# **Scholars Journal of Applied Medical Sciences**

Abbreviated Key Title: Sch J App Med Sci ISSN 2347-954X (Print) | ISSN 2320-6691 (Online) Journal homepage: <u>https://saspublishers.com</u> OPEN ACCESS

Biochemistry

## Perception and Factors Influencing Fast Food and Junk Food Consumption of High School Students of Bogura Town, Bangladesh

Dr. Sammak Nabila<sup>1\*</sup>, Prof. Dr. Md. Jawadul Haque<sup>2</sup>, Dr. Farhana Yasmin<sup>3</sup>, Dr. Mostofa Mahabub Morshed<sup>4</sup>, Dr. Md. Sazzadul Bari<sup>5</sup>

<sup>1</sup>Lecturer, Department of Biochemistry, TMSS Medical College, Bogura, Bangladesh

<sup>2</sup>Ex Prof & Head, Department of Community Medicine & program coordinator, MPH (CM) program, Rajshahi Medical College, Rajshahi, Bangladesh

<sup>3</sup>Assistant Professor, Department of Community Medicine, Rajshahi Medical College, Rajshahi, Bangladesh

<sup>4</sup>Junior Consultant, Department of ICU and Pain Medicine, Shaheed Ziaur Rahman Medical College Hospital, Bogura, Bangladesh <sup>5</sup>Medical Officer, Department of Neurosurgery, National Institute of Neurosciences and Hospital, Dhaka, Bangladesh

**DOI:** <u>10.36347/sjams.2024.v12i06.013</u>

| **Received:** 10.05.2024 | **Accepted:** 24.06.2024 | **Published:** 28.06.2024

\*Corresponding author: Dr. Sammak Nabila

Lecturer, Department of Biochemistry, TMSS Medical College, Bogura, Bangladesh

#### Abstract

**Original Research Article** 

**Background:** Fast food and junk food consumption among adolescents is a growing public health concern due to its association with various health risks. This study aims to investigate the perception and factors influencing fast food and junk food consumption among high school students in Bogura Town. Methods: This study employed a mixed-methods approach, involving a cross-sectional survey and semi-structured interviews. The study sample consisted of 384 high school students aged 11 to 19 years. Data were collected using a semi structured questionnaire and analyzed using descriptive and inferential statistical methods. Qualitative data were analyzed thematically. Results: The majority of participants were aged 14-16 years (58.07%), with a higher proportion of females (66.15%). Most participants resided in urban areas (95.31%) and came from nuclear families (87.24%). Nearly half of the participants were underweight (46.61%), while 45.57% had a healthy weight. Half of the participants consumed less than three major meals daily, and breakfast was the most skipped meal (41.15%). Fast food consumption at school was high (74.48%), with significant instant food consumption at home (78.13%). Factors influencing fast food consumption included taste (83.33%), accessibility (51.82%), and social media influence (61.46%). Awareness of balanced diets was low (27.34%), and most participants recognized the negative health impacts of fast food, such as obesity (94.53%) and heart disease (87.76%). Conclusion: The study highlights significant trends in fast food and junk food consumption among high school students, driven by taste, accessibility, and social influences. The findings underscore the need for targeted nutritional education and interventions to improve dietary habits and reduce health risks among adolescents.

Keywords: Adolescents, fast food consumption, dietary habits, nutritional education, health risks.

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

## **INTRODUCTION**

Adolescent nutrition plays a pivotal role in the physical and cognitive development of individuals during their formative years. Adequate nutrition is essential for supporting the rapid growth and developmental changes that occur during adolescence, and deficiencies during this critical period can have lasting impacts on health and wellbeing. Global trends indicate a concerning shift in dietary habits among adolescents, characterized by an increased consumption of fast food and junk food. These dietary patterns, which are high in calories, fats, sugars, and salts but low in essential nutrients, contribute significantly to the escalating prevalence of various health issues among young people. Fast food and junk food consumption among adolescents is a global phenomenon driven by various factors, including the convenience and palatability of these foods, aggressive marketing strategies, and the socio-economic environment. Studies have shown that the increasing consumption of fast foods is associated with a rise in obesity rates among children and adolescents worldwide. This is particularly evident in Western societies where fast food consumption is deeply ingrained in the food culture, but similar trends are emerging in developing countries, including Bangladesh [1]. The high energy density and large portion sizes of fast food contribute to excessive caloric intake, leading to weight gain and obesity [2]. In Bangladesh, the prevalence of fast food consumption among adolescents has been rising, mirroring global

**Citation:** Sammak Nabila, Md Jawadul Haque, Farhana Yasmin, Mostofa Mahabub Morshed, Md. Sazzadul Bari. Perception and Factors Influencing Fast Food and Junk Food Consumption of High School Students of Bogura Town, Bangladesh. Sch J App Med Sci, 2024 Jun 12(6): 786-795. patterns and contributing to public health concerns [3]. The health impacts of frequent consumption of fast food and junk food are well-documented. Short-term effects include weight gain and nutritional deficiencies, while long-term consequences encompass a range of serious Obesity, health conditions. type 2 diabetes. cardiovascular diseases, and various mental health issues are strongly linked to dietary habits characterized by high intake of fast and junk foods. Studies have established a clear association between fast food consumption and increased risk of cardiometabolic disorders, including hypertension and dyslipidemia, which are precursors to more severe cardiovascular conditions [4]. The consumption of junk food is also associated with a higher incidence of type 2 diabetes due to the high glycemic load and poor nutritional quality of these foods [5]. Mental health is another critical aspect affected by dietary habits. Adolescents consuming high amounts of fast food and junk food are more likely to experience mental health issues such as anxiety and depression. These foods can alter brain function and reward processing, potentially leading to cognitive impairments and altered behaviors [6]. The neurodevelopmental changes during adolescence make the brain particularly vulnerable to the negative effects of poor dietary choices, potentially influencing lifelong mental health trajectories [7]. The influence of peers, family, and the broader socio-economic environment significantly shapes adolescents' dietary choices. Peer pressure and social norms play a crucial role in determining food preferences and consumption patterns. Adolescents are likely to adopt the dietary habits of their peers, which often include frequent consumption of fast food and junk food [8]. Family habits and parental control are also significant determinants of dietary behaviors. Parents and guardians who frequently consume and provide fast food contribute to similar habits in their children [9,10]. Economic and environmental factors further complicate the dietary choices of adolescents. The affordability and accessibility of fast food make it an attractive option for many families, especially in urban areas where fast food outlets are ubiquitous. Studies have shown that higher prices for healthier food options and the widespread availability of cheap, energy-dense fast foods lead to poor dietary choices among adolescents [2]. The proximity of fast food outlets to schools and residential areas increases the likelihood of frequent consumption, thereby exacerbating health risks [11]. Addressing the issue of fast food and junk food consumption among adolescents requires comprehensive strategies, including educational programs and policy interventions. Awareness programs aimed at educating adolescents about the health impacts of their dietary choices have shown promise in changing behaviors. Nutrition counseling and school-based interventions are effective tools in promoting healthier eating habits [1]. For instance, guidelines developed by the Indian Academy of Pediatrics emphasize the importance of reducing the intake of junk foods and sugary beverages, promoting the consumption of fruits and vegetables, and implementing

policies to limit the availability of unhealthy foods in school environments [12]. In conclusion, the dietary habits of adolescents, particularly the consumption of fast food and junk food, pose significant health risks that extend into adulthood. Addressing these issues requires a multi-faceted approach involving education, policy changes, and community support to foster healthier dietary behaviors and mitigate the adverse health impacts associated with poor nutrition during adolescence.

## **METHODS**

This study employed a mixed-methods approach to investigate the perception and factors influencing fast food and junk food consumption among high school students in Bogura Town. A cross-sectional survey was conducted among high school students aged 14 to 18 years, enrolled in various public and private schools in Bogura Town. Simple random sampling was used to ensure representation from different socioeconomic backgrounds and school types, resulting in a target sample of 400 students to achieve a 95% confidence level and a 5% margin of error. Data collection was carried out using a semi structured questionnaire developed based on existing literature and validated through a pilot study. The questionnaire included sections on demographic information, dietary habits, frequency of fast food and junk food consumption, reasons for consumption, awareness of health impacts, and the influence of peers and family on dietary choices. The survey was administered in classrooms with the assistance of trained research assistants, ensuring students understood the questions and responded accurately. In addition to the quantitative survey, qualitative data were collected through semistructured interviews with a subset of 30 students selected from the survey participants. These interviews explored the motivations behind their dietary choices, perceptions of fast food and junk food, and awareness of associated health risks. An interview guide was designed to probe areas not covered in the survey and provide richer context to the quantitative findings. Quantitative data from the surveys were analyzed using descriptive and inferential statistical methods. Descriptive statistics, including frequencies, percentages, means, and standard deviations, summarized the demographic characteristics and dietary habits of the participants. Inferential statistics, such as chi-square tests and logistic regression analysis, identified significant factors influencing fast food and junk food consumption. Qualitative data from the interviews were transcribed verbatim and analyzed using thematic analysis, which involved coding the data to identify recurring themes and patterns related to students' perceptions, motivations, and awareness regarding fast food and junk food consumption. The qualitative findings complemented and provided deeper insights into the quantitative results. The study protocol was reviewed and approved by the Institutional Review Board of Rajshahi Medical College. Informed consent was obtained from all participants and their guardians before participation. Confidentiality and anonymity of the participants were maintained throughout the research

process, and data were stored securely to prevent unauthorized access.

## **Results**

<b>Baseline Characteristics</b>	Frequency	Percentage
Age		
11-13	154	40.10%
14-16	223	58.07%
17-19	7	1.82%
Gender		
Male	130	33.85%
Female	254	66.15%
Residence		
Urban	366	95.31%
Rural	18	4.69%
Family type		•
Joint Family	49	12.76%
Nuclear Family	335	87.24%
Education Status		•
Class 6-7	136	35.42%
Class 8-9	197	51.30%
Class 10	51	13.28%
Fathers Education		•
Illiterate	4	1.04%
Primary	11	2.86%
SSC/HSC	151	39.32%
Graduate and above	218	56.77%
Mothers Education		•
Illiterate	5	1.30%
Primary	18	4.69%
SSC/HSC	216	56.25%
Graduate and above	145	37.76%
Economic status		
Lower Class	33	8.59%
Middle Class	50	13.02%
Upper Class	301	78.39%
BMI of the participants		
Below 18.50- underweight	179	46.61%
18.50 to 24.99- healthy weight	175	45.57%
25 to 29.99- overweight	24	6.25%
30 or above- obesity	6	1.56%
•		

 Table 1: Distribution of baseline characteristics among the participants (N=384)

 Baseline Characteristics
 Frequency

 Percentage

The majority of participants aged between 14 to 16 years, accounting for 58.07% of the sample, followed by those aged 11 to 13 years at 40.10%, and a small proportion aged 17 to 19 years at 1.82%. In terms of gender distribution, 66.15% of the participants were female, while 33.85% were male. Most of the participants resided in urban areas, comprising 95.31% of the sample, with only 4.69% residing in rural areas. Regarding family structure, 87.24% of the participants came from nuclear families, whereas 12.76% were from joint families. The educational status of the participants was categorized as follows: 35.42% were in classes 6-7, 51.30% in classes 8-9, and 13.28% in class 10. Analyzing the educational background of the parents,

56.77% of fathers had education levels of graduate and above, 39.32% had completed SSC/HSC, 2.86% had primary education, and 1.04% were illiterate. For mothers, 56.25% had SSC/HSC education, 37.76% were graduates and above, 4.69% had primary education, and 1.30% were illiterate. In terms of economic status, a significant majority of the participants (78.39%) belonged to the upper class, 13.02% were from the middle class, and 8.59% were from the lower class. The Body Mass Index (BMI) distribution revealed that 46.61% of the participants were underweight, 45.57% had a healthy weight, 6.25% were overweight, and 1.56% were classified as obese.

© 2024 Scholars Journal of Applied Medical Sciences | Published by SAS Publishers, India

Dietary Pattern	Frequency	Percentage
Frequency of daily m	najor meal	
Less than 3 times	192	50.00%
More than 3 times	192	50.00%
Food at lunch		
Fast food / junk food	31	8.07%
Homemade food	337	87.76%
Both	16	4.17%
Skip meal in daily lif	e	
Breakfast	158	41.15%
Lunch	104	27.08%
Dinner	63	16.41%
Don't skip	39	10.16%
2meals	20	5.21%
Reason of skipping n	neal	
Limited time	215	55.99%
Intentionally	65	16.93%
Habitually	62	16.15%
Others	42	10.94%

Table 2: Distribution of participants by dietary patterns among the participants (N=384)

Regarding the frequency of daily major meals, the participants were evenly split, with 50% consuming less than three major meals a day and the other 50% consuming more than three major meals daily. When it came to lunch preferences, a substantial majority of 87.76% reported eating homemade food, while 8.07% consumed fast food or junk food, and 4.17% had a combination of both. Skipping meals was a common practice among the participants. Breakfast was the most frequently skipped meal, with 41.15% of participants skipping it regularly. Lunch was skipped by 27.08% of the participants, while 16.41% skipped dinner. Only 10.16% of participants did not skip any meals, and 5.21% skipped two meals daily. The primary reasons for skipping meals included limited time, cited by 55.99% of participants, intentional skipping by 16.93%, habitual skipping by 16.15%, and other reasons by 10.94%.

Table 3: Distribution of fast food and junk food co	nsumption patterns among the participants (N=384)
---	---

Variables	Frequency	Percentage
Fast food consumptio		
Yes	286	74.48%
Sometimes	60	15.63%
No	38	9.90%
Instant food (noodles,	, canned food, microwave f	food) consumption at hom
Yes	300	78.13%
Sometimes	34	8.85%
No	50	13.02%
Commonly consume	multiple types of fast food	daily
Yes	299	77.86%
Sometimes	34	8.85%
No	51	13.28%
Fast foods consumed	daily	
Burger	20	5.21%
Ice cream	83	21.61%
Sandwich	7	1.82%
Chocolate	39	10.16%
Noodles	50	13.02%
Others	96	25.00%
Multiple	89	23.18%
Place of consumption		
Trip	17	4.43%
At restaurant	83	21.61%
At home	74	19.27%
At school	51	13.28%

© 2024 Scholars Journal of Applied Medical Sciences | Published by SAS Publishers, India

Variables	Frequency	Percentage
At friend's home	5	1.30%
Multiple	154	40.10%
Occasion of consumptio	n	
Special day	60	15.63%
Holyday	40	10.42%
Shopping time	11	2.86%
While travel	30	7.81%
While reading	7	1.82%
Multiple	236	61.46%
Time of eating fast food		
Morning	19	4.95%
Noon	21	5.47%
Evening	337	87.76%
Don't eat	1	0.26%
More than once	6	1.56%

Sammak Nabila et al; Sch J App Med Sci, Jun, 2024; 12(6): 786-795

A large proportion of the participants, 74.48%, reported consuming fast food at school, with 15.63% doing so sometimes, and 9.90% not consuming fast food at school at all. At home, instant food such as noodles, canned food, and microwave meals were consumed by 78.13% of the participants, occasionally by 8.85%, and not consumed by 13.02%. Regarding the frequency of consuming multiple types of fast food daily, 77.86% of the participants reported doing so, 8.85% consumed multiple types of fast food daily. The specific types of fast foods consumed daily included burgers (5.21%), ice cream (21.61%), sandwiches (1.82%), chocolate (10.16%), noodles (13.02%), with 25.00% consuming other types, and 23.18% consuming multiple types. The

place of consumption varied, with 40.10% of the participants consuming fast food at multiple locations. Specifically, 21.61% ate at restaurants, 19.27% at home, 13.28% at school, 4.43% during trips, and 1.30% at friends' homes. The occasions for consuming fast food were predominantly multiple occasions for 61.46% of participants, with 15.63% consuming on special days, 10.42% on holidays, 7.81% while traveling, 2.86% during shopping, and 1.82% while reading. The preferred time for eating fast food was overwhelmingly in the evening, reported by 87.76% of participants, with 5.47% consuming at noon, 4.95% in the morning, and a small fraction, 1.56%, eating more than once a day. Only 0.26% of the participants reported not eating fast food at all.

Frequency	Percentage
ver homemado	e food
260	67.71%
88	22.92%
36	9.38%
31	8.07%
337	87.76%
16	4.17%
e meal with fa	st/junk food
314	81.77%
29	7.55%
41	10.68%
d habit is incr	easing day by day
200	52.08%
184	47.92%
r junk food	
6	1.56%
320	83.33%
32	8.33%
7	1.82%
19	4.95%
	ver homemade 260 88 36 31 337 16 e meal with fat 314 29 41 d habit is incr 200 184 r junk food 6 320 32 7

Table 4: Distribution of the preferences and reas	sons for consum	ption among the	e participants (N=384)
Variables	Frequency	Percentage	

А	majority	of the	e participants	s, 67.71%,
preferred fa	st food ove	er home	made food, wh	nile 22.92%

sometimes preferred fast food, and only 9.38% consistently chose homemade food. During lunch,

87.76% of participants consumed homemade food, 8.07% ate fast food or junk food, and 4.17% had both. In terms of meal replacement, 81.77% of participants reported replacing their meals with fast food or junk food daily, 7.55% did so sometimes, and 10.68% did not replace their meals with such foods. When asked about the trend in their eating habits, 52.08% of participants acknowledged that their fast food and junk food consumption was increasing day by day, while 47.92% disagreed. The primary reasons for preferring junk food included taste, cited by 83.33% of participants, indicating that the flavor was the most compelling factor. A smaller proportion, 8.33%, consumed junk food as a normal meal, 1.82% chose it because it was readily available, 1.56% considered it a status symbol, and 4.95% had multiple reasons for their preference.

Variables	Frequency	Percentage
Have complete	awareness about bala	nced diet
True	105	27.34%
False	237	61.72%
Not Sure	42	10.94%
Attending class	s on nutrition and hea	lth is necessary
True	150	39.06%
False	226	58.85%
Not Sure	8	2.08%
Fast food and j	junk food is good alter	native to healthy food
True	25	6.51%
False	339	88.28%
Not Sure	20	5.21%
Fast food and j	junk food is better opt	ion instead to eating fruits
True	107	27.86%
False	264	68.75%
Not Sure	13	3.39%

# Table 5: Distribution of the awareness and attitudes towards diet among the participants (N=384)

The awareness and attitudes towards diet among the participants revealed several noteworthy trends. Only 27.34% of the participants claimed to have complete awareness about what constitutes a balanced diet, whereas a significant 61.72% admitted they did not, and 10.94% were unsure. When asked if attending classes on nutrition and health is necessary, 39.06% agreed, 58.85% disagreed, and 2.08% were unsure, indicating a general lack of enthusiasm for nutritional education. Regarding perceptions of fast food and junk food, 88.28% of the participants did not consider fast food and junk food as good alternatives to healthy food, while 6.51% believed they were, and 5.21% were uncertain. Similarly, when asked if fast food and junk food were better options than eating fruits, 68.75% disagreed, 27.86% agreed, and 3.39% were unsure.

Table 6: Distribution of the knowledge about fast food and junk food among the participants (N=38	<b>34</b> )

Variables	Frequency	Percentage
Have complete knowle	edge about nutritional value of fast foo	d and junk food
True	91	23.70%
False	172	44.79%
Not Sure	121	31.51%
Fast food and junk foo	od makes a person overweight	
True	363	94.53%
False	15	3.91%
Not Sure	6	1.56%
Fast food and junk foo	od create toxicity in human body	
True	319	83.07%
False	26	6.77%
Not Sure	39	10.16%
Junk food contains a	high number of saturated fats which	ch are harmful for the body specially if eaten in
abundance	-	
True	34	8.85%
False	17	4.43%
Not Sure	333	86.72%
Have knowledge abou	t how the fast food affects the body's n	netabolism and energy level
True	34	8.85%
		· · · · · · · · · · · · · · · · · · ·
© 2024 Scholars Journal of	of Applied Medical Sciences   Published by S	AS Publishers, India 791

Variables	Frequency	Percentage	
False	7	1.82%	
Not Sure	343	89.32%	
Fast food and junk foo	d is related to heart disease		
True	337	87.76%	
False	30	7.81%	
Not Sure	17	4.43%	
Fast food increases blo	od sugar		
True	34	8.85%	
False	20	5.21%	
Not Sure	330	85.94%	
Fast food causes raise	of blood pressure		
True	34	8.85%	
False	12	3.13%	
Not Sure	338	88.02%	
Fast food and junk foo	d can cause cancer		
True	34	8.85%	
False	15	3.91%	
Not Sure	335	87.24%	

The knowledge about the nutritional value and health impacts of fast food and junk food among the participants revealed several significant insights. Only 23.70% of the participants claimed to have complete knowledge about the nutritional value of fast food and junk food, while 44.79% admitted they did not, and 31.51% were unsure. A substantial majority, 94.53%, agreed that fast food and junk food contribute to overweight and obesity, with only 3.91% disagreeing and 1.56% unsure. Regarding the perception of toxicity, 83.07% believed that fast food and junk food create toxicity in the human body, 6.77% disagreed, and 10.16% were unsure. Interestingly, despite this high awareness of toxicity, only 8.85% acknowledged that junk food contains a high number of saturated fats harmful to the body, especially when consumed in abundance. A significant 86.72% were unsure about this,

indicating a gap in specific nutritional knowledge. When asked about the impact of fast food on metabolism and energy levels, only 8.85% of the participants confirmed they had knowledge about it, while 1.82% disagreed and a substantial 89.32% were unsure. Similarly, 87.76% believed that fast food is related to heart disease, with 7.81% disagreeing and 4.43% unsure. Knowledge about the impact of fast food on blood sugar levels was limited, with 8.85% agreeing that fast food increases blood sugar, 5.21% disagreeing, and 85.94% unsure. Regarding the effect on blood pressure, 8.85% agreed that fast food raises blood pressure, 3.13% disagreed, and 88.02% were unsure. Lastly, the potential link between fast food and cancer was acknowledged by 8.85% of participants, while 3.91% disagreed, and a notable 87.24% were unsure.

Table 7: Distribution of the factors influencing fast food and junk food consumption among the participants	
(N=384)	

Variables	Frequency	Percentage
Fast food and junk food is cheaper than regular food item	53	13.80%
Easy accessibility in school influence in taking fast food and junk food	199	51.82%
Branding effect in choosing fast food and junk food	159	41.41%
Speed of service influences in taking fast food and junk food	181	47.14%
Discount coupon influences to buy fast food and junk food	127	33.07%
Friendliness of staff	102	26.56%
Social media influences in taking fast food and junk food consumption	236	61.46%
Advertisement influence in taking fast food and junk food	239	62.24%
Food vlogger page following	225	58.59%

The factors influencing fast food and junk food consumption among the participants highlighted several key motivators. A minority of the participants, 13.80%, perceived fast food and junk food as cheaper than regular food items. Easy accessibility of fast food and junk food in schools significantly influenced consumption, as reported by 51.82% of the participants. Branding effects were also notable, with 41.41% of participants indicating that brand reputation influenced their choices. The speed of service was a crucial factor for 47.14% of participants, indicating that the quick availability of fast food was a significant motivator. Discounts and coupons played a role for 33.07% of the participants, suggesting that promotional offers encourage fast food purchases. The friendliness of staff influenced 26.56% of participants, showing that customer service can affect food choices. Social media was a powerful influence, with 61.46% of participants acknowledging that it impacted their consumption of fast food and junk food. Similarly, advertisements influenced 62.24% of the participants, highlighting the significant role of marketing in dietary choices. Additionally, 58.59% of participants followed food vlogger pages, which likely contributed to their interest and consumption of fast food and junk food.

### **DISCUSSION**

The present study examined the perception and factors influencing fast food and junk food consumption among high school students in Bogura Town. The findings reveal critical insights into dietary habits, highlighting several influencing factors and their implications on health. The age distribution of participants was predominantly between 14 to 16 years (58.07%), which aligns with the demographic targeted in similar studies examining adolescent dietary behaviors. For instance, the HELENA study also focused on adolescents aged 12.5 to 17.5 years, underscoring the critical period for nutritional interventions [13]. The gender distribution showed a higher participation of females (66.15%) compared to males (33.85%), reflecting a trend observed in dietary studies where female participants often outnumber males, possibly due to greater health consciousness among females [14]. Most participants resided in urban areas (95.31%), consistent with studies indicating higher accessibility and consumption of fast food in urban settings due to greater availability and marketing exposure [15]. The dominance of nuclear families (87.24%) among participants aligns with findings that nuclear family structures are prevalent in urban regions, influencing dietary habits through more individualized eating patterns. The educational status of participants revealed a concentration in classes 8-9 (51.30%), similar to findings from other adolescent dietary studies, where middle school students are a key demographic [16]. Parental education levels showed that the majority of fathers (56.77%) and mothers (56.25%) had education levels of graduate and above, which correlates with higher awareness and potential influence on children's dietary choices, as suggested by studies highlighting the role of parental education in shaping adolescent eating behaviors [17]. Economic status data indicated a predominance of upper-class participants (78.39%), supporting the view that higher socioeconomic status often correlates with increased consumption of fast food due to greater disposable income and lifestyle choices [18]. The BMI distribution showed that nearly half of the participants were underweight (46.61%), with a significant portion having a healthy weight (45.57%), which contrasts with trends in developed countries where overweight and obesity are more prevalent [19]. The frequency of daily major meals was evenly split, with half consuming less than three meals daily. This pattern

reflects global trends where irregular meal patterns are common among adolescents, influenced by busy lifestyles and academic pressures [20]. Most participants preferred homemade food for lunch (87.76%), though a significant minority consumed fast food (8.07%), reflecting a global shift towards increased fast food consumption among adolescents [21]. Skipping meals was prevalent, with breakfast being the most commonly skipped (41.15%), a trend consistent with other studies indicating that breakfast skipping is widespread among adolescents due to time constraints and lifestyle factors [22]. The primary reasons for skipping meals included limited time (55.99%), intentional skipping (16.93%), and habitual behavior (16.15%), which are common reasons identified in similar research [8]. Fast food consumption at school was high (74.48%), highlighting the impact of easy accessibility on dietary choices. This finding aligns with studies showing that proximity to fast food outlets near schools increases consumption among students [23]. Instant food consumption at home was also significant (78.13%), reflecting the convenience-driven choices common in modern households [24]. Daily multiple fast food consumption was reported by 77.86% of participants, underscoring the habitual nature of fast food consumption among adolescents, a trend observed globally [21]. The types of fast foods consumed daily varied, with a notable preference for ice cream (21.61%) and other fast foods, similar to preferences reported in other adolescent dietary studies [25]. The place and occasion of fast food consumption were diverse, with many participants consuming fast food at multiple locations (40.10%) and during various occasions such as special days and holidays, indicating the social and celebratory role of fast food in adolescents' lives [26]. Evening was the most common time for fast food consumption (87.76%), consistent with studies showing that fast food is often consumed as a dinner or evening snack [22]. The preference for fast food over homemade food was high (67.71%), driven primarily by taste (83.33%), a finding echoed in studies where taste is a dominant factor influencing junk food preference among adolescents [6]. Awareness of balanced diets was low, with only 27.34% having complete awareness, highlighting the need for better nutritional education, as supported by studies advocating for more effective nutritional interventions in schools [24]. The belief that fast food is not a good alternative to healthy food was prevalent (88.28%), reflecting a general understanding of the poor nutritional value of fast food, similar to findings in studies where adolescents recognize but do not always act on the health implications of their food choices [4]. The knowledge about the nutritional value of fast food was limited, with only 23.70% having complete knowledge, underscoring the gaps in nutritional education [8]. Regarding health impacts, a significant majority (94.53%) believed that fast food causes obesity, aligning with substantial evidence linking fast food consumption to obesity [27]. The perceived link between fast food and heart disease (87.76%) reflects growing awareness of cardiovascular risks, supported by

numerous studies [19]. However, there was lower awareness about the impacts of fast food on blood sugar (8.85%), blood pressure (8.85%), and cancer (8.85%), indicating specific areas where educational efforts need strengthening [28]. Economic factors were considered less significant, with only 13.80% viewing fast food as cheaper than regular food, suggesting that other factors like taste and convenience might be more influential [27]. Accessibility (51.82%) and branding (41.41%) were significant influences, consistent with studies highlighting the powerful role of marketing and convenience in fast food consumption [29]. Service speed (47.14%) and discount coupons (33.07%) were also important factors, reflecting the importance of convenience and cost-effectiveness in food choices among adolescents [30]. The influence of staff friendliness (26.56%), social media (61.46%), advertisements (62.24%), and food vloggers (58.59%) underscores the multifaceted marketing strategies that impact adolescent dietary behaviors [23]. In conclusion, this study highlights the complex interplay of factors influencing fast food and junk food consumption among high school students in Bogura Town. The findings emphasize the need for comprehensive strategies that address both individual and environmental influences to promote healthier dietary habits among adolescents.

#### Limitations of The Study

The study was conducted in a single location with a relatively small sample size. So, the results may not represent the whole community.

#### CONCLUSION

The present study provides comprehensive insights into the dietary habits and influencing factors of fast food and junk food consumption among high school students in Bogura Town. The findings reveal significant trends in meal frequency, food preferences, and the prevalence of fast food consumption, driven by factors such as taste, accessibility, and social influences. The study highlights critical gaps in nutritional knowledge and awareness among adolescents, underscoring the need for targeted nutritional education and interventions. Addressing these factors holistically is essential to promote healthier eating habits and mitigate the health risks associated with poor dietary choices among adolescents.

#### *Funding:* No funding sources

#### Conflict of interest: None declared

*Ethical approval:* The study was approved by the Institutional Ethics Committee

#### **R**EFERENCES

1. Arya, G., & Mishra, S. (2013). Effect of junk food & beverages on Adolescent's health. *IOSR Journal of nursing and health science*, *1*, 26-32.

- 2. Rosenheck, R. (2008). Fast food consumption and increased caloric intake: a systematic review of a trajectory towards weight gain and obesity risk. *Obesity reviews*, 9(6), 535-547.
- Mistry, S. K., & Puthussery, S. (2015). Risk factors of overweight and obesity in childhood and adolescence in South Asian countries: a systematic review of the evidence. *Public health*, 129(3), 200-209.
- Bahadoran, Z., Mirmiran, P., & Azizi, F. (2015). Fast food pattern and cardiometabolic disorders: a review of current studies. *Health promotion perspectives*, 5(4), 231.
- 5. Mishra, S. Consumption of Junk Foods and Risk of Type 2 Diabetes: A Review.
- 6. Reichelt, A. C., & Rank, M. M. (2017). The impact of junk foods on the adolescent brain. *Birth defects research*, *109*(20), 1649-1658.
- Pourghazi, F., Eslami, M., Ehsani, A., Ejtahed, H. S., & Qorbani, M. (2022). Eating habits of children and adolescents during the COVID-19 era: A systematic review. *Frontiers in nutrition*, 9, 1004953.
- Upreti, Y. R., Acharya, D., Yogi, B. N., Devkota, B., & Bhandari, T. R. (2022). Multilevel factors appealing to junk food consumption among school children and adolescents: A systematic review. *Journal of Health Promotion*, 10(1), 13-26.
- Cohen, J. F., Rimm, E. B., Davison, K. K., Cash, S. B., McInnis, K., & Economos, C. D. (2020). The role of parents and children in meal selection and consumption in quick service restaurants. *Nutrients*, *12*(3), 735.
- Gao, Y., Huang, Y., Zhang, Y., Liu, F., Feng, C. X., Liu, T., ... & Sun, W. (2014). Evaluation of fast food behavior in pre-school children and parents following a one-year intervention with nutrition education. *International journal of environmental research and public health*, 11(7), 6780-6790.
- 11. Chen, L. (2017). Food Environment, Policy and Sugar-Sweetened Beverages Consumption in US Adolescents. *North American Journal of Medicine and Science*, 10(2).
- 12. Gupta, P., Shah, D., Kumar, P., Bedi, N., Mittal, H. G., Mishra, K., ... & Pediatric and Adolescent Nutrition Society (Nutrition Chapter) of Indian Academy of Pediatrics. (2019). Indian academy of pediatrics guidelines on the fast and junk foods, sugar sweetened beverages, fruit juices, and energy drinks. *Indian pediatrics*, 56, 849-863.
- Moreno, L. A., Gottrand, F., Huybrechts, I., Ruiz, J. R., González-Gross, M., DeHenauw, S., & HELENA Study Group. (2014). Nutrition and lifestyle in european adolescents: the HELENA (Healthy Lifestyle in Europe by Nutrition in Adolescence) study. *Advances in Nutrition*, 5(5), 615S-623S.
- Ochola, S., & Masibo, P. K. (2014). Dietary intake of schoolchildren and adolescents in developing countries. *Annals of Nutrition and Metabolism*, 64(Suppl. 2), 24-40.

© 2024 Scholars Journal of Applied Medical Sciences | Published by SAS Publishers, India

- Keats, E. C., Rappaport, A. I., Shah, S., Oh, C., Jain, R., & Bhutta, Z. A. (2018). The dietary intake and practices of adolescent girls in low-and middleincome countries: a systematic review. *Nutrients*, *10*(12), 1978.
- Rockett, H. R., Berkey, C. S., & Colditz, G. A. (2003). Evaluation of dietary assessment instruments in adolescents. *Current Opinion in Clinical Nutrition & Metabolic Care*, 6(5), 557-562.
- Thana'Y, A., Takruri, H. R., & Tayyem, R. F. (2019). Dietary practices and nutrient intake among adolescents: a general review. *Obesity Medicine*, 16, 100145.
- Van der Horst, K., Oenema, A., Ferreira, I., Wendel-Vos, W., Giskes, K., van Lenthe, F., & Brug, J. (2007). A systematic review of environmental correlates of obesity-related dietary behaviors in youth. *Health education research*, 22(2), 203-226.
- Funtikova, A. N., Navarro, E., Bawaked, R. A., Fíto, M., & Schröder, H. (2015). Impact of diet on cardiometabolic health in children and adolescents. *Nutrition journal*, 14, 1-11.
- Sousa, S. F. D., Wolf, V. L. W., Martini, M. C. S., Assumpção, D. D., & Barros Filho, A. A. D. (2020). Frequency of meals consumed by Brazilian adolescents and associated habits: Systematic review. *Revista Paulista de Pediatria*, 38, e2018363.
- Das, J. K., Salam, R. A., Thornburg, K. L., Prentice, A. M., Campisi, S., Lassi, Z. S., ... & Bhutta, Z. A. (2017). Nutrition in adolescents: physiology, metabolism, and nutritional needs. *Annals of the New York Academy of Sciences*, 1393(1), 21-33.
- Adolphus, K., Lawton, C. L., Champ, C. L., & Dye, L. (2016). The effects of breakfast and breakfast composition on cognition in children and

adolescents: a systematic review. *Advances in Nutrition*, 7(3), 590S-612S.

- Bankole, E., Harris, N., Rutherford, S., & Wiseman, N. (2023). A systematic review of the adolescent-directed marketing strategies of transnational fast food companies in low-and middle-income countries. *Obesity Science & Practice*, 9(6), 670-680.
- Arya, G., & Mishra, S. (2013). Effect of junk food & beverages on Adolescent's health. *IOSR Journal* of nursing and health science, 1, 26-32.
- Kirana, D. S., & Wirjatmadi, B. (2023). Literature Review: Correlation of Fast Food Intake to Overweight in Adolescents. *Media Gizi Kesmas*, 12(1), 434-440.
- Costa, C. S., Del-Ponte, B., Assunção, M. C. F., & Santos, I. S. (2018). Consumption of ultra-processed foods and body fat during childhood and adolescence: a systematic review. *Public health nutrition*, 21(1), 148-159.
- 27. Tsutiyeva, A. S., & Dzgoeva, F. K. (2022). Fast food and obesity: risks to children and adolescents?.
- SN, U., Ayuk, A. C., Chikani, U. N., Eze, J. N., Adiele, K. D., & Aronu, A. E. (2019). Association of Pediatric Obesity with Adult Cardiovascular Disease: A Narrative Review of Published Evidence.
- Saha, S., Al Mamun, M. A., & Kabir, M. R. (2022). Factors affecting fast food consumption among college students in South Asia: a systematic review. *Journal of the American Nutrition Association*, 41(6), 626-636.
- Janssen, H. G., Davies, I. G., Richardson, L. D., & Stevenson, L. (2018). Determinants of takeaway and fast food consumption: a narrative review. *Nutrition research reviews*, *31*(1), 16-34.