Review

A Review on Child Nutrition and Health Awareness in Semi-Urban Communities: A Case Study of Salampur Village

Debadrita Mukherjee , Ritu Raj , Sandeep Kumar *

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A Review on Child Nutrition and Health Awareness in Semi-Urban Communities: A Case Study of Salampur Village

Debadrita Mukherjee, Ritu Raj and Sandeep Kumar *

Department of Computer Science and Engineering, Sharda School of Engineering and Technology, Sharda University, Greater Noida, India

* Correspondence: sandeep.csengg@gmail.com

Abstract: Child malnutrition continues to be a pressing issue in India, particularly in semi-urban and rural regions where awareness and access to healthcare are limited. This review paper analyses the challenges of child nutrition and health awareness in Salampur village, Greater Noida, as observed through a community connect initiative. The study used a mixed-method approach combining household surveys, interviews with Anganwadi workers, and analysis of secondary data from local healthcare records. Key findings include high rates of underweight children, low dietary diversity, and limited parental knowledge of nutritional practices. The review highlights the role of socioeconomic status, traditional beliefs, infrastructural limitations, and policy gaps in perpetuating child malnutrition. Recommendations include implementing community-based nutrition workshops, promoting dietary diversity through kitchen gardens, and enhancing healthcare coordination. This review provides context-specific insights that can inform larger interventions aimed at combating malnutrition and promoting health awareness in semi-urban Indian communities.

Keywords: child nutrition; health awareness; semi-urban communities; Salampur; malnutrition; Anganwadi; dietary diversity

1. Introduction

Child nutrition is a foundational pillar of a nation's health and development. The early years of life, particularly from conception to age five, represent a critical window for physical and cognitive development. Undernutrition during this stage can lead to irreversible damage, affecting learning capacity, immunity, and productivity in later life [2]. Despite multiple government schemes such as the Integrated Child Development Services (ICDS), POSHAN Abhiyaan, and Mid-Day Meal programs, India continues to struggle with high rates of child undernutrition [3]. Factors such as poverty, lack of awareness, poor maternal education, gender biases, and inadequate healthcare infrastructure contribute to the persistence of malnutrition [4].

According to the National Family Health Survey-5 (NFHS-5), 32.1% of children under five in Uttar Pradesh are underweight, and 39.7% are stunted [1]. These statistics highlight the urgency of focusing on grassroots-level interventions and understanding community-specific barriers to nutrition and healthcare. While urban centres benefit from better infrastructure and services, semi-urban and peri-urban areas like Salampur remain caught between traditional practices and the influences of modernity.

Salampur village, located 12 km from Greater Noida in the Gautam Buddha Nagar district, serves as a representative case for examining the interplay between cultural norms, socioeconomic status, and access to healthcare. With a population of approximately 3,500, the village is experiencing gradual urban spillover but still lacks adequate health and nutrition services. The presence of only

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one Anganwadi centre, limited outreach from primary healthcare workers, and low levels of nutritional literacy among caregivers compound the problem [5].

The problem is further exacerbated by shifts in food consumption patterns. Packaged foods and sugar-sweetened beverages are increasingly replacing traditional diets, especially among children. These changes, coupled with parental misconceptions about nutrition, contribute to hidden hunger—micronutrient deficiencies that are not always evident but have lasting consequences [6][7].

The objective of this review is to investigate the nutritional awareness and practices in Salampur, identify key barriers and opportunities, and propose targeted solutions. By leveraging data collected through direct field engagement and aligning it with existing literature and policy frameworks, this study aims to provide actionable insights for improving child health in semi-urban settings [8][9].

2. Methodology

The research employed a mixed-methods approach, integrating both quantitative and qualitative techniques to ensure a comprehensive understanding of the nutritional landscape in Salampur.

Data Collection Techniques:

- Household Surveys: Conducted with 45 families having children under the age of five. These surveys assessed food intake frequency, dietary composition, health check-up frequency, immunization status, and sanitation practices.
- In-depth Interviews: 15 semi-structured interviews were conducted with mothers and primary caregivers to understand child-feeding practices, cultural beliefs, challenges in accessing nutrition, and perceived health needs.
- Focus Group Discussions (FGDs): Five FGDs involving fathers, grandmothers, and local community members were held to gather shared perspectives on nutrition and healthcare behaviour.
- Key Informant Interviews: Two Anganwadi workers and one primary health centre (PHC) doctor provided insights into service delivery, record maintenance, and barriers to effective community health outreach.
- Secondary Data Analysis: Reviewed health and nutrition records maintained by local Anganwadi centres and PHCs for the past year to validate and compare findings.

Field Work Duration: The data collection was conducted over a six-month period, from January to June 2024. Researchers visited the village weekly and maintained detailed field notes and observation logs.

Triangulation and Validity: Findings from different methods were triangulated to enhance the validity and reliability of the results. For example, inconsistencies in dietary recall were cross-verified with Anganwadi records and field observations.

Community Participation: To build trust and ensure honest responses, the research team partnered with local volunteers. These volunteers acted as liaisons, translated where needed, and encouraged families to participate. Ethical considerations, including informed consent and participant anonymity, were strictly maintained.

This blended methodology allowed for the development of a holistic view of the nutrition and health awareness environment in Salampur, revealing both statistical trends and nuanced community dynamics.

3. Literature Review

NFHS-5 provides a grim picture of child nutrition in India [1]. Singh et al. (2022) reported a 45% shift from traditional to processed diets in Greater Noida's peri-urban households [2]. Mehta and Kumar (2023) found that effective community-level interventions could reduce malnutrition by up to 28% [3]. Sharma et al. (2023) evaluated Anganwadi centers and found major gaps in nutrition education and parent involvement [4].

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Das and Patel (2022) emphasized the need to validate traditional feeding practices scientifically, noting that 65% aligned with modern guidelines [5]. Gupta et al. (2023) assessed POSHAN Abhiyaan and recorded a 72% improvement in awareness among participating families [6].

Verma and Associates (2023) found a strong positive correlation between maternal education and child nutrition outcomes [8]. TRDI (2023) observed that mobile technologies are increasingly contributing to nutrition awareness [9].

Additional scholarly insights include Bhutta et al. (2013) on the cost-effectiveness of nutrition interventions [10], Haddad et al. (2015) on integrating agriculture and nutrition [11], and WHO (2020) feeding recommendations [14]. Narayan et al. (2020) emphasized the role of mobile health apps in rural nutrition behaviour [15]. Ghosh et al. (2022) explored how food inflation impacts dietary diversity and child health [16]. Global studies from Bangladesh and Kenya affirm the value of community-led interventions [17,18]. ICMR (2022) urged context-based nutrition policies in their nationwide report [19].

4. Findings

The research findings indicate a multi-dimensional challenge to child nutrition and health awareness in Salampur. Quantitative data revealed that 42% of children under five were underweight, and 35% of families reported poor dietary diversity. These statistics are aligned with observations from health records and Anganwadi reports, which showed that protein-rich and vitamin-rich foods were consumed infrequently.

Interviews with caregivers demonstrated a critical lack of knowledge in essential nutrition. About 65% of parents had limited or incorrect understanding of weaning, dietary diversity, or the need for immunization and health check-ups. Cultural practices, such as delaying the introduction of semi-solid foods and depending heavily on carbohydrate-rich staples like rice and potatoes, further worsened the nutritional gap.

Community health workers reported inconsistencies in the use and delivery of growth monitoring tools and nutritional supplements. Many Anganwadi centres lacked proper anthropometric equipment, and recordkeeping was incomplete. Field observations also showed a visible disparity in meal frequency and content among families from different socioeconomic backgrounds.

Despite these challenges, a positive finding was that many parents expressed interest in learning more about proper feeding practices and were receptive to training or workshops. This indicates the potential for community-based educational interventions to succeed if implemented effectively.

5. Discussion

The findings underscore a pattern of nutritional deficiencies driven by socio-cultural, economic, and infrastructural limitations. The reliance on carbohydrate-heavy diets, combined with misconceptions about feeding practices, highlights the importance of context-specific health education. As demonstrated by Haddad et al. (2015) and WHO (2020), early childhood nutrition shapes lifelong outcomes [2,8].

Economic constraints played a major role in limiting dietary diversity. Many families reported being unable to afford protein sources such as eggs, pulses, or dairy. Seasonal food insecurity, due to local agricultural dependency, was also noted. These align with national trends reported in the NFHS-5 and the Global Nutrition Report, where access remains a significant barrier [1,2].

Another key issue was access to healthcare. Despite the presence of a primary health center and Anganwadi units, irregular health check-ups and a shortage of trained workers hampered effective service delivery. These observations are consistent with studies by ICMR (2022) and Kimani-Murage et al. (2015), which emphasize infrastructure as a determinant of child health [9,10].

However, caregiver willingness to participate in training and local stakeholder cooperation signal a promising avenue for future intervention. Community-based models, such as those piloted

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in Kenya and Bangladesh, show that participatory approaches often yield better outcomes in low-resource settings [5,10].

6. Recommendations

To address the multifaceted challenges observed in Salampur, the following recommendations are proposed:

- **Community-Based Nutrition Workshops**: Establish regular training sessions at Anganwadi centers using local languages and visuals. Modules should focus on dietary diversity, breastfeeding, weaning, and hygiene.
- **Promotion of Kitchen Gardens**: Encourage households to grow leafy greens, fruits, and legumes. These gardens improve food access while educating families about the importance of micronutrients.
- **Capacity Building of Anganwadi Workers**: Provide updated growth-monitoring tools, regular training sessions, and incentives to improve their performance and accountability.
- **Integration of Technology**: Implement SMS alerts and mobile-based nutrition apps to educate parents. Partner with local NGOs and telecom providers to subsidize phone data access for health content.
- **School-Based Nutrition Curriculum**: Introduce nutrition awareness into primary education, including practical demonstrations and interactive sessions for children and parents.
- **Policy Support and Intersectoral Coordination**: Strengthen linkages between health, agriculture, and education departments to develop integrated child health strategies, as recommended by national and global agencies [3,9].

7. Conclusion

This review has highlighted significant gaps in nutrition and health awareness among caregivers in Salampur village. The findings support the broader consensus that undernutrition is not solely a matter of food scarcity, but a complex interplay of economic status, cultural norms, service delivery, and educational access.

While the challenges are pronounced, the potential for change is also evident. Families have shown openness to new knowledge, and existing health infrastructure can be strengthened with targeted policy and community-level interventions. By combining educational outreach, digital innovation, and infrastructural support, it is possible to improve the nutritional status of children in semi-urban communities like Salampur.

Ultimately, such locally grounded studies and interventions can inform regional planning and contribute to India's larger mission of achieving zero hunger and improved childhood health outcomes under initiatives like POSHAN 2.0.

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