

## A Study to Assess the Effectiveness of Self Instructional Module Regarding Junk Foods Among Students at Selected Higher Secondary School in Tarn Taran, Punjab

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### **Abstract**

Healthy nutritious foods have been replaced by the new food mantra “JUNK FOOD!” junk food comprises of anything that is, cookies, cakes, chips, pizza, burger, soft drinks etc., that contains high sugar, calories, fats, oils etc. Fast food has become a prominent feature of diet for adolescents. The rapidly changing food consumption patterns and diet transition emerging in the society due to economic growth and new lifestyle choices it demands variety food products. It is clear that fast food is generally unhealthy. The objective of the study was to assess the effectiveness of Self-instructional module regarding junk foods among students. The research design adopted for this study is quasi experimental one group pre-test post-test design. The setting is selected higher secondary school in Tarn Taran, Punjab. The sample size is 60 students. Sampling technique used was simple random sampling. A structured knowledge questionnaire was used to assess knowledge and assess the effectiveness of self-instructional module. The reliability of the tool was established by using test, retest method. Differential and inferential statistics was used to analyze the data. The result indicate that the pretest mean knowledge score on knowledge regarding junk food found to be 12.7 and  $SD = 58.64$ . The post-test mean knowledge score on knowledge regarding junk food to be found 20.37 and  $SD = 110.76$ . This indicates that the self-instructional module was proved to be effective to increase the knowledge of the students regarding junk food. The impact of age, Sex, education, family income, type of family, residing place, dietary habits, education of mother and education of father on knowledge of the students found to be non-significant as the calculated value is less than the tabulated value at 0.05 level of significance. Chi-square test result depicts the non-significant impact of socio demographic variables on the knowledge score of students regarding junk food. So the investigator concluded that the health is very important for each individual and knowledge regarding junk food will help the students to restore the health and prevent from life threatening conditions. A Community health nurse is expected to give nursing care as well as health teaching to prevent the occurrence of complications result from consumption of junk foods.

**Keywords:** Junk food, self-instructional module, knowledge, school students

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### **INTRODUCTION**

The word adolescence means to “grow up” that includes all around development of the child. The physical, cognitive and psychosocial changes are universal in adolescents and they also become economically independent, so this age

group considered as most important, as we can modify their behavior. The period of adolescence and the habits picked up during this period have a great impact on the future health of the adolescent. Healthy and sound adolescents reflect the country’s potential human resource and its

future greatly depends on them, India has an edge over many other countries as its adolescent population<sup>[1]</sup>. We live in an addiction prone society, but of all the addiction out of there; one that is most often overlooked is “JUNK FOOD”. The term junk food refers to any foods that has little or have no nutritive value. The term was coined by “Michael Jacobson”, director of the Centre for Science in the public interest, in 1972. Our health depends upon what we eat daily. Foods are the building block of every cell in the body. Without adequate nutrition we cannot expect ourselves to be healthy<sup>[2]</sup>. In today’s world scenario, Fast food has become a prominent feature of diet for adolescents. The rapidly changing food consumption patterns and diet transition emerging in the society due to economic growth and new lifestyle choices it demands variety food products. It is clear that fast food is generally unhealthy<sup>[3]</sup>. Junk foods attract all age group children most people addicted for their entire life without ever knowing its effects on health as many as teenagers are taking much junk foods<sup>[4]</sup>. Junk foods become a dangerous addiction because its effects are so subtle when eat a chocolate bar, chips, noodles, pasties etc, we don’t see our arteries clogging with plaque and fat deposits, we don’t feel ourselves gaining weight as our internal organ become fatty and weak further it leads to diabetes, Hypertension, gallbladder disease etc. It also lowers the Intelligence quotient (I.Q.) level of the developing children. Excessive salts can affect functioning of kidneys<sup>[5]</sup>. So “Junk Food: Slow and sweet killer”.

### LITERATURE REVIEW

A study was conducted to determine the factors that affects the eating habits of the children’s on age group between 6–13 years and were shown 10 advertisements for junk foods. A questionnaire was used in which they were asked to choose between 3 food options

includes high fat, high carbohydrates, high protein and low energy. After answering the questions the children were than shown 10 advertisements. The results of the study suggest that children exposed to unhealthy food advertisements they show unhealthy eating preferences<sup>[6]</sup>.

A study was conducted to assess the effect of junk food on mental health by British Journal of Psychiatry, used data on 3,486 male and female civil servants aged around 55. All the participants completed the questionnaire on different eating habits and self-report assessment on depression 5 years later. The study result shows that 58% of males and females consumes high quantity of processed food and they depressed 5 years later than the males and females consumes less quantity of Processed food that is 42%<sup>[7]</sup>.

A study was conducted to find relationship between fast food and academic performance among randomly selected 5 thousand 10–11 year-old students in Tennessee’s Vanderbilt University. The study revealed that the students who ate junk food with every meal achieve 19.34 points below the average points, who ate daily achieve the 16.07 points less than the average and who ate maximum 6 times per week achieve 6.96 score less than average in reading. So this research study reveals that the healthier diet improves child concentration, attitude and even behavior<sup>[8]</sup>.

A study was conducted to evaluate the effectiveness of print media on nutrition knowledge of school going adolescent girls in Hyderabad, India. 164 adolescent girls were selected for the study. The study reveals that a significant improvement in the nutrition related knowledge was observed among the experimental group after interventions<sup>[9]</sup>.

A study was conducted among teenagers to determine the food habits of teenagers

and important food sources of energy, in USA by using 24 hour recall method. Data was obtained from 17 teenagers. Foods was categorized and ranked in three according to important nutrients, energy level and fiber content. 51 groups were made according to these categories. The study results show that the most of the teenagers are taking poor nutrient diet<sup>[10]</sup>.

### **OBJECTIVES OF THE STUDY**

1. To assess the knowledge of selected higher secondary school students regarding junk foods before and after self-instructional module.
2. To assess the effectiveness of self-instructional module.
3. To find the association between the knowledge score and selected socio demographic variables.

### **PURPOSE OF THE STUDY**

The purpose of the study was to assess the effectiveness of self-instructional module regarding junk foods among students. Junk foods are a slang word for the food with limited nutritional value. As we had seen from different studies that adolescent children are taking less healthy diet in the form of junk foods regularly. Healthier diet is on risk of depletion from junk foods. So 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 about the health hazards of the junk foods. Self-instructional module provides the information regarding the junk food and its effects to prevent the occurrence of further Complications. I will also use my study in community to create awareness among different people along with adolescents regarding junk foods.

### **METHODOLOGY**

The goals of the research were to assess the effectiveness of self-instructional module regarding junk foods among students. In this study qualitative research approach is used. The research design adopted for this study is quasi experimental one group pre-test and post-test design. This study was conducted at selected higher secondary school in Tarn Taran Punjab. Population of the study was all school students at selected higher secondary school in Tarn Taran Punjab. Sixty school students from selected higher secondary school selected to conduct a study. Random sampling technique is a type of probability sampling approach, it was found to be appropriate for the present study. An instrument selected in a research study was structured knowledge questionnaire and self-instructional module. Part 1 – Socio demographic variables. This part consists of nine items such as age, sex, education, socioeconomic status, family income, dietary habits, education of the mother, and education of the father. Part 2 – Structured knowledge Questionnaire. It consists of 30 items of objective type questions related to knowledge of junk food. All the items were given equal score. Each correct answer was given a score of one and wrong answer given a score of 0. Self-instructional Module developed under following headings-Definition, Factors contributing towards junk foods, Addictives present in junk foods, Effects of taking junk foods on health. The reliability of test retest method was found by Karl Pearson co-relation formulae. Co-efficient of co-relation of the knowledge was found to be 0.91. Ethical clearance has been obtained from Ethical committee, Prior permission has been obtained from Principal of selected higher secondary school and informed consent has been taken from School students. The data was

analyzed in form of the objectives of the study using descriptive and inferential statistics.

### DATA ANALYSIS

The analyses of data from the study are presented under following sections

#### Analysis of Socio Demographic Characteristics of the Samples

Higher percentage of school children (68.3%) were in the age group of 15–16 years.

Majority of (61.7%) school adolescent students were female. Most of the students (65%) were from 11<sup>th</sup> standard. 40% of students had family income ₹ 5001–15,000 per month. Higher percentage of (51.7%) school children were fall in joint family. Most of (65%) School adolescent children were from rural areas. Highest percentages of (65%) school children were vegetarian. The educational qualification of mother of most of the school adolescent students was primary (48.3%).

**Table 1: Frequency and Percentage Distribution of Socio Demographic Variables of the Samples.**

S.No.	Demographic variables	Frequency	%age
1	Age		
	15–16 years	41	68.3%
	17–18 years	19	31.7%
2.	Sex		
	Male	23	38.3%
	Female	37	61.7%
3.	Education		
	11th standard	39	65%
	12th standard	21	35%
4.	Family Income		
	Below ₹ <5000 per month	15	25%
	₹ 5001–15,000 per month	24	40%
	₹ 15,001–20,000 per month	13	21.7%
	Above ₹ >20,001 per month	08	13.3%
5.	Type of family		
	Nuclear family	29	48.3%
	Joint family	31	51.7%
6.	Residing place		
	Rural	39	65%
	Urban	21	35%
7.	Dietary habits		
	Vegetarian	39	65%
	Non vegetarian	17	28.3%
	Eqgetarian	04	6.7%
8.	Education of mother		
	Primary	29	48.3%
	Secondary	17	28.3%
	Graduate	08	13.3%
	Post graduate	06	10%
9.	Education of father		
	Primary	19	31.7%
	Secondary	25	41.7%
	Graduate	11	18.3%
	Post graduate	05	8.3%
		N = 60	

**Assessing the level of Knowledge of Samples Regarding Junk Foods in Pre-Test and Post-Test**

*Table 2(a): Grading the knowledge level of samples regarding junk food in pretest.*

S.No	Grade of knowledge	Frequency	%age
1	Adequate Knowledge (above 76%)	0	0%
2	Moderately adequate knowledge (51-75%)	7	11.7 %
3	Inadequate knowledge (below 50%)	53	88.3 %

The above table no.2 (a) shows that most of the of samples(88.3%) had inadequate knowledge regarding junk food and (11.7%) of samples test mean score was higher than the pre-test had moderately adequate knowledge regarding junk food and there was no adequate knowledge among samples regarding junk food.

*Table 2(b): Grading the Knowledge Level of Samples Regarding Junk Food in Post-Test.*

S.No	Grade of knowledge	Frequency	%age
1	Adequate Knowledge (above 76%)	22	36.7 %
2	Moderately adequate knowledge (51-75%)	29	48.3 %
3	Inadequate knowledge (below 50%)	9	15%

Table No. 2(b) shows that most of the samples (48.3%) had moderately adequate knowledge, (36.7%) of samples had adequate knowledge regarding junk food, and (15%) of samples had inadequate knowledge regarding junk food.

**To Assess the Effectiveness of Self-Instructional Module**

*Table 3: Comparison of Mean and Standard Deviation Scores of Samples Knowledge in Pre and Post-Test. N = 60.*

Variables	Mean	S.D	'T' Test	
Pre-test	12.7	58.64	12.60	2.00
Post-test	20.37	110.76		

Table 3 shows that mean score of pre-test and post-test of samples regarding junk food is 12.7 (SD ± 58.64) and 20.37 (SD ± 110.76) respectively.

Post mean scores the 't' test value is 12.60 which was significant at 0.05 level as (p > 0.05).

**Association Between Post-Test Knowledge and Selected Socio Demographic Variables**

Association between post-test knowledge and selected socio demographic variables is at the level of P < 0.05.

The calculated X<sup>2</sup> is less than the tabulated value, thus Non Significant association was found between post-test knowledge score of samples and socio demographic variables such as age, sex, educational status, family income, type of family, residing area, dietary habits, education of mother, education of father.

**Table 4:** Comparison Between Post-Test Knowledge Score and Demographic Variables.

S.No	Demographic variables	Adequate Knowledge		Moderately adequate Knowledge		Inadequate knowledge		Chi <sup>2</sup>	Table value
		F	%age	F	%age	F	%age		
1	<b>Age</b>	F	%age	F	%age	F	%age	0.4564	5.99
	15–16 years	14	23.3%	21	35%	6	10%		
	17–18 years	8	13.3%	8	13.3%	3	5%		
2.	<b>Sex</b>							5.432	5.99
	Male	5	8.3%	12	20%	6	10%		
	Female	17	28.3%	17	28.3%	3	5%		
3.	<b>Education</b>							4.3192	5.99
	11th standard	18	30%	16	26.67%	5	8.3%		
	12th standard	4	6.67%	13	21.67%	4	6.67%		
4.	<b>Family Income</b>							11.0193	12.59
	Below ₹ < 5000/month	6	10%	9	15%	0	0%		
	₹ 5001–15,000/month	11	18.3%	10	16.67%	3	5%		
	₹ 15,001–20,000/month	1	1.67%	8	13.3%	4	6.67%		
	Above ₹ > 20,001/month	4	6.67%	2	3.33%	2	3.33%		
5.	<b>Type of family</b>							1.9882	5.99
	Nuclear family	8	13.3%	16	26.67%	5	8.3%		
	Joint family	14	23.3%	13	21.67%	4	6.67%		
6.	<b>Residing place</b>							0.03232	5.99
	Rural	14	23.3%	19	31.67%	6	10%		
	Urban	8	13.3%	10	16.67%	3	5%		

**LIMITATION AND RESEARCH NEEDED**

The study is limited to selected school students only. The study is limited to 60 samples only. This study recommends the following further research: Comparative study can be done on knowledge among urban and rural school adolescent students, Studies can be done on the large samples, Studies can be conducted by using various demographic variables, Comparative study can be done on knowledge among male and female school adolescent students, Pre experimental

studies can be conducted regarding junk foods.

**CONCLUSION**

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adolescent students, Pre experimental studies can be conducted regarding junk foods found to be (20.37) with SD = (110.76). The 't' test results indicate that the effectiveness of self-instructional module on the knowledge level of the school students was significant as the calculated value is more than the tabulated value  $t = 2.00$  at 0.05 level of significance. These findings are supported by a study to evaluate the effectiveness of self-instructional module on nutritional knowledge at four secondary schools of Hyderabad, India in 164 adolescent girls belonging to eighth grade from different school. Result reveals that a significant improvement ( $p > 0.05$ ) in nutritional knowledge after giving print media teaching such as folders leaflets and charts.

The calculated  $X^2$  is less than the tabulated value, thus Non Significant association was found between post-test knowledge score of samples and socio demographic variables such as age, sex, educational status, family income, type of family, residing area, dietary habits, education of mother, education of father. The findings are supported by the study conducted on association between selected socio demographic variables and knowledge on 564 middle school students among urban and rural areas. The study result reveals that there is no significant association ( $p < 0.05$ ) between post-test knowledge with selected socio demographic variables such

as age, sex, type of family, dietary habits and residing place

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