

# Impact of the School Food Environment on Adolescent Dietary Behaviours: Consequences for Advanced Nursing Research and Practice

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## Abstract

**Background:** The school food environment is a major factor in how teens eat during a time when they are growing and changing a lot.

**Objectives:** To investigate the impact of structural, economic, social, and policy elements of the school food environment on dietary behaviours and obesity risk among teenagers, and to assess the implications for nursing research and practice.

**Methods:** A narrative review and conceptual analysis were performed utilising the Social Ecological Model as a theoretical framework to integrate available research about environmental factors of adolescent nutrition in school contexts.

**Results:** The results show that food choices are strongly affected by things like how much food is available, how much it costs, how it is marketed, institutional policies, and peer norms. Schools with easy access to energy-dense, nutrient-poor meals show higher sugary snack consumption, poorer fruit and vegetable intake, higher calorie intake, and a higher risk of obesity. On the other hand, regulated school food policies are linked to better eating habits and better BMI trends.

**Conclusion:** changes to the environment, along with nurse-led advocacy and policy implementation, are long-term ways to improve the nutrition of teenagers and stop obesity.

## Introduction

The school food environment has a big effect on what teens eat. This is because teens are becoming more independent and more open to outside influences during this time of life. As the number of overweight and obese teenagers in school rises, more and more people are looking at the factors that affect food choices in schools. This essay critically analyses the structural, policy, social, and commercial elements of the school food environment and their impact on teenage eating behaviours. Utilising ecological and behavioural theories, the research elucidates the mechanisms by which food availability, accessibility, pricing, marketing, and peer norms influence nutritious consumption. It also talks about what this means for nursing research, school health practice, and policy-level actions. Enhancing nurse-led

advocacy and implementing environmental adjustments in schools may constitute a sustainable approach to improving adolescent nutritional outcomes and reducing obesity.

**Keywords:** School food environment, adolescent nutrition, obesity prevention, nursing research, dietary behaviour

## 1. Introduction

Obesity in teenagers has become a complicated and growing global public health problem that will have big effects on future health problems and the strain on the health care system. The World Health Organization recognises unhealthy food patterns as a primary modifiable factor influencing non-communicable diseases, such as type 2 diabetes and cardiovascular conditions. Adolescence is a crucial period of development marked by swift physiological growth, psychosocial changes, and greater independence in decision-making. During this time, food choices are influenced not just by knowledge but also by environmental exposure, peer norms, food marketing, accessibility.

In this context, the school serves as a significant institutional framework that organises daily routines, social interactions, and dietary habits. A significant number of teenagers' daily calorie consumption occurs within or near school premises, rendering the school food environment a critical factor in determining dietary quality. The availability, pricing, advertising, and regulation of food alternatives in canteens and neighbouring vendors collectively produce either a supportive or obesogenic atmosphere. Consequently, it is imperative to analyse the structural and policy aspects of school food systems to enhance evidence-based nursing interventions designed to foster healthy eating practices and mitigate adolescent obesity.

## 2. Method

The Social Ecological Model explains how the school food environment affects behaviour by saying that behaviour is affected by interactions between individual, interpersonal, institutional, community, and policy-level elements. In this context: Individual Level: Attitudes, preferences, and knowledge

- Interpersonal Level: peer pressure and instructor modelling
- At the institutional level: school food policies and how the canteen works
- At the community level: there is a local culinary culture and vendors.
- Policy Level: Rules for nutrition set by the government
- The interplay among these levels' shapes adolescents' food habits.

## 3. Result

1. Food that is easy to find and get to the variety and location of food choices in schools have a big impact on what teens choose to eat. When fried foods and sugar-sweetened drinks are easy to get and publicly advertised, they become regular options. On the other hand, not being able to get enough fruits, whole grains, and nutritionally balanced meals makes it harder to make good

choices. Accessibility is more than just being available; it also includes convenience, meal quantity, and time limits during school breaks. From a public health standpoint, the physical arrangement of food locations can either promote or obstruct healthy eating behaviours, consequently influencing long-term weight results.

2. The cost of food and how much it costs Economic variables significantly influence the food purchasing behaviour of adolescents. Because kids rely on their parents for money, they are more sensitive to price differences. When foods that are heavy in calories are cheaper than better options, people tend to choose the cheaper, less healthy ones. So, pricing techniques work as behavioural incentives that discreetly steer people toward certain foods. Making healthy meals cheaper by changing the costs of other things is a structural change that might have a big effect on what kids eat at school.
3. Advertising and Marketing Food marketing in schools has a big effect on what teenagers like and how they buy things on impulse. Strategic product placement, attractive packaging, promotional discounts, and branding strategies make certain foods, especially ultra-processed snacks, more enticing. Teenagers are especially open to persuasive marketing cues because their brains and emotions are still developing. Repeated exposure to unhealthy food makes it more normal, which leads to more habitual eating. Regulating marketing methods and making sure that healthy options are equally visible are important steps in changing how people eat in institutions.
4. Rules and Policies institutional regulations that control how schools get food, what kinds of food they may provide, and how much they can sell directly affect the nutritional landscape of schools. Comprehensive nutrition standards can help people eat healthier by limiting the number of high-fat, high-sugar foods they can buy and encouraging them to choose meals that are in line with nutritional recommendations. For regulation to work, there must be ways to keep an eye on things, a commitment from the people in charge, and cooperation from all parties involved. Without defined policy frameworks, school food environments may prioritise economic interests above health considerations. So, interventions at the policy level are a key part of a long-term plan to improve diets.
5. Social and peer norms teenager's eating habits are very much influenced by the people around them. Peer acceptability, group identification, and shared consumption behaviours frequently influence food choices more than nutritional information. Students may select specific cuisines to conform to dominant group norms or to evade social ostracism. When high-calorie snacks are seen as appealing or fashionable, this kind of social reinforcement can keep people from eating healthful foods. To encourage long-lasting changes in behaviour, it is important to deal with peer pressure by setting a good example and creating a supportive school environment.

### **Impact on Dietary Behaviors**

An obesogenic school food environment exerts a measurable influence on adolescents' eating patterns and nutritional outcomes.

1. Eating more foods that are high in sugar and fat an obesogenic school food environment often makes it easier to get fried snacks, candy, and drinks with added sugar. Frequent exposure to these foods enhances preference development and regular intake. Teenagers may pick these foods over

healthier options since they are easy to get and their friends are doing it. Eating a lot of foods heavy in fat and sugar on a regular basis might lead to eating too many calories and not getting enough nutrients.

2. Eating less fruits and vegetables fruits and vegetables are less likely to be chosen in schools because they are hard to get, expensive, or not very appealing. Adolescents are less likely to include healthier foods in their daily meals when they are not easy to find or appealing. This cut hurts the intake of important micronutrients and the variety of foods, both of which are very important for growth and development.
3. Eating more calories overall having huge portions, foods high in calories, and a lot of chances to nibble all at once makes you eat more calories each day. This positive energy balance leads to progressive weight growth if there is no physical exercise to go with it. It's generally environmental cues, not hunger, that make people eat, which leads to patterns of overeating. \
4. Higher Chance of Being Overweight or Obese Long-term exposure to unhealthy dietary situations leads to weight growth and fat gain over time. Poor eating habits that are learned in school can last into adulthood and increase the risk of metabolic and cardiovascular problems connected to obesity.
5. Better Results in Schools with Rules On the other hand, schools that have regulated food programs and nutrition rules show better eating habits. Having access to balanced meals and controlled food sales encourages healthier choices, which results in better BMI trends and overall nutritional status among teens.

## Implications for Nursing Research

Nursing scholars are essential in investigating the environmental factors influencing adolescent health. Future research avenues encompass:

- Longitudinal research evaluating the effects of modifications in school food policy
- Experimental frameworks assessing nurse-led environmental alterations
- Mixed-method research investigating student perceptions of school food systems
- Creation of validated instruments to evaluate school food settings nurse researchers can connect policy and practice by making evidence that is specific to the situation.

## Role of Nurses in Transforming School Food Environments

School and community health nurses are in a good position to:

- Check the nutrition of school canteens on a regular basis.
- Support the use of healthy food recommendations.
- Work together with school leaders and vendors.
- Teach people about nutrition together with how to transform the environment.
- Keep an eye on changes in BMI and eating habits when you combine environmental changes with education, you get more long-lasting results than when you just use knowledge-based interventions.

## Policy and Practice Recommendations

1. Set up rules for school nutrition that are the same for all schools.
2. Limit the sale of items that are high in calories and low in nutrients on school grounds.
3. Encourage healthy food options that are paid for by the government.
4. Include lessons about nutrition in the school curriculum.
5. Make nurse-led monitoring and assessment mechanisms stronger.

## Discussion

The results underscore the multifaceted impact of school food environments on adolescent dietary habits. Behaviour is influenced not solely by individual knowledge but also by structural and social settings. Educational interventions alone are inadequate without simultaneous environmental improvements. From a nursing standpoint, incorporating environmental evaluation into school health practice is essential. Nurse-led projects can integrate nutrition teaching with structural lobbying, policy oversight, and BMI monitoring. To assess the efficacy of environmental treatments, longitudinal and experimental nursing research approaches are essential. The report stresses how important it is for school leaders, lawmakers, health professionals, parents, and community members to work together to build food environments that are good for health and last.

## Conclusion

The school food environment is a key structural factor that affects how teens eat and how likely they are to become obese. Since teenagers spend a lot of their formative years in school, the nutritional environment of schools has a big impact on their food choices, eating habits, and long-term health. An environment with easy access to energy-dense, nutrient-poor foods makes people eat badly, while regulated and health-oriented food systems encourage balanced eating habits.

To deal with the effects of school food environments, we need a whole and multi-sectoral approach that includes changing the environment, using evidence-based nutrition regulations, teaching students about behaviour, and ongoing evaluation systems. Educational initiatives alone are inadequate without concurrent adjustments in food accessibility, pricing, and marketing strategies. For change to last, school administrators, lawmakers, health experts, parents, and community members all need to work together.

Nurses are in a key position to help make this change happen. Nurses may help make school food settings more helpful and health-promoting by doing thorough research, advocating for policies, teaching kids about health, and keeping an eye on things on a regular basis. By combining clinical knowledge with public health goals, nursing-led programs can promote healthy food behaviours during adolescence and mitigate the long-term impact of obesity and associated non-communicable diseases.

## Reference

1. World Health Organization. (2022). *WHO European regional obesity report 2022*. WHO Regional Office for Europe.
2. Swinburn, B. A., Kraak, V. I., Allender, S., Atkins, V. J., Baker, P. I., Bogard, J. R., ... Dietz, W. H. (2019). The global syndemic of obesity, undernutrition, and climate change: The Lancet

- Commission report. *The Lancet*, 393(10173), 791–846. [https://doi.org/10.1016/S0140-6736\(18\)32822-8](https://doi.org/10.1016/S0140-6736(18)32822-8)
3. Story, M., Kaphingst, K. M., Robinson-O'Brien, R., & Glanz, K. (2008). Creating healthy food and eating environments: Policy and environmental approaches. *Annual Review of Public Health*, 29, 253–272. <https://doi.org/10.1146/annurev.publhealth.29.020907.090926>
  4. Micha, R., Karageorgou, D., Bakogianni, I., Trichia, E., Whitsel, L. P., Story, M., ... Mozaffarian, D. (2018). Effectiveness of school food environment policies on children's dietary behaviors: A systematic review and meta-analysis. *PLOS ONE*, 13(3), e0194555. <https://doi.org/10.1371/journal.pone.0194555>
  5. Jaime, P. C., & Lock, K. (2009). Do school based food and nutrition policies improve diet and reduce obesity? *Preventive Medicine*, 48(1), 45–53. <https://doi.org/10.1016/j.ypmed.2008.10.018>
  6. World Health Organization. (2016). *Report of the Commission on Ending Childhood Obesity*. WHO Press.
  7. Langford, R., Bonell, C., Jones, H., & Campbell, R. (2015). The WHO Health Promoting Schools framework for improving health and well-being of students and staff. *Cochrane Database of Systematic Reviews*, (4), CD008958. <https://doi.org/10.1002/14651858.CD008958.pub2>
  8. Centers for Disease Control and Prevention. (2022). *School health guidelines to promote healthy eating and physical activity*. U.S. Department of Health and Human Services.