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Analysis of Fast Food Consumption on the Risk of Obesity in School Children

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Abstract

This study aims to analyze the effect of fast food consumption on the risk of obesity in school children using a qualitative approach through literature studies. Data were obtained from various scientific publications, reports from international health organizations, and relevant national journals in the last five years. The results of the analysis show that the frequency of fast food consumption is closely correlated with an increase in body mass index (BMI) and the prevalence of obesity in children. Factors such as exposure to advertising, school environments close to fast food outlets, and family habits play a major role in shaping these consumption patterns. In addition, low physical activity worsens children's nutritional conditions. Effective prevention strategies include interventions in schools through nutrition education and the arrangement of healthy canteens, restrictions on unhealthy food advertisements to children, and city spatial arrangements that limit the presence of fast food outlets around schools. In conclusion, obesity in children due to fast food consumption is a complex problem that requires a cross-sectoral and collaborative approach to create changes in healthier consumption behavior among school children.

Keywords: School Children, Fast Food, Obesity

Introduction

Changes in the lifestyle of modern society have a major impact on food consumption patterns, including in school-age children. One significant change is the increasing consumption of fast food. Fast food refers to the type of food that is prepared and served quickly, often high in calories, saturated fat, sugar, and salt, and low in fiber and essential nutrients. The popularity of fast food is not only limited to adults, but also extends to the age group of children, especially in urban and semi-urban areas. Its easy availability, savory taste, and

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Aggressive marketing makes fast food the first choice for many children and their families.

The trend of fast food consumption among school children has become a serious concern in the field of public health, especially because it is associated with the increasing prevalence of childhood obesity. Obesity is a medical condition characterized by excessive accumulation of body fat and has the potential to harm health. Childhood obesity not only affects physical conditions, such as increased risk of heart disease, type 2 diabetes, and respiratory disorders, but also affects psychosocial aspects, such as low self-confidence and the risk of experiencing bullying in the school environment.

Data from the World Health Organization (WHO) notes that the prevalence of childhood obesity worldwide has increased significantly in recent decades. In Indonesia, based on the 2018 Basic Health Research (Riskesdas), the prevalence of obesity in children aged 5-12 years has reached a fairly alarming figure. This increase is an indicator that there is a shift in consumption patterns that are not balanced between nutritional needs and children's daily food intake, one of which is due to excessive consumption of fast food.

The factors that drive fast food consumption among school children are very complex, involving environmental, social, economic, and psychological aspects. School environments that do not provide healthy food choices, the influence of fast food advertisements that reach children through various media, and family habits that are accustomed to consuming fast food also exacerbate this condition. In addition, parents' limited time to prepare healthy food at home often makes them choose fast food as an instant solution to their children's food needs.

Previous studies have shown a significant relationship between the frequency of fast food consumption and increased body mass index (BMI) in children. However, further studies are needed that are adjusted to the local context, such as eating culture, family habits, and the availability of healthy food in the surrounding environment. In the Indonesian context, studies that discuss in detail the relationship between fast food consumption and the risk of obesity in school children are still limited. Therefore, this study is important to provide a clearer picture of fast food consumption patterns in school children and its impact on the risk of obesity, especially in order to support efforts to prevent and address nutritional problems at the community level.

Method

This study uses a qualitative approach with a literature study method (library research) to deeply understand the relationship between fast food consumption and the risk of obesity in school children. The qualitative approach was chosen because it allows researchers to explore social phenomena holistically through analysis of concepts, ideas, and previous findings. Meanwhile, the literature study method allows systematic searches of various relevant library sources, both in the form of scientific journal articles, academic books, research reports, policy documents, and publications from international organizations such as WHO and UNICEF that discuss the topic of childhood obesity and fast food consumption patterns.

The data sources in this study are entirely secondary and obtained from relevant scientific publications in the last five years, especially those published between 2019 and 2024. Literature searches were conducted systematically through various online databases such as Google Scholar, PubMed, ScienceDirect, Scopus, ResearchGate, and national journal portals such as SINTA and Garuda. Keywords used in the search include “child obesity,” “fast food,” “fast food consumption in children,” “junk food and health,” and “school children’s nutrition.” Researchers set inclusion criteria to ensure that only literature with thematic, methodological, and contextual relevance was further analyzed.

In data collection, researchers selected documents that discussed fast food consumption patterns among school children, the causal factors, and their impact on nutritional status or body mass index (BMI). Literature that came from non-credible sources, did not go through a peer-review process, or did not contain empirical data that could be accounted for were excluded from the analysis. The collected data were then analyzed using content analysis techniques, namely by examining key themes, patterns of relationships between variables, and perspectives developed in various sources.

The stages of data analysis include data reduction, data presentation, and drawing conclusions. Data reduction is done by sorting information that is in accordance with the focus of the research, namely the relationship between fast food consumption and the risk of obesity in school children. Furthermore, data presentation is done in the form of a thematic narrative, where the findings are arranged based on categories such as eating patterns, frequency of consumption, advertising influences, family habits, and health implications. In the final stage, researchers draw conclusions based on a synthesis of various sources, taking into account the similarities and differences in the identified findings.

To ensure the validity of the data, this study applies source triangulation, which is comparing information from various literatures to see the consistency of the data and the validity of the content. In addition, the researcher also conducted a critical evaluation of the credibility of the source, including the reputation of the author, the publishing institution, and the methodology used in previous studies. This study does not aim to generalize the findings quantitatively, but rather to provide an in-depth understanding based on literature synthesis of fast food consumption patterns that contribute to childhood obesity, especially in the school environment.

The limitations of this study lie in its reliance on secondary data, so it does not include direct observation, interviews, or field surveys. In addition, the focus of the study is limited to aspects of consumption behavior and its implications for nutritional status, without discussing genetic factors or children's clinical conditions in detail. Nevertheless, this literature study approach still has an important contribution in providing a theoretical basis and practical recommendations that can be used to support nutritional education efforts and public health interventions in the school environment.

Results and Discussion Conclusion

1. The Influence of Fast Food Consumption Patterns on the Increased Risk of Obesity in School Children

The consumption pattern of fast food which is high in calories, rich in saturated fat, sugar, and salt, contributes significantly to the accumulation of positive energy and ultimately the risk of obesity in school children. Review research by Qurrotul 'Aini et al. (2023) concluded that children with high frequency of fast food & junk food consumption have a risk of obesity up to 30.7 times greater than those who rarely do. This is consistent with the general meta-analysis which shows fast food as one of the main risk factors for childhood & adolescent obesity.

An international cross-sectional study (ISAAC) showed that children aged 6–7 years who frequently consumed fast food had an average increase in BMI of 0.15–0.22 kg/m² compared to a group with low consumption. Although this effect may seem small, it is relevant to population health due to its cumulative impact. However, adolescents reported a decrease in BMI, possibly due to self-reporting and other biases.

General diet analysis also shows that consumption of fast food and sugary drinks are the main risk factors for obesity in children aged 5–18 years. A WHO meta-analysis (Rousham et al., 2022) showed that consumption of unhealthy foods and sugary drinks increases BMI and body fat percentage in children.p. This emphasizes that fast food is part of an unhealthy diet that causes obesity.

Physiologically, ultra-processed foods commonly found in fast food are high in calories, low in fiber and protein, and quickly increase hunger, activate the brain's reward system, and lead to overconsumption. A Canadian study of five-year-olds found that every additional 10% of daily calories from ultra-processed foods increased indicators of adiposity and obesity risk.

Thus, from a substantive perspective, the frequency of fast food consumption is a clear predictor of obesity. This is especially true in elementary school children due to the maturation of eating regulation and environmental vulnerability. This study provides a strong basis that interventions to reduce fast food exposure in children should be implemented quickly to prevent early obesity.

2. Factors Determining the Frequency of Fast Food Consumption in Children

Environmental factors play a significant role in driving fast food consumption by school children. Meta-analyses have shown a strong association between the proximity of drive-thru or fast food outlets to schools and the incidence of childhood obesity. A study in Gateshead, UK, even reported that restricting new outlets reduced obesity by 4.8% in remote areas. This supports the concept of a 'food swamp'—an environment dominated by unhealthy foods—that increases children's fast food choices.

Exposure to fast food advertisements is a weak socio-cultural factor for children. Children aged 2–13 years old watch an average of 21 fast food advertisements per day. Marketing strategies such as iconic characters and toy prizes further strengthen the appeal of products to children. Because children's critical thinking skills are not yet mature, they are more susceptible to these strategies.

Family factors also help shape children's fast food consumption patterns. Education, socio-economic level, and parental habits are the main determinants. Studies in Indonesia show that students with high family incomes and sedentary lifestyles consume fast food more often and have a higher risk of obesity. International research confirms the relationship between low education and unhealthy food consumption.

Lack of physical activity exacerbates the impact of fast food. Ferdianti's study (2021) shows that the combination of high fast food consumption and minimal physical activity increases obesity in elementary school children. Parents with higher economic status tend to provide vehicles, reducing children's activities. This requires quality educational and physical strategies in schools.

In conclusion, children's fast food consumption is determined by a combination of physical environment (access), information environment (advertising), and socio-economic environment (family, habits). Interventions need to be comprehensive: outlet regulation, advertising restrictions, parental education, and increasing children's physical activity.

3. Obesity Prevention Strategies: School-Based Interventions and Environmental Policies

Schools play a strategic role in preventing obesity by providing a healthy eating environment. Healthy canteen policies and nutrition education have been shown to increase consumption of healthy choices and decrease foods high in sugar and fat. WHO and FAO also recommend banning the sale of junk food in school environments.

Regulation of unhealthy food advertising to children is an important strategy. Many countries have restricted fast food advertising in children's media. Given that children are constantly exposed to aggressive marketing strategies, restrictions on advertising to digital channels are absolutely necessary to reduce the desire to consume.

Spatial planning policies that regulate the distance of fast food outlets from schools can prevent obesity. Quasi-experimental studies such as Gateshead show that this policy reduces obesity cases by almost 5% in vulnerable populations. In addition, environmental modifications around schools—such as easy access to physical activity facilities—encourage healthy lifestyles.

Family education is also key. Interventions involving parents and children, nutrition label education and reducing ultra-processed foods have positive effects according to research in Indonesia and globally. By understanding consumption and nutrition patterns, families can prevent obesity early on.

Finally, integrated cross-sector collaboration—health, education, urban planning, food industry—is needed. Multi-level strategies such as nutrition education in schools, advertising regulations, outlet restrictions, and healthy food incentives are sustainable systemic approaches to addressing childhood obesity due to fast food.

Conclusion

Based on the literature review that has been conducted, it can be concluded that fast food consumption has a significant influence on increasing the risk of obesity in school children. The high calorie content, saturated fat, added sugar, and low fiber in fast food cause an imbalance in energy intake that encourages excess weight gain in children. The frequency of fast food consumption is influenced by various factors, including environmental access, advertising influence, family habits, and low physical activity. Previous studies have confirmed that exposure to unhealthy food advertisements and the availability of fast food outlets around schools contribute to worsening the condition. To overcome this problem, a multidimensional prevention strategy is needed, starting from school-based interventions such as nutrition education and healthy canteen policies, restrictions on unhealthy food advertisements for children, to spatial regulations that regulate the existence of fast food outlets. In addition, the role of the family is very important in forming healthy eating habits from an early age. With a collaborative cross-sectoral approach, prevention of obesity in children due to fast food consumption can be carried out effectively and sustainably.

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