

Snacking Pattern Among Teenagers in Hyderabad

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Abstract- With rapid urbanization, the traditional dietary practices of Indian adolescents are shifting toward convenience-driven, processed, and energy-dense snacks. The present study investigates the snacking patterns, lifestyle behaviours, and dietary habits of teenagers aged 16–19 years in Hyderabad. These changes are influenced by various factors including social media, digital food platforms, peer pressure, and academic schedules. The research highlights a growing dependence on snacks such as chips, chocolates, fast food, and sugary beverages, which often replace nutritious meals. Data was collected using structured questionnaires from 100 students selected via random sampling from two institutions. The study assessed socio-demographic profiles, anthropometric data, food frequency, clinical history, and health-related outcomes. The findings revealed that while 57% of participants had normal BMI, 32% were underweight, and 11% fell into overweight or obese categories. Many teenagers reported skipping meals and lacking proper snack timing, with only 39% following structured snacking habits. A majority of students (64%) used online food delivery apps, showing a preference for processed and fast foods. Health issues like poor digestion, menstrual irregularities, and weight gain were frequently linked to unhealthy snacking. Despite some awareness, many participants were unclear about the nutritional impact of their choices. The study also explored the influence of family habits, physical activity, and water intake on dietary behaviour.

Keywords: Snacking behaviour, processed foods, dietary habits, online food delivery, fast food consumption, nutritional awareness.

I. INTRODUCTION

In Hyderabad the snacking pattern among teenagers has evolved in recent years, driven by urbanization, changing lifestyles, and increased exposure to global food trends. Traditional home cooked meals, often rich in vegetables, grains, and legumes are being replaced by quick, processed snacks like chips, biscuits and sugary beverages. This shift is largely due to the growing availability of packaged snacks, convenience stores, and fast-food outlets which cater to the busy schedules of teenagers. The influence of social media and advertising promoting unhealthy snack options has played a major role in shaping their preference.

Driven by their craving for flavor and convenience, adolescents are gravitating toward snacks high in sugar, salt, and fat. While snacking provides an easy solution for hunger between meals, it has raised concerns about the health complications, such as rising obesity rates and nutritional imbalances among Indian adolescents. Despite these challenges, there is growing awareness of the

importance of healthier snacking options, with some schools, parents and health organizations encouraging the consumption of fruits, nuts and other nutritious alternatives.

Here are some key trends and insights into snacking patterns among teenagers in India:

Influence of Social Media and Advertising

Social media platforms like Instagram, YouTube, and TikTok have a significant influence on teenagers' snacking choices. They are constantly exposed to ads promoting unhealthy snacks, trendy food challenges, and influencer recommendations, which can influence their preferences and purchasing habits.

Advertisements targeting the youth often portray snacks as a source of enjoyment, socializing, and instant gratification.

High Consumption of Sugary Beverages

Sugary drinks, such as sodas, energy drinks, and packaged juices, are commonly consumed by teenagers as a part of their snacking routine. These beverages often replace water or healthier options

like fruit juices and smoothies. The rise in the consumption of sugary drinks has contributed to the growing concern over teenage obesity and related health issues, such as diabetes.

Overall, the snacking pattern among teenagers in India is a mix of traditional foods and modern, often unhealthy, snack choices. The growing influence of social media, advertising, and changing lifestyles has reshaped the way teens snack, often leading to a preference for convenience and taste over nutrition. While there is a growing trend towards healthier snacking, the dominance of packaged and fast foods remains a concern for public health. Encouraging healthier habits, along with parental guidance and education, can help reverse some of these negative trends. (Ganupale and Pandey et al., 2023).

The study is needed to understand the snacking patterns of teenagers in Hyderabad influenced by urban lifestyle changes. It aims to identify their snack preferences and knowledge about healthy and unhealthy options. With increased use of online food platforms, it becomes important to assess their impact on food choices. The study also investigates the frequency of snacking and related health concerns like obesity and diabetes. This helps in creating awareness and promoting healthier eating habits among adolescents.

The study seeks to identify the types of snacks preferred by students and assess their awareness regarding healthy and unhealthy snack choices. It also aims to evaluate the frequency of snacking among adolescents and explore the influence of digital and online food delivery platforms on their eating habits. The objectives of the study are aimed at understanding the snacking behaviour among teenagers. Furthermore, the study investigates the potential correlation between snacking patterns and various health issues such as obesity, diabetes, and being overweight among teenagers.

II. METHODOLOGY

A non-experimental research design to examine snacking patterns among inter and undergraduate students without manipulating any variables. A

simple random survey method was applied to collect data from 100 students aged 16–19 years, selected from Delta Junior College and Veeranari Chakali Iamma Women's University. Random sampling was used, with inclusion criteria being students aged 16–19 enrolled in various academic disciplines, while those below 16 or above 19 were excluded.

- **Questionnaire:** A questionnaire was developed covering socio-demographic details, anthropometry, family and medical history, clinical symptoms, sleep and dietary patterns, food frequency, and awareness of dietary needs among teenagers.
- **Statistical Analysis:** To examine the differences between the observed and expected frequency distributions, the Chi-square (χ^2) test was utilized. A p-value of 0.05 or less was considered indicative of statistical significance. Nominal and categorical data were summarized through counts and percentage distributions. The outcomes were effectively communicated using both tabular data and visual charts.

The association between variables was analyzed using the Chi-square test, conducted in Microsoft Excel.

Chi-Square Test Formula

$$\chi^2 = \frac{\sum (O_i - E_i)^2}{E_i}$$

In this formula:

χ^2 represents the Chi-square value; O_i denotes the observed count;

E_i signifies the expected count;

Σ indicates the total summation across all categories

III. RESULTS AND DISCUSSION

A study was conducted to assess the snacking patterns, habits, and preferences among teenagers in Hyderabad, focusing on students at the Intermediate and Undergraduate (UG) levels. The target sample was randomly selected from students pursuing their education in various institutions across Hyderabad. The current study included 100 participants from both Intermediate and UG levels.

The analysis was conducted using data collected from a systematically designed survey questionnaire. The data analysis performed based on the data recorded through Survey are as follows:

Socio-Demographic Data

Socio-demographic data is very crucial in defining the characteristics of samples in selected population. It helps to segregate the academic level & to know the gender of sample size. Other characteristics such as name, age, study level, occupation, location etc., aids in to get good outcome of the survey.

Table 1: Socio-Demographic Profile

Age	Educational qualification		Total
	Inter	Bachelor's degree	
16 - 17	50	0	50
18 -19	0	50	50
Total	50	50	100

According to above the table a clear link between age and education, with 16–17-year-olds all at the Intermediate level and 18–19-year-olds at the Bachelor's level. The sample includes 100 individuals, equally split between both age groups and qualifications.

Anthropometric Information

Table 2: BMI of the respondents

Bmi Of The Respondents		
Bmi (Kg/M ²)	Category	Percentage
<18.5	Under Weight	32%
18.5 – 24.9	Normal	57%
25 – 29.9	Over Weight	7%
30	Obese	4%

BMI data shows 57% of respondents are in the normal range, while 32% are underweight, and 11% fall into overweight or obese categories. The findings highlight a higher prevalence of low BMI, stressing the need for improved nutritional awareness and balanced diets.

Clinical History:

Table 3: Snack Complications of the respondents

Snack Complications Of The Respondents	
Complication	Count
Obesity	8%
Overweight	12%
Menstrual Problem	21%
Poor Digestion	22%
None Of The Above	37%

The table reveal that 63% of respondents face health issues potentially linked to snacking, including poor digestion (22%) and menstrual problems (21%). Meanwhile, 37% reported no complications, showing varied health impacts of snacking habits.

Dietary Patterns

Table 4: Respondents' patterns of using online food ordering services.

Respondents' patterns of using online food ordering services	
Complication	Count
Yes	64%
No	36%

Approximately 64% of individuals reported using online food delivery applications, indicating a growing preference for convenience and digital accessibility particularly among younger, tech-savvy users. Meanwhile, the remaining 36% tend to favour home-cooked meals or may encounter challenges such as inadequate internet connectivity or lack of smartphone access

Table 5: Preference for substituting regular meals with snack items

Preference for substituting regular meals with snack items	
Food	Count
Burger	6%
Pizza	22%
Vada Pav	29%
None	43%

The survey shows that 57% of respondents occasionally replace main meals with snacks like Vada Pav, Pizza, or Burgers, while 43% do not. This reflects a growing fast-food influence alongside continued adherence to traditional meal habits.

IV. STATISTICAL ANALYSIS

To explore associations among the variables in the study, the chi-square test was employed. This statistical method is particularly suitable for evaluating categorical data and assessing the significance of observed patterns within the dataset.

Table 6: Association between age group and different snacks

Age Group And Different Snacks			
Different Snacks	Age Group		P-Value
	16-17	18-19	
Burger	1	5	0.000000000101 (P<0.05)
Pizza	12	10	
Vada Pav	0	29	
None Of The Above	37	6	

Table 6 shows a significant association between age group and snack preference among 16–17 and 18–19-year-olds. Vada Pav is highly favoured by the older group (29 respondents) but not at all by the younger group. Pizza is moderately popular across both age groups, while burger consumption remains low. A large majority of 16–17-year-olds (37) preferred “None of the above,” unlike the older group. The extremely low p-value (0.000000000101) confirms a strong statistical difference in snack choices by age.

Table 7: Association between age group and usage of online platform

Age Group And Usage Of Online Platform			
Usage Of Online Platform	Age Group		P- Value
	16-17	18-19	
Yes	31	33	0.83497 (P>0.05)
No	19	17	

The table 7 compares the usage of online platforms between the 16–17 and 18–19 age groups. In both groups, the majority reported using online platforms (31 and 33 respectively). Fewer participants did not use them (19 in 16–17 and 17 in 18–19). The p-value of 0.83497 is greater than 0.05, indicating no statistically significant difference. This suggests that

age does not influence online platform usage in this sample.

Table 8: Association between age group and type of consumption of snacks

Age Group And Type Of Consumption Of Snacks			
Consumption Of Snacks	Age Group		P- Value
	16-17	18-19	
Two	40	40	0.5433 (P>0.05)
Three	6	3	
Four	1	3	
None	3	4	

The table 8 shows the frequency of snack consumption across two age groups: 16–17 and 18–19. The majority in both groups (40 participants each) reported consuming snacks twice a day. Fewer participants reported consuming snacks three or four times a day, or not at all. The p-value of 0.5433 is greater than 0.05, indicating no statistically significant difference in snack consumption patterns between the two age groups. This suggests that age does not significantly influence the frequency of snack intake among adolescents.

Table 9: Association between age group and BMI

AGE GROUP AND BMI			
BMI	Age group		P- VALUE
	16-17	18-19	
Obesity	3	5	0.00019 (p<0.05)
Over weight	6	6	
Menstrual problem	4	17	
Poor digestion	8	14	
None of the above	29	8	

Table 9 highlights a significant association between age group and BMI-related health conditions, with a p-value of 0.00019 (<0.05). Health issues like obesity, menstrual problems, and poor digestion are more prevalent in the 18–19 age group, while 16–17-year-olds report fewer complaints, indicating age-related differences in health outcomes.

IV. CONCLUSION

This study explores changing snacking patterns among teenagers aged 16–19 in Hyderabad, influenced by urbanization, fast food availability, and lifestyle changes. Traditional home-cooked meals are increasingly replaced by processed snacks like chips, chocolates, and sugary

beverages. Social media, peer pressure, and digital food platforms play a key role in shaping food choices. Despite awareness, unhealthy snacking persists. Physical activity levels were balanced, but high fast-food app usage signals convenience-driven behaviour. Literature aligns with these patterns, linking teen snacking to obesity and poor nutrition. The study recommends targeted education, parental involvement, and policy action to promote healthier habits among adolescents.

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