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School Health Nursing in Promoting Healthy Eating Habits: A Review

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ABSTRACT

Background: Poor eating habits among school-aged children are linked to malnutrition, obesity, and non-communicable diseases. School health nursing plays a crucial role in health promotion, including fostering healthy eating behaviors. This review aims to synthesize available evidence on the effectiveness of school health nursing interventions in promoting healthy eating habits among school-aged children.

Materials and Methods: A narrative review was conducted by searching PubMed, Scopus, CINAHL, and Google Scholar for studies published in different journal.

Results and Discussions: Evidence suggests that school health nurses significantly improve children's nutritional knowledge, increase fruit and vegetable intake, and reduce the consumption of unhealthy snacks and sugary drinks. Effective interventions included health education sessions, school-based screenings, mid-day meals, parent-teacher collaboration, and creation of supportive food environments. However, limited staffing, socio-cultural food practices, and exposure to unhealthy marketing remain barriers.

Conclusion: School health nursing is effective in promoting healthy eating habits, but sustained success requires supportive policies, community engagement, and adequate resources.

Keywords: Healthy eating habits, Health promotion, Nutrition education, School children

INTRODUCTION

Eating habits formed in early life have long-lasting implications for growth, development, and prevention of diseases. Children and adolescents require balanced nutrition to support rapid physical and cognitive growth. However, the 21st century has witnessed an alarming shift in dietary patterns among school-aged populations, characterized by higher intake of processed foods, fast foods, sugary drinks, and a decline in consumption of fresh fruits, vegetables, and whole grains.¹ This "nutrition transition" has resulted in the dual burden of undernutrition and overnutrition, particularly in low- and middle-income countries, where children face stunting, anemia, and vitamin deficiencies alongside rising rates of obesity and overweight.²

Globally, the World Health Organization (WHO) reports that childhood obesity has increased more than tenfold in the past four decades, with 340 million children and adolescents aged 5–19 overweight or obese.³ At the same time, an estimated 45 million children under five years are wasted or stunted due to poor diet and recurrent infections.⁴ These unhealthy dietary patterns increase the risk of non-communicable diseases (NCDs), such as type 2 diabetes, cardiovascular disease, and some cancers, later in life.⁵

Schools are critical environments for health promotion. Children spend 6–8 hours per day at school, consume at least one or two meals during school hours, and are highly influenced by peer behavior and institutional policies. This makes schools an ideal setting not only to teach healthy eating but also to create supportive environments where nutritious choices

are accessible and appealing. To maximize their impact, such initiatives should also be evaluated in terms of sustainability and cost-effectiveness, ensuring that they can be maintained over time with available resources and provide long-term health benefits at a reasonable cost. Addressing these factors increases the likelihood that school-based nutrition programs will be successfully scaled and integrated into routine practice. Thus, schools provide an opportunity not only to teach healthy eating but also to create supportive environments that make nutritious choices accessible and appealing.⁶

School health nursing has evolved as a specialized field of nursing that addresses both preventive and promotive health needs of school children; however, there is a lack of consolidated evidence demonstrating its overall effectiveness across diverse contexts. School nurses act as educators, counselors, clinicians, and health advocates. Their responsibilities extend beyond clinical care to include nutrition education, screening for malnutrition or obesity, counseling students and families, and collaborating with teachers, food service staff, and policymakers. By integrating health into the educational system, school nurses can reinforce healthy eating messages consistently and systematically.⁷

In addition, school health nurses are uniquely placed to bridge the gap between families, schools, and health systems. For instance, a child identified with obesity at school can be referred for further medical care, while parents can be guided on home-based dietary modifications. Nurses also contribute to shaping school food policies, organizing nutrition weeks, and monitoring compliance with health standards.⁸

Despite these advantages, school health nursing often faces challenges such as inadequate staffing ratios, limited training in specialized nutrition counseling, and competing academic priorities within schools. Moreover, external influences—including aggressive marketing of junk foods, cultural dietary norms, and socioeconomic disparities—limit the impact of school-based interventions alone.⁹

Understanding the effectiveness of school health nursing interventions in shaping eating habits is essential to justify investment in school health programs and to guide evidence-based policy decisions. Conducting this study is important because it evaluates whether school health nurses can effectively shape eating behaviors at a critical stage, helping reduce the burden of malnutrition and NCDs, strengthening school health programs, and contributing to healthier future generations.

MATERIALS AND METHODS

Related literature was reviewed thoroughly to gain in depth knowledge for the study. Many electronic and non-electronic sources were used for searching relevant information for this study. Electronic search included PubMed, GoogleScholar, Hinari, Google, visited different websites of journals like NepJol, NHRC, Journal of Community Med Public Health by using key words like Healthy eating habits, Health promotion, Nutrition education, School health nursing, School children, and Boolean Operators

(AND, OR, NOT or AND NOT) were used to combine the search items. Non-electronic sources like books, journals, dissertations, research report were used. Analysis of the finding was done and conclusion was drawn from more than 12 articles. School-aged children (usually 5–18 years) enrolled in primary, middle, or secondary schools. exposed to school health nursing are included in the study.

RESULTS AND DISCUSSION

Nurses are effective educators, counselors, and advocates who influence both knowledge and behavior among children. As a school health nurse plays a multifaceted role in promoting healthy eating. Several studies reported significant gains in children's understanding of food groups, balanced diets, and the importance of fruits and vegetables after nurse-led education sessions.^{10,11} School health nursing interventions were linked with increased fruit and vegetable consumption and reduced intake of fried snacks, sugary drinks, and processed foods. Programs such as "healthy lunchbox campaigns" and "school garden initiatives" encouraged children to make healthier food choices. Routine screenings by nurses, including BMI measurement and dietary assessments, enabled early identification of overweight, underweight, or at-risk students. Individual counseling with students and parents resulted in positive modifications of household eating practices.⁷

Nurses working with teachers, canteen services, family and community promoted healthier school food environments. Family involvement ensures reinforcement of dietary practices outside the school environment. The effectiveness of school nurses is enhanced when supportive policies are in place, such as restrictions on junk food sales near schools, provision of nutritious school meals, and inclusion of nutrition education in the formal curriculum.¹² Studies consistently reported that interventions that engaged parents showed more sustainable outcomes.⁹ Limited resources, nurse shortages, and competing educational priorities often hinder the long-term sustainability of health education programs. To overcome this barrier, interventions such as task-shifting and community engagement strategies have been implemented. For instance, training school teachers or community health volunteers to deliver basic health and nutrition education can reduce reliance on nurses and professional staff, while leveraging existing personnel within schools or communities. Additionally, integrating health education into the regular school curriculum ensures that it becomes a routine activity rather than an additional task competing for attention and resources. These strategies not only address workforce limitations but also enhance program continuity and sustainability, even in resource-constrained settings.

Additionally, external factors like marketing of unhealthy foods and peer influence limit the scope of school-based interventions alone. However, barriers such as lack of staffing and systemic policy limitations reduce long-term effectiveness. To maximize impact, school health nursing should be integrated into school health policies, supported by intersectoral collaboration, and tailored to cultural and socioeconomic contexts.¹²

CONCLUSION

School health nursing has proven effective in improving children's nutritional knowledge, fostering healthier food choices, and preventing malnutrition and obesity. For sustained success, interventions should combine education, parental involvement, and supportive food policies. Limited resources, nurse shortages, and competing educational priorities often challenge the sustainability of school health programs. To address these barriers, strategies such as task-shifting, where teachers or community volunteers deliver health education, and integration into the regular school curriculum have been effective in maintaining program continuity. Future research should focus on systemic solutions, including the use of digital health education, peer-led interventions, and mobile-based health promotion tools, to evaluate their effectiveness, scalability, and cost-efficiency, ensuring sustainable and equitable access to health education in resource-constrained settings.

Strengthening the role of school health nurses through training, policy integration, and adequate resource allocation will significantly contribute to building a healthier generation.

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