

## Knowledge Regarding Health Hazards of Junk Food and Its Prevention Among Adolescents

Balbir Yadav<sup>1,2</sup>, Mandeep Kaur<sup>3</sup>

<sup>1</sup>Professor cum Vice-principal, Sri Guru Harkrishan Sahib College of Nursing, Sohana, Mohali, Punjab, India

<sup>2</sup>Ph.D Scholar, Himalayan University, Itanagar, Arunchal Pradesh, India

<sup>3</sup>Assistant Professor, City College of Nursing, Gurdaspur, Punjab, India

Email: balbyadav@gmail.com

DOI: <http://doi.org/10.5281/zenodo.3346467>

### Abstract

**Introduction** Good health is the necessity of living a healthy existence for every person which needs to maintain a healthy diet and healthy habits throughout the life. However, the habit of consuming junk food in many is increasing each day and making our future sad and diseased mainly our younger generations. Parents have to be very aware in the direction of the consuming behavior in their children and kids due to the fact in the early life they do not know and decide their good or bad so it is parents who are fully responsible for the good or bad eating habits among their child. They have to train their children approximately eating habits from early life and cause them to clear about the differences among healthy and junk foods. A pre-experimental with one group pre-test and post-test research design was used in this study. Purposive sampling technique was used to select the sample and the sample size was 60 adolescents' students of high school. Data were collected by using structured knowledge questionnaire. Analysis was done by using descriptive and inferential statistics. The Result showed that out of 60 samples the overall mean pre-test knowledge score of study was 13.82(SD=4.21) and 29.06(SD=2.86) was the mean post-test knowledge score. The comparison of pre and post-test knowledge of adolescents reveals that the overall improvement mean was 15.24 with Standard Deviation (1.35). Association was done between demographic variables and post-test level of knowledge score of adolescents by using chi-square ( $\chi^2$ ) test. The calculated chi square values was less than the table values indicated that there was no significant association between the demographic variables such as Age, Gender, Education, Residential area, Type of family, Monthly income of family, Father's education, Mother's education, Father's occupation, Mother's occupation, Source of information and Monthly pocket money of a child.

**Keywords:** knowledge, structured teaching Programme, junk food, Effectiveness

### INTRODUCTION

Good health is the necessity of living a healthy existence for every person which needs to maintain a healthy diet and healthy habits throughout the life. However, the habit of consuming junk food in many is increasing each day and making our future sad and diseased mainly our younger generations [1]. Parents have to be very aware in the direction of the consuming behavior in their children and kids due to the fact in the early life they do

not know and decide their good or bad so it is parents who are fully responsible for the good or bad eating habits among their child. They have to train their children approximately eating habits from early life and cause them to clear about the differences among healthy and junk foods [2].

Most of the kids of this age at some point of their meal time they eat junk meals and get addicted to the taste of

the junk meals. though, junk foods are tasty but it has low nutritive value and excessive calories. junk ingredients come to be very oily and absence of nutritional fibers as a consequence they're tough to digest and require more power to carry out the method from body and make someone loss of oxygen level inside the body which lead toward fallacious brain functioning [3]. Junk ingredients are high in bad cholesterol and cause heart and liver harm. Because of loss of dietary fibers they cause stress to the parts of the digestive organs and result in constipation and diarrhea [4].

The consumption of junk food all around the global is increasing day by day which is not good for the future generation. Every person of the age group like to eat junk meals and they generally chose to eat whenever they enjoy special time with family like marriage party, anniversary party and birthday party etc [5]. They easily become used to of taking soft drinks, wafers, chips, noodles, burgers, pizza, French fries, Chinese dishes, and other varieties of fast food available in the market [6].

Junk foods are full of harmful effects which cause harm to a human body. Some of the health hazards of the junk food are Extra Calories, Insulin Resistance, High Blood Pressure, Bloating and Puffiness, Shortness of Breath, Depression, Dental Distress, Blood Sugar Spike, Over Weight Problem, High Cholesterol, Hard on the Heart, Headache, and Acne etc. It also affects ones learning ability like brain power, intelligence and non-treatable disease like cancer, digestive problems, fatigue and weakness, kidney disease [7].

Poor nutrition during any of the stages can leave the bad effect on the children's growth and development, resulting in decreased learning ability, poor concentration in the study, and impaired school performance. Eating junk food has become a trend in our society. [8] The children do not like homemade healthy

food. Junk food is injurious for children. Eating junk food like Burger and Pizza increases cholesterol in human body. The fat in human body increases. The increase fat is dangerous for heart. Soft drink adds dangerous toxins that affect our body. It affects the bone, skin and kidney. Good nutritious diet or balance diet is basic need of every child for their growth and development because of its delicious taste [9].

The difference between fast food, meal and a home cooked one is the sheer quantity of calories and fat it delivers into the body. The United States 'Department of Agriculture' (2009) recommended daily intake for a normal adolescent is 2100 Calories and maximum of 93g of fat. A meal at a fast food outlet-burger, fries, drink and dessert can deliver almost all of that in a single serving [10].

#### **OBJECTIVES**

1. To assess the pretest knowledge regarding the health hazards of junk food and its prevention among adolescents.
2. To develop and administer Structure Teaching Programme regarding the health hazards of junk food and its prevention among adolescent.
3. To assess the post-test knowledge regarding the health hazards of junk food and its prevention among adolescents.
4. To evaluate the effectiveness of Structure Teaching Programme on knowledge regarding the health hazards of junk food and its prevention among adolescents.
5. To find out association between post test knowledge regarding the health hazards of junk food and its prevention among adolescents with their selected demographic variables.

#### **OPERATIONAL DEFINITION**

- **Effectiveness:** It is extent to which the knowledge of adolescents improved with regard to health hazards to junk

food after the implementation of Structured Teaching Programme as evidence by difference in the pre-test and post test score.

- **Structured Teaching Programme:** It refers to systematically organized instruction and discussion to impart Knowledge regarding health hazards and prevention of junk foods among of adolescents of high school.
- **Knowledge:** It refers to correct response of adolescents to the question regarding knowledge of health hazards of junk food and its prevention among adolescents of high school.
- **Hazards:** It refers to problem of adolescents like obesity and risk of health i.e cardiovascular diseases diabetes because of consumption of junk foods continuously.
- **Junk foods:** It refers to the food that is high in salt, sugar or calorie and low in nutritive values which is directly or indirectly cause health hazards (salted, snacks, candies, gum, fried fast food and carbonated beverages).
- **Adolescent:** It refers to the school students with an age group of 13-15 years studying in the selected high schools.

### HYPOTHESIS

On the basis of objectives and review of literature, the following research hypothesis have been formulated

**H1:** There will be significant difference between mean pre-test and post-test knowledge scores of adolescents attending Structured Teaching Programme on health hazards of junk food and its prevention.

**H2:** There will be association between the post-test knowledge score of adolescents regarding health hazards of junk food and its prevention with their selected socio-demographic variables.

### ASSUMPTIONS

- Adolescents are the vulnerable group exposed to the health hazardous aspects of junk foods.
- Adolescents have some knowledge

regarding health hazards and prevention of junk foods.

- Adolescents have favorable attitude towards junk foods.

### DELIMITATIONS

- The study will only be limited to adolescents in the selected high schools of district, Mohali.
- Adolescents who are present at the time of data collection.
- Adolescents who are taken under the age group of 13-15 years.

Therefore, the investigator felt that there is a need to enhance the knowledge among adolescents regarding the health hazards of junk foods, so that they will be able to cultivate healthy food habits among themselves and also educate their peer groups and parents about the health hazards of the junk foods.

### MATERIALS AND METHODS

The research approach adopted in the present study was evaluative approach, and research design was one group pre test and post test design which belongs to pre-experimental design. Purposive Non random sampling technique was used to select the school i.e. Sri Hemkunt Public School, Mohali. The sample size was of 60 adolescents students of high school. Tool consists of two sections: Section A: Consists of socio demographic data of the adolescents. Section B: The tool consists of 30 items regarding health hazards of junk food and its prevention. The items was closed ended questions especially of multiple choice questions. The total score was 30. Each correct response carried out with one mark. The pilot study revealed the feasibility of the study. Reliability of the tool was determined by the test retest method. By using Karl Pearson's co-efficient of co relation method "r" value is obtained.  $[r^1=0.90]$  .It shows that the tool was highly reliable for the final study. Data were collected by using structured knowledge questionnaire schedule through multiple choice questions and structured

teaching programme was intervened, again after a gap of seven days post test was conducted with the same tool. Wherever necessary, questions were cleared by explaining in simple terms. Ethical permission was obtained from the principal of Sri Hemkunt Public School for data collection. Analysis of the data was

done using descriptive statistics as mean, standard deviation and inferential statistics as paired' test and Chi- square test.

### RESULTS

The analysis and interpretation of data have been organized and presented under the following section.

**Table 1:** Frequency and percentage distribution of adolescents by their socio demographic variables.

**N=60**

Demographic variables		Frequency(f)	Percentage (%)
Age( years)	13	33	55
	14	11	18.3
	15	16	26.6
Gender	Male	31	51.6
	Female	29	48.3
Education	7 <sup>th</sup> class	21	35
	8 <sup>th</sup> class	19	31.6
	9 <sup>th</sup> class & above	20	33.3
Residential area	Rural	11	18.3
	Urban	46	76.6
	Semi-urban	3	5
Type of family	Nuclear	25	41.6
	Joint	27	45
	Extended	8	13.3
Monthly family income	1000 - 5000	13	21.6
	5001 - 10000	16	26.6
	10001 - 15000	22	36.6
	15001 & Above	9	15
Father's education	Primary	23	38.3
	Secondary	19	31.6
	Graduate	15	25
	Post-graduate & above	03	05
Mother's education	Primary	22	36.6
	Secondary	23	38.3
	Graduate	15	25
	Post-graduate & above	00	00
Father's occupation	Private job	36	60
	Govt. job	10	16.6
	Others	14	23.3
Mother's occupation	Private job	12	20
	Govt. job	06	10
	House wife & others	42	70
Source of information	Mass Media	16	26.6
	Friends	08	13.3
	Family members	29	48.3
	Health personnel	07	11.6
Pocket money per month	Rs 100- Rs200	40	66.6
	Rs 201-Rs 300	10	16.6
	Rs 301-Rs 400	03	05
	Rs 401 & above	07	11.6

- 55% of adolescents were in age group of 13 years, 18.3% were in age group of 14 years and 26.6 % were in age group of 15 years.
- 51.6% of the sample is found to be males and females are 48.3%.
- Education wise distribution of samples shows that 35% of adolescents in class 7<sup>th</sup>, 31.6% in 8<sup>th</sup> class and 33.3% are in class of 9<sup>th</sup> and above.
- Majority of the adolescents were found as urban area 76.6%, followed by rural area 18.3% and the 5% are the semi urban area.
- 41.6% of the adolescents have nuclear family, 45% have joint family and the 13.3% have extended family.
- Majority of the adolescents have family monthly income of Rs 1000-5,000/- ( 21.6% ), followed by Rs 5001-10000/- ( 26.6%), Rs 10001 - 15000/- ( 36.6% ) and Rs 15,001 and above ( 15% ).
- Education of father have 38.3% have primary education, 31.6% secondary education, 25% graduate and 5% have post graduate and above education.
- Education of mother have 36.6% have primary education, 38.3% secondary education, 25% graduate and 0% have post graduate and above education.
- Majority of the father occupation were found as private job 60% followed by government job 16.6% and 23.3% have others job.
- Majority of the mother occupation were found as house wife and other 70% followed by private job 20% and 10% have government job.
- Majority of the adolescents have source of information as a family members 48.3%, followed by Mass media 26.6%, friends 13.3% and Health personnel 11.6%.
- Majority of the adolescents have pocket money per month of Rs 100 – 200 (66.6%), Rs 201 – 300 (16.6%), Rs 301 – 400(5%) and Rs 401 and above (11.6%).

**Table 2:** Frequency and percentage distribution of level of knowledge of adolescents regarding health hazards of junk food and its prevention

**N=60**

Level of knowledge	PRE TEST		POST TEST	
	Frequency	Percentage	Frequency	Percentage
<b>Low knowledge (0-15)</b>	21	35%	0	00 %
<b>Average knowledge (16-22)</b>	39	65%	34	56.7%
<b>High knowledge (23-30)</b>	00	00%	26	43.3%

Tables 2 describe the percentage distribution of scores reveals that in Pre test 35% adolescents have the Low knowledge, 65% adolescents have Average knowledge and no single informant had high knowledge. The score

of post test indicated marked increase in knowledge levels of adolescents that is 56.7% Average knowledge, 43.3% High knowledge and it was also interesting to know that no single respondent in post test obtained low knowledge.

**Table 3:** Mean and standard deviation of pre test and post test knowledge scores in specific areas of health hazards of junk food and its prevention.

**N=60**

Specific areas of health hazards of junk food and its prevention.	Pre		Post	
	Mean	SD	Mean	SD
Overall	13.81	4.216	29.86	2.869
Introduction & definition	2.00	1.149	3.78	.845
The types of junk food	1.36	.688	1.60	.527
The harmful effects of junk food	4.86	1.798	8.13	1.770
Challenges & ways to reduce eating junk food	2.23	1.198	3.63	.973
Health education to maintain good health	3.33	1.297	3.83	1.076

Table 3 describes that the overall pre test mean score was 13.81 (S.D =4.216) and in post test it was 29.86 (S.D =2.869). The mean post test knowledge score were

higher than the mean pretest scores which indicated an improvement in the knowledge level of the respondents after structured teaching programme.

**Table 4:** Comparison of pre test and post test scores regarding health hazards of junk food and its prevention by paired 't' test

**N=60**

Specific areas of health hazards of junk food and its prevention.	Mean difference	SD difference	SE difference	Paired t-test
Overall	15.24	1.35	0.174	16.944
Introduction & definition	1.78	0.30	0.039	12.157
The types of junk food	0.23	0.16	0.02	2.437
The harmful effects of junk food	3.26	0.03	0.004	11.290
Challenges & ways to reduce eating junk food	1.39	0.22	0.029	8.577
Health education to maintain good health	0.49	0.22	0.029	2.862

Table 4 describes that Mean difference of (15.24), SD=1.35 of overall knowledge with paired 't' value (16.944). Thus it reveals that the mean post test knowledge scores was significantly higher than the mean pre

test knowledge scores of adults''= (16.944),  $p < 0.05$ . Thus the research hypothesis ( $H_1$ ) was accepted. It shows that there is a significant difference between pre test and post test knowledge scores of adolescents.

**Table 5:** Association between socio demographic variables of adolescents with their post test knowledge scores regarding health hazards of junk food and its prevention

**N = 60**

Variables	Calculated $\chi^2$ value	P Value	Degree of freedom	Table Value	Association
Age in year	3.040	.551	4	9.49	NS
Gender	1.690	.429	2	5.99	NS
Education	7.970	.093	4	9.49	NS
Residential area	4.967	.291	4	9.49	NS
Type of family	1.459	.834	4	9.49	NS
Family monthly income in Rs	4.551	.603	6	12.59	NS
Father's Education	11.372	.078	6	12.59	NS
Mother's Education	12.147	.016	4	9.49	NS
Father's Occupation	5.380	.117	4	9.49	NS
Mother's Occupation	1.043	.903	4	9.49	NS
Source of Information	13.060	.042	6	12.59	NS
Pocket money per month	4.447	.616	6	12.59	NS

Table 5 describes that the calculated chi square values was less than the table values indicated that there was no significant association between the demographic variables such as age, gender, education, residential areas, type of family, family monthly income, father education, mother education, father occupation, mother occupation, sources of information and pocket money per month with post test knowledge scores of adolescents. Hence the hypothesis (H2) has been rejected.

### DISCUSSION

The pre test Mean score of adolescents was 13.81 (SD=4.216) and post test mean score was 29.86 (SD=2.869). The comparison of pre and post test knowledge of adolescents reveals that the improvement mean was (15.24) with Standard deviation (1.35). The calculated 't' test value was (16.944) which was found greater than the table values (2.045). There for the hypothesis H<sub>1</sub> stating "there will be a significant difference between pre test and post test knowledge scores of adults regarding health hazards of junk food and its prevention was accepted". This indicates that structured teaching programme was effective.

Association was done between demographic variables and post test level of knowledge score of adolescents by using chi-square ( $\chi^2$ ) test. The calculated chi square values was less than the table values indicated that there was no significant association between the demographic variables such as age, gender, education, residential areas, type of family, family monthly income, father education, mother education, father occupation, mother occupation, sources of information and pocket money per month with post test knowledge scores of adolescents. Hence the hypothesis (H2) has been rejected.

### CONCLUSION

The pre test Mean score of adolescents was 13.81 (SD=4.216) and post test mean score was 29.86 (SD=2.869). The comparison of pre and post test knowledge of adolescents reveals that the improvement mean was (15.24) with Standard deviation (1.35). The calculated 't' test value was (16.944) which was found greater than the table values (2.045). There for the hypothesis H<sub>1</sub> was accepted". No significant relationship was found in between the post test knowledge scores of adolescents regarding health

hazards of junk food and its prevention with age, gender, education, residential areas, type of family, family monthly income, father education, mother education, father occupation, mother occupation, sources of information and pocket money per month.

#### ACKNOWLEDGMENT

We would like to thank the investigator, and study participants of this study.

#### REFERENCES

1. Goyal Anita, Singh N.P. Consumer perception about fast food in India: an exploratory study. *British Food Journal* 2007; 109(2):182 – 195.
2. Arya Geeta, Mishra Sunita. Poor Eating Habits article on Children and Junk Food. *Journal of Food and Nutrition* 2008; 1(6):26-32
3. Harrins A.B, Robbins G.V. Nutrition in catering. William hinmanpublishers, London2006; 173-175
4. Mahan L. Kathleen, Stump Sylvia Escott, Krause's food. Nutrition and diet therapy. 11<sup>th</sup> Ed. New Delhi: Saunders publications, 2011
5. Kumar Harsh, Palaha Rajdeep, Kaur Amandeep. Study of consumption, behavior and awareness of fast food. *Asian Journal of Clinical Nutrition*2013; 5: 17.
6. French SA, Perry CL. Food preferences, eating patterns, and physical activity among adolescents: correlates of eating disorders symptoms. Division of Epidemiology, School of Public Health, University of Minnesota, Minneapolis 55454-1015.
7. Kaur Manpreet, a study to determine the prevalence of consumption of fast food among school children and their knowledge regarding the food they eat, *International journal of clinical pediatric dentistry* 2008; 1(1):13-16.
8. Zhu SP, Ding YJ. Study on factors related to top 10 junk food consumption at 8 to 16 years of age, in Haidian District of Beijing” Haidian Center for Disease Control and Prevention, Beijing 100080, China
9. Frank Diaz, Raising excellent kids in insane world: fear of food. <http://www.northjersey.com/community/12469384>
10. Bayol SA, Macharia R, Farrington SJ, Simbi BH, Stickland NC. Evidence that a maternal junk food diet during pregnancy and lactation can reduce muscle force in offspring. *Eur J Nutr* 2009; 48: 62-5.

#### Cite this Article as:

Balbir Yadav, & Mandeep Kaur. (2019). Knowledge Regarding Health Hazards of Junk Food and Its Prevention Among Adolescents. *Journal of Nursing Research, Education and Management* (e-issn: 2582-001X), 1(2), 57–64. <http://doi.org/10.5281/zenodo.3346467>