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Junk Food Intake among Teenagers in Odisha and Its Impact in Health

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Abstract

Background: Food's high in calories, salt, and fats are known as junk foods. Excessive intake of junk foods can result in a range of health problems.

Purpose: The goal of this study is to learn more about teenage fast-food intake in Odisha, especially among those aged 15 to 25, and how it affects their health.

Methods: A descriptive cross-sectional study of teens was undertaken using 60 adolescents of both sexes as the study's sample. The questionnaire was divided into two parts: the first was for socio-demographic information, and the second was for junk food intake patterns and determining variables, as well as their impact on health. MS Excel was used to analyse the data. A statistically significant value was defined as P <0.05.

Results: The findings revealed that more females (72.0 percent) than boys consumed fast food, and nearly half of participants (25.0 percent) consumed fast food as a substitute for a main meal, and more than half of participants (75.0 percent) consumed soft drink every day. Furthermore, a higher proportion of participants (58.0 percent) had urinary tract infection, which could be linked to the fact that chips and soft drink were the most appealing food items among participants.

Index Terms

Consumption, Fast Food, Junk Foods, Nutrition, Teenagers.

INTRODUCTION

Michael Jacobson coined the term junk food in 1972 as slang for meals of little nutritional value, often known as HFSS (High fat, sugar, or salt) [1]. The appeal of junk food is also influenced by junk food advertising. However, due to a lack of energy, excessive cholesterol, and poor focus, it should be avoided. Obesity, diabetes, heart disease, and many sorts of skin malignancies are just a few of the negative effects it has on the body. Eliminating the temptation for junk food and increasing fitness awareness can assist in keeping junk food out of a balanced eating routine. They have little nutritional benefit and are often rich in fat, salt, sugar, and calories. Salted snack foods, fried fast food, and carbonated beverages are all common junk foods. Junk food has become a serious issue, and several governments are taking steps to address it, such as prohibiting junk food advertising on children's television, eliminating it from schools, and implementing a fat tax [2]. Junk food has become a serious issue, and several governments are taking steps to address it, such as prohibiting junk food advertising in children's programming, eliminating junk food from schools, and even implementing a fat tax. Trans fats can also be found in a lot of junk food. When trans fats enter the body, they function similarly to saturated fats. They obstruct human arteries and induce plaque buildup, which can lead to heart disease and stroke symptoms [3].

Because of globalization, junk foods have sliced up the third world; they are now a fundamental part of life in both the developed and developing worlds, and they have brought with them a tremendous increase in obesity and related health concerns. It became vital to research and evaluate the negative impacts of junk food intake and the difficulties that come with it.

MATERIALS AND METHODS

Sample

Ripe Odisha Baiganpalli mango fruits were purchased at a local market in Cuttack, while Dussehri mango fruits were purchased at a local market in Bhubaneswar. To eliminate insoluble residue, the entire fruit was pressed using a juicer and filtered through a 15 m membrane. Throughout the trial, fresh mango juice was made on a regular basis.

LOCATION OF THE STUDY

The government schools and colleges were chosen using a random selection procedure. About 60 teenagers were chosen at random from various schools and institutions in Cuttack city.

STATISTICAL ANALYSIS

The findings were represented as mean and standard deviation after the data was input into an Excel sheet. The chi square was calculated to examine the data using data analysis in MS-Excel. A value of P<0.05 value was considered statistically significant.

RESULT

All the teenagers in this study admitted of eating junk food. In this study participants' sociodemographic characteristics were shown in (Table 1). The ages of the 60 teenagers who participated in the study ranged from 15 to 24 years, with a mean age of 18.34±2.1 years. Over half of those who ate fast food (72.0 percent) were female, while approximately one-third (28.0 percent) were male. According to age category, 45% of participants were between the ages of 15 and 17 years, 32% were between the ages of 18 and 21 years, and 23% were between the ages of 22 and 25 years respectively. 75 percent of participants had completed upper secondary education, 20 percent had completed secondary school, and 5 percent had completed basic education. Many of the families (60 percent) had a monthly income of more than Rs 1 lakh, while (10.0 percent) of the families had a monthly income of Rs 20000-30000. Around 25% of participants ate junk food as a snack, and half of those who ate junk food as a major meal did so. When it came to the health concerns connected with junk food intake, most participants (55.0%) thought it was nutritious food and the rest (25.0%) thought it was harmful food [4-8].

When data was analyzed by gender, it was discovered that females consumed more junk food as a meal than males, and when data was analyzed by age groups, it was discovered that males consumed more junk food (41.66%) than females in the 15-17 years old age group, and males consumed less junk food (33.33%) in the 18-21 years old age group. While most females (58.33%) were in the age range 18-21 and the minority (20%) were in the age group 15-17, the association between age and gender of samples and junk food intake as a meal was not statistically significant (x^2=6.18, p value=0.23), as shown in (Table 2).

When the data was broken down by gender (Table 3), it was found that females consume more junk food as a snack than males, and when studied by age groups, males consumed more junk food as snacks (55.0 %) than females (38.33 %) in both the 15-17- and 22–25-year-old age groups, with a lower proportion (20 percent) in the 18–21-year-old age group. While girls in the age range 22-25 had more junk food intake as snacks (25 percent), boys in the age groups 15-17 and 18-21 consumed less junk food as snacks (41.66 percent). However, as shown in Table 3, the link between participants' age and gender and junk food intake as snacks was not statistically significant (x^2=1.4, p value=0.245).

Table 4 shows that the most prevalent sort of junk food consumed daily was soft drink, which was consumed by 75 percent of participants, followed by 45 percent who often consumed fast food like chips, (6%) ate French fries, (14%) ate Pizza Hut, 12 percent ate fried chicken, 5 percent ate burgers, and 2 percent ate chocolate. In terms of frequency of consumption within 1 or 2 times per week, 15.23 percent consumed soft drinks, followed by 25% who consumed chips. 12 percent ate french fries, 28 percent ate Pizza Hut, 16 percent ate fried chicken, 12 percent ate burgers, and 15 percent ate chocolate. (Table 5) shows the impact of junk food intake on the health of the participants under research. Around 58.0 percent of participants had a urinary tract infection, 13.34 percent had heart disease, and roughly 18.5 percent had anemia.

Table 1: Distribution of participants based on Socio-demographic characteristics (n = 60)

Teenager Characteristics	Percentage%
Gender	
Male	28.00
Female	72.00
Age	
15-17 yrs	45.00
18-21 yrs	32.00
22-25 yrs	23.00
Education Level	
Primary Education	05.00
Secondary Education	20.00
Higher Secondary Level Education	75.00
Family Income	
Rs. 20000-30000	10.00
Rs. 40000-50000	17.00
Rs. 50000-1Lakh	13.00
More than Rs. 1Lakh	60.00
Consume Junk food as	
Meal	75.00
Snack	25.00
Family member ate Junk food	
Yes	70.00
No	30.00
Junk food healthy or not	
Yes	55.00
No	25.00
Ate junk food as alternative to main meal	
Yes	32.00
No	15.00
Sometimes	52.00

Table 2: Distribution junk food consumption as meal among participants

	Male	Female		
Age	**Frequency (%)**	**Frequency (%)**	**X^2**	**P-value**
15-17 years	25 (41.66%)	12 (20.00%)	6.18	0.23
18-21 years	20 (33.33%)	35 (58.33%)		
22-25 years	15 (25.00%)	13 (21.66%)		

Table 3: Distribution junk food consumption as snacks among participants.

	Female	Male		
Age	**Frequency (%)**	**Frequency (%)**	**X^2**	**P-value**
15-17 years	23 (38.33%)	33 (55.00%)	1.4	0.245
18-21 years	25 (41.66%)	12 (20.00%)		
22-25 years	12 (20.00%)	15 (25.00%)		

Table 4: Frequency of junk food consumption.

Type of junk food	Daily	3-4 times per week	1-2 times per week	Rarely	Never
Soft drinks	75%	8%	15.23%	5%	2%
French fries	6%	15%	12%	34%	45%
Fried chicken	12%	10%	16%	42%	32%
Pizza hut/dominos	14%	6%	28%	54%	12%
Chips	45%	20%	25%	10%	28%
Chocolate	2%	11%	15%	16%	2%
Burgers	5%	23%	12%	60%	5%

Table 5: Most common diseases among participants

Disease	Percentage
Diabetes Mellitus	25%
Hypertension	38%
Urinary tract Infection	42%
Heart Disease	7%
Kidney Stone	23%
Anemia	5%

DISCUSSION

All participants in this research in Cuttack, Odisha, admitted of eating junk food. The findings revealed that females (72.0 percent) consumed more junk food than males, which was like Sapkota's finding that girls (58.5 percent) consumed junk food [9-12]. This could be because girls are more likely to be influenced by advertisements that include takeaways and competitions than males. Also, in this study it was found that older teenagers eat fast food more frequently than younger teenagers, which was comparable to Fanning's (2002) finding that the likelihood of purchasing fast food increases to around 30 years of age [13]. Higher education, on the other hand, was linked to a higher intake of fast-food consumption, which was like Hidaka's (2018) finding that "Fast food intake is related with higher education in women, but not as compared with men, among older adults in urban [14]. This might because of higher education correlates with a higher level of job involvement, including more complex work tasks and more responsibility.

On the other hand, this survey demonstrates that most parents support their family by eating fast food. These parents often work long hours and do not have time for anything else than racing to the next fast-food restaurant and ordering dinner for everyone. In addition, the findings show that around 45 percent of participants ate junk food as snacks and half of them ate junk food as a substitute for main meals, which is like the result of Larson (2002) in the United States, who found that at least one day during the school week, teenagers skip breakfast [15]. However, there was no statistically significant association between participants' age and gender and junk food intake as meals or snacks. Furthermore, according to a research work conducted in Australia by Denney-Wilson, 32.0 percent of teenagers prefer soft drinks to water or milk, although more than half of the participants (65.0 percent) consume soft drinks daily [16]. And this study found that roughly 13.34 percent of the participants had heart disease, which was comparable to the findings of Hovenkam (2008) in China, who found that fried and processed foods include significant levels of trans fats, saturated fats, and oxycholesterol. Oxycholesterol is a kind of cholesterol that has been linked to cardiovascular disease [17]. In this study, a higher percentage of teenagers experienced urinary tract infections, with chips and soft drinks being the most appealing dietary items among participants. The causal cause for high blood pressure has been identified as a high salt level. Sodium is known to alter the renin-angiotensin system in the kidneys, which causes arterioles to contract, resulting in elevated blood pressure. The salts utilized in the recipe also have an influence on their excretion through the kidneys, affecting the renal system [18].

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