

Junk Food Consumption Among Secondary Level Students, Chitwan

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Abstract

Introduction: Junk food is a pejorative term for cheap food containing high levels of calories from sugar or fat with little fibre, protein, vitamins or minerals. This study was conducted to assess the junk food consumption and patterns of consumed junk food among secondary level students.

Material and Methods: This was a descriptive cross-sectional research. Hundred forty-two respondents were drawn by using cluster sampling method. Self-administered semi-structured questionnaire in Nepali Version was used and the collected data was entered and analysed in Epi-data and SPSS Version 20 by using simple statistical methods. **Results:** The findings revealed that more girls (53.5%) consumed junk food than boys (79.6%) and those respondents were aware of the meaning of junk food. Majority of respondents (90.1%) preferred junk food for taste, is faster to prepare (44.4%), preferred as influenced by TV advertisements (15.5%), because of peer influences (31.7%) and some (29.6%) respondents preferred junk food because nothing else was available. Concerning patterns of consumed junk food all respondents (100%) consumed 'chat-pat' and noodles, panipuri (97.2%), doughnuts (93%), chocolates (92.3%), biscuits (95.8%), ice cream (65.5%) and cold drinks (65.5%). Only 54.2% of respondents were aware of risks associated with poor eating habits. **Conclusion:** Adolescents consumed a greater amount of junk food which led to a majority of ill effects later on. It is recommended that the school and community conduct and implement awareness programme on junk food consumption and its ill effects.

Key words: Junk food, Adolescence

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Introduction

The term 'Junk food' was coined as a slang in the public interest in 1972 by Michael Jacobson, Director of the Centre for Science, Washington D.C. Junk food is energy dense food with high amount of refined sugar, white flour, trans-fat, polyunsaturated fat, salt, numerous additives and low nutrient value in terms of protein, fibre, vitamin, and mineral content. Foods like chips, chocolate, soft drink etc. are generally taken as junk food¹.

Habits start young and depend on the environment (home and

school primarily) to cultivate healthy habits in children, the school being the next-best home of learning and nurturing. With the rise in the incidence of obesity and overweight amongst youngsters and adults, the dark-side of 'junk food' cannot be overlooked. The statistics of America records sixty million deaths every year due to obesity or overweight².

Adolescence is commonly regarded as a relatively healthy period of the life cycle. During this period there are various physical, psychological and behavioural transitions occurs which affect their lifestyle and influences their eating patterns. Eating pattern of adolescents is influenced by many factors including peer influences, parental modeling, food availability, food preferences, cost, convenience, personal and cultural beliefs, mass media, and body image³.

Competitive foods are sold through vending machines, school canteens/stores, and fundraisers and, in contrast to the federally-reimbursable school meal programs against federal nutritional standards. They are available in a large share of schools, although the availability of these foods varies significantly. For example, as many as 97% of high schools and 82% of middle schools have vending machines compared to only 17% of elementary schools⁴.

Among 1000 college adolescents, significantly greater numbers of boys 15% as compared to girls 10.2% were overweight. Out of the total obese children, 82.3% were non-vegetarian, whereas only 8.8% of vegetarians and ova vegetarians were obese. Hence the incidence of obesity was found to be significantly higher in those adolescents who ate meals outside home⁵.

Most of the adolescentsts during their mealtime eat junk food and get addicted to its taste, but it has low nutritive value and high calories, which results in obese children. Junk foods are also laced with colours which are often inedible, carcinogenic and harmful to the body which can affect the digestive system. Food colouring can cause hyperactivity and lapses of concentration in children, resulting in a child with learning disabilities⁶.

Among 341 young working adults regarding attitude towards the health of junk food, the participants gave overweight and obesity (44.3%) as their main concern, followed by heart disease (19.2%) and cancer (18.6%). Although these findings were not significant, substantially more participants in the higher socioeconomic group were concerned about diabetes (17.0%), while participants in the low socioeconomic group (23.1%) and middle socioeconomic group (19.4%) were concerned about heart disease⁷.

Among 300 students, 72% prefer junk food for tastiness than home cooked food. (Bake, 2012) So, the new generation is more attracted to junk food items, these replace the other healthier choices such as homemade fresh foods which directly affects health as it may lead to obesity and other diseases in the future.

The objectives of this study were to assess the junk food consumption habits among secondary level school students, to assess its influencing factors and the pattern of junk food consumed amongst them

Material and Methods

This was a descriptive cross-sectional research design used to assess the influencing factors of junk food consumption and its pattern among school adolescence. The study populations were the students of class 9 and 10 of Bishow Prakash Higher Secondary School, Bharatpur-15, Chitwan. Cluster random sampling technique was used. Out of five sections of class nine and ten, three section were chosen and total students for selected section were taken as study sample, for the convenience of the study. The sample size was determined according to sample size formula which was estimated up to 142.

Inclusion Criteria: Those students were present in the class on the day of data collection and willing to participate in the study.

Semi-structure self-administered questionnaire was developed. The questionnaire was developed by researcher herself on the basis of review related literature, and seeking the opinion from subject experts on the basis of research objectives. The questionnaire was translated and administered in Nepali language by a Nepali teacher.

The questionnaire was divided into two parts: part first related to socio-demographic information and part two related to junk food pattern and influencing factors of junk food consumption.

The content validity of the instrument was maintained by developing the instrument on the basis of literature review and seeking the opinion from the research advisor.

Pre-test of the instrument was done among 10% of total sample i.e. (n=14) in Shree Madhyamik Vidyalaya Dhaddaghari, Bharatpur-17 and necessary modification were done on the basis of pre-test finding.

Administrative approval was obtained from the concerned authorities of Bishow Prakash Higher Secondary School and Shree Madhyamik Vidyalaya

Dhaddaghari after submitting the request from NPI College. The purpose of the study was explained to each participant.

Informed consent was obtained from each participant and their parents. Confidentiality was maintained by not disclosing the information by giving a code and by using the information only for the study purpose.

The collected data was checked, reviewed and organized for completeness and accuracy and then organized. All the collected data were analysed by using descriptive statistics with SPSS Version 20. Descriptive results were expressed as frequencies, percentage and mean and the important findings of the study were presented in the form of tables.

Results

Data obtained from 142 respondents were analysed according to objectives of the study by using descriptive statistics such as frequency, percentage and mean. In order to facilitate the interpretation, the analysed data was organized and presented in different tables

Table 1: Demographic Variables of Respondents' (n=142)

Variables	Frequency	Percentage
Age (Mean age: 15.7)		
13-15	63	44.4
16-20	79	55.6
Sex		
Male	66	46.5
Female	76	53.5
Religion		
Hindu	122	85.9
Buddhist	17	12.0
Christian	3	2.1
Cast		
Brahmin	43	30.3
Chhetri	35	24.6
Adivasi/Janajati	50	35.2
Dalit	14	9.9
Education of parents		
Literate	134	94.4
Illiterate	8	5.6
If literate, educational of mother		
Only read and write	54	38.0
Primary education	27	19.0
Secondary level education	43	30.3
Higher secondary level education	10	7.0

If literate, educational status of father		
Only read and write	45	31.7
Primary education	21	14.8
Secondary level education	48	33.8
Higher secondary level education	18	12.7
Bachelor and above	2	1.4
Father's occupation		
Agriculture	39	27.5
Business	23	16.2
Labour	19	13.4
Foreign employee	59	41.5
Teacher	2	1.4
Family income		
<2500	7	4.9
2501-5000	12	8.5
5001-10000	27	19.0
10001-15000	30	21.1
>15001	66	46.5

Majority of respondents (53.5%) were in the age group of 16-20 years and 44.4% respondents were in the age group of 13-15 years. Mean age was 15.74. Regarding sex 53.5% respondents were female and 46.5% were male. Religion-wise 85.9% were Hindu and 2.1% were Christian. Caste variable showed 35.2% Janajati and 9.9% Dalit. Educational status of the parents revealed 94.4% to be literate and 5.6% illiterate. Majority of respondent's fathers (41.5%) were foreign employed and 1.4% were teachers. Income showed the majority of (46.5%) from the family having monthly income Rs. >15001 and 4.9% were belonged from the family having income Rs. <2500 per month.

Table 2: Respondents' Awareness Regarding Junk Food (n=142)

Variables	Frequency	Percentage
Homemade foods in Tiffin		
Yes	0	0
No	142	100.0
Awareness		
Yes	113	79.6
No	29	20.4
Place where food consumed mostly		
Home	12	8.5
School	130	91.5
Allowed in school		
Yes	142	100.0
No	0	0

It was revealed that awareness regarding junk food; none of the respondents (100%) brought homemade food for their Tiffin. Majority of them (79.6%) were aware of the meaning of junk food. The area where food was mostly consumed: 91.5% consumed junk food in school and 8.5% consumed it at home. All of the respondents (100%) were however allowed to consume junk food in their school.

Table 3: Showing pattern of Junk Food consumption (n=142)

Consumed Junk Food pattern**	Frequency	Percentage
Biscuits*	136	95.8
Ice-cream*	93	65.5
Donuts*	132	93.0
Chat pat*	142	100.0
Panipuri*	138	97.2
Noodles*	142	100.0
Chapatti	26	18.3
Chocolates*	131	92.3
Cold drinks*	93	65.5

*Correct response **Multiple response

All respondents (100%) consumed noodles and chat pat, 97.2% consumed panipuri, 95.8% consumed biscuits, 93.0% consumed doughnuts, 92.3% consumed chocolates, 65.5% consumed ice-cream and cold drinks and 18.3% consumed chapatti.

Table 4: Showing Frequently Consumed Junk Food (n=142)

Frequently Consumed Junk Food	Frequency	Percentage
Biscuits	19	13.4
Doughnuts	8	5.6
Chat pat	51	35.9
Pani-puri	10	7.0
Noodles	47	33.1
Chocolates	7	4.9

Type of junk food consumed was; 35.9% consumed chat-pat, 33.1% frequently consumed noodles, 13.4% frequently consumed biscuits, 7% consumed panipuri, 5.6% consumed doughnuts and 4.9% frequently consumed chocolates.

Table 5: Consumed Time and Frequency of Junk Food within two days amongst respondents (n=142)

Variable	Frequency	Percentage
Consumed timing		
Morning	2	1.4
Afternoon	129	90.8

Evening	10	7.0
Night	1	0.7
Consumed frequency within 2 days		
I didn't eat	5	3.5
4-6 times	19	13.4
Once a day	58	40.8
Twice a day	60	42.3

Timings of junk food mostly consumed; the majority (90.8%) consumed junk food at afternoon and 0.7% consumed at night. Concerning consumed frequency within 2 days, 42.3% of consumed junk food twice a day and 3.5% didn't consume junk food.

Table 6: Influencing Factors for Junk Food Consumption (n=142)

Influencing Factors **	Frequency	Percentage
It tastes better*	128	90.1
It is faster*	63	44.4
Peer influences*	45	31.7
TV advertisement*	22	15.5
Nothing else is available*	42	29.6
It is free of cost	2	1.4

*Correct response **Multiple responses

Influencing factors for junk food consumption; majority (90.1%) consumed junk food as it tastes better, 44.4% consumed as it is faster, 31.7% consumed junk food as peer influence, 29.6% because nothing else was available, 15.5% consumed it as influenced by TV advertisement and minority of respondents (1.4%) thought it is free of cost.

Table 7: Money and affordability to buy Junk Food (n=142)

Variable	Frequency	Percentage
Person who provided money		
Mother	79	55.6
Father	46	32.4
Brother/sister	17	12.0
Affordability		
Yes	48	33.8
No	94	66.2

Person who provided money to buy junk food: most of the respondent's mother (55.6%) gave money to buy junk food and 12% respondent's brother/sister gave money to them. Concerning affordability to buy junk food 66.2% respondents were unable to afford junk food.

Table 8: Knowledge of Major Health Risks Associated with Poor Eating Habits (n=142)

Knowledge of major health risk with poor eating habit	Frequency	Percentage
Understood about health risk	77	54.2
Heard but not known about health risk	45	31.7
Known about poor eating habits unknown about risks	18	12.7
Totally unknown	2	1.4

Awareness regarding major health risks associated with junk food consumption, most (54.2%) understood what they mean and 1.4% were unaware if there were any health risks associated with junk food consumption.

Discussion

Junk food is energy dense food with high amount of refined sugar, white flour, trans-fat, polyunsaturated fat, salt, numerous additives and low nutrient value in terms of protein, fibre, vitamin and mineral content¹. Our purpose of the study is to find out about the junk food consumption habits of the secondary level students and the pattern of junk foods used. The finding shows that 85.9% respondents were Hindus and 2.1% Christians which was similar to the result of Kotecha et al.⁸ which showed 93% Hindus and 2% of respondents Christians. Children of the parents involved in farming (27.5%) were more than doing business (16.2%) whereas Bake¹⁰, showed 7% respondent's fathers were farmers and 37% of the respondent's fathers had their own business.

Our finding of the pattern of junk food consumed, maximum were chat pat consumer, followed by biscuit, chocolate, ice cream and cold drinks which was similar with the study done by Kotecha et al⁸ and Kigaru et al¹². The maximum number of students have a variety of junk food for in their school which is low in nutrient value and high calorie often added with colours. Food colouring can cause hyperactivity and lapses of concentration in children resulting in learning disability⁶.

Children usually get addicted to the food containing sweetening agents and food preservatives that are addictive to nature so they deny eating homemade foods and skip their meals as well¹. This study showed that students preferred junk food for taste, fast availability and peer influences which were also shown in the study done by Bake¹⁰ and Joseph et al¹¹.

In this, students consumed junk food twice a day (42.3%), once a day (40.1%) and 4-6 times within last two days (13.4%) whereas in the similar study done by Joseph et al¹¹ students consumed junk food almost every day. Hence the frequency of the junk food consumption also supplements in causing harm to the body.

Conclusion

All children consumed junk food in a regular basis; the majority preferred it for taste and some as influenced by advertisements. Only half of them were aware of health risks associated with poor eating habits. Thus, there is a great need to maintain a practice of healthy eating habits among the adolescence in order to decrease the health risk associated with eating frequent junk food.

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