Original Article

Prevalence and Determinants of Junk Food Consumption Among Adolescents in Amalapuram: A Cross-Sectional Study

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Abstract

Background: Junk food consumption among adolescents is a growing contributor to obesity and non-communicable diseases. Despite awareness of its adverse health effects, its intake remains prevalent due to accessibility, peer influence, and marketing. **Objectives:** To assess the prevalence and patterns of junk food consumption among adolescents in Amalapuram and to identify associated demographic and lifestyle factors. **Materials and Methods:** A descriptive cross-sectional study was conducted among 100 adolescents aged 13–15 years from public and private schools in Amalapuram, Andhra Pradesh. Stratified proportionate random sampling was employed. Data were collected using a pre-tested, self-administered questionnaire covering demographic details, consumption patterns, and awareness of health risks. Statistical analysis included descriptive measures and bivariate analysis with odds ratios (OR) to determine associations. **Results:** Overall, 60.3% of adolescents reported junk food consumption in the past month. Prevalence was higher among public school students (65.1%) compared to private school students (56.3%). The most commonly consumed items were salty snacks (58.7%) and sweets (57.5%), while 20% consumed fast food and soft drinks. Consumption occurred predominantly with friends (83.9%), during travel (70.1%), and at home (60%). Significant predictors of consumption included nuclear family structure (OR = 1.46), eating at home (OR = 2.20), eating while traveling (OR = 1.99), peer influence (OR = 2.01), and attending public schools (OR = 1.44). Despite high intake, 90% acknowledged health risks. **Conclusion:** Junk food consumption among adolescents in Amalapuram is widespread, influenced by peer and environmental factors, despite good awareness of associated health risks. School-based nutrition programs and family-level interventions are urgently needed.

Keywords: Junk food, Adolescents, Obesity, Dietary patterns, Public vs. Private schools, Peer influence.

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Introduction

Childhood and adolescent obesity has emerged as a major public health challenge worldwide, with significant implications for future cardiovascular, metabolic, and psychosocial health. In India, the prevalence of overweight and obesity among adolescents has been steadily increasing, driven largely by the rising consumption of calorie-dense, nutrient-poor foods.[1,2] Junk foods, typically high in sugars, salt, and unhealthy fats, are among the primary contributors to this trend. Their excessive intake displaces healthier dietary options, predisposing children to obesity and related non-communicable diseases such as type 2 diabetes, hypertension, and dyslipidemia.[3–5]

Despite widespread knowledge of the adverse health consequences, junk food consumption remains highly prevalent among adolescents. Factors such as taste preference, peer influence, aggressive marketing, and easy availability make junk food more appealing than traditional meals.[6] The school environment, family structure, and socio-cultural practices further shape dietary behaviors. Notably, peer group interactions and social settings such as eating with friends or during travel are strongly linked with increased intake of such foods.[1,6]

In smaller towns and semi-urban regions like Amalapuram in Andhra Pradesh, research on adolescent dietary patterns remains limited. Most available evidence has focused on metropolitan populations, leaving a gap in understanding regional consumption trends and behavioral determinants. Exploring local contexts is essential for designing culturally appropriate interventions and policies.

Against this backdrop, the present study was undertaken to assess the prevalence and patterns of junk food consumption among adolescents in Amalapuram and to identify demographic, familial, and peer-related factors associated with these behaviors.

Materials and Methods

Study Design and Setting: A descriptive cross-sectional study was carried out among school-going adolescents in the Amalapuram sub-district of Andhra Pradesh. The study was

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conducted over a six-month period

Study Population: The target population included adolescents aged 13–15 years enrolled in classes 8 to 10 across selected public and private schools. Students with chronic medical conditions, dietary restrictions, or incomplete questionnaires were excluded.

Sample Size and Sampling Technique: A total of 100 participants were recruited using a stratified proportionate random sampling method to ensure adequate representation of both public and private schools. The sample size was determined based on feasibility and comparable studies examining adolescent dietary patterns in similar contexts.

Data Collection Tool: Data were collected using a pre-tested, self-administered structured questionnaire adapted from validated instruments. The tool consisted of four sections:

Sociodemographic details – age, gender, type of school, family type.

Dietary patterns – type, frequency, and context of junk food consumption.

Lifestyle variables – physical activity and fruit/vegetable intake.

Awareness – knowledge regarding health risks of junk food.

Procedure:

After obtaining informed assent from students and written consent from parents/guardians, participants completed the questionnaire under supervision to minimize missing responses. Confidentiality was maintained throughout the process.

Statistical Analysis: Data were entered into Microsoft Excel and analyzed using SPSS (version 26.0). Descriptive statistics such as frequencies and percentages were calculated. Associations between junk food consumption and independent variables (school type, family structure, and peer influence) were tested using odds ratios (OR) with 95% confidence intervals. A p-value <0.05 was considered statistically significant.

Ethical Considerations: The study was approved by the Institutional Ethics Committee of KIMS, Amalapuram. Written informed consent from parents/guardians and assent from participants were obtained. Confidentiality, anonymity, and voluntary participation were ensured in accordance with the Declaration of Helsinki guidelines.

Results

A total of 100 adolescents aged 13–15 years participated in the study, with an almost equal distribution across age groups. Slightly more than half were male (52%) and a majority were from private schools (57%). Nuclear families constituted 61% of the sample [Table 1].

Table 1: Demographic Distribution of Participants (N = 100)

Variable	Categories	Frequency (n)	Percentage (%)
Age (years)	13	34	34.0
	14	33	33.0
	15	33	33.0
Gender	Male	52	52.0
	Female	48	48.0
Type of School	Public	43	43.0
	Private	57	57.0
Family Type	Nuclear	61	61.0
	Joint	39	39.0

Overall, 60.3% of participants reported consuming junk food in the past month. The prevalence was higher among public school students (65.1%) compared to private school students (56.3%) [Table 2].

Table 2: Prevalence of Junk Food Consumption

Variable	Categories	Frequency (n)	Percentage (%)
Junk food consumption	Yes	60	60.3
	No	40	39.7
Public school students	Consumed	28	65.1
Private school students	Consumed	32	56.3

The most frequently consumed junk foods were salty snacks (58.7%) and sweets or chocolates (57.5%). Soft drinks (20%) and fast foods such as pizza and burgers (20%) were relatively less common [Table 3].

Consumption was most often reported in social settings, with 83.9% eating junk food with friends and 70.1% during travel. Sixty percent reported eating junk food at home. Multivariate analysis revealed significant associations between junk food consumption and contextual factors. Adolescents from nuclear families (OR = 1.46), those consuming food at home (OR = 2.20), eating while traveling (OR = 1.99), and peer influence (OR = 2.01) were more likely to consume junk food. Public school attendance was also a predictor (OR = 1.44) [Table 4].

Table 3: Types of Junk Foods Consumed

Junk Food Item	Frequency (n)	Percentage (%)
Salty snacks	59	58.7
Sweets/Chocolates	58	57.5
Soft drinks	20	20.0
Fast food (pizza, burgers)	20	20.0

Table 4: Context and Factors Associated with Junk Food Consumption

Variable/Setting	Frequency (n)	Percentage (%)	Odds Ratio (OR)
With friends	84	83.9	–
While traveling	70	70.1	1.99
At home	60	60.0	2.20
Public school	28	65.1	1.44
Nuclear family	37	61.0	1.46
Peer influence present	65	65.0	2.01

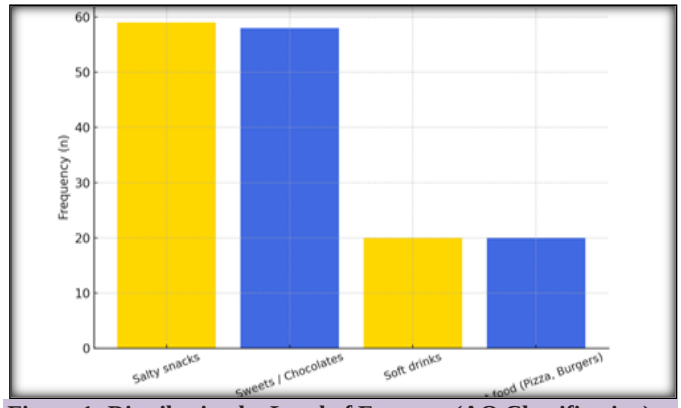

Figure 1: Distribution by Level of Fracture (AO Classification)

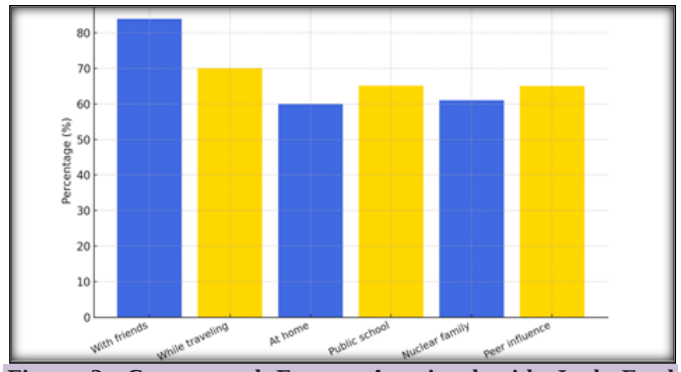

Figure 2: Context and Factors Associated with Junk Food Consumption

Discussion

This study demonstrates a high prevalence of junk food consumption among adolescents in Amalapuram, with nearly two-thirds reporting intake in the past month. Interestingly, 90% of participants recognized that junk food predisposes to obesity and other health problems, yet their dietary behavior remained unchanged. Such a mismatch between awareness and actual practices reflects the well-established knowledge–behavior gap in adolescent nutrition.[7]

Salty snacks and sweets emerged as the most commonly consumed items, consistent with patterns reported in other Indian and regional studies. While soft drinks and fast foods such as pizza and burgers were less frequent in our cohort, even modest intake of these calorie-dense products contributes substantially to metabolic risk.[8] Consumption was most strongly linked to social contexts 83.9% reported eating junk food with friends and 70.1% during travel reinforcing the role of peer influence and environmental exposure in shaping adolescent food habits.[9]

The association with family type was also noteworthy, as nuclear families showed higher odds of junk food consumption compared to joint families. Similar findings have been described in earlier studies, where joint family structures provided greater dietary supervision and adherence to traditional meals.[10] These results suggest that the family environment remains a powerful determinant of eating behaviors. International evidence also supports these observations. Studies from Nepal and South Asia have shown that socio-demographic factors such as family structure, urban residence, and lifestyle transitions increase the risk of overweight and junk food dependency among adolescents.[11–13] Collectively, these findings highlight that adolescent junk food consumption is not merely a matter of individual preference but rather the outcome of interconnected social, familial, and cultural influences.

The persistence of high intake despite awareness points to the limited effectiveness of knowledge-based interventions alone. Stronger policy measures, such as regulating advertisements, restricting availability of unhealthy foods within school premises, and promoting healthier canteen options, are warranted. Family-based strategies encouraging shared meals, restricting availability of packaged foods at home, and fostering healthy snacking habits may also help mitigate the obesogenic environment.

Conclusion

The present study demonstrates that junk food consumption among adolescents in Amalapuram is alarmingly high, despite substantial awareness of its adverse health consequences. Salty snacks and sweets emerged as the most common dietary choices, with consumption largely shaped by peer influence, social settings, and family structure. Adolescents from nuclear families and public schools exhibited higher odds of intake. These findings underscore the urgent need for comprehensive strategies, including school-based nutrition education, parental guidance, and stricter regulation of junk food

availability and marketing. Targeted interventions at both institutional and family levels are crucial to fostering healthier eating behaviors and reducing obesity risk.

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Conflicts of interest

There are no conflicts of interest.

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