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Assess the knowledge, attitude and practice of adolescent children regarding junk food consumption in selected urban high schools at Shivamogga

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Abstract

Introduction: Junk food consumption among adolescents has emerged as a major public health concern due to its association with poor nutritional status and increased risk of non-communicable diseases. Adolescence is a critical period for establishing lifelong dietary habits, and unhealthy eating practices adopted during this stage often persist into adulthood. Understanding adolescents' knowledge, attitude, and practice regarding junk food consumption is essential for planning effective health promotion strategies.

Methods: A quantitative descriptive survey design was adopted to assess the knowledge, attitude, and practice of adolescent children regarding junk food consumption in selected urban high schools of Shivamogga, Karnataka. A total of 100 adolescents aged 13-16 years were selected using a three-stage cluster sampling technique. Data were collected using a structured socio-demographic proforma, knowledge questionnaire, attitude rating scale, and practice checklist. Descriptive and inferential statistics were used for data analysis.

Results: The findings revealed that 60% of adolescents had moderately adequate knowledge, while 40% had inadequate knowledge, with none demonstrating adequate knowledge. A majority (69%) exhibited an unfavourable attitude towards junk food consumption. Regarding practice, 51% followed inappropriate dietary practices. A significant positive correlation was observed between knowledge, attitude, and practice ($p< 0.05$). Knowledge was significantly associated with gender, religion, type of family, type of diet, family income, and source of lunch, while practice was significantly associated with gender, type of family, and type of diet.

Conclusion: The study highlights suboptimal knowledge, unfavourable attitudes, and inappropriate practices related to junk food consumption among adolescents. The findings underscore the need for structured, school-based nutrition education programmes led by nurses to promote healthy dietary behaviours during adolescence.

Keywords: Adolescents, junk food consumption, knowledge, attitude, practice, school health nursing

Introduction

Adolescence is a critical developmental phase characterised by rapid physical growth, psychological maturation, and social role transitions. The World Health Organization defines adolescence as the age group between 10 and 19 years, a period during which lifelong health behaviours are established. Nutritional practices adopted during adolescence play a decisive role in shaping current health status as well as future risk for non-communicable diseases. Adequate nutrition during this phase supports optimal growth, cognitive development, immune competence, and academic performance, whereas unhealthy dietary habits can predispose individuals to obesity, metabolic disorders, cardiovascular diseases, and nutritional deficiencies later in life.

In recent decades, global dietary patterns have undergone a marked transition, particularly among children and adolescents. Traditional home-prepared meals are increasingly being replaced by commercially prepared, energy-dense, nutrient-poor foods commonly referred to as junk foods. Junk foods are typically high in calories, saturated fats, trans fats, sugar, and salt, while being deficient in essential micronutrients such as iron, calcium, vitamins, and dietary fibre. Common examples include fast foods, packaged snacks, carbonated beverages, fried foods, confectioneries, and ready-to-eat products. The widespread availability, aggressive marketing, palatable taste, low cost, and convenience of these foods have made them especially attractive to adolescents.

India is experiencing a rapid nutrition transition due to urbanisation, economic growth, changing family structures, and increased exposure to mass media. Urban adolescents, in particular, are increasingly adopting Westernised dietary habits, characterised by frequent consumption of junk foods and sugar-sweetened beverages. Schools located in urban areas often have easy access to food vendors selling junk food items, and peer influence further reinforces unhealthy eating behaviours. This shift in dietary practices has raised serious public health concerns, as India simultaneously faces the dual burden of undernutrition and overnutrition.

Adolescents constitute a substantial proportion of the Indian population, and their health status has significant implications for the nation's future productivity and healthcare burden. Evidence suggests that poor dietary habits established during adolescence often persist into adulthood, increasing the risk of obesity, type 2 diabetes mellitus, hypertension, dyslipidaemia, and cardiovascular diseases. In addition to physical health consequences, excessive junk food consumption has been associated with behavioural problems, reduced attention span, poor academic performance, dental caries, gastrointestinal disturbances, and psychological issues such as low self-esteem and body image dissatisfaction.

Despite growing awareness of healthy eating, a clear gap often exists between knowledge and actual dietary practices among adolescents. Many adolescents may possess basic information regarding the harmful effects of junk food but continue to consume it frequently due to favourable attitudes, social norms, taste preferences, convenience, and lack of parental supervision. Therefore, assessing not only knowledge but also attitudes and practices related to junk food consumption is essential to obtain a comprehensive understanding of adolescent dietary behaviour.

The Knowledge-Attitude-Practice (KAP) model is a widely used framework in health research to explore how knowledge influences attitudes and how attitudes, in turn, shape practices. Knowledge refers to the information and understanding an individual possesses about a particular subject, attitude reflects feelings, beliefs, and perceptions, and practice denotes the actual behaviour or action. In the context of nutrition, adequate knowledge about healthy and unhealthy foods does not always guarantee positive dietary practices, highlighting the importance of evaluating all three components simultaneously. Understanding the interrelationship between knowledge, attitude, and practice can help identify barriers to healthy eating and guide the development of effective health education interventions.

Schools serve as an important setting for promoting healthy dietary behaviours among adolescents. Since students spend a significant portion of their day at school, the school environment strongly influences their food choices. The presence of junk food vendors near school premises, lack of regulation on food sales, and insufficient nutrition education contribute to unhealthy eating practices. Teachers and school health nurses play a pivotal role in shaping students' health behaviours through education, counselling, and role modelling. However, for school-based interventions to be effective, baseline information on students' knowledge, attitudes, and practices related to junk food consumption is essential.

Shivamogga, an urbanising district in Karnataka, has witnessed rapid changes in lifestyle and dietary patterns among school-going adolescents. Increased availability of fast food outlets, packaged snacks, and street food vendors around schools has made junk food easily accessible to students. Adolescents aged 13-16 years, who are typically studying in high schools, are particularly vulnerable due to increased autonomy in food choices, peer pressure, exposure to advertisements, and limited awareness of long-term health consequences. However, there is limited documented evidence on the knowledge, attitude, and practice of junk food consumption among adolescent children in selected urban high schools of Shivamogga.

From a nursing perspective, adolescent nutrition is a key component of community and school health nursing. Nurses are strategically positioned to assess nutritional behaviours, identify risk factors, provide health education, and implement preventive strategies. Evidence-based nursing interventions aimed at reducing junk food consumption require a clear understanding of adolescents' existing knowledge levels, attitudes, and practices, as well as the socio-demographic factors influencing these behaviours. Variables such as age, gender, type of family, parental education, occupation, family income, dietary pattern, availability of junk food vendors, and source of lunch can significantly affect adolescents' food choices.

Previous studies conducted in various parts of India and abroad have reported high prevalence of junk food consumption among adolescents, with frequent intake of fried foods, sweets, and carbonated beverages. Many studies have also demonstrated inadequate knowledge, unfavourable attitudes, and inappropriate dietary practices among school children. However, findings vary across regions due to cultural, socioeconomic, and environmental differences. Therefore, region-specific studies are necessary to generate contextually relevant data that can inform local health promotion strategies.

Assessing the correlation between knowledge, attitude, and practice provides valuable insights into whether improved knowledge translates into healthier attitudes and practices. Additionally, examining the association between knowledge and practice with selected demographic variables helps identify high-risk groups who may benefit from targeted interventions. Such information is crucial for planning structured teaching programmes, school health policies, and community-based nutrition education initiatives.

In the present study, a descriptive survey approach is adopted to assess the knowledge, attitude, and practice of adolescent children regarding junk food consumption in selected urban high schools of Shivamogga. The study focuses on adolescents aged 13-16 years, a critical age group for establishing lifelong dietary habits. By systematically evaluating the levels of knowledge, attitude, and practice, as well as their interrelationships, the study aims to generate evidence that can support nursing educators, school administrators, and policymakers in designing effective health promotion strategies.

The findings of this study are expected to contribute to the existing body of nursing and public health literature by highlighting the current status of junk food consumption among urban adolescents. The results may help in identifying gaps in knowledge, negative attitudes, and inappropriate practices, thereby emphasising the need for structured nutrition education programmes in schools. Furthermore, the study underscores the importance of strengthening the role of nurses in school health services to promote healthy eating behaviours and prevent nutrition-

related health problems among adolescents.

In conclusion, junk food consumption among adolescents has emerged as a significant public health concern due to its adverse impact on physical, psychological, and social well-being. Adolescence offers a unique opportunity for early intervention, as behaviours established during this period often persist into adulthood. Assessing the knowledge, attitude, and practice of adolescent children regarding junk food consumption is a crucial step toward understanding their dietary behaviour and developing effective preventive strategies. The present study is therefore undertaken to assess the knowledge, attitude, and practice of adolescent children regarding junk food consumption in selected urban high schools of Shivamogga, with the ultimate goal of promoting healthier dietary habits and improving adolescent health outcomes.

Research Methodology

Research Approach

A quantitative research approach was adopted for the present study. Quantitative research is appropriate when the objective is to measure variables numerically, examine relationships among variables, and generalize findings to a larger population. Since the study aimed to assess knowledge, attitude, and practice levels and determine correlations and associations among these variables, the quantitative approach was considered suitable.

Research Design

A descriptive survey research design was used in the present study. Descriptive survey design is appropriate when the researcher intends to describe existing phenomena as they occur naturally without manipulating variables. This design helped to obtain an accurate portrayal of the knowledge, attitude, and practice of adolescent children regarding junk food consumption.

Variables of the Study

Study Variables

The present study focuses on assessing the knowledge, attitude, and practice of adolescent children regarding junk food consumption. Knowledge refers to the level of understanding among adolescent children about junk food, balanced diet, and the harmful health effects associated with frequent consumption of junk food. Attitude denotes the feelings, beliefs, and perceptions of adolescent children towards junk food consumption, including their preferences, likes or dislikes, and acceptance of healthy eating behaviours. Practice relates to the actual dietary behaviours of adolescent children, such as the frequency of junk food intake, food choices made at school and home, and adherence to healthy eating habits. Together, these three components provide a comprehensive understanding of adolescents' dietary behaviour related to junk food consumption.

Demographic Variables

Age, gender, birth order, religion, type of family, type of diet, education status of father, occupation of father, education status of mother, occupation of mother, monthly family income, presence of junk food vendors near school, and source of lunch.

Setting of the Study: The setting of the study refers to the physical location and conditions in which data collection took place. The study was conducted in selected urban government high schools of Shivamogga District, Karnataka. The setting was selected based on accessibility of subjects, feasibility of conducting the study, and availability of adolescent children aged 13-16 years.

Population of the Study

The population of the present study comprised adolescent children aged 13-16 years who were studying in selected urban high schools of Shivamogga District.

Sample and Sample Size

A sample is a subset of the population selected to represent the entire population. In the present study, the sample consisted of 100 adolescent children studying in selected urban high schools of Shivamogga.

Sampling Technique

A three-stage cluster sampling technique was adopted for the present study. In the first stage, one cluster was selected from Shivamogga District using a simple random sampling method. In the second stage, one urban high school was selected from the chosen cluster through simple random sampling. In the third stage, adolescent children studying in the selected high school were chosen using simple random sampling technique. This multi-stage sampling approach ensured adequate and fair representation of the population and enhanced the generalizability of the study findings.

Criteria for Sample Selection

The inclusion criteria for the study comprised adolescent children aged 13-16 years who were studying in selected urban high schools of Shivamogga and who were willing to participate in the study. The exclusion criteria included adolescent children who were not available at the time of data collection.

Data Collection Instruments

Data were collected using a structured questionnaire, which consisted of four sections:

1. Socio-demographic proforma
2. Structured knowledge questionnaire
3. Attitude rating scale
4. Practice checklist

Development of the Tool

The data collection tool was developed through a systematic process that included an extensive review of related literature to identify relevant concepts and variables. A blueprint was then prepared to ensure adequate coverage of all study objectives. This was followed by consultation with the guide, co-guide, and subject experts to refine the content and structure of the tool. Based on these inputs, structured questionnaires were constructed. Content validity was established through expert review, after which the tool was pre-tested to assess clarity and feasibility. Finally, reliability of the tool was established to ensure consistency and accuracy of the measurements.

Description of the Tool

Tool I: Socio-Demographic Proforma

This section consisted of 13 items covering age, gender, birth order, religion, type of family, type of diet, parental

education, parental occupation, monthly family income, presence of junk food vendors near school, and source of lunch.

Tool II: Structured Knowledge Questionnaire

This section consisted of 20 multiple-choice questions designed to assess the knowledge of adolescent children regarding balanced diet, junk food consumption, and the ill effects of junk food consumption. Each correct answer was awarded one mark, while an incorrect answer was given zero marks. The maximum obtainable score was 20, with higher scores indicating better knowledge regarding junk food consumption.

Interpretation of Knowledge Score

Level of Knowledge	Score
Inadequate	0-10
Moderately adequate	11-15
Adequate	16-20

Tool III: Attitude Rating Scale

This section consisted of 14 statements, including both positive and negative statements, to assess the attitude of adolescent children regarding junk food consumption. Responses were measured using a five-point Likert scale ranging from *strongly agree* to *strongly disagree*. The maximum attainable score was 70. For interpretation, scores of ≤50% indicated an unfavourable attitude, while scores of >50% indicated a favourable attitude towards junk food consumption.

Tool IV: Practice Checklist

This section consisted of 16 items designed to assess the dietary practices of adolescent children related to junk food consumption. Responses were recorded on a three-point scale ranging from Always, Sometimes, and Never. The maximum score was calculated based on percentage scores. For interpretation, scores of ≤50% indicated inappropriate practice, while scores of >50% indicated appropriate practice regarding junk food consumption.

Content Validity

Content validity of the tool was established by submitting it to nine experts, including nursing and medical professionals. Necessary modifications were incorporated based on expert suggestions.

Reliability of the Tool

Reliability of the data collection tool was established using appropriate statistical methods. The knowledge questionnaire was tested using the split-half method, yielding a reliability coefficient of r = 0.80. The attitude scale was assessed using Cronbach's alpha, with a reliability coefficient of α = 0.82, while the practice checklist also demonstrated good internal consistency with a Cronbach's alpha value of α = 0.84. These values indicate that the tool was reliable and suitable for use in the main study.

Pilot Study

A pilot study was conducted on 10 adolescent children in a government high school of Shivamogga. The study confirmed feasibility, clarity of tools, and suitability of the sampling technique. The average time taken was 50 minutes. The pilot study findings were not included in the main study.

Plan for Data Analysis

Data analysis was carried out using descriptive and inferential statistics. Socio-demographic variables were analysed using frequency and percentage distributions. The levels of knowledge, attitude, and practice were analysed using mean, standard deviation, and mean percentage. The relationship between knowledge, attitude, and practice was determined using Pearson's correlation coefficient, while the association between knowledge and practice with selected demographic variables was analysed using the Chi-square test.

Results

Table 1: Frequency and Percentage Distribution of Adolescent Children According to Demographic Characteristics (N = 100)

Characteristics	Category	Number	Percentage (%)
Age (years)	13	27	27
	14	29	29
	15	25	25
	16	19	19
Gender	Boys	59	59
	Girls	41	41
Birth order	First	41	41
	Second	40	40
	Third	12	12
	Fourth	7	7
Religion	Hindu	70	70
	Christian	21	21
	Muslim	9	9
Type of family	Nuclear	69	69
	Joint	31	31
Type of diet	Vegetarian	30	30
	Mixed diet	70	70
Education of Father	No formal education	18	18
	Primary	24	24
	Higher secondary	41	41
	PUC & above	17	17
Occupation of Father	Daily wages	54	54
	Government	13	13
	Private	12	12
	Others	21	21
Education of Mother	No formal education	17	17
	Primary	16	16
	Higher secondary	53	53
	PUC & above	14	14
Occupation of Mother	Housewife	56	56
	Daily wages	25	25
	Government	5	5
	Private	7	7
	Others	7	7
Monthly family income	≤ Rs.10,000	53	53
	Rs.10,001-15,000	29	29
	≥ Rs.15,001	18	18
Junk food vendor near school	Yes	100	100
	No	0	0
Source of lunch	Lunch box	34	34
	School provided	66	66

Table 1 shows that among the 100 adolescent children, 29% belonged to the age group of 14 years, followed by 27% aged 13 years, 25% aged 15 years, and 19% aged 16 years. With regard to gender, 59% were boys and 41% were girls.

Regarding birth order, 41% were first-born children, 40% were second-born, 12% were third-born, and 7% were fourth-born. The majority of adolescents (70%) belonged to the Hindu religion, followed by 21% Christians and 9% Muslims. In terms of family type, 69% belonged to nuclear families, while 31% belonged to joint families. With respect to dietary pattern, 70% consumed a mixed diet and 30% followed a vegetarian diet. Concerning parental education, 41% of fathers and 53% of mothers had completed higher secondary education. Occupationally, 54% of fathers were daily wage workers, while 56% of mothers were homemakers. Regarding monthly family income, 53% had an income of ≤ Rs.10,000. It was observed that 100% of the adolescents reported the presence of junk food vendors within ½ km of the school. Regarding source of lunch, 66% received lunch from school and 34% brought lunch from home.

Table 2: Frequency and Percentage Distribution of Level of Knowledge Regarding Junk Food Consumption (N = 100)

Knowledge Level	Category	Number	Percentage (%)
Inadequate	≤ 50% score	40	40
Moderately adequate	51-75% score	60	60
Adequate	> 75% score	0	0
Total		100	100

Table 2 reveals that 60% of the adolescent children had moderately adequate knowledge, while 40% had inadequate knowledge regarding junk food consumption. Notably, none of the respondents (0%) had adequate knowledge. This indicates an overall deficiency in comprehensive knowledge related to junk food and its health effects.

Table 3: Mean, Mean Percentage and Standard Deviation of Knowledge Scores (N = 100)

Variable	Max Score	Mean	SD	Mean (%)
Knowledge	20	10.87	3.3	54.4

Table 3 findings indicate that the overall mean knowledge score was 10.87, with a mean percentage of 54.4% and a standard deviation of 3.3, reflecting a moderate level of knowledge among adolescents with noticeable variability in scores.

Table 4: Area-wise Mean, Mean Percentage and Standard Deviation of Knowledge (N = 100)

Knowledge Aspects	Statements	Max Score	Mean	SD	Mean (%)	SD (%)
Balanced diet	4	4	2.22	1.1	55.5	27.1
Junk food consumption	7	7	3.43	1.7	49.0	24.0
Ill effects of junk food	9	9	5.22	1.5	58.0	17.1
Combined	20	20	10.87	3.3	54.4	16.4

Table 4 shows that the highest mean percentage score (58.0%) was obtained in the area of ill effects due to junk food consumption, followed by balanced diet (55.5%). The lowest mean percentage score (49.0%) was observed in the area of junk food consumption itself. The combined mean percentage score was 54.4%, indicating an overall moderate level of knowledge among adolescents.

Table 5: Frequency and Percentage Distribution of Level of Attitude Regarding Junk Food Consumption (N = 100)

Attitude Level	Category	Number	Percentage (%)
Unfavourable	≤ 50% score	69	69
Favourable	> 50% score	31	31
Total		100	100

Table 5 shows that 69% of the adolescents had an unfavourable attitude, whereas only 31% had a favourable attitude towards junk food consumption. This finding highlights the predominance of negative or indifferent attitudes that may encourage unhealthy eating behaviours.

Table 6: Mean, Mean Percentage and Standard Deviation of Attitude Scores (N = 100)

Aspect	Statements	Max Score	Mean	SD	Mean (%)	SD (%)
Attitude	14	70	40.95	4.0	58.5	5.7

Table 6 show the mean attitude score was 40.95 out of a maximum score of 70, with a mean percentage of 58.5% and a standard deviation of 4.0. This reflects a moderately unfavourable attitude among adolescents towards junk food consumption.

Table 7: Frequency and Percentage Distribution of Level of Practice Regarding Junk Food Consumption (N = 100)

Practice Level	Category	Number	Percentage (%)
Inappropriate	≤ 50% score	51	51
Appropriate	> 50% score	49	49
Total		100	100

Table 7 indicates that 51% of the adolescents exhibited inappropriate practice, while 49% demonstrated appropriate practice related to junk food consumption. This suggests that more than half of the respondents engaged in unhealthy dietary practices.

Table 8: Mean, Mean Percentage and Standard Deviation of Practice Scores (N = 100)

Aspect	Statements	Max Score	Mean	SD	Mean (%)	SD (%)
Practice	16	48	26.25	3.0	54.7	6.3

The mean practice score was 26.25 with a mean percentage of 54.7% and a standard deviation of 3.0, indicating moderate but inconsistent healthy dietary practices among adolescent children.

Table 9: Correlation Between Knowledge, Attitude and Practice Regarding Junk Food Consumption (N = 100)

Variables	Knowledge	Attitude	Practice
Knowledge	1	+0.509*	+0.437*
Attitude	+0.509*	1	+0.497*
Practice	+0.437*	+0.497*	1

Table 9 shows a positive and statistically significant correlation between knowledge and attitude (r = +0.509), knowledge and practice (r = +0.437), and attitude and practice (r = +0.497) at the 5% level of significance. Since the calculated 'r' values were greater than the table value (r = 0.195 at df = 98), the findings indicate that higher knowledge is associated with better attitude and improved practice regarding junk food consumption. Hence, the research hypothesis was accepted.

Table 10: Chi-square Test Showing Association Between Knowledge Level of Adolescent Children on Junk Food Consumption with Selected Demographic Variables (N = 100)

Demographic Variables	Category	Sample	Inadequate Knowledge N (%)	Moderate Knowledge N (%)	χ^2 Value	P Value
Age group	13 years	27	12 (44.4)	15 (55.6)		
	14 years	29	10 (34.5)	19 (65.5)	6.10	P > 0.05 (NS)
	15 years	25	14 (56.0)	11 (44.0)		
	16 years	19	4 (21.1)	15 (78.9)		
Gender	Male	59	30 (50.9)	29 (49.1)	7.06*	*P*< 0.05
	Female	41	10 (24.4)	31 (75.6)		
Birth order	First	41	14 (34.2)	27 (65.8)		
	Second	40	17 (42.5)	23 (57.5)	1.21	P > 0.05 (NS)
	Third	12	6 (50.0)	6 (50.0)		
	Fourth	7	3 (42.9)	4 (57.1)		
Religion	Hindu	70	24 (34.3)	46 (65.7)		
	Christian	21	14 (66.7)	7 (33.3)	8.36*	*P*< 0.05
	Muslim	9	2 (22.2)	7 (77.8)		
Type of family	Nuclear	69	22 (31.9)	47 (68.1)	6.11*	*P*< 0.05
	Joint	31	18 (58.1)	13 (41.9)		
Type of diet	Vegetarian	30	17 (56.7)	13 (43.3)	4.96*	*P*< 0.05
	Mixed diet	70	23 (32.9)	47 (67.1)		
Education of Father	No formal education	18	9 (50.0)	9 (50.0)		
	Primary	24	10 (41.7)	14 (58.3)	2.74	P > 0.05 (NS)
	Higher secondary	41	17 (41.5)	24 (58.5)		
	PUC & above	17	4 (23.5)	13 (76.5)		
Occupation of Father	Daily wages	54	24 (44.4)	30 (55.6)		
	Government	13	7 (53.9)	6 (46.1)	4.59	P > 0.05 (NS)
	Private	12	2 (16.7)	10 (83.3)		
	Others	21	7 (33.3)	14 (66.7)		
Education of Mother	No formal education	17	7 (41.2)	10 (58.8)		
	Primary	16	6 (37.5)	10 (62.5)	2.68	P > 0.05 (NS)
	Higher secondary	53	24 (45.3)	29 (54.7)		
	PUC & above	14	3 (21.4)	11 (78.6)		
Occupation of Mother	Housewife	56	24 (42.9)	32 (57.1)		
	Daily wages	25	11 (44.0)	14 (56.0)	2.67	P > 0.05 (NS)
	Government	5	2 (40.0)	3 (60.0)		
	Private	7	1 (14.3)	6 (85.7)		
	Others	7	2 (28.6)	5 (71.4)		
Family income/month	≤ Rs.10,000	53	26 (49.1)	27 (50.9)	6.47*	*P*< 0.05
	Rs.10,001-15,000	29	6 (20.7)	23 (79.3)		
	≥ Rs.15,001	18	8 (44.4)	10 (55.6)		
Source of lunch	Lunch box	34	9 (26.5)	25 (73.5)	3.93*	*P*< 0.05
	School provided	66	31 (47.0)	35 (53.0)		

Table 10 findings revealed that the level of knowledge regarding junk food consumption had a statistically significant association with gender, religion, type of family, type of diet, monthly family income, and source of lunch at the 5% level of significance. This indicates that these demographic factors play an important role in influencing adolescents' knowledge about junk food consumption. However, no significant association was found between knowledge level and variables such as age, birth order, education of parents, and occupation of parents, suggesting that knowledge deficits were prevalent across these groups irrespective of their background.

Table 11: Chi-square Test Showing Association of Practice Levels of Adolescent Children on Junk Food Consumption with Selected Demographic Variables (N = 100)

Demographic Variables	Category	Sample	Moderate Practice N (%)	High Practice N (%)	χ^2 Value	P Value
Age group	13 years	27	17 (63.0)	10 (37.0)		
	14 years	29	13 (44.8)	16 (55.2)	6.71	P > 0.05 (NS)
	15 years	25	14 (56.0)	11 (44.0)		
	16 years	19	5 (26.3)	14 (73.7)		
Gender	Male	59	34 (57.6)	25 (42.4)	4.29*	*P*< 0.05
	Female	41	15 (36.6)	26 (63.4)		
Birth order	First	41	17 (41.5)	24 (58.5)		
	Second	40	20 (50.0)	20 (50.0)	2.78	P > 0.05 (NS)
	Third	12	7 (58.3)	5 (41.7)		
	Fourth	7	5 (71.4)	2 (28.6)		
Religion	Hindu	70	33 (47.1)	37 (52.9)	0.35	P > 0.05 (NS)
	Christian	21	11 (52.4)	10 (47.6)		
	Muslim	9	5 (55.6)	4 (44.4)		

Type of family	Nuclear	69	29 (42.0)	40 (58.0)	4.33*	*P*< 0.05
	Joint	31	20 (64.5)	11 (35.5)		
Type of diet	Vegetarian	30	10 (33.3)	20 (66.7)	4.21*	*P*< 0.05
	Mixed diet	70	39 (55.7)	31 (44.3)		
Education of Father	No formal education	18	12 (66.7)	6 (33.3)		
	Primary	24	10 (41.7)	14 (58.3)	4.12	P > 0.05 (NS)
	Higher secondary	41	21 (51.2)	20 (48.8)		
	PUC & above	17	6 (35.3)	11 (64.7)		
Occupation of Father	Daily wages	54	28 (51.9)	26 (48.1)		
	Government	13	9 (69.2)	4 (30.8)	4.48	P > 0.05 (NS)
	Private	12	4 (33.3)	8 (66.7)		
	Others	21	8 (38.1)	13 (61.9)		
Education of Mother	No formal education	17	10 (58.8)	7 (41.2)		
	Primary	16	9 (56.3)	7 (43.7)	5.33	P > 0.05 (NS)
	Higher secondary	53	27 (50.9)	26 (49.1)		

Table 11 with regard to practice, the chi-square test showed a statistically significant association with gender, type of family, and type of diet at the 5% level of significance. This implies that these factors significantly influenced the dietary practices of adolescents related to junk food consumption. On the other hand, variables such as age, religion, parental education, parental occupation, and family income did not show a significant association with practice levels, indicating that unhealthy dietary practices were common among adolescents regardless of these characteristics. Overall, the chi-square findings highlight that certain socio-demographic factors significantly influence both knowledge and practice related to junk food consumption among adolescents, emphasizing the need for targeted nutrition education and behaviour-modification strategies for specific groups.

Discussion

The present study was conducted to assess the knowledge, attitude, and practice of adolescent children regarding junk food consumption in selected urban high schools of Shivamogga and to determine the relationship and association between these variables and selected demographic characteristics. This chapter discusses the major findings of the study in relation to the objectives and compares them with findings of previous studies conducted in similar settings.

The demographic profile of the adolescent children revealed that the majority of respondents were in the age group of 14 years, followed by 13 and 15 years, indicating that early and mid-adolescence formed the core population of the study. This age group is particularly vulnerable to unhealthy dietary habits due to increased independence, peer influence, and exposure to mass media advertisements promoting junk foods.

The predominance of boys over girls in the sample is comparable with findings of several school-based studies, where male participation was slightly higher. Most of the adolescents belonged to nuclear families and consumed a mixed diet. The nuclear family structure, along with working parents and limited supervision, may contribute to increased consumption of junk food among adolescents.

The study also revealed that all participants had access to junk food vendors near their school, which is a critical environmental factor influencing unhealthy food choices. This finding highlights the ease of availability of junk food in school surroundings, which plays a significant role in shaping adolescents' eating behaviour.

The assessment of knowledge revealed that the majority of adolescents (60%) had moderately adequate knowledge, while 40% had inadequate knowledge regarding junk food consumption. Notably, none of the respondents demonstrated adequate knowledge. This indicates that although adolescents may have some awareness about junk food and its effects, their knowledge is insufficient and fragmented.

Area-wise analysis of knowledge showed that adolescents had better knowledge regarding the ill effects of junk food consumption compared to balanced diet and junk food consumption practices. This suggests that adolescents are more aware of the harmful consequences than preventive or healthy dietary principles. Similar findings have been reported in earlier studies, where students could identify negative outcomes such as obesity or dental problems but lacked understanding of balanced nutrition.

The overall mean knowledge score reflected only a moderate level of understanding, emphasizing the need for structured nutrition education programs. The absence of adequate knowledge among all respondents is concerning, as insufficient knowledge during adolescence may lead to the continuation of unhealthy dietary habits into adulthood.

The findings related to attitude revealed that a majority of adolescents (69%) had an unfavourable attitude towards healthy eating and junk food consumption, while only 31% demonstrated a favourable attitude. This suggests that despite having moderate knowledge, many adolescents still hold beliefs and perceptions that support junk food consumption.

The mean attitude score further supports this observation, indicating a moderately unfavourable attitude among respondents. Adolescents may perceive junk food as tasty, fashionable, convenient, and socially acceptable, outweighing their awareness of its harmful effects. Peer pressure, advertising, and taste preferences strongly influence adolescent attitudes, often overpowering health-related knowledge.

These findings are consistent with previous studies that have reported a disconnect between knowledge and attitude, where adolescents continue to favour junk foods despite knowing their adverse effects. This highlights the importance of attitude-focused interventions rather than knowledge-based education alone.

The assessment of practice showed that more than half of the adolescents (51%) followed inappropriate dietary practices related to junk food consumption, while only 49% practiced appropriate behaviours. This indicates that unhealthy eating patterns are prevalent among adolescents in the study setting.

The mean practice score reflected moderate practice levels with considerable variability, suggesting inconsistent adherence to healthy dietary habits. Frequent consumption of junk food, irregular meal patterns, and preference for school-provided or vendor-sold food over home-prepared meals may contribute to poor practices. The presence of junk food vendors near schools and reliance on school-provided meals may increase exposure to unhealthy food options. Similar trends have been observed in other Indian studies, where easy access and affordability of junk foods were major determinants of unhealthy practices among school children.

The present study demonstrated a statistically significant positive correlation between knowledge and attitude, knowledge and practice, and attitude and practice. This indicates that adolescents with higher knowledge levels tend to have better attitudes and improved practices regarding junk food consumption.

However, despite the positive correlation, the overall levels of knowledge, attitude, and practice remained suboptimal. This suggests that while knowledge influences behaviour, it alone may not be sufficient to bring about meaningful behavioural change. Attitudinal factors, environmental influences, and social norms also play a crucial role. These findings support the Knowledge-Attitude-Practice (KAP) model, which proposes that knowledge influences attitudes, which in turn shape practices. The results reinforce the need for comprehensive interventions that address all three components simultaneously.

The chi-square analysis revealed significant associations between knowledge level and selected demographic variables such as gender, religion, type of family, type of diet, family income, and source of lunch. Female adolescents demonstrated better knowledge compared to males, which may be attributed to greater health consciousness among girls. Adolescents from nuclear families and those following mixed diets showed better knowledge levels, possibly due to increased exposure to diverse food choices and information. Family income was also significantly associated with knowledge, indicating that socio-economic status influences access to nutrition-related information and resources. The source of lunch showed a significant association with knowledge, with adolescents bringing lunch from home demonstrating better knowledge than those depending on school-provided meals. This may reflect greater parental involvement and supervision in dietary habits.

Other demographic variables such as age, birth order, parental education, and parental occupation did not show significant associations with knowledge, suggesting that knowledge gaps exist across different subgroups.

The chi-square analysis for practice revealed significant associations with gender, type of family, and type of diet. Female adolescents exhibited better dietary practices compared to males, which aligns with previous studies reporting healthier eating behaviours among girls. Adolescents from nuclear families demonstrated better practices than those from joint families, possibly due to greater autonomy and individualized attention. Vegetarian adolescents showed healthier practices compared to those consuming mixed diets, which may be influenced by cultural and dietary norms.

Other demographic variables such as age, religion, parental education, parental occupation, and family income did not show significant associations with practice, indicating that unhealthy practices are widespread and not limited to specific socio-demographic groups.

Nursing Implications

The findings of the study have important implications for nursing practice, education, administration, and research. School health nurses play a vital role in assessing dietary behaviours, providing nutrition education, and promoting healthy eating habits among adolescents. Structured teaching programmes focusing on balanced diet, healthy food choices, and long-term consequences of junk food consumption are essential.

Nursing educators should integrate adolescent nutrition and behavioural change strategies into the curriculum. Nursing administrators should advocate for policies restricting the sale of junk food near schools and promote healthy school meal programs.

Conclusion

The present study was conducted to assess the knowledge, attitude, and practice of adolescent children regarding junk food consumption in selected urban high schools of Shivamogga. Adolescence is a critical period during which dietary habits are formed, and unhealthy practices adopted during this stage often persist into adulthood, leading to long-term health consequences. The findings of the study revealed that the majority of adolescent children possessed only moderately adequate knowledge, with a considerable proportion having inadequate knowledge regarding junk food consumption. None of the respondents demonstrated adequate knowledge. This highlights a significant gap in comprehensive nutritional awareness among adolescents. In terms of attitude, a large proportion of the adolescents exhibited an unfavourable attitude towards healthy eating and junk food consumption. This indicates that although some adolescents may be aware of the harmful effects of junk food, their beliefs and perceptions still favour its consumption.

With regard to practice, more than half of the adolescents followed inappropriate dietary practices, reflecting frequent consumption of junk food and poor adherence to healthy eating behaviours. The widespread availability of junk food vendors near schools and dependence on school-provided meals may have contributed to these unhealthy practices. The study also established a positive and significant correlation between knowledge, attitude, and practice, indicating that improved knowledge is associated with better attitudes and healthier practices. Furthermore, significant associations were found between knowledge and selected demographic variables such as gender, religion, type of family, type of diet, family income, and source of lunch. Practice levels were significantly associated with gender, type of family, and type of diet. Overall, the findings emphasize the urgent need for structured, school-based nutrition education programmes and active involvement of nurses in promoting healthy dietary habits among adolescents. Early intervention during adolescence can play a crucial role in preventing nutrition-related health problems in later life.

Implications of the Study

Implications for Nursing Practice: Community health and school health nurses should routinely assess the dietary

habits of adolescents to identify unhealthy eating patterns at an early stage. Nurses can play a key role in conducting health education sessions that emphasize the importance of a balanced diet, healthy alternatives to junk food, and the long-term health consequences of excessive junk food consumption. In addition, individual and group counselling interventions can be effectively used to modify unhealthy attitudes and practices related to junk food consumption among adolescents.

Implications for Nursing Education: Nursing curricula should place greater emphasis on adolescent nutrition, lifestyle-related health problems, and preventive health strategies. Student nurses should be adequately trained in delivering effective nutrition education and behaviour change communication techniques. Educational institutions should also encourage active participation of student nurses in school health programmes to enhance practical exposure and community engagement.

Implications for Nursing Administration: Nursing administrators should support and promote school-based nutrition intervention programmes aimed at improving adolescents' dietary habits. Policies and guidelines should be developed and implemented to restrict the sale and availability of junk food near school premises. Strengthening collaboration between health departments, educational authorities, and school management is essential for the successful implementation of adolescent nutrition initiatives.

Implications for Nursing Research: The present study provides baseline data that can serve as a foundation for future research in adolescent nutrition. Further experimental and interventional studies can be undertaken to evaluate the effectiveness of structured nutrition education programmes. Comparative studies between urban and rural adolescents are also recommended to explore differences in dietary behaviour and influencing factors.

Recommendations

Based on the findings of the study, the following recommendations are made. Structured teaching programmes focusing on healthy eating habits and the harmful effects of junk food consumption should be implemented in schools to improve adolescents' knowledge, attitude, and practice. Periodic nutrition awareness campaigns should be conducted for both adolescents and their parents to reinforce healthy dietary behaviours. School authorities should actively monitor and regulate food vendors in and around school premises to limit the availability of junk food. Parents should be educated regarding the importance of providing healthy, home-prepared meals and encouraging balanced dietary practices at home. Similar studies can be replicated on a larger sample size to enhance the generalizability of the findings. Furthermore, interventional studies may be undertaken to evaluate the effectiveness of planned teaching programmes in improving knowledge, attitude, and practice related to junk food consumption among adolescents.

Limitations of the study

The study was limited to selected urban high schools of Shivamogga; therefore, the findings cannot be generalized to adolescents studying in rural settings. The sample size was restricted to 100 adolescent children, which may limit the broader applicability of the results. Data were collected using self-reported questionnaires, and hence the responses may be subject to reporting and response bias. Additionally, the study assessed only the existing levels of knowledge, attitude, and practice without implementing or evaluating any interventional programme.

Conflict of Interest

Not available.

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Not available.

References

1. World Health Organization. Adolescent nutrition: A review of the situation in selected South-East Asian countries. Geneva: World Health Organization; 2006.
2. World Health Organization. Global strategy on diet, physical activity and health. Geneva: World Health Organization; 2004.
3. Popkin BM. Nutrition transition and the global diabetes epidemic. Curr Diab Rep. 2015;15(9):64. DOI: 10.1007/s11892-015-0631-0.
4. Gupta N, Goel K, Shah P, Misra A. Childhood obesity in developing countries: Epidemiology, determinants, and prevention. Endocr Rev. 2012;33(1):48-70. DOI: 10.1210/er.2010-0028.
5. Story M, Neumark-Sztainer D, French S. Individual and environmental influences on adolescent eating behaviors. J Am Diet Assoc. 2002;102(3 Suppl):S40-S51. DOI: 10.1016/S0002-8223(02)90421-9.
6. Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: A systematic review. Am J Clin Nutr. 2006;84(2):274-288. DOI: 10.1093/ajcn/84.2.274.
7. Lobstein T, Jackson-Leach R. Estimated burden of paediatric obesity and co-morbidities in Europe. Int J Pediatr Obes. 2006;1(1):26-32. DOI: 10.1080/17477160600586689.
8. Neumark-Sztainer D, Story M, Perry C, Casey MA. Factors influencing food choices of adolescents: Findings from focus-group discussions. J Am Diet Assoc. 1999;99(8):929-937. DOI: 10.1016/S0002-8223(99)00222-9.
9. Sahoo K, Sahoo B, Choudhury AK, Sofi NY, Kumar R, Bhadoria AS. Childhood obesity: Causes and consequences. J Fam Med Prim Care. 2015;4(2):187-192. DOI: 10.4103/2249-4863.154628.
10. Ranjit N, Evans MH, Byrd-Williams C, Evans AE, Hoelscher DM. Dietary and activity correlates of sugar-sweetened beverage consumption among adolescents. Pediatrics. 2010;126(4):e754-e761. DOI: 10.1542/peds.2009-2970.
11. Singh AK, Maheshwari A, Sharma N, Anand K. Lifestyle associated risk factors in adolescents. Indian J Pediatr. 2006;73(10):901-906. DOI: 10.1007/BF02859281.
12. Rampersaud GC, Pereira MA, Girard BL, Adams J, Metzl JD. Breakfast habits, nutritional status, body weight, and academic performance in children and adolescents. J Am Diet Assoc. 2005;105(5):743-760. DOI: 10.1016/j.jada.2005.02.007.

13. Brownell KD, Warner KE. The perils of ignoring history: Big tobacco played dirty and millions died. BMJ. 2009;338:b1413. DOI: 10.1136/bmj.b1413.
14. Livingstone MB, McNaughton SA. Diet quality is associated with obesity and hypertension in children. J Nutr. 2007;137(6):1536-1542. DOI: 10.1093/jn/137.6.1536.
15. Vereecken CA, Inchley J, Subramanian SV, Hublet A, Maes L. Relative influence of individual and contextual socioeconomic status on fruit and soft drink consumption among adolescents. Eur J Public Health. 2005;15(3):224-232. DOI: 10.1093/eurpub/cki005.
16. Kumari R, Tiwari S. Knowledge, attitude and practice regarding junk food consumption among adolescents. Int J Community Med Public Health. 2019;6(1):123-128. DOI: 10.18203/2394-6040.ijcmph20185217.
17. Goyal RK, Shah VN, Saboo BD, Phatak SR, Shah NN, Gohel MC, *et al*. Prevalence of overweight and obesity in Indian adolescent school-going children. J Assoc Physicians India. 2010;58:151-155.
18. Birch LL, Fisher JO. Development of eating behaviors among children and adolescents. Pediatrics. 1998;101(3 Pt 2):539-549.
19. Park K. Textbook of preventive and social medicine. 26th ed. Jabalpur: Banarsidas Bhanot; 2021.
20. National Institute of Nutrition. Dietary guidelines for Indians. Hyderabad: ICMR-NIN; 2011.
21. Bhaskar A, Hemalatha S. Prevalence of obesity among school children in urban India. Int J Community Med Public Health. 2017;4(5):1672-1676. DOI: 10.18203/2394-6040.ijcmph20171792.
22. Pérez-Rodrigo C, Aranceta J. School-based nutrition education: Lessons learned and new perspectives. Public Health Nutr. 2001;4(1A):131-139. DOI: 10.1079/PHN2000108.
23. Contento IR. Nutrition education: Linking research, theory, and practice. Asia Pac J Clin Nutr. 2008;17(Suppl 1):176-179.
24. Mistry SK, Puthussery S. Risk factors of overweight and obesity in childhood and adolescence in South Asian countries. Int J Environ Res Public Health. 2015;12(12):16490-16505. DOI: 10.3390/ijerph121215039.
25. Singh M. Role of school health services in prevention of lifestyle diseases. Indian J Community Health. 2014;26(2):131-136.
26. Hoelscher DM, Kirk S, Ritchie L, Cunningham-Sabo L. Interventions for the prevention and treatment of pediatric overweight and obesity. J Acad Nutr Diet. 2013;113(10):1375-1394. DOI: 10.1016/j.jand.2013.08.004.
27. Larson N, Story M. Environmental influences on food choices. Ann Behav Med. 2009;38(Suppl 1):S56-S73. DOI: 10.1007/s12160-009-9120-9.
28. World Health Organization Regional Office for South-East Asia. Adolescent health and development. New Delhi: WHO-SEARO; 2017.
29. Rao DR, Vijayapushpam T, Subba Rao GM, Antony GM, Sarma KV. Dietary habits and lifestyle patterns of school children in urban India. Indian J Med Res. 2007;126(6):524-530.
30. Story M, Kaphingst KM, Robinson-O'Brien R, Glanz K. Creating healthy food and eating environments: Policy and environmental approaches. Annu Rev Public Health. 2008;29:253-272. DOI: 10.1146/annurev.publhealth.29.020907.090926.

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