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Junk Food Consumption Practices among the College Students in Banke District

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Abstract

Junk foods are easy to prepare and take but have low nutritional value and contain only fat, high sugar, salt, calories, and colours which adversely affect the health of college students. The objective of this study was to assess the junk food consumption practice and its causes and study the relationship between socio-demographic factors and frequency of junk food consumption among college students. This study utilized a cross-sectional research design under quantitative research. Three hundred and fifty-four students were selected by using the multistage sampling method. A set of questionnaire was used to collect the required data. The collected data were entered and analyzed in SPSS version 20 using simple statistical methods including univariate and bivariate analysis. This study found that all of the respondents consumed junk food, among them 33.1 percent of the respondents consumed doughnuts, 40.1 percent of the respondents consumed chat-pat, 37.9 percent of the respondent consumed pani-puri, 39.0 percent of the respondents consumed noodles, 22.31 percent of the respondents consumed chocolates. Likewise, 60.7percent of the respondents consumed junk food in the afternoon and least (2.8%) of the respondents consumed junk food at night. Similarly, 30.2 percent of the respondents consumed junk food three times a day and 12.4 percent of the respondents consumed twice a day. Likewise, this study also found that there is no relationship between socio-demographic factors (age, gender, religion, fathers' education, mothers' education, fathers' occupation, mothers' occupation) and frequency of junk food consumption among college students. Furthermore, this study found that the main reason of taking junk food is it being easy to make and influence of advertisements, save time, and its taste. Therefore, this study suggests conducting junk food related health awareness programmes for college students.

Keywords: food habit, health, nutritional value, busy lifestyles, obesity

Introduction

Junk foods are easy to prepare and take. However, they contain a low nutritional value and contain fat, high sugar, salt, calories, and colours which adversely affect the health of consumers (Bhaskar, 2012; Hassan et al., 2020; Johnson et al., 2012; Kaur & Kochar, 2019). Fried chicken, peanuts, popcorn, bagels, candies, and cookies are considered junk foods (Smith, 2011). Moreover, alted snack foods, gum, cake, candy, sweet desserts, fried fast food, and sugary carbonated beverages, hamburgers, pizza, tacos, chips, chocolate, soft drink are taken as junk foods (Kavle et al., 2015). The term "junk food" was coined in 1972 by Michael Jacobson to raise public awareness of foods (Bhaskar, 2012). People eat junk food even though they know the negative health effects of junk food. Due to globalization, urbanization, busy lifestyles, attractive advertisements, obtaining high pocket money, home and school environment (Poudel et al., 2018) and weak legal aspects of junk food, many people eat junk food (Milani et al., 2017). Likewise, changing lifestyle, new taste, easy availability, influencing of advertisement and saving time are motivating factors associate with junk food consumption (Pahari & Baral, 2020; Subedi et al., 2021).

Consumption of various types of junk food is increasing worldwide. Due to changes and transitions in people's lifestyles and eating habits, a growing number of people of different age groups, especially adolescents and young adults, tend to consume fast food (Majabadi et al., 2016). Junk food affects the physical and mental health of its consumers. Excessive and regular consumption of junk food can cause cardiovascular diseases, weight gain, increase obesity, type 2 diabetes, heart disease, stroke and certain cancers (Abraham et al., 2018; Smith, 2011), gastritis, ulcer and digestive problems (Lamba & Garg, 2017). A large amount of junk food use alters brain activity in the same way those addictive drugs such as cocaine and heroin (Kiein, 2010). It can also lead to memory loss, learning problems and depression, increase the risk of dementia and reduce the ability to control appetite (Sharma, 2013). Likewise, the short time junk food consumption can impact blood sugar and blood pressure and increases inflammation. A diet rich in fast food could lead to issues with digestion, immunity, inflammation, allergies, heart attacks, stroke, kidney disease, heart disease, and obesity are the long term effects of junk food consumption (Jones, 2021).

In Nepali society, people have been giving priority to the taste of the tongue over the nutritional diet and healthy food. Nowadays, they use junk food as an essential food on a daily basis. Due to its excessive use, children have stopped eating basic and traditional foods like pulses, rice, vegetable, bread, rice pudding, maize, soybean, chamre, puwa, haluwa, dhidoetc (Gautam, 2021). Many people enjoy the taste of fast food at a low cost. Due to this, a large amount of money has to be

spent on health treatment. Companies use various strategies for advertising junk food targeting youth and young children (Gautam, 2021; Smith, 2011). According to adolescent nutritional survey (2014), 94 percent of the adolescents usually consume junk food. Likewise, 93 percent of the early adolescents and 89 percent of the late adolescents consumed junk food. This statistics shows that early teens consume more junk food than late teens. Among the junk food consumers, overall 22 percent of the adolescents consume junk food daily. Similarly, 25 percent of the late adolescents and 20 percent of early adolescents consume junk food daily. Similarly, 92 percent of adolescents eat junk food at least once a week (Aryal et al., 2016).

It is learned that junk food consumption among youth and adolescents is a public health problem worldwide. They consumed different sorts of junk food in different time and for different reasons. To identify the research gap of this study, I have searched different literature (e.g. google scholar, Hinari, PubMed, etc.). I found many junk food related studies conducted outside the country. In the context of Nepal, I found a few studies conducted on junk food consumption among school students. However, I did not find any study concerning the patterns and factors influencing junk food consumption among college students. So it is necessary to conduct the research. This study focused on junk food consumption practices and its causes among the college students. Likewise, this study also focused on study relationship between socio-demographic factors and frequency of junk food consumption among respondents.

Methods and Procedures

This study was based on cross-sectional research design under quantitative research. The population of this study was Bachelor's level students studying in Banke district. The study was carried out at three colleges of Banke district of Nepal. There were altogether 1920 students studying at the selected colleges. Among them, 354 students were selected by using the simple random sampling method. Sample size of the study was determined by using sample size calculating formula $n = \frac{Z^2_{\alpha/2} \times P \times Q}{E^2}$ with 94% confidence, 5% error and 50% proportion of having junk food in college level students as no previous estimate for this proportion is available. The study population was selected by using multistage sampling method. At the first step, simple random sampling technique was used to select three Bachelor's level colleges. At this step Madhya Pashchim Multiple Campus Nepalgunj, Mahendra Multiple Campus and New Bageshwori Academy were selected out of 31 Colleges. At the second step, the researcher randomly selected three classes from each selected colleges. At the third step, all present students of the selected class at the time of data collection were taken. However, those who were absent or not interested were excluded from the study.

Questionnaire was developed as the tool for data collection. The questionnaire was divided into three parts: the first part deals with socio-demographic profile of the respondents, the second part deals with the practice of junk food, and the third part deals with the effective factors using junk food. At the Madhya Pashchim Multiple Campus, Nepalgunj Banke, the questionnaire was pre-tested on 10 percent of the total sample. After that, questionnaire was modified or edited based on the pre-test result. Those students who were selected in pre-test were not included in final survey. After getting permission from campus administration, primary data were collected from sample students. At first, researcher had taken permission from the campus chief of the participating colleges, and then the researcher took verbal consent from the college students who participated in the study. The researcher assured the respondents that the data collected would be used for purely research purposes and kept completely confidential, that information would be used and protected, and that their beliefs, values and practices would be respected in accordance with the premises of research ethics. The researcher had also informed that their participation is voluntary, and participants' identity would be kept confidential. Then, the researcher distributed a set of survey questionnaires to the students. After the students filled out the questionnaire, it was collected by the researcher. The collected data were entered into the computer and analyzed by using SPSS version 20. Then, the gathered data were checked, reviewed and prepared for completeness and accuracy. After that, all the gathered data have been analyzed with the aid of using the usage of descriptive statistical tools along with univariate, bivariate (chi-square) analysis with SPSS version 20. Chi-square test was used for determining the relationship between socio-demographic factors and frequency of junk food consumption among college students. The descriptive statistics that have been used to analyze data are frequency, percentage analysis, and crosstabs, and the vital findings of the study have been presented.

Results

Junk Food Consumption Practice

Junk foods are the ready-made food items such as biscuit, doughnuts, chat-pat, pani-puri, noodles, chocolates, chau-chau, kurkure, chips, chaumin, samosa and other fried food. Various forms of junk foods are taken by respondents presented below.

Table 1

Multiple Response Table of Junk Food Consumption Practice (n=354)

Junk Food Items	Number of Respondents	Percentages of Persons
Biscuit	105	29.7
Ice- Cream	122	34.5
Doughnuts	117	33.1
Chat-pat	142	40.1
Pani-puri	134	37.9
Noodles	138	39.0
Chocolates	79	22.31
Other junk food	5	1.41
Total Number of Responses	842	197.61

Table 1 shows that 29.7 percent of the respondents consumed biscuit, 34.4 percent of the respondents had ice-cream, 33.1 percent of the respondents preferred doughnuts, 40.1 percent of the respondents consumed chat-pat, 37.9 percent of the respondents consumed pani-puri, 39.0 percent of the respondents stated they liked noodles, 22.31percent of the respondents consumed chocolates and 1.41percent of the respondents consumed other junk foods like momo, pizza, chaumin, samosa, kurkure, etc.

Time of junk food Consumption

Respondents' responses regarding the time of junk food consumption are presented in the following table.

Table 2

Time of Consumed Junk Food (n=354)

Categories	Description	Number of Respondents	Percent
Time	Morning	73	20.6
	Afternoon	215	60.7
	Evening	56	15.8
	Night	10	2.8

Out of 354 total respondents, 60.7 percent of the respondents consumed junk foods in the afternoon and the least (2.8%) of the respondents had junk foods at night. Above data shows that majority of the respondents consumed junk food in the afternoon which is not a good thing as it causes many health problems.

Relationship between Socio-demographic Factor and Frequency of Junk food Consumption

This study also identified the relationship between socio-demographic factors such as age, gender, religion, caste, fathers' education, mothers' education, fathers' occupation, mothers' occupation and junk food consumption among respondents.

Table 3

Relationship between Socio-demographic Factor and Frequency of Junk Food Consumption among Respondents (n=354)

Variables		Frequency of junk food consumption					
		Once	Twice	3 times	4-6 times	Total	P-value
Age	15-19	59 (16.7%)	25 (7.1%)	52 (14.7%)	47 (13.3%)	183 (51.7%)	.787
	20-24	48 (13.6%)	14 (4.0%)	46 (13.0%)	29 (8.2%)	137 (38.7%)	
	25-29	10 (2.8%)	5 (1.4%)	9 (2.5%)	10 (2.8%)	34 (9.6%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%	86 (24.3%)	354 (100.0%)	
Gender	Male	20 (5.6%)	13 (3.7)	23 (6.5%)	18 (5.1%)	74 (20.9%)	.386
	Female	97 (27.4%)	31 (8.8%)	84 (23.7%)	68 (19.2%)	280 (79.1%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	
Religion	Hindu	89 (25.1%)	22 (6.2%)	87 (24.6%)	70 (19.8%)	268 (75.7%)	.013
	Buddhist	9 (2.5%)	7 (2.0%)	5 (1.4%)	5 (1.4%)	26 (7.3%)	
	Christian	6 (1.7%)	6(1.7%)	5 (1.4%)	6 (1.7%)	23 (6.5%)	
	Muslim	13 (3.7%)	9 (2.5%)	10 (2.8%)	5 (1.4%)	37 (10.5%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	

Caste	Brahmin	14 (4.0%)	5 (1.4%)	11 (3.1%)	14 (4.0%)	44 (12.4%)	.412
	Chettri	30 (8.5%)	13 (3.7%)	33 (9.3%)	27 (7.6%)	103 (29.4%)	
	Janjati	45 (12.7%)	15 (4.2%)	26 (7.3%)	21 (5.9%)	107 (30.2%)	
	Dalit	9 (2.5%	5 (1.4%)	8 (2.3%)	6 (1.7%)	28 (7.9%)	
	Terai caste	19 (5.4%)	6 (1.7%)	29 (8.2%)	18 (5.1%)	72 (20.3%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	
Fathers' Education	Literature	22 (6.2%)	6 (1.7%)	21 (5.9%)	12 (3.4%)	61 (17.2%)	.184
	Primary Level	45 (12.7%)	14 (4.0%)	38 (10.7%)	40 (11.3%)	137 (38.7%)	
	Secondary Level	35 (9.9%)	14 (4.0%)	39 (11.0%)	19 (5.4%)	107 (30.2%)	
	Higher Education	15 (4.2%)	10 (2.8%)	9 (2.5%)	15 (4.2%)	49 (13.8%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	
Mothers' Education	Literature	45 (12.7%)	8 (2.3%)	43 (12.1%)	37 (10.5%)	133 (37.6%)	.011
	Primary Level	50 (8.5%)	21 (5.9%)	40 (11.3%)	30 (8.5%)	141 (39.8%)	
	Secondary Level	12 (3.4%)	6 (1.7%)	20 (5.6%)	14 (4.0%)	52 (14.7%)	
	Higher Education	10 (2.8%)	9 (2.5%)	4 (1.1%)	5 (1.4%)	28 (7.9%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	

	Agriculture	64 (18.1%)	17 (4.8%)	59 (16.7%)	41 (11.6%)	181 (51.1%)	
	Labor	18 (5.1%)	2 (0.6%)	13 (3.7%)	16 (4.5%)	49 (13.8%)	
Fathers' Occupation	Service	17 (4.8%)	12 (3.4%)	16 (4.5%)	13 (3.7%)	58 (16.4%)	.125
	Business	18 (5.1%)	13 (3.7%)	19 (5.4%)	16 (4.5%)	66 (18.6%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	
	Agriculture	97 (27.4%)	27 (7.6%)	82 (23.2%)	66 (18.6%)	272 (76.8%)	
	Labor	9 (2.5%)	5 (1.4%)	9 (2.5%)	7 (2.0%)	30 (8.5%)	
Mothers' Occupation	Service	5 (1.4%)	6 (1.7%)	8 (2.3%)	6 (1.7%)	25 (7.1%)	.389
	Business	6 (1.7%)	6 (1.7%)	8 (2.3%)	7 (2.0%)	27 (7.6%)	
	Total	117 (33.1%)	44 (12.4%)	107 (30.2%)	86 (24.3%)	354 (100.0%)	

Table 3 shows that there is high frequency of junk food consumption among college students however, the chi- square test shows p-value greater than the level of significance (5%), in all testing socio-demographic factors. Thus there is no relationship between socio-demographic factors and time of junk food consumption. Therefore, junk food consumption time is not dependent on such socio-demographic factors; age, gender, religion, caste, fathers' and mothers' education, fathers' and mothers' occupation of the respondents.

Place of Consuming and Buying Junk Food

The place of consuming and buying junk food is as presented in the following table.

Table 4

Description of Place of Consuming and Buying Junk Food (n=354)

Variables	Description	Frequency	Percent
Place of Consuming Junk Food	College	62	17.5
	Vending shop	58	16.4
	Home	139	39.3
	On the way to school and home	95	26.8

Place to Buy Junk Food	local shop	193	54.5
	From the market	109	30.8
	brought to home by parents	37	10.5
	others (Street food seller)	15	4.2

The present study shows that 39.3 percent of the respondents consumed junk food at home and 16.4 percent of the respondents consumed it at the vending shop. Furthermore, 54.5 percent of the respondents brought junk food from the local shop and the least (4.2%) of the respondents brought from the street food sellers.

Causes of Junk Food Consumption

The responses concerning the causes of junk food consumption of the respondents is as follows.

Table 5

Description of Reason for Taking Junk Food (n=354)

Categories	Frequency	Percent
Readily available	136	38.4
Save time	103	29.1
Effect of advertisement	15	4.2
Peer pressure	16	4.5
Easy to take	36	10.2
It is tasty	48	13.6

Table 5 shows that out of total 354 respondents 38.4 percent of the respondents indicated that it is readily available food, 29.1 percent respondents indicated that it saves time, 13.6 percent respondents stated that it is tasty, and least (4.2 percent) said they were influenced by advertisement.

Discussion

This cross-sectional study has identified the practice and its causes as well as the relationship between socio-demographic factors and frequencies of junk food consumption among college students. The present study found that out of 354 total respondents 29.7 percent of the respondents consumed biscuit, 34.4 percent respondents consumed ice-cream, 33.1 percent respondents consumed doughnuts, 40.1 percent respondent consumed chat-pat, 37.9 percent respondent consumed pani-puri, 39.0 percent respondents consumed noodles, 22.31 percent respondent consumed chocolates and 1.41 percent respondent consumed other junk foods like momo, pizza, chaumin, samosa, kurkure, etc. which is similar to the study done

by Sapkota and Neupane (2017). The study found that 100 percent of respondents consumed noodles and chat pat. Similarly, 97.2 percent consumed pani-puri, 95.8 percent biscuits, 93 percent donuts, 92.3 percent chocolate, 65.5 percent ice cream and soft drinks and 18.3 percent consumed chapatti. In the same way another similar study presented that 15.5 percent of the respondents chose fast food, 27.7 percent of the respondents chose snacks, 8.6 percent of the respondents preferred soft drinks and 48.2 percent of the respondents chose chocolates (Pahari & Baral, 2020). The different contextual study shows similar results. The main reason for showing similar result may be similar demographic of study, similar cultural context of the respondents, and similarity in study country.

The finding of the present study demonstrate that 20.6 percent of the respondents consumed junk food in the morning, 60.7 percent of the respondents consumed junk food in the afternoon, 15. 8 percent of the respondents consumed in the evening and 2.8 percent of the respondents consumed at night. Similarly, Sapkota and Neupane (2017) revealed that 90.8 percent of the respondents consumed junk food in the afternoon, 1.4 percent of the respondents consumed in the morning and 7.0 percent of the respondents consumed in the evening whereas the least (0.7%) of the respondents consumed junk food at night.

This study results showed that 17.5 percent of the respondents consumed junk food at college, 16.4 percent of the respondents consumed at vending shop, 39.3 percent consumed at home and 26.8 percent of the respondents consumed on the way to school and home. A similar study found that 91.5 percent of the respondents consumed junk food at school and the least of the respondents consumed it at home (Sapkota & Neupane, 2017). In the same way, Subedi et al. (2021) found that 7.9 percent of the respondents frequently consumed junk food at home, 38.4 percent of the respondents frequently consumed at college, 10.9 percent of the respondents frequently consumed at friend's house, 40.1 percent of the respondents consumed at street food stalls and the least (2.7%) percent of the respondents frequently consumed junk food at a restaurant. These studies show that most of the students use junk food at different places, junk food is popular among college students and it is found everywhere like groceries, hotel, restaurants, street shop, school and college canteens, etc.

The results of present study show that38.4percent of the respondents indicated that the use of junk food was due to ready-made food, 29.1 percent respondents indicated that it saves time, 10.2 percent respondents indicated that it is easy to take, 13.6 percent respondents indicated that it is tasty, 4.5 percent respondents stated peer pressure as a cause and the least (4.2 percent) indicated effect of advertisement. A similar study found that 14.2 percent of the respondents

consumed junk food to save time, 8.7 percent respondents consumed junk food due to changing lifestyle, 22.6 percent of the respondents consumed because of curiosity about new taste, 24.3 percent of the respondents consumed due to influence of advertisement and 30.2 percent of the respondents consumed due to its easy availability (Subedi et al., 2021). Another study showed that 72 percent of the respondents consumed junk food because of its delicious taste. Likewise, 6.9 percent of the respondents consumed junk food because of its attractive advertisements, 5.6 percent of the respondents consumed junk food because of its convenience and 8.8 percent of the respondents consumed junk food because of its availability in restaurants (Khongrangjem et al., 2017). In another survey, 35 percent of respondents pointed out that the main causes for using junk food is not having time to cook at home, while 33.6 percent of respondents said that they preferred junk food because it tastes better than home cooked foods, 6.4 percent of respondents said that they ate junk food as per the wishes of their parents and the remaining 6.8 percent said that they ate junk food due to peer pressure (Pahari & Baral, 2020). Furthermore, one study also concluded that 90.1 percent of the respondents consumed junk food because it tasted good, 44.4 percent of the respondents consumed junk food because it could be prepared fast, 31.7 percent of the respondents consumed junk food because of peer influence, 29.6 percent of the respondents consumed it because nothing else was available, 15.5 percent of the respondents consumed it because of TV advertising (Sapkota & Neupane, 2017). These different contextual studies show some similar and some different results. The reason may be the nature of study tools, difference in study population and location.

This study found that 33.1 percent of the respondent consumed junk food once a day. Likewise, 30.2 percent of the respondents consumed junk food 3 times a day whereas 24.3 percent of the respondents consumed 4-6 times in a day, and least (12.4 %) of the respondents consumed twice a day. Another similar study showed that 23.6 percent of the respondents consumed junk food once a day, 24.5 percent of the respondents consumed twice a day, 15 percent of the respondents consumed thrice a day and 36 percent of the respondents consumed more than thrice a day (Pahari & Baral, 2020). In the same way Sapkota and Neupane (2017) had mentioned that 13.4 percent of the respondents consumed junk food 4-6times in a day, similarly 40.8 percent of the respondents consumed once a day, 42.3 percent of the respondents consumed twice a day and 3.5 percent of the respondents did not consume junk food at all. One study found more contrasting results that 22 percent of the respondents consumed junk food once per month or less, 52. 8 percent consumed once per week and 25.2 percent of the respondents consumed twice per week or more (Alfaris et al., 2015). While calculating the relationship between socio- demographic

factors (age, gender, religion, caste, fathers' education, mothers' education, fathers' occupation and mothers' occupation) and frequency of junk food consumption among college students. Chi-square test shows p-value greater than the level of significance (5%), in all testing socio-demographic factors. There is no association between socio-demographic factors and junk food consumption among college students. This result is compared with the study result of Yarmohammadi et al. (2015). They found a significant relationship between parents' high level of education and fast food consumption among high school students. Likewise, Poudel et al. (2018) found that there is no relationship between gender of the students, parents' education and junk food consumption among school students. Those different contextual studies show the distinct result. The reason may be the different in study population, tools and researchers' research skill and knowledge.

This study shows some limitations. So further research is needed to support or reject the findings of this study given the small size of the focus group. This could contribute to extensive future research. In the future, on a larger scale or in a larger population, similar research should be conducted based on mixed methods that could be brought closer to reality.

Conclusion

The survey found junk food consumption pervasive among college students. Junk foods of all kinds were consumed by the students including biscuits, donuts, chat-pat, pani-puri, noodles, chocolates, etc. and afternoon was the preferred time of intake. The study also concluded that the students chose junk foods because it's easily available, takes short time for preparation, ease of intake, peer pressure and attractive advertising. The results of this study will help any reader to better understand the practice, cause and relationship between the frequency of consumption of junk food and age, sex, religion, caste, father's/ mother's education and their profession among other things. Understanding the determinants of a healthy diet can help policymakers, experts and families make better decision about the younger generations' eating habits and prevent potential health risks associated with fast food by designing appropriate interventions.

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