



**INVESTIGATION OF THE HARMFUL IMPACT OF JUNK FOODS ON STUDENTS
AT A SELECTED INSTITUTION**

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Abstract

Modern eating habits have influenced how students eat. What people eat and how they live has a big impact on their overall health, so it's important to follow a healthy diet and lifestyle. If unhealthy choices are made over time, they can add up and affect a person's health in the long run.

Aim: To understand how aware college students are about junk food and its harmful effects, and to teach them to make better food choices.

Method: This study was a cross-sectional survey. One hundred students from LNCT University Bhopal, India, were chosen. All the students were between the ages of 18 and 20.

Result: Fifty-five percent of the students came from towns and belonged to the upper middle class. There was no strong link between the students' background and their knowledge about the dangers of junk food, as the result was not statistically significant ($p > 0.05$).

Conclusion: The study suggests that colleges should work with government and non-government groups to address this issue. They should involve more people, like parents and teachers, in these efforts. Also, college authorities should ensure that healthy food options are available not just on campus, but also in nearby areas.

Keywords: *Junk foods, Adolescence, Nutritive value, Health effects.*

Introduction

India is one of the countries that have a rich traditional and historical food culture. The country has a long history of mixing different kinds of food, which has led to a wide variety of dishes in its diet. It can be said that India has a strong tradition of food items and recipes. Fast food places are very popular places to eat on the go.

These foods are easy to get and cheap, and they are found in many common places like school and college areas, theatres, shopping malls, parks, and tourist spots. These kinds of foods are usually called fast food or junk food. In recent years, more people have started eating outside their homes [1].

It has been noticed that working women often prefer these ready-to-eat foods because they take them with them when they come back from work. Young people watch themselves in the group of people who are going through changes because of the influence of the modern world. The way people live and connect with each other has changed to fit the trends of today. Food has not changed much, but nutritional food has been replaced by junk food. Junk food includes everything that is fast, tasty, easy to get, and modern. It appeals to everyone, whether young or old, in any place, including children.

Food that does not have much nutrition is considered junk food. Foods with high fat, such as Trans fat, sodium, and sugar are examples of junk food. Junk food has no real nutrition and has very little vitamins, minerals, and amino acids, but it has a lot of sugar and fat. So, it is not healthy food [2]. Junk food is easy to buy, prepare, and eat. When we eat these foods with no real nutrition, the body has to make its own enzymes to turn them into energy. However, the body's enzymes that are used for this purpose cannot be used for other important changes in the body. Studies have shown that bad eating habits can affect a person's future in life. The students of today will be the adults of tomorrow, so it is important to focus on today's students and teach them how to change their behavior to eat healthier. However, it is observed that college students eat junk food but don't fully understand how it affects their health. This study is aimed at showing the lack of awareness that college students have about junk food and its dangers [3].

Objectives of the Study

Aim of the Study

To check how much college students know about junk food and its harmful effects, and to teach them to make better choices when

it comes to eating healthy.

Specific Objectives

To see if there is a connection between students' background information and how much they know about the health risks of junk food.

Materials and Method

This section explains the methods used in the research, including the plan for conducting the study, the place where it was done, the people involved, the types of data collected, and how the samples were chosen and examined.

Work Plan

A work plan describes the techniques and strategies used to collect and analyze the data related to the research question.

Study Subjects

This study was carried out with the help of 150 students selected from LNCT University Bhopal, India. These students were aged between 18 and 20 years and were in the adolescent age group. The students were chosen using a random method called raffle [4].

Inclusion Criteria

- Students from LNCT University Bhopal
- Both male and female students who were willing to take part in the study.
- Students who were in good health.
- Students aged between 18 and 20 years.

Exclusion Criteria

- Students below 18 years of age were not included.
- Students above 20 years of age were not included.
- Students who studied at other colleges besides LNCT University Bhopal were not included.

- Students with long-term illnesses were not included.
- Students taking antibiotics or other medicines for chronic conditions were not included.

Study design

The study is an analytical cross-sectional survey that uses interviews with a close-ended questionnaire to collect quantitative data. This helps in answering the research questions and overcoming some research challenges. The study aims to assess how effective a planned instructional module is in teaching college students about the health risks of junk food at LNCT University Bhopal, India. The participants were adolescents aged between 18 and 20 years[5].

Sample size

The study included 150 college students who were willing to take part in the research.

Sampling Technique

A total of 150 students from LNCT University Bhopal were selected using a simple random sampling method. The selection was done through a lottery method based on inclusion and exclusion criteria to reduce sampling errors and ensure the sample is representative. Students who agreed to take part were asked to complete a pre-designed questionnaire through direct interviews. After collecting the responses, the data was checked for completeness and then analyzed using SPSS software.

Study variables

Variables are characteristics or features that are studied in research work.

Dependent Variable

The dependent variable refers to the outcome that is being studied or measured [6]. In this research, it is the level of understanding or awareness among college students about the dangers of junk food.

Independent Variable

The independent variable is a factor that influences or affects the dependent variable. In this study, it is the instructional module that provides information about the dangers of junk food to college students.

Tools used for the study

The interview part helped collect both numerical and descriptive data.

Description of the tool

The researcher created the tool based on the study's goals and ideas from previous research. The data collection was split into two parts: one included basic information about people, like age, gender, family status, where they live, their parents' jobs, monthly income, and so on. The other part involved asking about how they eat junk food, where they buy it, how much pocket money they get each month, how often they eat it, and what kind of junk food they eat.

To ensure the tool was accurate and reliable

The questionnaire was checked by experts, and changes were made according to their suggestions. A pilot test was done, focusing on how consistent the questions were and whether they truly measured what they were meant to. This pilot test was done with 10% of the people in the study to see if the questions made sense. A small group from the target group was also tested beforehand to find out any problems with the questions. A reliability check called Cronbach's alpha was used, and the score was above 0.72, which shows the questions worked well together.

Data collection

The purpose of the data gathering method was to evaluate college students' dietary habits and nutritional awareness with reference to junk food consumption. Demographic data, including age, gender, family status, residential area, educational attainment, parental occupation, and monthly family income, were collected.

The location of junk food purchases, monthly pocket money, frequency and type of junk food consumption, and eating habits (individual or group consumption) were additional details. The relevant authority's formal consent was sought before any data was collected.

All participants gave their informed consent after being fully informed about the study's goals. The respondents' anonymity and confidentiality were rigorously protected. A structured questionnaire was used to gather the data, which were then tallied in Microsoft Excel after being checked for completeness. Descriptive statistics like frequency, percentage, mean, standard deviation, mean difference, and range were all part of the statistical study. The study employed inferential statistics, such as the, to ascertain correlations between nutritional awareness levels and demographic variables. P-values below 0.05 were regarded as statistically significant.

Looking at data with statistical methods

The main goal of data analysis is to turn large sets of data into something easier to understand and explain. This helps in studying and checking how the data relates to a particular problem. The collected data was split, organized, and reviewed to make it simpler to compare and find important patterns. The data was examined using demographic factors. These factors include people who have good knowledge about the health risks of junk food and those who

don't. To analyze the data, we used inferential statistics, and we also used the Pearson chi-square test to see how these demographic factors are connected [7].

Results

A sample group's demographics are broken out in this table according to a number of factors.

Age: Age of the sample, the largest age group is 21–23 years old (36.7%), followed by 18–20 years old (26.7%).

Gender: Gender Of the sample's participants, 56.7% is female and 43.3% are male.

Educational Level: Undergraduates (46.7%) make up the largest percentage of responders, followed by postgraduates (36.7%) and others (16.6%).

Residence: Residence Of the sample, 63.3 percent live in urban areas, while 36.7% live in rural areas.

Family: Family of the sample, a sizable majority (66.7%) are part of a nuclear family, whilst 33.3% are part of a joint family (Table.1) [8].

Table 1: Samples distribution according on respondents demographic information

Demographic Variable	Category	Frequency	Percentage
Age (yrs)	18-20	40	26.7
	21-23	55	36.7
	24-26	35	23.3
	27 & Above	20	13.3
Gender	Male	65	43.3
	Female	85	56.7
Educational Level	Undergraduate	70	46.7
	Postgraduate	55	36.7
	Others	25	16.6
Residence	Urban	95	63.3
	Rural	55	36.7
Family	Nuclear	100	66.7
	Joint	50	33.3

Based on the monthly income of their household and the occupation of their parent or guardian, the respondents' demographics are broken down in the table that is provided.

• **Monthly Family Income:** The majority of respondents (33.3%) have a family income that falls between ₹15,001 and ₹30,000 per month. Those earning between ₹30,001 and ₹50,000 (26.7%) and those earning less than ₹15,000 (23.3%) come next. The smallest percentage (16.7%) earns more than ₹50,000 per month as family.

• **Parent/Guardian Occupation:** The biggest percentage of respondents' occupations (30.0%) is held by parents or guardians who work for private companies. Government workers (26.7%) and independent contractors or business owners (23.3%) come next.

"Others" (6.7%) and daily wage/skilled laborers (13.3%) are the smallest groupings (Table.2) [9]. The distribution of a group of people's dietary knowledge levels is shown in the table. The sum of the frequencies (35+60+40+15) is 150 participants in total. Among those with inadequate knowledge, 35 (23.3%), Moderate Knowledge 60 individuals (40.0%) Among those with good knowledge, 40 (26.7%), Exceptional knowledge 15 individuals (10.0%) 40.0% of participants had a moderate level of dietary understanding, which is the majority (Table.3) [10].

Table-2: Distribution of family income and occupation related demographic characteristics.

Demographic Variable	Category	Frequency (n)	Percentage (%)
Family Monthly Income	Less than 15,000	35	23.3
	15,001-30,000	50	33.3
	30,001-50,000	40	26.7
	Above 50,000	25	16.7
Occupation of Respondent's Parent/Guardian	Government Employee	40	26.7
	Private Employee	45	30.0
	Self-Employed/Business	35	23.3
	Daily Wage/Skilled Labor	20	13.3
	Others	10	6.7

Table-3: Distribution of demographic factors associated with the frequency of nutritional awareness.

Nutritional Knowledge Level	Frequency (n)	Percentage (%)
Poor Knowledge	35	23.3
Moderate Knowledge	60	40.0
Good Knowledge	40	26.7
Excellent Knowledge	15	10.0

The demographic factors (gender, education level, and residence) and knowledge levels (poor, moderate, and excellent) are cross-tabulated in the table along with the relevant P-values.

• **Gender:** Fifteen girls (10.0%) and twenty males (13.3%) demonstrated inadequate understanding. There were 35 girls (23.3%) and 25 males (16.7%) with moderate knowledge. Ten girls (6.7%) and five males (3.3%) had excellent expertise. The gender P-value is 0.2054. The table includes the pertinent P-values as well as a cross-tabulation of the knowledge levels (low, moderate, and excellent) and demographic characteristics (gender, education level, and domicile).

• **Gender:** Twenty males (13.3%) and fifteen females (10.0%) showed insufficient comprehension. Of those with moderate understanding, 25 were male (16.7%) and 35 were female (23.3%). Five males (3.3%) and ten females (6.7%) possessed exceptional expertise. The P-value for gender is 0.2054.

• **Place of residence:** According to the data, 25 rural residents (16.7%) and 10 urban residents (6.7%) have inadequate knowledge. Twenty rural residents (13.3%) and forty urban residents (26.7%) had moderate understanding.

No rural residents (0.0%) have outstanding knowledge, whereas 15 urban individuals (10.0%) did. For dwelling, the P-value is 0.3019 (Table.4) [11].

Table-4: Demographic factors and knowledge of junk food’s health risks are linked.

Demographic Variable	Category	Poor Knowledge (n, %)	Moderate Knowledge (n, %)	Excellent Knowledge (n, %)	P Value
Gender	Male	20 (13.3%)	25 (16.7)	5 (3.3%)	0.2054
	Female	15 (10.0%)	35 (23.3%)	10 (6.7%)	
Education Level	Undergraduate	20 (13.3%)	30 (20.0%)	5 (3.3%)	0.4595
	Postgraduate	10 (6.7%)	20 (13.3%)	5 (3.3%)	
	Others	5 (3.3%)	10 (6.7%)	5 (3.3%)	
Residence	Urban	10 (6.7%)	40 (26.7%)	15 (10.0%)	0.3019
	Rural	25 (16.7%)	20 (13.3%)	0 (0.0%)	

Discussion

The current study evaluated college students' nutritional knowledge and looked at how it related to a few chosen demographic factors. According to the demographic distribution, the majority of respondents (36.7%) were between the ages of 21 and 23; a larger percentage was female (56.7%) and undergraduates (46.7%). The majority of participants was members of nuclear families (66.7%) and lived in cities (63.3%). A significant percentage (33.3%) reported a monthly family income between ₹15,001 and ₹30,000, while the majority of parents (30.0%) worked in private industry [12].

Regarding nutritional knowledge, 26.7% of students showed good knowledge and 40.0% showed intermediate understanding. There is a gap in understanding regarding nutritional health, nevertheless, since just 10.0% had great knowledge and a noteworthy 23.3% exhibited inadequate knowledge.

There were no statistically significant correlations found when knowledge levels and demographic characteristics were cross-tabulated. The distribution of knowledge was not significantly impacted by gender ($p = 0.2054$), however a somewhat higher percentage of women than men had moderate to outstanding understanding. Similarly, whereas undergraduates tended to report higher levels of knowledge than postgraduates and others, there was no significant correlation between educational level and knowledge ($p=0.4595$) [13].

Additionally, there was no significant correlation between residence and knowledge ($p=0.3019$); nonetheless, urban pupils exhibited higher levels of good knowledge (10.0%) than their rural counterparts (0%).

The lack of substantial correlations indicates that there are gaps in nutritional knowledge

across a wide range of demographic groups. This could be the result of a lack of exposure to health-related awareness campaigns or an inadequate integration of nutritional education into academic courses [14].

Conclusion

According to the study, a significant percentage of college students still have low or insufficient awareness of nutrition, even though the majority have a moderate understanding of it. Crucially, there was no discernible correlation between demographic characteristics like gender, education, or place of residence and nutritional awareness, suggesting that the knowledge gap is evenly spread among various populations. The results highlight the necessity of focused nutrition education initiatives in higher education settings to raise awareness of good eating habits and lower the dangers of consuming junk food. Together with awareness efforts, the inclusion of organized health and nutrition modules in the curriculum may improve students' comprehension and promote healthier lifestyle choices.

Recommendations

A similar study can be carried out with a bigger group of people. We can also compare situations in rural areas with those in urban areas. A study can be done to learn about the knowledge and feelings of parents and teachers regarding junk food.

Limitations

This study has some limitations, but it doesn't stop it from achieving its main purpose. The study only includes students from a college and not people of other ages. Also, because this research is done in India, the results might not be the same everywhere in the world.

Strength

This study can help new researchers who are starting out. More research can be done on different health issues to find better ways of sharing important information.

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