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ADOLESCENT'S KNOWLEDGE ON JUNK FOOD

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ABSTRACT

Background: Junk foods are that foods which are low in nutrient and high in every things else especially carbohydrates, fat, sodium, etc. Using up of junk foods has become almost a universal concerning issues, as more and more people are lured by it day in and day out irrespective of demographic characters. **Objective:** To identify teenager's student's knowledge on junk food and its ill effects on health. **Methodology:** For this study, a descriptive cross- sectional research was conducted among 120 respondents who were selected by purposive sampling technique. Data were collected by administering structured self-administered questionnaires and were analyzed by using descriptive (frequency, percentage, mean and standard deviation) and inferential (Kruskal Wallis test and Mann Whitney) statistics by using Statistical Package of Social Science statistics (SPSS) program 20.0. **Results**: This study reveals that majority of students had average knowledge and only very few students had poor level of knowledge. Student's knowledge was differed on the basis of their age, ethnicity, grade of education, gender, father occupation. Likewise, student's knowledge on junk food was not varied by their mother's education, mother's occupation, types of family, living places and amount of pockets money they received. **Conclusion:** On the basis of finding of this study it can be said that in order to promote good dietary habit among students awareness program to be introduced to the students along with it should be included in the curriculum.

KEYWORDS: Junk foods, Health, Knowledge.

INTRODUCTION

Junk foods may be defined as the foods that are highly refined and processed, readily available and pleasant in taste. Junk foods have low in roughage, protein, minerals but high in carbohydrate and saturated fat, salt and sugar. It is usually taken as a replacement for well balance diet.**[1]** It is stated that junk foods are that foods which are low in nutrient and high in every things else especially fat, sodium, carbohydrates etc. Using up of junk foods has become almost a global concerning issues , as more and more people are tempted by it day in and day out irrespective of demographic characters. Junk foods have no or very less nutritional value and irrespective of the way they are marketed, they are not healthy too.[2] However, consumption of junk foods has been seen as a fashion in today's society. More and more people have been using it but especially children are highly persuaded by it which is seen in increasing trend. It is a culture of today's society that majority of adolescence are usually gathering with friends and spend their leisure time in using junk food.

Nutritional knowledge is one factor that influences the diet behavior of teenagers, since fast food consumptions of the teenagers has become a serious issue which may lead toward obesity in many countries. It may lead to chronic diseases like obesity diabetes mellitus cardiac problems, liver problems, and hypertension and so on.[3],[4] Teen-age are at menace for nutritional problem both from a physiological and a psychological stance.[5] Hence, to know how students are fascinated by junk foods has assumed importance in recent times. There is also strong relationship between soft sweetened drinking and diabetes according to brook.[6] According to findings of Brook's study one 12 ounce sugar, sweetened soft drink per day increase risk of type 2 diabetes by 22%, a one 12 ounce daily increment in sugar sweetened or artificially the development of type 2

diabetes (hazards ratios,1.22 and 1.52 respectively. A study carried out by Bista, 2011 in Kritipur among 36 secondary schools depicted that 56% of public schools and 70% private schools had daily snack practices. Among 160 students, 47.32% had taken snacks from their school canteen, 30.43% had carried tiffin from their home and 8.69% had carried from shops, 8.69% from other different places. Majority of respondents from private schools 41.25% have noodles items as their main food as snacks in schools.[7]

Majority of adolescents consume over half diet as quickly available, highly processed, empty calories foods, high carbohydrate containing not just in schools but also at home. Among the total population, around one fourth (23.6%) of the total population of Nepal are adolescents. It is well known that today's children are the tomorrow's citizens so there is dire need to address the issues affecting their health.[8],[9] Contemplating above mentioned enormous reasons this study was conducted to assess the prevalence of junk food consumption and knowledge about its ill effects among teen-age school children.

A study highlighted the scenario of country's investment towards junk and processed food. In this survey, data shows that in the last fiscal year 2010-2011, Nepal had imported 12,253,513 liters of aerated drinks worth Rs. 759. Similarly, 24, 159,292,892 Kgs of potato chips, wafers and baking products worth Rs1.119 billion and 879,221 Kgs of various noodles worth Rs. 60.27 million. In Nepal every noodle producing factory has more than 5 billion investment. In average, every year production of such foods is increasing by 20%.[10] Many adult diseases which are originated by child hood nutrition and food behavior.[11]

Good food is a high priority for growth and development. Furthermore, it is more important in child hood and adolescents since it is peak growing age. Therefore, students must understand what they eat, how food affect, how they mature, feel and perform. Junk foods are mainly made up by using a lot of saturated fats, sugar and chemical preservatives which are harmful after digestion and release a lot of toxins into the body. Likewise, it lacks vitamins, fiber and minerals which are necessary to have good health and immunity to fight diseases.[12] Healthy intake behaviors in childhood are actually very important. It helps to avert malnutrition, growth retardation, and other nutrition related problems in children. The present situation sparkles light on many adult diseases, have their origins in childhood and teens. This is due to lack of awareness regarding bad food lifestyles. So, there is dire need to assess knowledge of school children so that intervention can be initiated to boost students' knowledge.

In the context of Nepal, school going children get accesses too many vendors selling junk foods. The quality of the food and food hygiene are never or rarely investigated. The easy accessibility, cheap price and taste are the foremost reasons for the increasing consumption of junk food among adolescents. The effects of junk food on health are disastrous. It can lead to obesity, hypertension, type 2 diabetes, osteoporosis and even cancer. Hence, assessing the knowledge regarding junk foods creates awareness among the students further contributing to healthy food choices.

OBJECTIVE OF THE STUDY

The objective of the study was to assess the prevalence of junk foods consumption and knowledge of its ill effects among school children. In addition, it also find out junk food consumption pattern among school children.

Significance of Study

The study was conducted to identify the knowledge of junk foods and its ill effects of students of Bhanubhakta School. It definitely sensitized the concerned students regarding food habit especially on ill effects of junk food. It is also helpful to school management to take needed action to promote good food habits of students. The findings of the study provides as baseline information to conduct large scale and comparative studies in different settings. In such context, the findings of the study can provide a baseline data for policy makers in developing various plans and policies and initiating awareness program in the field good food behavior. Moreover, the study may be helpful to all curriculum developers to add this in the curriculum of secondary level or any needed levels.

MATERIALS AND METHODS

Research Design

A quantitative, descriptive cross sectional and non-experimental study design was adopted to assess the knowledge among respondents.

Research site, population, sample size and sampling technique of the study

The study was conducted in Bhanubhakta memorial secondary school. One hundred twenty adolescent students of the age of 10 to 19 years were selected for the study by using Non probability purposive sampling technique.

Tool and instrumentation

Development of tools is noteworthy matter in order to gather the required data. Therefore researchers had given special attention in selecting proper tool and instrument. Self constructed survey questionnaires were used after consultation with nutritionist and other experts. The structured questionnaires consisted of two parts that assessing; demographic information and information regarding Knowledge of Junk Food and its ill effects.

Validity and Reliability

For this study strong emphasis was given to develop valid questionnaire. In order to maintain validity extensive literature review, consultation with research experts, nutritional expert, school teachers, parents and peers was done extensively. Developed data collection instrument was corrected by research seniors and nutritional expert. Similarly, reliability as the confidence we can place on the measuring instrument to give us the same numeric value when the measurement is repeated on the same object. Taking this theoretical thought in mind, we gave specific importance on reliability. In order to maintain reliability pretest was done in 10 % students. According to feedback from participants necessary modification was done. Data was collected by researcher themselves and the data was edited on the same day of the collection.

Data collection procedure

In order to gather data, researchers reach to every student individually. Researchers then gave introduction to students and then declared the aim of their study. Then the questionnaires were disseminated to the selected students. Students were requested for formal written assent before starting to fill the survey questionnaire. Researchers allowed adequate time to complete the questionnaires.

Data analysis procedure

Collected data was entered on SPSS 16 version and analyzed. Demographic information was analyzed by using descriptive statistics. Frequencies and Percentages were calculated. Association among selected demographic variables and knowledge of junk food was analyzed by using inferential statistics. Finally; results of the study were linked with the research objectives and research questions. Likewise, every outcome was also connected with reviewed literature and findings of other similar kinds of study conducted globally.

Ethical Consideration

Ethical concern was followed willfully for this study. Approval was taken from research committee of Padmakanya College Bagbazar. In a similar way, consent was taken from concerned school, selected adolescent students from different classes of the college were approached and written consent was taken for their voluntary participation in the study. The respondents were assured of anonymity; confidentiality and privacy of information given by them. Respondents were allowed to take out their participation from the study at any time. Coding system was followed to maintain subject's anonymity or privacy.

Table 1: ***Distribution of Respondents According to Socio-Demographic Information.*** **(n=120)**

SN	Variables	Frequency	Percent
1.	**Age in years**		
	13-14	61	50.8
	15-16	59	49.2
2.	**Gender**		
	Girls	55	45.8
	Boys	65	54.2
3.	**Ethnicity**		
	Brahamin	50	41.7
	Chhetri	32	26.7
	Newar	20	16.7
	Others	18	15
4.	**Types of family**		
	Nuclear	91	75.8
	Joint	29	24.2
5.	**Educational status**		
	Grade 8	29	24.2
	Grade 9	56	46.7
	Grade 10	35	29.2
6.	**Place of living**		
	Hostel	15	12.5
	Home	105	87.5
7.	**pockets money per month**		
	No pocket money	23	19.2
	Rs 100-200	50	41.7
	Rs 200-500	22	18.3
	Above 500	25	20.8

Table 1 shows that majority of the respondents (50.8%) were within 13-14 years of age. Gender wise, the majority of the respondents (54.2%) were male. In regards to ethnicity, the majority (41.7%) belonged to Brahmin ethic group, Based on family type, the majority of the respondents (75.8%) belonged to nuclear family and. Similarly, according to the educational status the majority of the respondents (46.7%) were from grade 9. In the context of type of residence the majorities (87.5%) of the respondents' were residing with their parents in their own houses. On the basis of amount of pocket money per month majority (41.2%) of the respondents' get Rs 100-200 pocket money.

Table 2: ***Distribution of Respondents According to having knowledge on junk food.***
(n=120)

Variables	Know	Don't know
Affect negatively on Health	66 (55%)	54 (45%)
Allergy associated with Junk Food	46 (38.3%)	74 (61.7%)
Junk food make overweight	66 (55%)	54 (45%)
Junk food can case Neurological Disorders	82 (43.3%)	68 (56.7%)
Cancer is associated with junk food	63 (52.5%)	57 (47.5%)
Junk food can cause Heart diseases	62 (51.7%)	58 (48.7%)
Junk food can cause diabetes	83 (69.2%)	37 (30.8%)
Junk food can cause Hypertension	67 (55.8%)	53 (44.2%)
Junk food can cause Dyslipidemia	38 (31.7%)	82 (68.3%)
Junk food can cause Gastrological problems	90 (75%)	30 (25%)
Junk food can be better option	77 (64.2%)	43 (35.8%)

Table 2 depicts that majority of respondents had average knowledge on the most of aspects of junk foods. Among them few respondents had adequate and very few respondents had less than average knowledge. It signified that majority had average knowledge.

Table 3: ***Extent of knowledge of the respondents on junk foods.***
(n=120)

Level of knowledge	Frequencies	Percent
Poor	37	30.9
Average	59	49.1
Adequate	24	20
Total	120	100

According to table 3, among 120 respondents, 49.1% had average knowledge, 30.9% respondents had moderate knowledge and only 20% had adequate level of knowledge on junk food. It signifies that majority of respondents had inadequate knowledge on junk food

Table 4: ***Distribution of Respondents according to Junk Food consumption patterns.***
(n= 120)

Variables	Frequency	Percentage
Types of junk food		
Vegetarian	27	22.5
Non Vegetarian	18	15
Both	75	62.5
Duration of Consumption		
Less than 1 year	32	26.7
1-3 years	35	29.2
4-6 years	53	44.2
Replacement of the major foods		
Breakfast	17	14.2
Lunch	48	40.0
Dinner	27	22.5
Snacks	28	23.3
Sources of Mid-day meal		
Home made	46	38.3

Junk food	15	12.6
Canteen	46	38.3
Local vendor	13	10.8
Reasons of using junk foods		
Easy Access	51	42.5
Tasty	29	24.2
Peer Influence	12	10.0
Variety of Items	28	23.3
Types of junk foods		
Pizza	51	42.5
Samosa	13	10.8
Chips	29	24.2
Others (wai-wai, biscuits, chocolates)	27	22.5

As stated in table 4, majority of respondents liked both vegetable and non-vegetable types of junk food. Likewise, majority of respondents used junk food for 4-6 years and usually they used as a replacement of lunch. As per sources of midday meal, majority of respondents carried Khaja or Tipin from their home. Similarly, majority of respondents liked to use junk food because of easy access. In the same way, majority of respondents adored pizza, followed by chips and others (wai-wai, biscuits and chocolates).

Table 5: ***Differences of knowledge as per ethnicity, level of education, monthly pocket money, mother and father education***
(n=120)

Variables		**Numbers**	**Mean rank**	**Mean knowledge**	**DF**	**P value**
Ethnicity	Brahmin	50	43.59	37.708	3	.000
	Chhetri	32	71.92			
	Newar	20	51.18			
	Others	18	97.53			
Level of education	Class 8	29	60.45	16.805	2	.000
	Class 9	56	48.79			
	Class 10	35	79.27			
Monthly pocket money	No pocket money	23	62.76	2.832	3	.418
	100-200	50	57.45			
	200-500	22	54.75			
	above 500	25	69.58			
Mother's education	Illiterate	6	87.00	16.130	5	.006
	Informal education	23	80.43			
	Under SLC	8	65.44			
	11-12 class	23	52.00			
	Bachelor	46	51.21			
	Master	14	58.07			

Above table illustrates that Kruskal Wallis test was performed in order to analyze the differences between participants' knowledge's on junk food and ethnicity, level of student's education, pockets money they received, mother's education and father's education. The test output shows that there is statistically significant differences exist between ethnicity and student's education level and student's knowledge on junk food, (p=.000, & .000 respectively). On another side, there is no statistically significant differences exist between Monthly pocket money and mother's education on student's knowledge on junk food (p=.418 & .006 respectively). It can be concluded that participants' knowledge on junk food was varied among different ethnicity, grades of students and father education. However, student's knowledge on junk food was not varied as per the pockets money they received and mother education.

Table 6: ***Differences of student's knowledge on junk food as per genders, types of family and place of living. (n=120)***

Variables		Numbers	Mean Rank	Sum of Rank	Mean Knowledge	P value
Age in years	13-15	61	47.58	2902.50	1011.500	.000
	16-17	59	73.86	4357.50		
Gender	Girls	55	71.3	2734.50	1194.500	.002
	Boys	65	69.62	4525.50		
Family	Nuclear	91	60.37	5493.50	1307.500	.941
	Joint	29	60.91	1766.50		
Place of living	Hostel	15	59.47	892.00	1281.000	.812
	Home	105	60.65	6368.00		

As stated in table 6, Mann Whitney test was performed in order to reveal the association between knowledge on junk foods and selected demographic variables (age, gender, types of family and place of living). The analysis shows that there is statistically significant exist between girl and boy respondents (p=.002), and various age group (p= 000). On the other hand, there is no statistically significant seen between types of family (p=.941) and place of living (p=.812). It means that gender and age of respondents had significant effect in their knowledge on junk food. However, knowledge is not differed by types of family and place of living.

DISCUSSION

Finding of this study discloses that among 120 respondents, 49.1% had average knowledge, 30.9% respondents had moderate knowledge and only 20% had adequate level of knowledge on junk food which is appreciable. Similar kinds of findings were revealed by Antony & Bhatti in their study.[5] Similarly, findings of present study are more or less similar to a study conducted by Khongrangjem, et al.,[13] Majority of students had average knowledge this findings is reversed than the findings of a study conducted by Sharma in 2013. Since, his study shows that more than 80% had poor level of knowledge.[14] The present study was designed to assess the knowledge about junk food and its ill effects on health among teenager's students. The study also discovered various socio demographic variables like gender, father occupation, their grade of education, ethnicity which had a positive relationship with student's knowledge. However, no relationship was identified between knowledge on junk food and pocket money, education of parents, family types, living places etc.Findings of present study shows that choice of junk food was easy access reversely Khongrangjem et all reveals that students preferred it because of its taste.

An experimental study conducted by Khongrangjem et. al., in 2018 stated that interventional package was significantly beneficial to change the knowledge level, practice and attitude toward negative effects of junk food. Furthermore, this study indicated that such sorts of interventional strategies to be introduced in regular basis via course curriculum for long term behavioral modification. Counseling about importance of balance diet and damaging effects of fast/junk food may help to reduce the addiction of such foods.[13]

The present study reveals that there was significant association regarding knowledge of junk foods and their age and level of education of students as the obtained p value was 0.000 at 5% level of significance. This finding is reversed than the findings a study conducted by George as the obtained p value was 0.22. In this study majority (44.2%) were consumer since 4-6 or more years and only 29%.[15] Where as in the study carried out by Joseph in 2015, majority 58.3% were consumers since past 2 to 5 years. Similarly majority (40%) used junk food as a replacement of lunch.[16] Among 120 students, mostly like pizza followed by and samosa and others like biscuits, wai- respectively.

CONCLUSION

This study was conducted to find out the student's knowledge on junk food and its ill effects on health. Knowledge on junk food was measured by structured questionnaire on junk food. This study discloses that majority of students had average knowledge and only very few students had poor level of knowledge. Student's knowledge was differed on the basis of their age, ethnicity, grade of education, gender, father occupation. Likewise, student's knowledge on junk food was not varied by their mother's education, mother's occupation, types of family, living places and amount of pockets money they received. On the basis of finding of this study, it can be said that in order to promote good dietary habit among students awareness program to be introduced to the students along with it should be included in the curriculum.

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