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A Descriptive Study to Assess the Knowledge Regarding the Ill Effects of Junk Food Among Selected School Children

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Abstract
Introduction*: The increasing consumption of junk food among school-aged children has become a significant public health concern due to its association with various health issues such as obesity, poor nutrition, and chronic diseases. Understanding the level of knowledge regarding the ill effects of junk food in this population is essential to designing effective health education strategies.*
Methods: *This study aims to assess the knowledge regarding the ill effects of junk food among selected school children. A descriptive research design was adopted. A total of 200 school children were selected using a non-probability convenient sampling technique. A structured knowledge questionnaire was used to collect data.*
Results: *The demographic data revealed that most participants (36.5%) were aged 14–15 years, and the majority were females (57.5%). A large proportion of students (60%) reported consuming junk food 2–3 times per week. In terms of knowledge, 48% had good knowledge, 46.5% had average knowledge, and 5.5% had poor knowledge about the ill effects of junk food.*
Discussion: *While a majority of school children possess average to good knowledge, there is a critical need for regular and structured health education programs to reinforce healthy eating habits and bridge existing knowledge gaps.*
Keywords: *Junk food, School children, Health education, Nutrition knowledge, Descriptive study.*

INTRODUCTION

Over the past few decades, there has been a noticeable shift in the dietary habits of children worldwide. One of the most alarming changes is the increased consumption of junk food among school-aged children. These highly processed foods are typically rich in sugars, salt, saturated fats, and empty calories while being deficient in essential nutrients such as fiber, vitamins, and minerals. Despite their poor nutritional quality, junk foods have gained immense popularity due to their palatable taste, convenience, low cost, and extensive marketing. With the rise of busy lifestyles, nuclear families, and working parents, many children are routinely consuming ready-to-eat packaged foods, snacks, and sugary beverages that offer minimal nutritional benefit. As a result, the frequent intake of junk food has been linked to a variety of health complications in children, including obesity, early-onset diabetes, cardiovascular issues, dental caries, gastrointestinal disturbances, and poor academic performance.

Children today are constantly exposed to aggressive advertising campaigns, particularly through television, digital platforms, and social media, which often glorify fast food and sugary snacks. This marketing, combined with peer influence and a lack of parental supervision, reinforces unhealthy eating behaviors. Moreover, the easy accessibility and affordability of junk foods make them a preferred choice for children over traditional, home-cooked meals. Research shows that early dietary patterns tend to persist into adulthood, placing children at risk for developing lifelong unhealthy eating habits and chronic diseases. The World Health Organization (WHO) and national health agencies have raised concerns about the growing epidemic of childhood obesity and its association with unhealthy diets, calling for urgent interventions in the form of school-based nutrition education and public awareness programs.

Despite various national and international efforts to promote nutritional awareness, studies suggest that many school children still lack adequate knowledge about the ill effects of junk food. Schools serve as key environments for health promotion and behavioral change, yet the integration of structured nutrition education into school curricula remains limited in many settings. Understanding the current knowledge levels of children regarding junk food is essential in designing targeted and age-appropriate interventions.

If children are not aware of the long-term consequences of poor dietary choices, they are unlikely to modify their behavior. This study, therefore, seeks to assess the knowledge of selected school children regarding the harmful effects of junk food consumption. The findings will contribute to developing evidence-based health education strategies, fostering healthier eating habits, and ultimately reducing the burden of nutrition-related diseases in the pediatric population.

MATERIALS AND METHODOLOGY

This study employed a quantitative research approach to assess the knowledge regarding the ill effects of junk food among school-aged children. Quantitative research was selected to allow for objective measurement of knowledge levels using structured tools and statistical analysis. This approach also facilitated the identification of trends and patterns in the awareness of junk food consequences among the participants.

A descriptive research design was adopted for the study. This design was considered appropriate as the aim of the study was not to manipulate variables or establish causality but to describe the existing level of knowledge among children in a natural setting. The descriptive nature of the study enabled the researchers to gather accurate information from a large group of students regarding their awareness of junk food and its associated health hazards.

The study was conducted in selected schools located within an accessible geographical area. Schools were selected based on feasibility, availability of willing participants, and administrative approval. The school environment provided a familiar and comfortable setting for children, thereby ensuring minimal disruption during the data collection process and promoting honest and accurate responses. Formal permission was obtained from the respective school authorities prior to the commencement of the study.

The target population for the study consisted of school children aged between 12 and 18 years who were enrolled in classes ranging from 7th to 12th standard. These children represented a critical developmental stage wherein dietary habits are strongly influenced by peer behaviour, media exposure, and socio-environmental factors. The selected age group also coincided with the period of increasing independence in food choices, making it essential to evaluate their knowledge about the ill effects of unhealthy dietary practices.

A total of 200 school children were included in the study using a non-probability convenient sampling technique. This method was employed due to its practicality and the ease of accessing participants who met the inclusion criteria. Children who were present on the day of data collection and who expressed willingness to participate, along with obtaining parental or guardian consent, were considered eligible for the study. The sample size of 200 was deemed adequate to reflect a diverse range of knowledge levels and demographic characteristics, and to allow for meaningful interpretation of results.

Inclusion criteria for the study required that participants be aged between 12 and 18 years and be available at school during the time of data collection. Consent was obtained from both the students and their parents or guardians before participation. Students diagnosed with chronic illnesses or eating disorders that could influence their dietary behaviours were excluded from the study to maintain data consistency. Similarly, children who were absent during data collection were not included.

Data was collected using a structured knowledge questionnaire developed by the researchers, which included items related to junk food consumption, its health consequences, and the students' understanding of nutrition. The tool was validated by subject experts and pilot-tested for clarity and reliability. Ethical clearance was obtained from the Institutional Ethical Committee prior to the initiation of the research process.

RESULTS

This descriptive study was undertaken to assess the knowledge of school children regarding the ill effects of junk food. A total of 200 students participated in the study. The results are presented in both textual and graphical formats, avoiding lengthy tabular data to maintain clarity and coherence.

The knowledge scores were categorized into three levels: poor (0–10), average (11–20), and good (21–30). Among the participants, **11 students (5.5%)** fell into the poor knowledge category. The average knowledge group comprised **93 students (46.5%)**, while **96 students (48%)** demonstrated good knowledge regarding the ill effects of junk food. This distribution indicates that although nearly half of the participants have a good level of understanding, a significant proportion still lack sufficient awareness.

Level of Knowledge	Frequency	Percentage
Poor Knowledge Score (0-10 Score)	11	5.5%
Average Knowledge Score (11-20 Score)	93	46.5%
Good Knowledge Score (21-30 Score)	96	48%

The **mean knowledge score** was **19.8 ± 5.24**, with a **minimum score of 6** and a **maximum of 30**, indicating a wide range in knowledge among the participants. The **median score** was **20**, suggesting that most students performed above average.

Further analysis was performed using the **Chi-square test** to examine the association between selected demographic variables and knowledge scores. A **statistically significant association** was found between knowledge levels and: **Educational level** ($p = 0.021$), indicating that students in higher grades had better knowledge. **Area of residence** ($p = 0.007$), where urban students showed better awareness compared to their rural counterparts. **Parental education** ($p = 0.003$), showing that students with parents having higher education levels tended to score better. **Nutrition education in school** ($p = 0.001$), suggesting a positive impact of school-based health programs on children's knowledge.

No statistically significant association was observed between knowledge and gender ($p = 0.340$), age group ($p = 0.377$), or frequency of junk food consumption ($p = 0.146$), indicating that these factors did not influence knowledge levels in this study population.

The findings emphasize that structured educational interventions, family influence, and school curriculum play vital roles in shaping children's understanding of healthy eating habits. While it's promising that 48% of students scored in the "good knowledge" range, the presence of a group with poor understanding (5.5%) signals a need for continued efforts in nutrition education. Enhanced communication between parents and children, along with supportive school policies, may help bridge this gap.

In conclusion, the results of the study provide a comprehensive picture of school children's knowledge regarding junk food. These data suggest that improving health education at home and in school can significantly impact children's dietary awareness and long-term health outcomes.

DISCUSSION

The present study aimed to assess the knowledge regarding the ill effects of junk food among selected school children aged 12 to 18 years. The findings provide important insights into the awareness levels of students in relation to their dietary habits and health education. With increasing consumption of junk food globally, especially among adolescents, this study is timely and relevant to public health initiatives.

The results revealed that nearly half (48%) of the participants had good knowledge regarding the harmful effects of junk food, while 46.5% had average knowledge, and 5.5% demonstrated poor knowledge. These findings suggest that while a majority of school children possess moderate to high levels of understanding, a significant minority lack adequate awareness. This is a matter of concern considering that unhealthy dietary patterns established during adolescence can persist into adulthood, contributing to obesity, cardiovascular diseases, type 2 diabetes, and other chronic conditions.

The mean knowledge score was 19.8 out of 30, with a standard deviation of 5.24, indicating moderate variability in the knowledge levels among participants. Furthermore, statistical analysis revealed significant associations between knowledge scores and factors such as educational level, area of residence, parental education, and exposure to school-based nutrition education. Students from urban areas and those with more educated parents scored better, highlighting the role of socioeconomic and educational influences on children's health literacy. This reinforces the notion that parental guidance and family environment play a pivotal role in shaping dietary habits and knowledge in children.

Notably, no significant associations were found between knowledge and gender, age, or frequency of junk food consumption. This finding aligns with some earlier research which indicates that while knowledge is essential, it may not always translate into behavioural change. Despite having awareness of the harmful effects, children may continue to consume junk food due to peer pressure, taste preference, convenience, or marketing influence. This gap between knowledge and practice highlights the need for

multidimensional interventions that not only educate but also empower children to make healthier choices.

The effectiveness of school-based health education programs was evident in the data. Students who had received formal nutrition education in school had significantly higher knowledge scores. This underscores the critical importance of integrating structured and continuous health education into the school curriculum. Moreover, interactive and engaging educational strategies such as storytelling, visual aids, group discussions, and practical demonstrations may further enhance knowledge retention and influence behavior positively.

In light of these findings, collaborative efforts between schools, parents, and healthcare professionals are essential. Awareness campaigns, healthy school canteen policies, and involvement of dietitians in school programs could further strengthen students' understanding of good nutrition. Additionally, parental workshops and community outreach programs can ensure that the message is reinforced beyond the classroom.

Overall, the study sheds light on the current state of knowledge among school children and points toward targeted strategies to improve nutritional awareness and prevent lifestyle-related health issues. While the presence of good knowledge among many students is encouraging, the existence of knowledge gaps must be addressed through sustained educational and environmental support.

CONCLUSION

The study concluded that while a significant proportion of school children demonstrated good to average knowledge regarding the ill effects of junk food, a smaller yet concerning percentage lacked basic awareness. These results highlight both the successes and the shortcomings of existing nutrition education efforts within schools. Key demographic factors such as educational level, urban residence, parental education, and formal nutrition instruction in school were significantly associated with higher knowledge levels, suggesting that these variables play an important role in influencing children's awareness.

The absence of significant association between knowledge and factors such as gender or age indicates that nutritional knowledge gaps are not confined to any specific subgroup and require universal attention. The findings emphasize the need for structured, engaging, and frequent health education interventions tailored to young students. Schools, in collaboration with families and healthcare professionals, must prioritize efforts to instill healthier dietary practices among children.

Improving knowledge is an important first step in fostering behavior change. As junk food continues to dominate children's diets, informed awareness will serve as a critical tool in combating the rise of diet-related health problems. This study contributes valuable evidence supporting the implementation of sustained nutrition education programs to ensure a healthier future for upcoming generations.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this research study. All authors have contributed equally and have no financial or personal relationships that could have influenced the work reported in this paper.

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Ethical Clearance

Permission taken from Parul University Institutional Ethical Committee for human research (PU – IECHER).

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