension of malnutrition among Indian women. Iron deficiency anemia is the most prevalent form, affecting 57% of women aged 15-49 years. The prevalence is higher among pregnant women (52.2%) and adolescent girls (59.1%), indicating the increased nutritional demands during these life stages. Vitamin D deficiency is also widespread, with studies reporting prevalence rates exceeding 70% in some regions,

particularly in northern India.

The double burden of malnutrition is increasingly evident in urban areas, where undernutrition coexists with rising rates of overweight and obesity. Approximately 20.6% of women in urban areas are overweight or obese, compared to 15.8% in rural areas. This trend is particularly pronounced among women from higher socio-economic backgrounds and is associated with lifestyle changes, including reduced physical activity and increased consumption of processed foods.

Regional disparities in malnutrition prevalence are striking. The Empowered Action Group (EAG) states, including Uttar Pradesh, Bihar, Madhya Pradesh, and Rajasthan, consistently report higher rates of malnutrition compared to states like Kerala, Tamil Nadu, and Maharashtra. These differences are often attributed to variations in women's education levels, healthcare access, and implementation of nutrition programs.

Socio-Cultural Determinants

The socio-cultural determinants of malnutrition among women in India are deeply embedded in the country's social fabric and reflect centuries-old practices and beliefs. Gender discrimination, manifested through preferential treatment of male children and adults, remains a fundamental driver of female malnutrition. This discrimination is evident in various forms, including differential feeding practices, limited access to healthcare, and restrictions on women's mobility and decision-making autonomy.

The practice of early marriage and childbearing significantly contributes to malnutrition among young women. Child marriage, despite being illegal, continues to be prevalent in many parts of India, particularly in rural areas. Young wives often face additional nutritional stress due to early pregnancy and childbearing, combined with heavy domestic responsibilities and limited access to adequate nutrition. The cultural expectation that women should eat only after serving male family members and children further exacerbates nutritional inadequacy.

Religious and cultural dietary restrictions also play a role in shaping women's nutritional status. Many Hindu women observe various fasts and dietary restrictions, particularly during religious festivals and ceremonies. While these practices are often spiritually motivated, they can contribute to nutritional deficiencies, especially when practiced frequently or during periods of high nutritional need such as pregnancy and lactation.

The concept of "purdah" or seclusion of women in certain communities restricts their mobility and access to healthcare services, including nutritional counseling and supplementation programs. This isolation also limits women's opportunities for education and employment, perpetuating cycles of poverty and malnutrition. In some communities, women's limited decision-making power within households means they have little control over food purchases and preparation, further compromising their nutritional status.

Social norms surrounding body image and ideal weight also influence women's nutritional behaviors. In many Indian cultures, thinness is often considered desirable for women, leading to voluntary dietary restrictions and inadequate food intake. Conversely, the pressure to gain weight during pregnancy can lead to unhealthy eating patterns and excessive weight gain, contributing to the double burden of malnutrition.

The caste system continues to influence access to resources

and opportunities, with women from lower castes and tribal communities facing additional barriers to adequate nutrition. Discrimination in employment, education, and healthcare access compounds the nutritional challenges faced by women from these marginalized groups.

Economic Factors

Economic factors play a crucial role in determining the nutritional status of women in India, operating at multiple levels from household poverty to national economic policies. Poverty remains the most significant economic determinant of malnutrition, with women from the poorest households facing the highest rates of nutritional deficiencies. The inability to afford diverse and nutritious foods forces many families to rely on cheap, calorie-dense but nutrient-poor staples.

Women's limited participation in the formal labor force significantly impacts their nutritional status. Despite constituting nearly half of the population, women's labor force participation rate in India is among the lowest globally, at approximately 20-25%. This limited economic participation translates to reduced decision-making power within households and limited access to resources for purchasing nutritious foods. Even when women work, they often engage in low-paid, informal employment that provides insufficient income to meet nutritional needs.

The gender wage gap further exacerbates economic constraints on women's nutrition. Women earn approximately 20-30% less than men for similar work, reducing their purchasing power and ability to invest in nutritious foods. This wage disparity is particularly pronounced in rural areas and among women with lower education levels.

Seasonal variations in income and food prices significantly affect women's nutritional status, particularly in rural areas dependent on agriculture. During lean seasons, when food prices are high and employment opportunities are limited, women often reduce their food intake to ensure that other family members, particularly children and male earners, receive adequate nutrition. This coping mechanism, while reflecting women's caregiving roles, perpetuates their nutritional vulnerability.

The cost of nutritious foods relative to income represents a significant barrier to adequate nutrition. Protein-rich foods such as meat, fish, and dairy products are often expensive and beyond the reach of many families. Even when these foods are affordable, they are frequently allocated to male family members and children, leaving women with limited access to high-quality protein sources.

Healthcare costs also impact women's nutritional status indirectly. Families often prioritize healthcare spending for male members, leaving women with limited access to nutritional counseling, supplementation, and treatment for nutrition-related health conditions. The high cost of private healthcare forces many families to seek care only in emergency situations, missing opportunities for preventive nutrition interventions.

Policy Landscape and Government Initiatives

The Indian government has implemented numerous policies and programs to address malnutrition among women, reflecting a growing recognition of this issue as a national priority. The National Nutrition Mission (POSHAN Abhiyaan), launched in 2018, represents the most

comprehensive effort to address malnutrition across all demographic groups, with specific targets for reducing malnutrition among women and children.

The Integrated Child Development Services (ICDS) scheme, one of the world's largest programs for early childhood development, includes components specifically designed to address malnutrition among women. The scheme provides supplementary nutrition to pregnant and lactating mothers, along with health education and referral services. However, implementation challenges and resource constraints have limited the program's effectiveness in many areas.

The Janani Suraksha Yojana (JSY) provides financial incentives for institutional deliveries, indirectly supporting maternal nutrition by ensuring access to healthcare services during pregnancy and childbirth. The scheme has been successful in increasing institutional delivery rates, but its impact on maternal nutrition outcomes requires further evaluation.

The Public Distribution System (PDS) provides subsidized food grains to below-poverty-line families, potentially improving household food security. However, the system's focus on cereals and limited inclusion of nutritious foods such as pulses, oils, and micronutrient-rich foods has restricted its impact on addressing malnutrition comprehensively.

The Pradhan Mantri Matru Vandana Yojana (PMMVY) provides direct cash transfers to pregnant and lactating mothers, aiming to improve maternal nutrition and health outcomes. While the program represents a significant policy innovation, the transfer amounts may be insufficient to address the full cost of nutritious foods during pregnancy and lactation.

Recent policy initiatives have also focused on addressing micronutrient deficiencies through supplementation programs. The Weekly Iron and Folic Acid Supplementation (WIFS) program targets adolescent girls and women of reproductive age, while the National Iron Plus Initiative provides iron and folic acid supplements to pregnant women. However, poor adherence rates and supply chain challenges have limited these programs' effectiveness.

The National Food Security Act (NFSA) of 2013 legally entitles eligible households to subsidized food grains, representing a rights-based approach to food security. The act includes specific provisions for pregnant women and lactating mothers, including free meals during pregnancy and lactation. However, implementation varies significantly across states, and the focus on cereals may not adequately address nutritional diversity needs.

Challenges and Barriers

Despite numerous policy initiatives and programs, significant challenges and barriers continue to impede efforts to address malnutrition among women in India. Implementation gaps represent one of the most significant challenges, with many programs suffering from poor targeting, inadequate funding, and weak monitoring systems. The complexity of the federal structure, with nutrition programs implemented by different departments and levels of government, creates coordination challenges that affect program effectiveness.

Supply chain issues plague many nutrition programs, particularly those involving food distribution and supplementation. Irregular supply of supplementary food, poor quality of distributed items, and leakage to unintended beneficiaries reduce the programs' impact on nutritional outcomes. These challenges are particularly acute in remote

and tribal areas, where infrastructure limitations compound delivery difficulties.

Low awareness and education levels among target populations limit the uptake and effectiveness of nutrition programs. Many women lack knowledge about proper nutrition during pregnancy and lactation, the importance of dietary diversity, and the availability of government services. Cultural beliefs and practices that conflict with modern nutritional recommendations also pose barriers to behavior change.

Healthcare system inadequacies, including shortage of skilled personnel, inadequate infrastructure, and limited access to quality care, particularly in rural areas, impede efforts to address malnutrition. The lack of integration between nutrition programs and healthcare services results in missed opportunities for early identification and treatment of malnutrition.

Social and cultural barriers, including gender discrimination, early marriage, and restrictions on women's mobility, continue to limit women's access to nutrition programs and services. These barriers are particularly pronounced in certain communities and regions, requiring targeted interventions that address underlying social norms and practices.

Conclusion and Recommendations

Malnutrition among women in India represents a complex public health challenge that requires comprehensive, multi-sectoral interventions addressing both immediate nutritional needs and underlying structural determinants. The persistence of high malnutrition rates despite numerous policy initiatives highlights the need for more effective, evidence-based approaches that consider the social, cultural, and economic contexts in which women live.

Key recommendations for addressing malnutrition among women in India include strengthening implementation of existing programs through improved monitoring, accountability, and coordination mechanisms. Investing in women's education and economic empowerment can address underlying determinants of malnutrition while providing women with greater autonomy and decision-making power. Expanding access to diverse, nutritious foods through improved food systems and targeted subsidies can help address dietary inadequacies.

Addressing social and cultural barriers requires community-based interventions that engage traditional leaders, religious authorities, and men as partners in promoting women's nutrition. Strengthening healthcare systems, particularly in rural and underserved areas, is essential for providing comprehensive nutrition services to women throughout their life course.

Future research should focus on developing and evaluating innovative interventions that address the complex, multi-factorial nature of malnutrition among women. Long-term studies examining the effectiveness of different approaches and their sustainability are needed to inform evidence-based policy making. Additionally, research on the economic benefits of investing in women's nutrition can help build political support for increased funding and resources.

The challenge of malnutrition among women in India requires sustained commitment from government, civil society, and international partners. Only through coordinated, comprehensive efforts that address both immediate nutritional needs and underlying structural inequalities can India achieve its goal of improving women's nutritional status

and overall well-being. The stakes are high, as the health and nutrition of women today will determine the health and development prospects of future generations.

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