Comparative Analysis of Junk Food Consumption Patterns among Adolescent Students in Assam

Mridusmita Borthakur and Sanjoy Borthakur

AAU-Krishi Vigyan Kendra, Golaghat, Assam

ABSTRACT

The increasing trend of junk food consumption among school children become a matter of serious concern as Junk foods severely deficit in micronutrients and high in fat, salt and sugar. Regular consumption of junk food leads to an increased risk of chronic degenerative diseases and many other chronic health conditions. Delicious taste, dazzling presentation, packaging, ready availability and advertisement attracts young children towards junk food. Present study was undertaken to know the consumption pattern of junk food among the adolescent students in Assam. It was found that majority of students irrespective gender consume junk food on regular basis (34.3%) and only a negligible (0.7%) student never consume fast food. Most popular Junk Food item was found to be chips (62.00%) followed by fast food (42.33%), chocolate (39.33%), carbonated drinks (39.00%) for all students irrespective of gender. But significant differences were observed in preferences towards items was recorded among girls and boys. Boys preferred carbonated drinks than girls whereas girls prefer to take ice cream and chocolate than boys. Majority of the students consume junk food due to its taste and flavour (68.67%), followed by availability (39.33%). While boys take junk foods to satisfy hunger too while the girls were found to be more influenced through advertisement and preferred junk food for enjoyments than boys.

Key words: Adolescent, Consumption pattern, Junk food, Students.

INTRODUCTION

Food is one of the basic human needs and a nutritious diet is a prerequisite to a healthy life. A well-balanced diet is crucial from the earliest stages of life to ensure appropriate growth, development, and to maintain an active lifestyle. Food is made up of essential components—such as carbohydrates, fats, proteins, and water - that are consumed by both humans and animals for nourishment and pleasure, aiding in proper growth and development. Maintaining good health is essential for everyone to lead a vibrant life, necessitating a commitment to a balanced diet and healthy lifestyle choices. India has a rich culinary culture that dates back to ancient times. Indian cuisine encompasses a wide range of regional and traditional dishes originating from the Indian subcontinent. Due to the variations in soil, climate, culture, ethnic groups, and occupations, these cuisines show significant diversity, utilizing spices, herbs, vegetables, and fruits that are locally sourced wholesome and nutritious. Over time, people's food preferences specially the younger generations have shifted from traditional meals to junk food and fast food. However, the rising popularity of junk food is having an increasingly negative effect on younger generations.

Junk foods are characterized by high in calories mainly from macronutrients such as simple carbohydrate and fats, often high in sodium and low in dietary fiber, protein, micronutrients such as vitamins and minerals. Based on their nutrient content these are also known as "high in fat, salt and sugar food" (HFSS food). Regular consumption of junk food leads to intake of excess fat, simple carbohydrates, and increased sodium which contribute to an increased risk of chronic

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Table 1. Frequency of junk food consumption among the adolescent students.

Frequency of Junk foods Consumption	Boys (N=155)	Girls (N=145)	Total (N=300)	Percentage	Chi-square level	P value
Daily	55	48	103	34.3	5.947	<0.400 ns
Alternately	52	45	97	32.3		
4 to 6 days in a week	21	18	39	13.0		
1 to 3 days in a week	11	19	30	10.0		
Once in a Month	9	12	21	7.0		
Rarely	5	3	8	2.7		
Never	2	0	2	0.7		

degenerative diseases and many other chronic health conditions. Delicious taste, dazzling presentation, packaging, ready availability and advertisement attracts young children towards junk food. Rapid urbanization and industrialization with changing lifestyle and advancement in technology has greatly affected the day-to-day life and food habit of majority of population in developing countries. Different age groups exhibit varying affinity for consuming junk food, but some of them displaying more frequent consumption.

Gupta *et al* (2018) suggested that across the age brackets, adolescents and young adults emerge as leading consumers of such food items. Magdalena *et al* (2024) reported that a series of unhealthy trends in the eating and lifestyle habits of the young population, such as a tendency toward sedentary lifestyle, a trend of increased consumption of meat and meat preparations; and an increased preference for some junk food products such as fried potatoes, pastries, snacks, chips, hamburgers, sweetened soft drinks, coffee and even a relatively high consumption of alcoholic drinks. The Economic Survey 2024-25 has proposed the introduction of a higher tax rate on ultra-processed foods (UPFs), suggesting it as a potential health tax aimed specifically at brands and products that actively advertise these items. Therefore, the present study was undertaken to find out the consumption pattern, frequency and reasons for intake of junk food among the adolescent students of Golaghat district of Assam.

MATERIALS AND METHODS

This study was conducted among 300 students from different schools of Golaghat district of Assam out of which, 155 were male, and 145 were female. The samples were selected following stratified sampling and simple random sampling techniques. Data were collected using a questionnaire which contained both closed and open-ended questions. The data gathered were analyzed using descriptive statistics and results presented in tables, percentages and Chi square test were used to analyze the collected data.

RESULTS AND DISCUSSION

Adolescent is one of the critical life spans of human being which is the transition from childhood to adulthood. Many habits form during adolescent generally continued in the adulthood. Sujan *et al* (2021) stated that unhealthy food habit developed during adolescent may become one of the risk factors of CHD, diabetes obesity and hypertension due to consumption of excessive amount of saturated fats and sodium. Table 1 shows the frequency of Junk foods Consumption among adolescent of Golaghat district which depicted that majority of students (34.3%) consume junk food on regular basis followed by alternately (32.3%), 4 to 6 days in a week (13.0%)

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Table 2. Preferences of junk food among the adolescent students.

Frequently consumed Junk food	Boys (N=155)	Girls (N=145)	Total	Percentage	Chi-square level	P value
Chips	91	95	186	62.00	53.152	<0.001**
Fast food	68	59	127	42.33		
Bakery products	41	18	59	19.67		
Chocolate	31	87	118	39.33		
Ice cream	35	69	104	34.67		
Carbonated drinks	73	44	117	39.00		
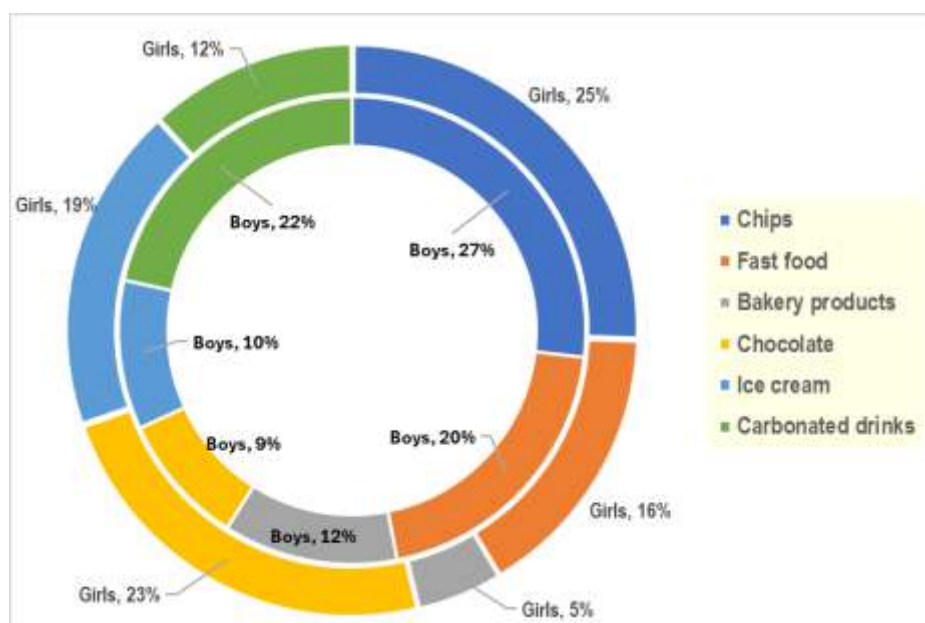
Fig 1. Preferences of junk foods by adolescent boys and girls

and 1 to 3 days in a week (10.0%) only a negligible (0.7%) student never consume fast food. Junk foods often lack essential micronutrients and dietary fiber. Given that many adolescents tend to incline toward these foods, therefore enhancement of nutrition value is very important .We can enhance nutritional value of junk food by incorporating nutrient-rich ingredients into their preparation. In this regard, we can use nutritious cereal millets to partially replace refined flour, as millets are high in micronutrients and serve as a beneficial source of dietary fiber. Furthermore, we can include different nutritious ingredients like antioxidant rich colourful vegetables, uncultivated greens, locally available greens like curry leaf, *moringa* leaf powder to enhance the nutritional quality of our meals. According to

Varma and Borkar (2024), the addition of moringa leaf powder has proven to be beneficial in combating anaemia among adolescent girls.

It was observed from the Table 3 that majority of the students consume junk food due to its taste and flavour (68.67%), followed by availability (39.33%) and impact of advertisement (33.67%). Almost 30 percent students consume junk food to satisfy hunger and enjoyment. It is almost similar to the study of Bhabani and Devi (2020) who also reported that the majority of the study participants are influenced by taste (35%), followed by advertisements, easy availability and the appearance of the food. Awareness campaigns should be organized to educate people about the benefits of a balanced diet, the significance of both macro and micronutrients in maintaining good

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Table 3. Rationale of junk food consumption by the adolescent students.

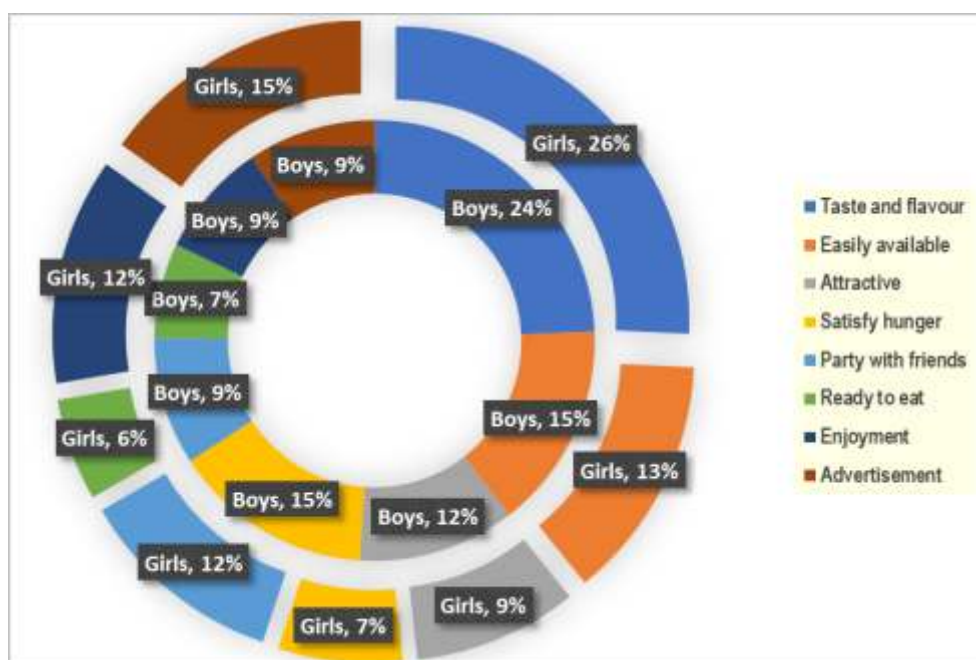| Rationale of Consumption	Boys (N=155)	Girls (N=145)	Total (N=300)	Percentage	Chi-square level	P value
Taste and flavour	101	105	206	68.67	23.873	<0.003*
Easily available	63	55	118	39.33		
Attractive	48	37	85	28.33		
Satisfy hunger	61	28	89	29.67		
Party with friends	39	47	86	28.67		
Ready to eat	29	23	52	17.33		
Enjoyment	35	51	86	28.67		
Advertisement	39	62	101	33.67		

Fig. 2 Pattern of junk food consumption by adolescent boys and girls

health, the impact of dietary fiber in preventing chronic degenerative diseases, the value of traditional foods, and the harmful effects of junk food, particularly its connection to the prevalence of chronic degenerative diseases. This information will aid individuals in making healthier food choices. Additionally, companies producing junk food, which tends to be high in fat, salt, and sugar, should be mandated to disclose the potential side effects of these products on their labels.

It can be challenging to discover healthier substitutes for junk food, but we can enhance nutritional value of junk foods by including nutritious ingredients. In this regard, the Health Star Rating system could prove advantageous for packaged foods, as it serves as an effective tool for assessing a product's healthiness. It offers a clear method to compare similar packaged foods. The system rates items from half a star to five stars according to their overall healthiness. We should very careful in selecting our food products. When assessing the nutritional value of packaged items, it is important to pay close attention to health claims like "low in fat" or "sugar-free," as these can frequently be misleading. The labels "light" or

"lite" may refer only to the product's appearance or flavor, which does not necessarily indicate that it is low in fat.

Checking the nutrition facts label on the back of the packaging can provide valuable information regarding the actual fat and other nutrients content. Another frequent claim usually seen in the processed product is "sugar-free" or contains "no added sugar". It may indicate that the product lacks additional sucrose or table sugar, but it might still include other types of sugar. Additionally, the product could contain salt or fat and be high in energy, indicating that even products labeled as sugar-free may fall into the junk food category. It is also observed that certain item labeled and advertised as health foods like certain package fruit juices and muesli bars, can also be unhealthy if they have high amounts of sugar, salt, or fat. In this regard policy makers and government can play a important role by strictly regulating the packaging norms and advertisement.

CONCLUSION

The consumption of junk food is on the rise among young generation. These foods are high in fats, sugars, and excessive salt. Regular consumption of junk food leads to an increased risk of chronic degenerative diseases and many other chronic health conditions. Delicious taste, dazzling presentation, packaging, ready availability and advertisement attracts young children towards junk food. The media and advertising heavily promote these types of foods, which enhances young people's inclination towards them. Poor eating habits are a key factor in the emergence of these diseases, making it essential to educate young people about proper dietary practices. A timely nutritional intervention aimed at adolescents to enhance their eating habits is crucial at this moment. Maintaining the good nutrition and health status of students will contribute to the development of a healthy and productive nation. Kashayap M (2024) stated that, there is an association between level of knowledge regarding fast food with their demographic variables such as age, class of studying, mother's educational qualification and source of information regarding junk food. Various health-promoting departments, such as Social Welfare, Health, and Krishi Vigyan Kendras can make a meaningful impact by organizing awareness programmes that highlight the harmful health effects of consuming junk food and by promoting healthier food choices among the younger generation.

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