

Research Article

# A Pre-experimental Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge and Attitude among Adolescent Students regarding Health Hazards of Junk Food in Selected Senior Secondary School, District Hisar (Haryana)

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## A B S T R A C T

*Introduction:* It is undertaken with the main objective, to assess the pre-test knowledge and attitude score regarding health hazards of junk food among adolescence students, to administer the planned teaching program regarding health hazards of junk food among adolescence students, to evaluate the effectiveness of the planned teaching program on knowledge and attitude regarding health hazards of junk food and to find out the association between the pre-test knowledge and attitude score regarding health hazards of junk food among adolescence students with their demographic Variables.

*Method and Tools:* The tool used for this study consisted of three parts. Part - A (demographic data). Part - B, the self-structure knowledge questionnaire consist of questions on various aspects such as general information, the effect of junk food on health, and prevention, (20 questions). Part - C, consists of a Likert scale for an attitude among adolescent students regarding health hazed of junk food (20 questions).

*Result:* The knowledge score of 3(5%) of the subject has inadequate, 5(91.7%) moderate and 2(3.3%) adequate had pre-knowledge scores and 10(16.7%) moderate and 50(83.3%) adequate post-knowledge score regarding health hazard of junk food. The mean pre-knowledge score was 51.42% among adolescent students with an of mean 81.75% among adolescent students. The calculated P-value (0.000) is significant at 0.001 levels.

*Conclusion:* Therefore, it is concluded that there was a significant difference in attitude levels among adolescent students regarding the health hazard of junk food.

**Keywords:** Junk food, Adolescent Girl, Health Hazard

## Introduction

Food is an essential component of a well-balanced diet. It is something that everyone requires on a daily basis. Only adequate nutrition can keep a person alive. Food is required for a man's growth, development, and active and healthy lifestyle. It is a substance, usually composed of carbohydrates, fats, proteins, and water that can be eaten or drunk by an animal or human for nutrition or pleasure. What we eat on a daily basis has an impact on our health. Nowadays, most people enjoy junk food, which is quite popular among both adults and children. Longer work hours, more women working outside the home, and a significant number of single people are all socioeconomic trends which lead to higher consumption of junk food.<sup>1</sup>

Junk food has replaced healthy and nutritious meals as the new food slogan. It is defined as anything that is fast, tasty, handy, and trendy. It appears to have absorbed people of all ages and races, with the most recent entrants being youngsters. Wafers, colas, pizzas, and burgers have all of a sudden become the most important things in the world. The most usual scenario involves a child returning home from school and plopping down in front of the television with a bowl of wafers and a can of cola. Children appear to have walked into a world of fast food and vending machines, completely oblivious to the harm they are wreaking.<sup>2</sup>

The word "junk food" refers to food that is low in nutritional content while having a high caloric value. Despite the fact that many food producers make a variety of goods that could be termed junk, many individuals attempt to avoid or limit such food in their diets due to worries that it is unhealthy. Nutritionists, doctors, and other health advocates frequently seek to educate people about junk food and encourage them to consume well-balanced diets with a high proportion of nutritious foods.<sup>3</sup>

Adolescence is characterised by high calorie and protein demands. Due to poor snacking habits, the child's appetite grows and he tends to consume more carbohydrate items, and vitamin C and vitamin A consumption may be insufficient. According to a WHO report (2010), an overdose of junk food kills 40,000 people worldwide each year. Obesity rates in India have been found to increase by 20%. India is currently on the verge of an obesity epidemic.

Experts say that the limit food advertising and make food labels clearer. The world's youth population is 120 million, 1019 years old, about 19% of the total population, and faces many serious nutritional problems. At this stage, calorie and protein requirements are maximum, and a poor diet causes nutritional problems. Malnutrition and obesity are the major nutritional problems affecting young people around the world. The council's recommendations on behaviour emphasise the nutritional relevance of adolescent girls,

and the requirement of public information and awareness to make governments and communities aware of the importance of adolescent health and nutrition. There is a need to strengthen education for promoting healthy eating habits and healthy foods.<sup>5</sup>

Diets change over time and are subject to many factors and complex interactions. Income, food prices (which affect the availability and affordability of healthy foods), personal preferences and beliefs, cultural traditions, and geographical, environmental, social and economic factors are all complex ways. Food interacts to form individual dietary patterns. Therefore, promoting a healthy food environment and including a food system that promotes a diverse and balanced healthy diet requires the involvement of multiple sectors and stakeholders, including government, public and private sectors.<sup>6</sup>

Young people frequently visit fast-food restaurants and various stores, and visit them soon after school. The best way to get your child to eat healthy food is to have them read information about junk food. There is plenty of information about junk food that kids can get from websites, schools, children's magazines, and more. Parents who give their children access to junk food for such information raise awareness and thereby encourage their children to adopt healthier eating habits.<sup>7</sup>

Youth need to change their diet and consume a nutritious diet. Proper nutritional knowledge plays an important role in preventing junk food health hazards such as obesity, high blood pressure, and cardiovascular disease. Junk food has become an important part of the diet of children around the world. It poses that a health risk for both what is contained and what replaces the diet.<sup>8</sup>

## Objectives

- To assess the pre-test knowledge and attitude scores regarding health hazards of junk food among adolescent students
- To administer the planned teaching programme regarding the health hazards of junk food among adolescent students
- To evaluate the effectiveness of a planned teaching programme on knowledge and attitude regarding the health hazards of junk food
- To find out the association between the pre-test knowledge and attitude scores regarding the health hazards of junk food among adolescent students and their demographic variables

## Materials and Method

The conceptual framework selected for this study was based on Neumann's system model (Input, Output, and Feedback). The research approach used in this study is Evaluator research approach. The tool was tried on 6

adolescent students in Agroha (Hisar). The reliability of the tool was established by using the Test and Re-test method for knowledge.

A pilot study was conducted from 16th March 2019 to 21st March 2019 at Agroha before actual data collection to assess the availability of the sample and feasibility of the study. Prior permission was obtained from the Ethics Committee of the institution through the Principal, MACON Agroha. Ethical approval was obtained from the Principal of the school, Agroha, Hisar. Written informed consent was obtained from the adolescent students of Agroha. The study was conducted on 60 participants in the month of March 2019. Data analysis was done through descriptive and inferential statistics.

### Inclusion Criteria

Students who were:

- Class students eating the junk food
- Available at the time of data collection
- Willing to participate in this study

### Exclusion Criteria

Having any breathing problem.

### Results

#### Section I: Demographic Variables of Adolescent Students

As shown in the above table, majority (30, 50%) of the subjects belonged to 15-16 years of age, 15 (25.0%) subjects belonged to 14-15 years, 14 (23.3%) belonged to 13-14 years, and 1 (1.7%) subject belonged to 12-13 years. Also, all (60, 100%) of the subjects were female. A large number (58, 96.7%) of subjects were Hindu and 2 (3.3%) were Sikh.

**Table I. Frequency and Percentage Distribution of Demographic Variables**

S. No.	Demographic Variables	Percentage (%)	Frequency
1.	Age	12-13 yrs	1.7
		13-14 yrs	23.3
		14-15 yrs	25.0
		15-16 yrs	50.0
2.	Gender	Male	0.0
		Female	100.0
3.	Religion	Hindu	96.7
		Muslim	0.0
		Sikh	3.3
		Others	0.0
4.	Class of Studying	9th	33.3
		10th	11.7
		11th	55.0

Most (33, 55%) of the subjects were studying in the 11th class, 20 (33.3%) in the 9th class, and 7 (11.7%) were in the 10th class. The fathers of most (51.7%) of the students were secondary qualified, those of 30% of participants were primary qualified, of 11.7% were graduate and above, and of 6.7% were illiterate. The mothers of most (46.7%) of the students were secondary qualified, those of 30% of the participants were primary qualified, of 3.3% were graduate and above, and of 20% were illiterate. 63.3% of the children belonged to rural areas and 36.7% of the children belonged to urban areas. 56.7% of the children belonged to joint families, 40% belonged to nuclear families, and 3.3% belonged to single families. The family income of most (36.7%) of the participants was between INR 5000 and 10000, for 26.7%, it was between INR 10000 and 15000, for 23.3%, it was less than INR 5000 and for 13.3%, it was more than INR 15000. The source of information for 36.7% of the adolescent students was health professional, for 28.3%, it was family, for 18.3%, it was others, and for 16.7%, it was mass media.

#### Section II: Description of Knowledge and Attitude Scores of Adolescent Students regarding Health Hazards of Junk Food

##### Pre-test Knowledge Scores

Table 2 depicts that 5% of the adolescent students had inadequate knowledge, 91.7% had moderate knowledge, and 3.3% had adequate knowledge regarding the health hazards of junk food.

##### Pre-test Attitude Scores

Table 3 shows that 100% of adolescent students had an average attitude score regarding the health hazards of junk food.

		12th	0.0	0
5.	Education of the Father	Illiterate	6.7	4
		Primary school	30.0	18
		Secondary school	51.7	31
		Graduate & above	11.7	7
6.	Education of the Mother	Illiterate	20.0	12
		Primary school	30.0	18
		Secondary school	46.7	28
		Graduate& above	3.3	2
7.	Residence	Urban	36.7	22
		Rural	63.3	38
8.	Type of Family	Joint Family	56.7	34
		Nuclear Family	40.0	24
		Extended Family	0.0	0
		Single Parents	3.3	2
9.	Family Income	< 5000	23.3	14
		Rs 5000-10000	36.7	22
		Rs10000-12000	26.7	16
		> 15000	13.3	8
10.	Previous Source of Information	Family	28.3	17
		Mass Media	16.7	10
		Health Professional	36.7	22
		Others	18.3	11

**Table 2. Analysis of Pre-knowledge Score of Adolescent Students regarding Health Hazard of Junk Food**

Criteria Measure of Pre-Test Knowledge Score	
Score Level	Frequency Percentage
Inadequate (0-7)	3 (5%)
Moderate (7-14)	55 (91.7%)
Adequate (15-20)	2 (3.3%)
Maximum = 20 Minimum = 0	

**Table 3. Analysis of Pretest Attitude Score of Adolescent Students Regarding Health Hazed of Junk Food**

Criteria Measure of Pretest Attitude Score	
Score Level	Frequency percentage
Low (20-47)	0 (0%)
Average (48-74)	60 (100%)
High (75-100)	0 (0%)
Maximum = 100	Minimum = 22

### Section III: Description of Post-test Knowledge and Attitude Scores of Adolescent Students regarding Health Hazards of Junk Food

#### Post-test Knowledge Score

Table 4 reveals that 16.7% of adolescent students had moderate post-test knowledge and 83.3% had adequate post-test knowledge regarding the health hazards of junk food.

#### Post-test Attitude Scores

As shown in Table 5, 100% of adolescent students had a high post-test attitude level regarding the health hazards of junk food.

### Section IV: Comparison between Pre and Post-test Knowledge and Attitude Scores regarding Health Hazards of Junk Food in Adolescent Students

The data presented in Table 6 indicate that in the post-test, maximum number of students (83.3%) had adequate knowledge score.

**Table 4. Analysis of Post Test Attitude Score of Adolescent Students Regarding Health Hazards of Junk Food**

Criteria Measure of Post Test Knowledge Score	
Score Level	Frequency Percentage
Inadequate (0-7)	0(0%)
Moderate (7-14)	10(16.7%)
Adequate (15-20)	50(83.3%)

**Table 5. Analysis of Post Test Attitude Score of Adolescent Students Regarding Health Hazards of Junk Food**

Criteria Measure of Post Test Attitude Score	
Score Level	Frequency percentage
Low (20-47)	0 (0%)
Average (48-74)	0 (0%)
High (75-100)	60 (100%)

**Table 6. Association between Demographic Variables and Levels of Pre-test Knowledge**

Demographic Variables		Levels (N = 60)			Association with Pre-test Knowledge Score				
Variables	Values	Adequate	Moderate	Inadequate	Chi test	P value	df	Table value	Result
Age (years)	12-13	0	1	0	2.164	0.904	6	12.592	Not Significant
	13-14	0	14	0					
	14-15	1	13	1					
	15-16	1	27	2					
Gender	Male	0	0	0	NA				
	Female	2	55	3					
Religion	Hindu	2	53	3	0.188	0.910	2	5.991	Not Significant
	Muslim	0	0	0					
	Sikh	0	2	0					
	Others	0	0	0					
Class of studying	9th	0	20	0	4.463	0.347	4	9.488	Not Significant
	10th	0	7	0					
	11th	2	28	3					
	12th	0	0	0					
Education of the father	Illiterate	0	3	1	5.823	0.443	6	12.592	Not Significant
	Primary school	0	17	1					
	Secondary school	2	28	1					
	Graduate & above	0	7	0					

Education of the mother	Illiterate	0	11	1	5.380	0.496	6	12.592	Not Significant
	Primary school	2	15	1					
	Secondary school	0	27	1					
	Graduate & above	0	2	0					
Residence	Urban	1	20	1	0.170	0.919	2	5.991	Not Significant
	Rural	1	35	2					
Type of family	Joint family	1	31	2	0.335	0.987	4	9.488	Not Significant
	Nuclear family	1	22	1					
	Extended family	0	0	0					
	Single parents	0	2	0					
Family income (INR)	< 5000	1	12	1	5.917	0.433	6	12.592	Not Significant
	5000-10000	0	22	0					
	10000-12000	1	13	2					
	> 15000	0	8	0					
Previous source of information	Family	1	16	0	6.713	0.348	6	12.592	Not Significant
	Mass media	0	10	0					
	Health professional	1	18	3					
	Others	0	11	0					

### Section V: Association between Demographic Variables and Levels of Pre-test Knowledge regarding Health Hazards of Junk Food in Adolescent Students

Table 6 shows the association between the level of pre-test knowledge scores and sociodemographic variables. Chi-square test was used to find the association. The Chi-square values show that there is no significant association between the score level and all demographic variables (age, religion, class of studying, education of father, education of mother, residence, type of family, family income, and previous source of information). The calculated chi-square values were less than the table values at 0.05 level of significance.

### Discussion

The present study reveals that 5% of the adolescent students had inadequate pre-test knowledge regarding the health hazards of junk food, 91.7% had moderate pre-test knowledge, and 3.3% had adequate pre-test knowledge regarding the health hazards of junk food. The maximum mean knowledge score obtained was found to be 16.35

with a standard deviation of 1.849. The minimum mean knowledge score was found to be 10.28 with a standard deviation of 2.585. 100% of the participants had average pre-test attitude regarding the health hazards of junk food. The maximum mean attitude score obtained was 85.40 with a standard deviation of 2.853, and the minimum mean attitude score was 63.72 with a standard deviation of 2.805. According to WHO Unhealthy eating, which involves eating food that is rich in salt, sugar and fat as well as low in nutritional value (Bhaskar & Ola, 2012; world health organization, 2015), has clear negative consequences on individuals physical and even mental health. Eating junk food increase the likelihood of developing heart diseases, diabetes and digestive and kidney diseases, 2015; word health organization.<sup>9</sup>

### Limitations

- Only adolescent students of the age group 12-16 years were included in the study
- Only the adolescent students who can read, write or understand either Hindi or English were included in the study

- Only the adolescent students who were studying in the selected senior secondary school Agroha (Hisar) were included in the study

### Conclusion

This study has been conducted to assess the knowledge level of adolescent students on the health hazards of junk food. This will help them to gain knowledge in various aspects of the health hazards of junk food and to prevent complications and improve their quality of knowledge and change the attitude regarding junk food.

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**Conflict of Interest:** None

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