Kageshwori Manohara Journal ISSN:3149-7446
Volume 1, Issue 1, 2026

School Nutrition Paradox Among Adolescents: Knowledge and Behavioral Intention Toward Healthy Eating of Kageshwori Manohara Municipality

Upama Bhandari
MPhil Scholar, Graduate School of Education
upama.826671@gse.tu.edu.np

Abstract

Healthy eating is important for the all-round development of school-going children. The first objective of this study was to identify the key factors that influence adolescents' behavioral intentions to adopt healthy eating, their attitudes toward healthy eating, perceived behavioral control, subjective norms and environmental factors. Second objective was to explore the reasons behind the influence of the identified construct on healthy eating behavior. An explanatory sequential mixed method research design was conducted among 154 school students in Kageshwori Manohara Municipality. Quantitative data were collected using a self-administrated structured questionnaire based on the Theory of Planned Behavior (TPB) and Socio-Ecological model, followed by Focus Group Discission (FDG) to explain the quantitative findings. Quantitative data were analyzed through multiple linear regression using the equation "ITHE =HEE", while qualitative data were analyzed thematically. The result of this study was, among the TPB constructs, perceived behavioral control, social and environmental factors were showed the strongest positive association with healthy eating behavioral intention.The constructs of the TPB and socio-ecological model played an important role in shaping intentions, indicating the need for theory-based interventions that address behavioral, social, and environmental factors.

Keywords: *Extended theory of planned behavior, school nutrition, Nepal, mixed method study, school children*

Introduction

Nutrition plays an important role in the academic and intellectual development of school-aged children (Saavedra & Prentice, 2023; WHO, 2026). But Looking at global statistics, one in every five people has the problem of overweight, which is

approximately 39 million (UNICEF, 2024).. In Nepal data revealed that 25% children under the age of five are stunting, 8% are wasting, and 18% are underweight (DoHS, 2080/81; Ministry of Health and Population, 2022). Similarly, 43% of adolescents aged 15 to 19 years have the problem of anemia, and furthermore, overweight and thinness among those aged groups (S. P. Adhikari et al., 2021). . The data represents the nutritional status and intention toward unhealthy eating habits of adolescents studying at each school level in Nepal. Due to the multifaceted nature of this situation, the state of school nutrition can be found to vary depending on each geographical environment of Nepal. The pattern of junk food consumption is particularly prevalent in urban areas. Health problem among children exists with an increase in urbanization. In support of this, data shows that more than 50% of teenagers consume junk foods and energy drinks instead of healthy home-cooked meals (Chuwan, 2025). Kageshwori Manohara Municipality, which is connected to Kathmandu Metropolitan City, is rapidly transforming into an urban area. Despite having a high level of knowledge regarding school nutrition, data shows that 77% of students consume junk food despite knowing that food bought from the market is unhealthy (Chalise, 2018). The practical level of health promotion among school-age adolescents was also weaker than the level of knowledge (Pudasaini et al., 2025).With urbanization, the health problems such as malnutrition, undernutrition, anemia, overweight and obesity have also begun to emerge among adolescents (Anuska et al., 2025), due to an increased tendency toward intention toward unhealthy eating behavior(Singh et al., 2020). Adolescents' intentions are affected not only by knowledge but also by multiple factors (Raut et al., 2024), the identification of which helps reduce health problems.

Therefore, to learn about the constructs that influence these problems, the main objective of this study were to identify the constructs that has a significant influence on the intention towards healthy eating behavior among school-aged children, including attitude, social norm, perceived behavior, and environmental factors, and explore the reasons behind the influence of the identified construct on healthy eating behavior . This study is justified as the results obtained from the study will play an important role in reducing health problems caused by unhealthy eating habits.

Literature Review

Health problems arising from unhealthy eating habits are becoming a global problem, not just a specific region. Previous empirical studies at the international level have also confirmed that a person's healthy eating behavior is not influenced by any single factor, but rather is guided by a variety of factors. A study conducted in the South Asian country of Pakistan also confirmed that multiple factors, not just knowledge, influence

intentions towards healthy eating behaviors(Andonova et al., 2022; Mahboob & Lin, 2016; Rivera Medina et al., 2020)

A review of empirical prior literature on healthy eating behaviors revealed significant differences in knowledge and behavior regarding healthy eating behaviors among school-aged children in Nepal. Various studies have confirmed that only knowledge was not enough to positively influence a person's intentions towards healthy eating behavior, there were also other factors that influence a person's behavior. Kageshwori Manohara Municipality regarding the Clubfoot Prevention Education Package showed a high level of understanding and satisfaction towards healthy eating habits. Although knowledge about healthy eating appeared to be high, in practice, it was found that students consumed a high amount of junk food, with 77% of students eating junk food. In Nepalgunj more than 75% of community school students eat junk food. But 80% of the students in that school had a high level of knowledge about junk food, which showed that they had knowledge about the harms and benefits of junk food. The study explores that despite good knowledge about healthy eating and junk food, people's behavior has not been changed (Acharya, 2026; B. Adhikari et al., 2025; Chalise, 2018).

The tendency towards unhealthy eating was not only observed in school but also among university-level students. If knowledge alone were the driving force behind behavior change, then increasing education levels should have led to changes in healthy eating behavior, but in practice, the contrast result was found. As explored by the previous study, a study on junk food consumption patterns among undergraduate students in Kathmandu showed that more than 50% of students consumed junk food, including fast food available in soft drinks and packets .Further, a study conducted in Banepa concluded that educational interventions were able to change multiple factors of individuals to solve the health problems confirming that multi factors should be considered to create behavioral intentions to eat healthily(Chuwan, 2025; Raut et al., 2024).

Since the study was located in Kageshwari Manohara Municipality, a review of previous studies conducted in that location also showed nutritional problems in children under the age of five. The findings of this study confirms that healthy eating practices are less prevalent and suggested that further research is needed to identify factors that could help to solve this problem (Anuska et al., 2025).

Policy Document Review of Kageshwori Manohara Municipality

In the policy and program of Kageshwori Manohara Municipality for the fiscal year 2080/81, it was found that its policy and program included some aspects related to

the health of adolescents, such as school health check-ups, nutrition program etc. While it is a positive aspect that these health-related efforts are being put into policy, policies and programs related to children's health, nutrition, behavior, and school canteen policies are not clearly addressed (Municipality, 2076; Municypality, 2080). While the National Health Sector Nutrition Strategic Plan 2022-2026 of school health nutrition emphasizes junk food control and healthy eating habits, Kageshwori Manohara Municipality has failed to implement junk food regulation, school canteen monitoring, healthy eating behavior changes, and the reason for the increase in obesity among adolescents(Municipality, 2076; UNICEF, 2022-2026)

Research Gap

Based on the previous literature review presented above, this study has filled the following research gaps: Contextual gap: Among school-age children, knowledge and behavior on health and drinking water appear to be limited and the environmental context is not sufficiently covered. Emprical gap: Most studies focus on knowledge, which has not adequately addressed the need for behavioral change studies. Methodological gap: Most studies are descriptive in design, some are qualitative, and some are quantitative in design. However, there is a lack of studies with mixed methods designs that clearly analyze an individual's healthy eating habits. Theoretical gap: Most articles seem to focus on knowledge. There is not enough use of theories related to behavior change.

Therefore, this study focused on finding an answer to the question of which of the constructs of behavior change theory and environmental expectations is more responsible for changing behavior, based on the gap between knowledge and practice obtained from the review of prior literature.

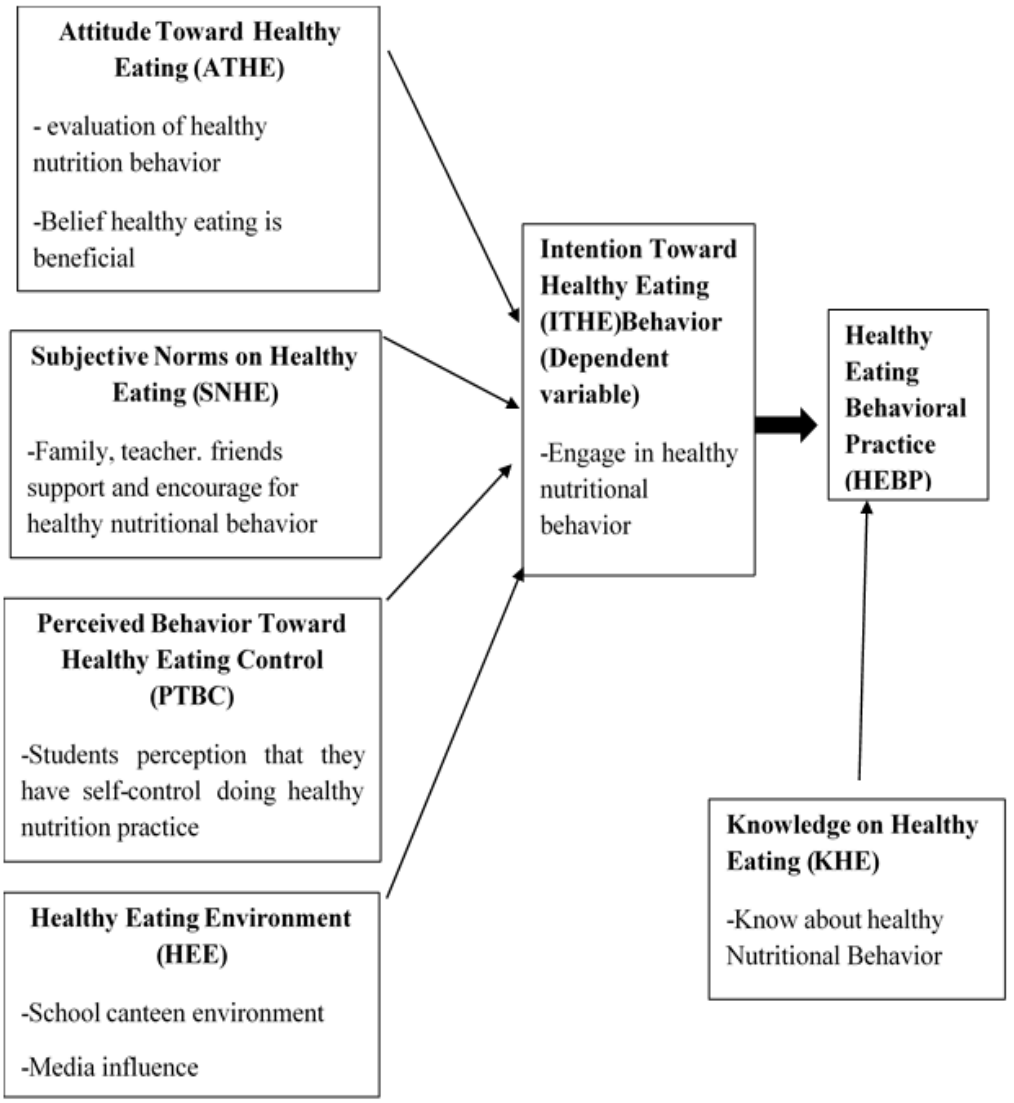
Conceptual Framework

Modified Theory of Planned Behaviour (Icek Ajzen,1991) and socio-ecological model(Bronfenbrenner,1979), Construct Based Conceptual Framework of Knowledge and Practice Gap in School Nutrition Among Students in Kageswori Manohara Municipality.

Figure 1

Conceptual Framework

Independent Variables



The above modified TPD construct conceptual framework explains the barriers that influence an individual's healthy eating habits. According to this, healthy food should be eaten to change the intention towards eating healthy nutritious food. Knowledge is not sufficient to change a person's behavior towards their unhealthy eating habits.

However, a person's behavior is guided by multifactor such as attitudes, subjective norms, perceived behavior control and environmental factors i.e. school, family. The student's intention for healthy eating behavior must be positive. If students have negative intentions towards healthy eating, they will not want to eat healthy food. Healthy eating habits practice cannot be developed if there is no desire to eat healthy food. This study explores that students' negative intentions to eat healthy foods are affected by their subjective norms toward healthy eating and perceived behavioral control as well as healthy eating behavior is influenced by intra-personal factors construct of socio-ecological model, such as school environment and family environment, in addition to the three constructs of TPB.

Methodology

This study is guided by the pragmatic research paradigm. The explanatory sequential mixed method research design was used in accordance with the objectives of the study. Self- Self-administrated questionnaire was created according to the constructs of TPP, and unstructured questions were used for FDG and the discussion was concluded after saturation. Students' knowledge levels were studied using dichotomous questions. Similarly, data on students' healthy food behavior was obtained using the Five-Likert Scale, while data on the constructs and environmental factors of the TPB model and socio-ecological model were also obtained, emphasizing the quantitative approach in the first steps of the mixed method. Multi-stage cluster sampling method was used for obtaining quantitative data. The study was conducted in Kageshwori Manohara Municipality (KMM), which was selected because it provided data relevant to the study's objectives. KMM was divided into two clusters based on their characteristics: 5,6,7,8,9 wards undergoing urbanization where increasing urbanization has led to problems with drainage and environmental sanitation and management, and 1,2,3,4 wards based on the characteristics of developing rural and modernized agricultural systems (Municypality, 2080). There were four schools in the first cluster and five schools (Municipality, 2076) in the second cluster. So, the school was selected using the lottery method from each cluster through simple random sampling. For the first cluster, Adarsha Secondary School, and for the second, Gandhi Secondary School was selected. All the students were invited to participate of Class 8, 9 and 10 of each school. According to Cochran's formula, 384 students were needed with 95% reliability and 5% error. However, according to the Multi-stage Cluster Design, all students available in class 8, 9 and 10 of the 2 selected schools were included, so 156 students were retained by the Census within clusters approach and Single group focus discussions were conducted with school-level 7 teachers using purposive sampling.

Only secondary school teachers selected for quantitative data collection were selected for teacher selection. The data obtained were analyzed for frequency, mean score-test and correlation. The. FDG transcripts were manually analyzed. Codes with similar meanings were categorized, and those categories were organized into themes through thematic analysis.n, it was analyzed through multiple linear regression using the equation "ITHE =HEE". The reliability and validity of the model measurement have been affirmed by testing Cronbach's alpha. It means the stable and consistent results of different instruments overtime across different conditions. Additionally, a pre-test was conducted on a group of 10 students to ensure the validity of the questionnaire in addition, to make the questions medical, a review was conducted by an MPhil scholar and professor of health education at Tribhuvan University.

In the second step, focus group discussions, based on the key findings obtained through quantitative methods, were conducted among a group of secondary school teachers (7 teachers teach at Gandhi School) to determine which attitudes were most affected by the discussion and what the municipality should do to resolve them. The conclusions obtained from the discussion were thematically analyzed.

Ethical conduct was followed according to the National Ethical Guidelines for Health Research in Nepal (2022), The approval from School Authority: Prior official permission to conduct the study obtained from the School Administration (Headmaster) than student assent: written assent was taken before given them the questionnaire. Voluntary Participation and an anonymity and Confidentiality was also fallowed and even for FDG, written consent was obtained from teachers.

Quantitative Data Analysis and Result

Since there were dichotomous question for knowledge and Likert scales for practice, it is difficult to compare the total scores of the two, so a paired t -test was used to compare the mean scores of the two variables and correlation was used to see the relationship between the two variables. Since the effect of multiple constructs affecting the intention to eat healthy had to be examined, linear regression was used, for which SPSS was used to analyze each variable by coding it as 1, 2...

Socio demographic description

Table 1

Demographic Characteristic of Kageshwori Manohara Municipality' School Students

Variable	Category	N (%)
Gender	Male	48.7%
	Female	46.8%
	Other	4.5%
Age	13-14	29.2
	15-16	55.8
	17-18	14.9
Types of family	Nuclear	117
	Joint	37
Residential	Urban	67.5
	Rural	32.5
Parents Education	Literature	59
	Primary	15.6
	Secondary	18.8
	Higher	5.2
Total		100%

Source: Field survey (2083), Kageshwori Manohara Municipality

In a study conducted in Kageshwori Manohara Municipality, the number of female and male students in grades 8, 9, and 10 of school age was almost equal. Looking at the age difference among students, the number of students in the 15 to 16 age group was higher. The number of students living in urban areas was found to be higher than that of students living in rural areas. Looking at the educational level of the respondents' parents, the literacy rate was found to be high, while the number of parents with higher education was low.

Gap between healthy eating behavior and healthy eating practice

According to Table 2, Here, since knowledge and practice were measured using different scoring systems, scores were compared using percentages to compare the two to prevent bias.

Table: 2

Paired Samples Statistics for Gap Between Knowledge and Practice

Variables	Mean (%)	Std. D	M.D	T	Sig(2-tail)	Effect size
KHE	927	312	289	11	<0.01	.925
HEBP	639					

Note*:* 95% confident level, N=154, M. D=Mean Difference, KHE=Knowledge on Healthy Eating, HEBP= Healthy Eating Behavioral Practice

Source: Field survey (2083), Kageshwori Manohara Municipality

HEBP was found to be significantly lower than knowledge regarding healthy eating behaviors. In which the difference between knowledge and behavior of eating healthy food is high (312), which means that the relationship between knowledge and behavior is statistically significant (t=11), $p<0.01$ according to the paired test. In which the effect size (.925) between knowledge and behavior regarding healthy eating habits proved that the difference between the two was profound. The data showed that knowledge-based healthy eating behavior was low, which confirmed the study's hypothesis.

Relation between healthy eating behavior and healthy eating practice

Table 3

Correlation between intention healthy eating behavior and healthy eating practice

Variables	R	P- value
HEBP and Intention on healthy eating	.269**	< .001

Note: N=154, $p < 0.05$, **. Correlation is significant at the 0.01 level (2-tailed).

Source: Field survey (2083), Kageshwori Manohara Municipality

According to table three, there was a statistically significant relationship between healthy eating behavior and healthy intention ($r=.269$, $p<.001$).

Construct to Affect the Healthy Eating Intention

According to table 4, the relationship between each construct and behavior was found to be statistically significant ($F = 15.9$, $p < .05$). The data showed that the variance between the independent variables (Attitude of eating behavior, Subject norm, perceived on healthy eating and healthy eating environment) and the dependent variable was 28% ($R^2 = .28$).

Table 4

Multiple linear regression analysis TPB construct as predictor of healthy eating behavior and intention

Predictor	B (UC)	Beta (SN)	T	. sig (P)	F	R^2
Constant	15.768		6.963	0.01		
Attitude on HE	-.009	-.010	-.135	.90		
Subjective norm on HE	.017	.023	.328	.74	15.9	.28
Perceived behavior on HE	.727	.527	7.42	0.01		
Environment of HE	-.278	-.163	-2.32	.022		

Note: SC= Standardized Coefficients, UC= Unstandardized Coefficients, N=154, Dependent Variable: Intention (Mean)

In this study, Perceived Behavior on healthy eating was found to have a positive and statistically significant effect on the intention on healthy eating (dependent variable) (B = .727, Beta =.527, t = 7.42, P = 0.01).

Similarly, healthy eating environment (school environment, family environment and technological environment) showed a statistically significant but negative effect on the dependent variable (B = -.278, Beta = - .163, t =-2.32, p = .022), which is suggests that the dependent variable decreases when the environment is poor.

Here, the relationship between the dependent variable of Attitude (p = 0.9) and Subjective Norm (0.74) was found to be statistically not significant.

Qualitative Data Analysis and Result

Theme 1: Perceived behavior control toward healthy eating

Financial Construct

Poverty forces people to go out to work, and expensive food makes it impossible to buy and eat healthy food. Participants reported that children's intentions towards healthy eating habits were negative due to the lack of time to cook healthy meals at home due to family busyness.

“Due to financial constraints, they are forced to buy cheap food.” (Participation 4)

Lack of family support

Parents send packaged foods to make it easier for their children to cook and eat, but the taste attracts unhealthy foods, and they say they cannot control themselves from eating unhealthy foods.

“There is also a compulsion to bring junk food. Some people buy noodles for convenience because they don't feel like cooking.” (Participation 3).

Theme 2: School canteen environment

Taste and need based issue

According to participants, the lunch provided by the school canteen tastes bland, which is why children are not interested in the lunch provided by the school.

“But the child refuses to eat, even though he has cooked the porridge, he still refuses to eat it.” (Participation 5)

They also say that they eat lunch if the food they eat is tasty and delicious, as per their wishes.

“The child does not like the selected item.” (Participation 2)

“They are happily eating chickpeas on the day they are available.” (Participation 5)

The quantitative results showed that children had a good attitude towards healthy eating. However, if children were given school lunches with sweets that were tailored to their preferences, they were able to control their unhealthy eating habits.

Theme 3: socio-cultural factors

According to participants, children's perceived behavior control towards healthy eating habits is influenced by their family cultural environment. Children in the Terai, especially students of Madhesi origin, have been found to avoid eating food outside their homes, which increases their chances of malnutrition due to having to go hungry at school.

“Children from the Terai don't even bring tiffin. They don't eat it because they don't like it or because it contains garlic and onions.” (Participation 2)

Theme 4: Teacher attitude and subjective norm

Respondents said they had no role in changing students' behavior toward healthy eating, suggesting that parents, rather than schools, should be more concerned about students' food choices. The following response was received regarding the teacher's responsibility towards students' healthy eating habits:

“What can we do?” (Participation 4)

“Parents must be responsible.” (Participation 5)

“We just say don't eat.” (Participation 3)

Teachers, as school guardians, should be the main responsibility for students' meals

after they enter school, but according to this data, it is understood that teachers are trying to evade their responsibility. Which resulted in a lack of proper guidance.

Integration of Qualitative and Quantitative Findings and discussion

Gap Between Healthy Eating Knowledge and Healthy Eating Behavioral Practice

Knowledge alone cannot influence healthy eating habits in school-age children. Even with sufficient knowledge, it is difficult to change a person's behavior. Because a person's behavior is affected by multiple factors. This study conducted on 154 respondents also showed that, KHE week rather than HEBP, which was due to the intention to healthy eating. Students have a wealth of knowledge about nutrition, but previous studies have proven that dietary habits are not the only thing that can change behavior (B. Adhikari et al., 2025; Farrukh et al., 2026; Zieba et al., 2025) A study by Kageshwari Manohara Municipality also showed that despite the students having a lot of knowledge about junk , about 77% of the students eat junk food(Chalise, 2018). This study also proved that despite the lack of knowledge, unhealthy eating habits are still prevalent among children.

Relation between HEBP and Intention Toward Healthy eating

The correlation between HEBP and healthy eating intention was (269) ** statistically significant (<0.01), it proved that intention affects HEBP. According to the TPB model, a person's healthy eating habits are influenced by their intention. If a person has an intention to eat healthy food, then the person will eat the food, otherwise the intention towards unhealthy eating habits will be positive, as has been stated in previous studies (Åstr∅sm & Rise, 2001). Qualitative research also indicated that school-age children in Kageshwori Manohara Municipality had negative intentions towards healthy eating habits (Respondent 4).

Construct to Affect the ITHE

R^2 = 0.28 indicated moderate explanatory power, suggesting that TPB constructs contribute to behavioral intentions, although other external factors may also play an important role.,) Perceived behavioral control was the strongest indicator of intention, suggesting that students who perceive fewer barriers are more likely to adopt healthier eating habits, a finding consistent with previous studies. This conclusion was also supported by previous studies(Acharya, 2026; Chalise, 2018) and even the HEE had a negative effect (-2.32) on students' healthy eating intentions. It was observed that the weaker the students' family environment, school environment, and media influence, the less intention they have towards healthy eating and the unhealthier eating habits

they develop. The quantitative results, also supported by focus group discussions, showed that factors such as financial constructs related to the individual's perceived behavioral control, lack of family support management, and other factors influenced individuals' intentions to eat healthy foods. This conclusion was also supported by previous studies, among school-age children and adolescents, factors such as taste, time management, availability, lack of food, and social and cultural practices are also affecting healthy eating behaviors, leading individuals to eat unhealthy foods, such as junk food and fast food (Andonova et al., 2022; Mahmood et al., 2025).

The positive impact of quantitative data on environmental factors was also supported by qualitative data. School canteens where students cannot get the delicious food they desire and need “What can we do?” (Respondents 4) “Parents must be responsible.” (Respondents 5), These statements also reduced the intention to eat healthily among school-age children, partly due to teachers' attitudes.

Overall, this study provided a deep understanding of individuals' knowledge and behavior towards healthy eating habits. It was concluded that among the main factors that contribute to the memory, the constructs of the TPB model and the constructs of the socioecological model are the constructs of the prescriptive behavior control and environmental factors. Due to which, the financial construct of healthy food, expensive money, lack of family support, weak school management, healthy eating environment, school continuum, teachers' attitude, and cultural expec of school-age children in Kageshwori Manohara Municipality were found to be the main responsible factors.

Conclusion

Based on the findings of the study, it is believed that for the development of healthy eating habits among adolescents, continuous monitoring and evaluation of school programs should be conducted. Teachers should be held accountable for developing students' healthy eating behaviors. Therefore, this study has provided guidance to Kageshwori Manohara Municipality to address such future challenges and formulate policies and programs to develop healthy eating habits among school-aged children. Since this study is limited to one municipality, future studies with other municipalities can be used to compare results. It is also recommended that other variables not included in this study be studied in the future. The study also recommends interventions related to attitude and perception control to bring about changes in students' healthy eating behavior practices.

References

Acharya, L. M. (2026). Influence of Eating Habits on Nutritional Status among Basic Level Students in Nepalgunj *A Multidisciplinary Peer-Reviewed Research Journal, Indexed in NepJOL Volume: 5* (Issue: 1 Year: 2026), 21-32. https://doi.org/https://doi.org/103126/academia.v5i1.89175

Adhikari, B., Sharma, P., & Giri, S. (2025). The Paradox of Health Literacy: Unchanged Nutritional Behaviors of Literates. *International Journal of Nutrition and Food Sciences, 14*(2), 117-124. https://doi.org/10.11648/j.ijnfs.20251402.14

Adhikari, S. P., Zhou, H., Adhikari, R., Ye, R., Al-Zangabila, K., Wang, Q., & Sunil, T. S. (2021, Nov). Can Nepal achieve nutritional targets by 2030? A trend analysis of childhood undernutrition in Nepal from 2001 to 2016. *Public Health Nutr, 24*(16), 5453-5462. https://doi.org/10.1017/S1368980021000240

Andonova, A., Todorova, D., & Obreykova, M. (2022). Attitudes and Awareness of High School Students About Healthy Eating and Behavior. *Journal of IMAB - Annual Proceeding (Scientific Papers), 28*(3), 4506-4510. https://doi.org/10.5272/jimab.2022283.4506

Anuska, K. C., Mahara, M. B., & Acharya, I. P. (2025, 12/09). Nutritional Status of Under Five Children and its Associated Factors in Kageshwori Manohara Municipality, Kathmandu, Nepal. *The Indian Journal of Nutrition and Dietetics, 62*(2), 170-184. https://doi.org/10.21048/IJND.2025.62.2.52628

Åstr⊘sm, A. N., & Rise, J. (2001, 2001/03/01). Young adults' intention to eat healthy food: Extending the theory of planned behaviour. *Psychology & Health, 16*(2), 223-237. https://doi.org/10.1080/08870440108405501

Chalise, B. (2018). Junk food prevention education package intervention and its effect on behavioural intention among students of kageswori manohara municipality, Kathmandu district, Nepal. *MOJ Public Health, 7*(3). https://doi.org/10.15406/mojph.2018.07.00217

Chuwan, N. K. (2025). Junk Food Consumption Pattern among Undergraduate Students in Urban Regions of Nepal. *BARUN Journal, 2*, 43-66. https://doi.org/10.3126/barunj.v2i01.78311

DoHS. (2080/81). *Annual Health Report 2080/81*. Deparment of Health Service. https://dohs.gov.np/content/2/annual-health-report-2080-81/

Farrukh, M. T., Jami, B. M., Iqbal, U., Mushtaq, S., Ashraf, D. A., & Hassan, I. N. (2026, Mar 27). Association between nutritional knowledge and dietary habits among undergraduate students in Islamabad and Rawalpindi: a cross-sectional comparative study of medical and non-medical disciplines. *BMC Nutr, 12*(1). https://doi.org/10.1186/s40795-026-01306-3

Mahboob, A., & Lin, A. M. (2016). Using local languages in English language classrooms. In W. A. Renandya & H. P. Widodo (Eds.), *English language teaching today: Linking theory and practice* (pp. 25–40). Springer.

Mahmood, H., Shaikh, B. T., Pervaiz, F., & Idrees, M. (2025, Oct 14). Adolescents' eating habits: perspectives of students, parents, and staff in schools: a qualitative study from Rawalpindi, Pakistan. *BMC Public Health, 25*(1), 3479. https://doi.org/10.1186/s12889-025-24734-5

Ministry of Health and Population, N. (2022). *Nepal Demographic and Health Survey* [Demographic and Health Survey]. Ministry of Health and Population, Ram Shah Path, Kathmandu, Nepal. https://www.dhsprogram.com › pubs › pdf

Municipality, K. M. (2076). *Kageswori Manohara Municipality mid-day meal managment guideline,2076*

२०७६ [Management Guideline]. Kageswori Manohara Municipality,Kathmandu. http://www.kageshworimanoharamun.gov.np/en,

Municypality, K. M. (2080). कागेश् वरी मनोहरा नगरपातकिा नगर सभाको आठौं अतविशन, २*080* [policy,programme and budget for fiscal year 2080/81]. कागेश् वरी मनोहरा नगरपातकिा https://kageshworimanoharamun.gov.np/en/content/

Pudasaini, R., Pudasaini, B., Aryal, S., & Chaudhary, A. (2025). Exploring the Knowledge Status of Healthy Behaviors and Its Promotional Practices Among High School Students: A Descriptive Cross-Sectional Study and Associated Factors. *Civil Medical Journal, 3*(1), 48-52. https://doi.org/10.59338/cmj.48

Raut, S., Kc, D., Singh, D. R., Dhungana, R. R., Pradhan, P. M. S., & Sunuwar, D. R. (2024, Feb 27). Effect of nutrition education intervention on nutrition knowledge, attitude, and diet quality among school-going adolescents: a quasi-experimental study. *BMC Nutr, 10*(1), 35. https://doi.org/10.1186/s40795-024-00850-0

Rivera Medina, C., Briones Urbano, M., de Jesus Espinosa, A., & Toledo Lopez, A. (2020, May 14). Eating Habits Associated with Nutrition-Related Knowledge

among University Students Enrolled in Academic Programs Related to Nutrition and Culinary Arts in Puerto Rico. *Nutrients, 12*(5). https://doi.org/10.3390/nu12051408

Saavedra, J. M., & Prentice, A. M. (2023, Jun 9). Nutrition in school-age children: a rationale for revisiting priorities. *Nutr Rev, 81*(7), 823-843. https://doi.org/10.1093/nutrit/nuac089

Singh, U. K., Gautam, N., Bhandari, T. R., & Sapkota, N. (2020). Educational Intervention of Intention Change for Consumption of Junk Food among School Adolescents in Birgunj Metropolitan City, Nepal, Based on Theory of Planned Behaviors. *J Nutr Metab, 2020*, 7932324. https://doi.org/10.1155/2020/7932324

UNICEF. (2017). *The Adolescent Brain: A second window of opportunity* [A Compendium]. UNICEF Office of Research – Innocenti.

UNICEF. (2022-2026). *National Health Sector Nutrition Strategic Plan 2022-2026 Eng-low* [Report]. Ministry of Health (Nutrition Department). https://www.unicef.org ›

UNICEF. (2024). *Baseline survey on the nutritional status of school-age children and its determinants in Central Java province* [Baseline survey]. UNICEF Indonesia ₹ SEAMEO RECFON. https://www.unicef.org › indonesia › media › file

WHO. (2026). *WHO urges schools worldwide to promote healthy eating for children*. https://www.who.int Retrieved 27 January 2026 from https://www.who.int/news/item/27-01-2026-who-urges-schools-worldwide-to-promote-healthy-eating-for-children

Zieba, M., Jaskula, M., & Lachowicz-Wisniewska, S. (2025, Jun 13). Awareness of Eating Disorders, Nutritional Knowledge, and Emotionally Driven Eating Among Polish Adolescents Aged 15-17-A Pilot Study. *Nutrients, 17*(12). https://doi.org/10.3390/nu17121994