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# **Nursing Innovators Journal**

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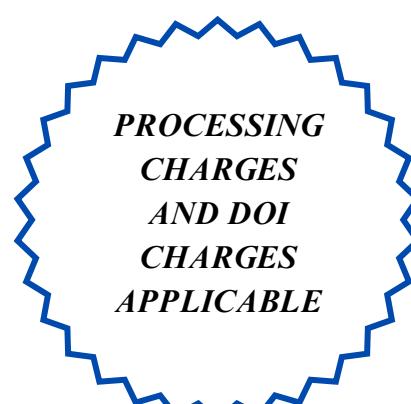
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#### Vision:

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## From Editorial desk: "Redefining Boundaries: Recognizing Nurses as Innovators."

"Nurses have been the frontlines of promotion, prevention, care, and rehabilitation of people and patients' health and safety. But beyond this lies a less recognized but equally powerful identity — that of the nurses as innovators, critical analytical people, and leaders of change and visionaries."

Our Nurse Innovators journal was launched to publish the research and conversations by nurses about healthcare innovations. Healthcare departments, governing agencies, and the general public have recognized nurses as agents of change; however, scholarly and research articles and practical literature highlighting nurse-led solutions are lacking. This journal aims to address that. This journal will open the space for interdisciplinary dialogue needed in nursing practice. The launch of the journal comes at a moment of critical transformation in healthcare. The challenges we face — from global health inequities and workforce shortages to digital transformation and environmental crises — demand new ways of thinking. Nurses, with their unparalleled proximity to patients and systems, are uniquely positioned to inform.

What do we mean by "nurse innovator"? We see innovation not just in technology or start-ups, but in every instance where nurses challenge assumptions, redesign systems, and imagine better ways of delivering care. It is the nurse in a rural community who adapts mobile phone technology to improve antenatal care. The ICU nurse leads a quality improvement initiative to reduce infections and medication errors. The psychiatric nurse who develops a culturally grounded mental health toolkit for the community. Innovation, in this context, is not always high-tech — it is high-impact!

In this inaugural issue and future ones, we will feature a diverse range of content: original research on nurse-led interventions, field-tested solutions from practice, reflective essays from nurse leaders, and interdisciplinary perspectives that expand our collective imagination. We welcome contributions from nurses in all sectors — clinical, academic, community-based, and entrepreneurial — as well as collaborations with designers, engineers, and policymakers who collaborate with nurses to co-create change.

We hope that this journal is more than a publication. We envision a vibrant ecosystem — a space of dialogue, mentorship, and shared purpose. Whether you are a student with an idea, a frontline nurse solving problems daily, or a scholar exploring the theory of practice-led innovation, you have a place here.

We invite you to read, contribute, critique, and connect. Let this journal be both a record of what is and a catalyst for what could be.

Because innovation is not the future of nursing — it is already here. And it begins with the nurse.

We invite you to read, contribute, critique, and connect. Let this journal be both a record of what is and a catalyst for what could be.

**Dr. Meena Ganapathy**  
**Chief Editor, NIJ**

# "Preventing malnutrition: A comprehensive review of community-based nutritional interventions"

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## Abstract

Adolescent malnutrition is a significant public health issue in low- and middle-income countries (LMICs), with lasting impacts on health and development. Community-based interventions offer potential solutions to address various forms of malnutrition and improve adolescent health outcomes. However, the effectiveness and implementation of these interventions remain underexplored. This scoping review aims to synthesize evidence on community-based interventions targeting multiple forms of malnutrition in adolescents aged 10–19 years in LMICs. A comprehensive search will be conducted across multiple databases from 2000 to July 2023, focusing on randomized controlled trials and quasi-experimental studies. Interventions such as micronutrient supplementation, nutrition education, feeding programs, physical activity, and environmental changes will be included. Data extraction will be performed by two independent reviewers, and risk of bias will be assessed. Results will be reported according to the PRISMA Extension for Scoping Reviews guidelines. Findings will be disseminated through peer-reviewed publications and presentations at conferences.

**Keywords:** Adolescent, Nutrition & Dietetics, Health Education, Systematic Review, Anaemia.

## I. INTRODUCTION

Childhood malnutrition remains a significant public health issue in low- and middle-income countries (LMICs), with noticeable disparities in undernutrition across different regions and countries. Recent studies have shown that malnutrition during childhood not only affects physical health and growth but also impacts cognitive development and future productivity, which can lead to long-term economic consequences. Addressing hunger and malnutrition has therefore been prioritized as a key goal in the Sustainable Development Goals (SDGs), with a specific focus on chronic childhood malnutrition.

There's a growing body of evidence highlighting the long-term health and economic benefits of improving nutrition in early childhood, which is why most interventions focus on the early stages of a child's life. However, while tackling childhood undernutrition can enhance individual well-being and drive economic growth, it's crucial to evaluate the cost-effectiveness and benefits of different approaches in various contexts. The causes of child malnutrition are complex, involving a range of immediate, underlying, and basic factors, and the interactions between them. Nutrition-specific interventions that target these immediate causes of malnutrition are being implemented in various settings to help improve child nutrition. Research has shown that increasing the coverage of these interventions is vital to reducing undernutrition and its negative impacts.

**Community-Based Nutritional Interventions** Various community-based programs have shown success in addressing malnutrition through different approaches.

## II. Nutrition Education Programs

Since 1971, Taiwan's death certification system has been computerized, with cancer being the leading cause of death for decades. Cancer-related malnutrition can lead to infections, slow wound healing, muscle weakness, and skin breakdown. Nutritional support is essential for patients unable to maintain weight due to reduced appetite. Tailored strategies to identify at-risk patients are crucial for effective support and reducing cancer complications. Routine malnutrition screening should be implemented for high-risk groups. Malnutrition severity in cancer patients depends on tumour type, disease stage, and treatment. Common tools for detecting malnutrition in clinical practice include Subjective Global Assessment (SGA), Mini Nutritional Assessment (MNA), Short Form MNA (SF-MNA), Nutrition Risk Screening (NRS), and Malnutrition Universal Screening Tool (MUST).

## Food Security Initiatives

Access to nutritious food was a fundamental factor in preventing malnutrition. Food security initiatives that ensured consistent access to affordable, nutritious food reduced malnutrition, particularly in low-income communities. Programs

that supported local food production, such as community gardens or agricultural training, demonstrated positive results in improving nutritional intake. **Micronutrient Supplementation.**<sup>1</sup>

Micronutrient deficiencies, such as iron, vitamin A, and iodine, are prevalent causes of malnutrition. Supplementation programs that provide essential nutrients have been effective in reducing deficiencies and promoting better health, particularly in children and pregnant women. Fortified foods, such as iodized salt and vitamin A-enriched oils, also contribute to the prevention of malnutrition in larger populations.<sup>2</sup>

### Breastfeeding Promotion

Breastfeeding is often a highly emotional and debated topic. International health organizations recommend exclusive breastfeeding for the first 4–6 months, followed by partial breastfeeding into the second year, to improve infant health and reduce the risk of malnutrition and infections. But how well do these recommendations align with scientific evidence? Are they overly simplified for emotional or public health reasons? Breastfeeding is believed to benefit infants because breast milk provides the perfect balance of nutrients, supports the development of the infant's gut and immune system, and helps prevent pathogen exposure. However, some contradictory findings exist. In environments with low contamination, breastfed infants sometimes show slower growth compared to those fed formula. Additionally, partial breastfeeding in such settings does not seem to cause more gut damage than exclusive breastfeeding, suggesting that promoting gut development may be more important than simply avoiding pathogens from other foods.<sup>7</sup>

### III. Factors Contributing to Effective Interventions

In this study, over half of the malnourished children were aged 6–12 months, a period coinciding with weaning, suggesting that improper weaning or complementary feeding may contribute to malnutrition. A similar pattern was found in a study in Enugu, Nigeria. Our analysis also showed that children aged 24 months or younger were more likely to be malnourished, highlighting the vulnerability of this age group. This period offers a key opportunity for intervention, which is the focus of the Scaling Up Nutrition (SUN) movement, aiming to improve nutrition during pregnancy and early childhood through coordinated, multi-sectoral efforts.<sup>6</sup>

### Implications for Global Health

The success of community-based interventions in preventing malnutrition had significant implications for global health. As malnutrition contributed to a wide range of health issues, including stunted growth, cognitive impairments, and increased susceptibility to infections, addressing these issues at the community level had substantially improved public health outcomes. Moreover, these interventions had contributed to reducing the economic burden of malnutrition-related diseases and improving overall quality of life as per Tiffany E Chao.

### Intervention Strategies

As Nickel S and Knesebeck O, to enhance the effectiveness of community-based interventions, the following strategies were recommended: **Integrating Health and Nutrition Education into School Curricula:** Teaching children and young adults about the importance of nutrition from an early age instilled long-term healthy habits. **Promoting Community Partnerships:** Collaboration between local governments, non-governmental organizations (NGOs), and community groups led to more effective and sustainable programs. **Monitoring and Evaluation:** Regular assessment of community nutrition programs ensured that they were meeting their goals and allowed for modifications to improve effectiveness.

### IV. CONCLUSION

Community-based nutritional interventions are vital in preventing malnutrition, particularly in vulnerable populations. By focusing on education, food security, supplementation, and breastfeeding promotion, these interventions can address the root causes of malnutrition and improve health outcomes. As Beggs B et al, future research should focus on refining these interventions and exploring new strategies to reduce malnutrition globally.

**Conflict of interest: No conflict of interest to declare.**

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