The Impact of Junk Food on Children's Health and Development

Bhuwan Bhandari[1]
Email: *bhandarivp1@gmail.com*

Abstract

The present study investigates the impact of junk food consumption on the health and development of school students in Dhankuta Municipality. Junk food, is the term used to describe food that has empty calories and provides little or no nutritional value to both children and adults, it is associating with the increasing trends among children globally as a result of urbanization, globalization and aggressive advertising during childhood (Vrushali, D. and Seema, S. 2021). This study is a cross-sectional and descriptive analytical study using semi-structured questionnaires, which are distributed to students, parents & educational experts. The aims of the research are to determine junk food habits in children and frequency, effect of junk food on physical health as well as behavioral patterns, and influences over children's food consumption like advertisement advertisements, peer pressure or convenience.

The Outcome shows that 70 percent of kids eat junk meals minimum 2-three instances in a week, and speedy meals, sweet beverages are the maximum usual types of meals eaten. Some of the health effects reported include weight gain (40 %), low energy (25 %), and stomach problems (15 %). Besides, intake of junk food leads to changes in behavior such as increased excessed and decreased attention at school. Advertising (40%), peer pressure (30%) and convenience (25%) are the factors of influencing. Well-documented evidence of a causal chain between school feeding and child outcome stresses the importance of school-focused health education programming that encourages children to eat better while decreasing junk food intake. These prevention strategies are critical to reducing the risk of cardiovascular disease in children.

Keywords: Junk Food, Healthy Lifestyle, children's health, nutritional education, non-communicable diseases.

Introduction

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[1] Mr. Bhandari is a Teaching Assistant of Rural Development at Tribhuvan University, Dhankuta Multiple Campus, Dhankuta, Nepal

Increased intakes of junk foods among children have emerged as a major threat to children and the general society through the ways in which they affect their health. As the number of people moving into urban areas, globalization and new trends to high speed, most food marketers promote high energy density but low nutrient density foods (Shrestha, N., & Adhikari, P. 2023). According to WHO junk food is any food that contains high amounts of sugar, trans or saturated fats, and little or no nutrient value like biscuits, cream cakes, candies, and carbonated drinks (Hemmingsson, 2018). However, these foods are relatively healthy when taken because they make life easier to manage though they have great risks on body health, especially when eaten by children because they are formative years.

Duggal & Verma opined that children have a tendency of taking junk foods due to influencing factors such as marketing influence, peer pressure and ease in accessing them. Research shows that a large percentage of school going kids have adopted junk foods as their daily basis food and this has various nasty effects. (Hemmingsson 2018) pointed out the fact that the NIH has an association with poor family function and high consumption of the foods as likely to enhance the early childhood obesity. The change from healthy, traditional diets high in micronutrient density to low micronutrient density, monopolized energy dense tissue also has chronic diseases including obesity, diabetes, cardiovascular diseases, and compromised cognitive performance (Verma et al., 2020).

What is consumed today, mainly in towns, clearly points to needs for control of junk foods. To illustrate, the Demographic and Health Survey (DHS, 2022) indicates that the prevalence of unhealthy foods vary by region; with highest consumption identified in Terai (73%), hills (62%) and mountainous (59%) regions of the country. These differences suggest that targeted interventions in different geographic areas and health education campaigns that improve childhood Nutrition should be designed for each region. Moreover, growth in the healthy eating continuum, and particularly the variety, the frequency and the portion size of fruits and vegetables consumed, decreases in children as they grow up, which complicates the issue and underlines the need for early interventions (Singh & Pandey, 2022).

However, increasing concern with regard to these problems, systematic investigation of the effects of junk foods on health, and health risks across various contexts remains scarce. Joglekar et al. (2014) attributed the reduction in physical performance of learners to access and consumption of junk foods and Indumathi (2020) pointed out that college students' consumption of junk foods is common in urban settings. Nevertheless, general research materials are scanty, let alone data by region or in areas that have been understudied such as the case with Dhankuta Municipality.

This research seeks to address this dearth by assessing the consumption trends in junk foods and effects on children's health in Dhankuta Municipality. Specifically, the research seeks to: Determine the frequency with which students in Dhankuta Municipality schools consume junk food as well as the most popular products, How to assess the effects of junk food on kid's health and learning abilities in terms of weight increase, energy levels, and wakefulness, Explain

the impact that factors such as advertisement, peers and easily accessibly unhealthy foods play in consumption.

Using literature review evidence of previous Novenia (2017) this research would offer understandings on factors that lead people to consume junk foods and how this impact the health of the society. Through addressing these challenges, one can design effective intervention to promote healthy diet, reduce obesity trends and improve the health of children in Dhankuta Municipality, and other areas.

Eradicating eating junk food is one of the key targets of the societies' nutritional objectives. It also has negative impacts that may be combatted by strategies supported with research findings that would encourage decision-making based on nutrition. This research will also serve these purposes, especially as it provides specific suggestions for policies, schooling practices, and home environment that will enhance the health of children now and in the future.

Methods and Materials

In order to characterize and examine the frequency and trends of junk food consumption among youngsters, this study used a descriptive and analytical cross-sectional design, gathering data all at once. Finding correlations between junk food consumption and its effects on children's development and health was the aim of the study. This method offers a thorough overview of the existing situation, allowing for focused actions and suggested policies.

The main instrument for gathering data was a structured questionnaire. Their capacity to methodically gather both quantitative and qualitative data led to the adoption of semi-structured questionnaires. In order to maintain uniformity in responses from each participant, this included accurate data on consumption habits, health effects, opinions, and influencing factors. Additionally, structured questionnaires made data processing and analysis more efficient, which improved the findings' comparability and dependability.

Particularly concentrating on wards 5, 6, and 7, the study was carried out in Dhankuta Municipality, Dhankuta. These wards were specifically chosen because they offer a varied demographic and socioeconomic background by combining elements of urban and semi-urban areas. These wards are especially pertinent for evaluating the effects of junk food on children's health and development because they were found to have a high prevalence of school-age children and access to a variety of junk food outlets.

To guarantee a representative sample of participants from each stakeholder group— students, parents, and educational experts—the study used stratified random sampling. Ten educational professionals, twenty parents, and fifty children made up the 80 individuals that were chosen. The incorporation of many viewpoints was made easier by this stratified technique, which improved the findings' validity and resilience.

Paper-based surveys were used to collect data, and they were given to participants at their homes, places of employment, or schools. This method was selected because of its ease of use and accessibility, especially in places where internet connection and digital literacy may be low.

A comprehensive analysis of the effects of junk food on children's health and development in Dhankuta Municipality was made possible by the combination of representative sampling, systematic data collecting, and targeted research regions.

Results and Discussion

This section presents findings from structured questionnaires administered to students, parents, and educational experts in Dhankuta Municipality. The data highlight junk food consumption patterns and their impacts on children's health and development. Analyzing these responses reveals trends and associations essential for targeted interventions and policy recommendations to improve children's well-being.

Frequency of Junk Food Consumption Patterns

In Dhankuta Municipality children's consumption frequency of junk foods/ Fast Foods show a concerning trend/pattern with a significant majority indulging in such foods regularly.

Table 1

Frequency of Junk Food Consumption Patterns among Children

Frequency	Respondents	Percentage (%)
Daily	24	30%
2-3 times a week	32	40%
Once a week	16	20%
Rarely	6	7%
Never	2	3%
Total	80	100

The data reveal that junk food consumption is a common practice among children in Dhankuta Municipality, with 70% consuming junk food at least 2-3 times a week. Notably, 30% of children eat junk food daily, indicating a high prevalence of unhealthy eating habits. Only a small fraction, 3%, reported never consuming junk food, underscoring the need for effective interventions to promote healthier dietary choices among children.

**Figure 1**

Types of Junk Food Consumed Most Frequently
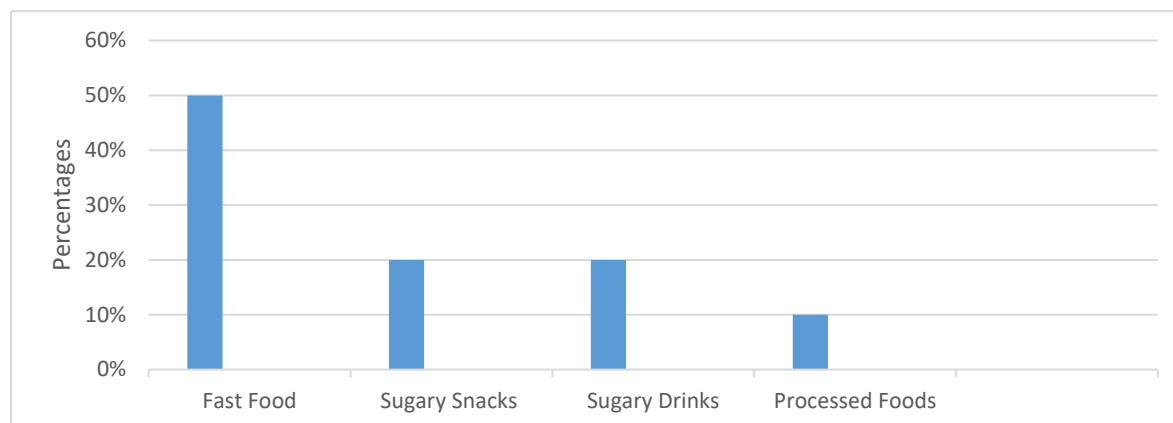
The data indicates that a significant percentage of children consume junk food regularly, with 30% eating it daily. Fast food is the most commonly consumed type, highlighting a potential area of concern for children's diets.

Impact on Health

This section delves into the important findings about the health concerns respondents especially children faced as a result of consumption of junk foods. It focuses on particular sicknesses as identified by respondents, discussing concerns with reference to pre-existing physical complaints, common nutritive deficiencies, and other manifestations of deleterious nutrition evidenced by participants.

Figure 2

Health Issues Attributed to Junk Food Consumption
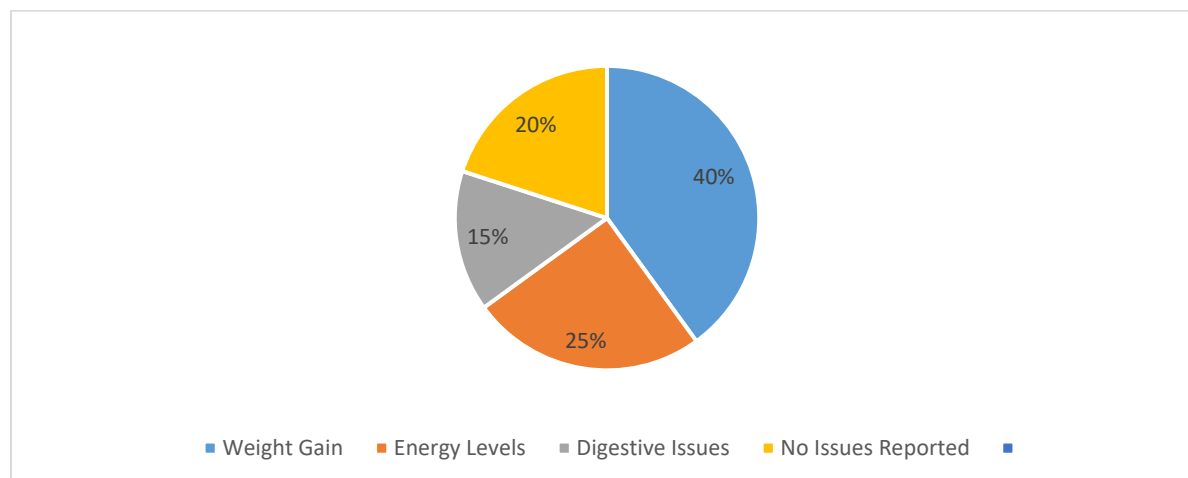
The data reveal that 40% of children in Dhankuta Municipality experience weight gain due to junk food consumption, while 25% report reduced energy levels and 15% face digestive issues. Notably, 20% report no health issues, highlighting the varied impact of junk food on children's health.

Table 2

Overall Physical Health Rating of Children

| Health Rating	No. of Respondents	Percentage (%)
Excellent	12	15%
Good	40	50%
Fair	20	25%
Poor	8	10%
Total	80	100

A considerable proportion of respondents noted health issues related to junk food, particularly weight gain and energy levels. The overall physical health rating suggests that while many children are rated as "good," there is still a significant number rated as "fair" or "poor," indicating potential health risks associated with junk food consumption.

Impact on Development

This section makes a relation of the effects of junk food on child concentration as well as the changes in behavior found in respondents. It expands upon how often eating junk food, foods high in sugar, fat, and additives, impacts other precognitive abilities such as focus and memory. In addition, it looks at changes in behavior that may be correlated with diet plans concerned in this analysis being mood swings, hyperactivity and poor concentration observed in children.

Figure 3

Perceived Impact of Junk Food on Concentration in School
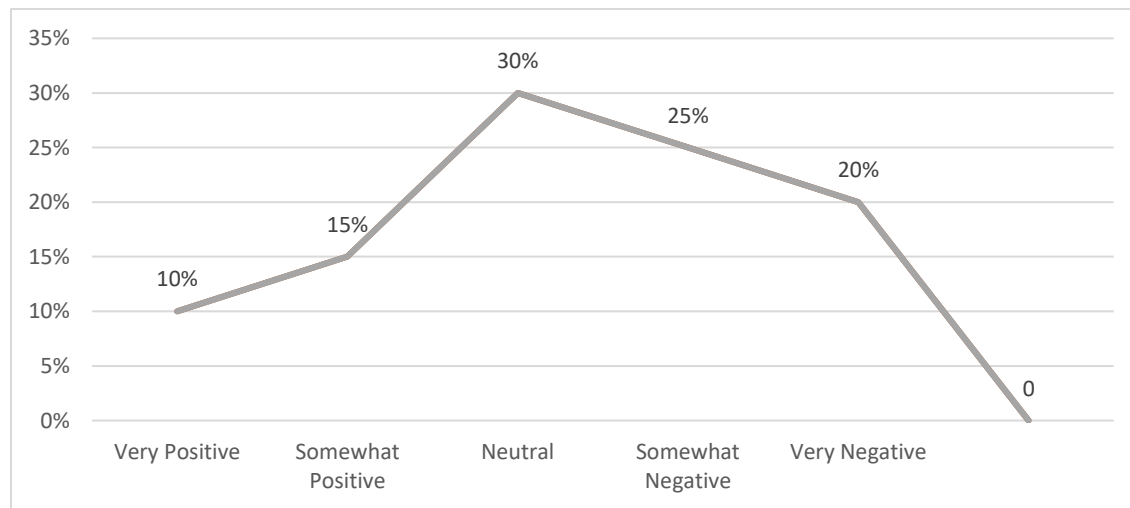
The line graph reveals varied perceptions of junk food's impact on school concentration in Dhankuta Municipality. While 25% view it positively (10% very positive, 15% somewhat positive), a significant 45% perceive negative effects (25% somewhat negative, 20% very negative). Neutral responses comprise 30%, indicating mixed opinions.

Table 3

Observed Behavioral Changes Due to Junk Food

| Behavior Change	No. of Respondents	Percentage (%)
Increased hyperactivity	28	35%
Decreased motivation	20	25%
Mood swings	16	20%
No noticeable change	16	20%
Total	80	100

The line graph reveals that a majority of respondents perceive a negative impact of junk food on concentration, with 45% noting that it affects concentration somewhat or very negatively. Additionally, behavioral changes such as increased hyperactivity and mood swings are reported, indicating a correlation between junk food consumption and developmental issues.

Factors Affecting Junk Food Consumption

This section looks at participant's attitudes on eating junk food as well as the several elements that influence their choices.

Figure 4

Influences on Junk Food Choices
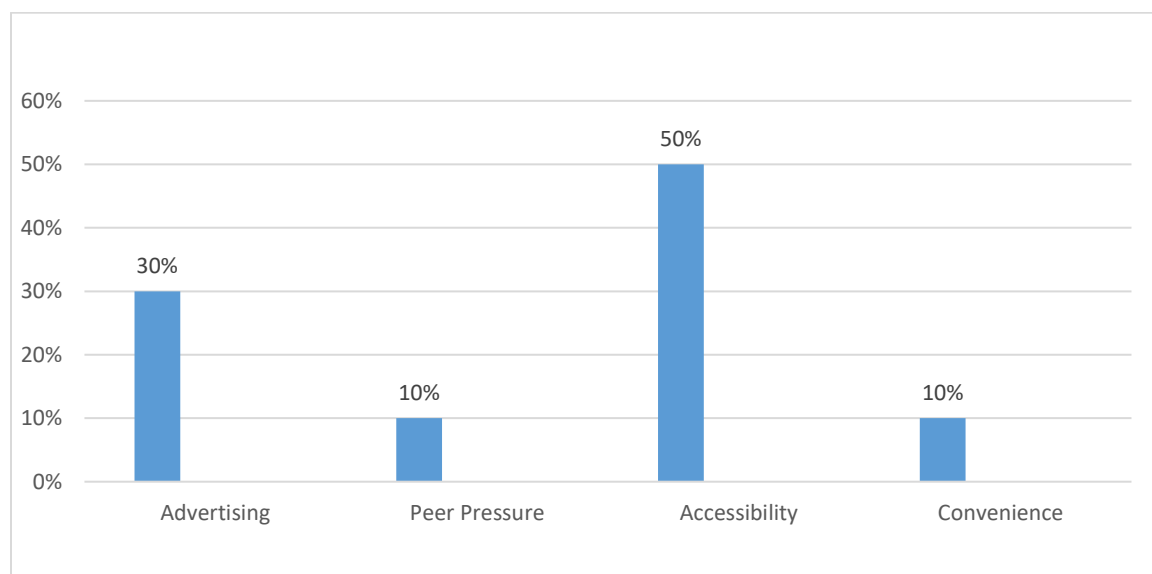
In Dhankuta Municipality, accessibility at home/school (50%), followed by advertising significantly influences junk food choices (30%), peer pressure (10%), and convenience (10%). These factors highlight the need for targeted interventions to address external influences on children's dietary habits.

Table 4

Attitude towards Junk Food

| Attitude	No. of Respondents	Percentage (%)
Very Positive	8	10%
Somewhat Positive	16	20%
Neutral	24	30%
Somewhat Negative	20	25%
Very Negative	12	15%
Total	80	100

The results show that advertising and peer pressure are the most significant factors influencing children's junk food consumption. The majority of parents and guardians exhibit a somewhat negative to very negative attitude towards junk food, indicating awareness of its potential adverse effects.

General Attitudes and Knowledge

They especially look at the respondents' knowledge and attitude concerning junk foods and food choices. Moreover, it examines what kind of dishes they like to order at home, giving the consumers' insights into their tendency to consume home-made healthy food or fast food, thus providing an understanding of further diet behavior and cultural perception of food choices.

Figure 5

Knowledge about Nutritional Content of Junk Food
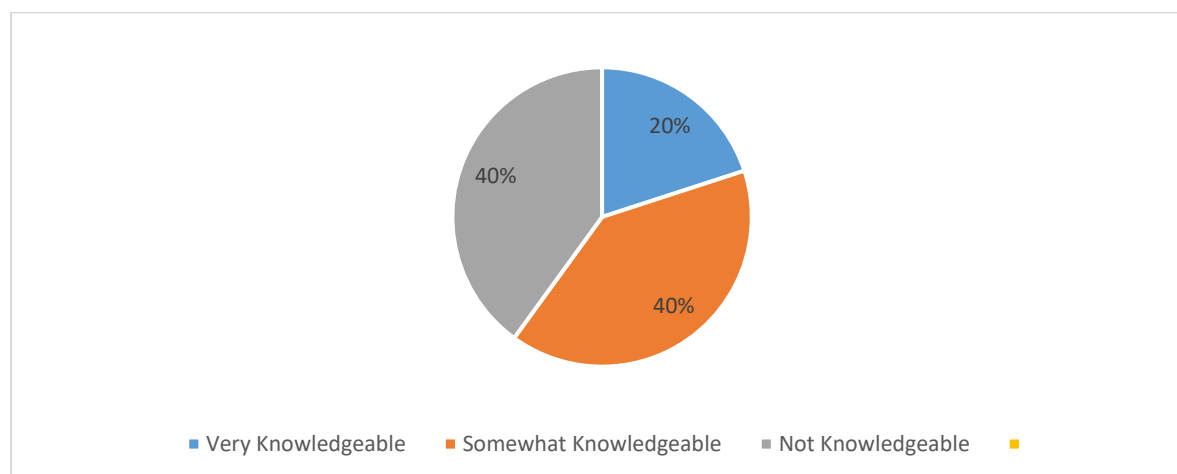
In Dhankuta Municipality, 20% of participants are very knowledgeable about the nutritional content of junk food, while 40% are somewhat knowledgeable, and another 40% are not knowledgeable. This indicates a significant gap in awareness that needs addressing.

Table 5

Support for Stricter Policies on Junk Food in Schools

Support Level	No. of Respondents	Percentage (%)

Strongly Agree	24	30%
Agree	28	35%
Neutral	16	20%
Disagree	8	10%
Strongly Disagree	4	5%
Total	80	100

A significant portion of respondents feels that they lack knowledge about the nutritional content of junk food. Furthermore, there is overwhelming support for implementing stricter policies on junk food availability in schools, suggesting a collective desire for healthier eating environments.

Table 6

Preferred type of meals at home

Response	No. of Respondents	Percentage (%)
Home-cooked healthy	36	45%
Home-cooked unhealthy	8	10%
Packaged/Processed	16	20%
Fast Food	20	25%
Total	80	100

The data reveals that 45% of children prefer home-cooked healthy meals, indicating a positive inclination towards nutritious eating within the home environment. However, a significant portion of children (25%) favor fast food, and an additional 20% prefer packaged or processed meals, which are typically less nutritious. The fact that 10% of children favor home-cooked unhealthy meals suggests that while the food is prepared at home, it may not always be nutritionally balanced. These findings underscore the need for continuous education and intervention to promote healthier eating habits, both at home and through external influences like advertising and school policies.

Parental Awareness and Perception

This section aims at looking at different facets of awareness / perceptions concerning the consumption of junk foods. These are such as if individuals sampled actually possess any knowledge of the nutritional composition of the junk food they consumed, which covers knowledge of the ingredients, calories, and likely health effects that are attached to such food items.

Table 7

Awareness of potential *health risks*

Response	No. of Respondents	Percentage (%)
Very High	16	20%
High	24	30%
Moderate	20	25%
Low	12	15%
Very low	8	10%
Total	80	100

The data reveals that a combined 50% of parents have either a very high (20%) or high (30%) awareness of the potential health risks associated with junk food consumption in children. This indicates that half of the respondents are well-informed about the dangers junk food poses to their child's health. However, 25% of parents possess only moderate awareness, and a notable 25% have low or very low awareness (15% and 10%, respectively). This suggests that while many parents are conscious of the risks, there is still a significant portion of the population that may lack adequate understanding. This gap in awareness highlights the need for targeted educational initiatives to improve knowledge among parents who are less informed about the negative impacts of junk food on children's health and development.

Table 8

Reading nutritional labels before purchasing

Response	No. of Respondents	Percentage (%)
Always	16	20%
Often	24	30%
Sometime	20	25%
Rarely	12	15%
Never	8	10%
Total	80	100

A significant proportion of parents, 50%, either always (20%) or often (30%) read nutritional labels, indicating a strong awareness and concern for their child's diet. However, 25% only sometimes check the labels, suggesting a more sporadic approach to nutritional oversight. Additionally, 25% of parents rarely (15%) or never (10%) read these labels, which could contribute to uninformed purchasing decisions and increased exposure to unhealthy ingredients. This mixed level of engagement underscores the need for better education and awareness campaigns to encourage consistent label reading as a key step in promoting healthier eating habits among children.

Figure 6

Attended a workshop/seminar on child nutrition
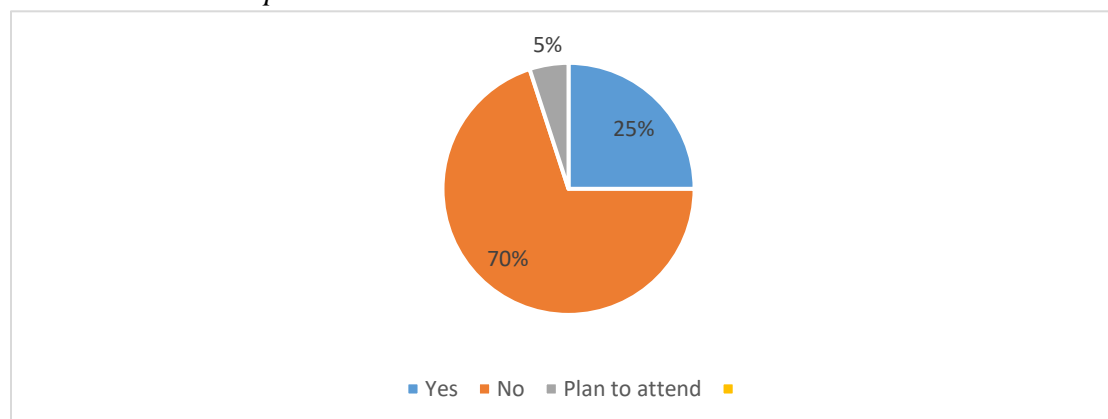
Based on the survey data, it is evident that a significant majority of parents (70%) have not attended a workshop or seminar on child nutrition. Only 25% of parents have attended such events, while 5% express an intention to do so in the future. The low participation rate highlights a potential area for intervention, where increased availability and promotion of nutrition-focused workshops could empower more parents to make informed decisions about their children's diets, ultimately reducing the reliance on junk food.

School Environment and Policies

This section involves the assessment of respondents' level of awareness of any current policies on junk food especially in relation to a) existing/in Implemented regulation or standard operating procedures that attempts to control the offer of unhealthy foods within the school setting. Furthermore, it looks at the level of support for the insertion of health education in the school curriculum.

Table 9

Respondent's awareness on Policy on junk food

Policy on junk food	No. of Respondents	Percentages (%)
Strict policy	16	20%
Moderate policy	20	25%
Not enforced	12	15%
No policy	24	30%
Not sure	8	10%
Total	80	100

The data on school policies regarding junk food reveals a concerning landscape. Only 20% of schools have implemented a strict policy, indicating a limited commitment to enforcing healthy eating habits. A further 25% of schools have a moderate policy, which suggests some

effort, but likely lacks the rigor needed for substantial impact. Alarmingly, 30% of schools have no policy on junk food at all, leaving children exposed to unhealthy options without any institutional regulation. Additionally, 15% of schools have policies that are not enforced, rendering them ineffective. Lastly, 10% of respondents were unsure about their school's policy, which may indicate a lack of communication or awareness. Overall, the findings point to a significant need for more robust and enforced policies within schools to better protect children's health.

Figure 7

Support for health education in curriculum
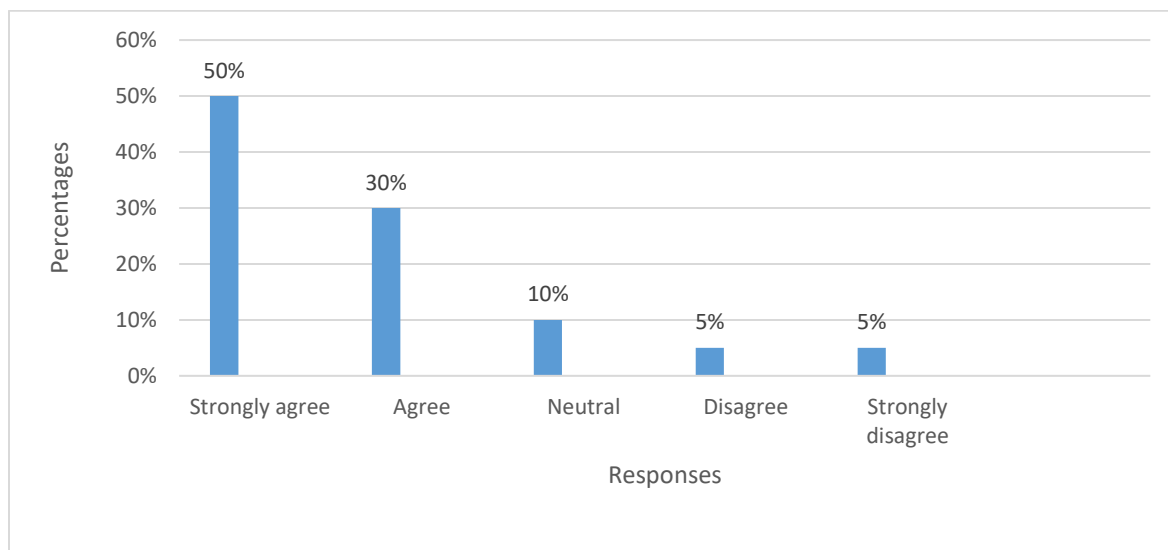
The data reveals a strong consensus among respondents regarding the importance of incorporating health education into the school curriculum. A significant majority, 80%, either strongly agree (50%) or agree (30%) that health education should be a mandatory part of school programs. This suggests that parents and guardians recognize the crucial role that schools play in promoting healthy eating habits and educating children about nutrition. Only a small percentage (10%) remain neutral, and an even smaller group (10%) disagrees with the idea, indicating that there is widespread support for educational initiatives aimed at improving children's health through school-based interventions. This overwhelming endorsement highlights the potential

effectiveness of integrating structured health education as a proactive measure to combat the negative impacts of junk food on children's health and development.

Attitudes towards health education of Dhankuta Municipality

This section looks at the respondents' views and how informed they were on the implementation of supportive actions by a municipality under the policy ban junk food around school zones. It also measure the extent of perceived threat that junk food poses to the community particularly the children and their support to have a healthy school.

Table 10

Support for banning junk food consumption surrounding school premises

Responses	No. of Respondents	Percentages (%)
Strongly support	12	15%
Support	24	30%
Neutral	36	45%
Oppose	4	5%
Strongly oppose	4	5%
Total	80	100

The survey results from Dhankuta Municipality reveal a mixed response towards banning junk food consumption around school premises. Only 15% respondents agree that municipality strongly support to discouraging consumption of junk food school surrounding. This figure indicating a significant portion of the community recognizes the need to restrict access to unhealthy food options near schools.

Implications

In order to promote a culture of healthy eating among families and communities, public health programs in Dhankuta Municipality seek to increase awareness of the detrimental effects of junk food. In order to foster a cooperative atmosphere that encourages healthy eating habits, these initiatives will be supplemented by community involvement activities such as workshops and seminars for parents, educators, and students. Schools will be crucial in creating a better eating environment for kids by enacting stringent regulations that restrict the sale of junk food and instituting wholesome meal programs. Children will also be equipped with the information and abilities to make educated food decisions thanks to educational initiatives like incorporating nutrition education into the curriculum and setting up engaging activities like cooking courses.

Parental participation in meal planning and active monitoring of junk food consumption are essential for improving family dynamics around eating decisions. Children who receive nutrition education will also become more self-aware, which will encourage them to have a balanced diet and have a beneficial influence on their peers. School nutrition programs will be strengthened and public health measures will be further supported by local government activities,

such as limiting the promotion of junk food to children and offering subsidies for nutritious meals. Last but not least, consistent observation and assessment via questionnaires and feedback systems will guarantee the efficacy of these initiatives, enhancing the health and wellbeing of kids in Dhankuta Municipality.

Conclusion

The survey findings reveal that junk food consumption significantly affects children's health and development, with regular intake linked to physical health issues, behavioral changes, and decreased concentration. Influencing factors include advertising and peer pressure. To address this, local governments, parents, schools, and students must work collaboratively. Local governments can implement policies to limit junk food availability in schools and promote healthy eating initiatives. Parents should foster healthy eating habits at home, while schools can provide nutrition education and healthier food options. Students, in turn, can advocate for and adopt healthier choices, creating a supportive environment that encourages well-being and mitigates the negative effects of junk food consumption.

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