Original Research Article

Effectiveness of Planned Teaching Program on Knowledge Regarding Harmful Effects of Junk Food among Adolescents

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ABSTRACT

Eat healthy and live healthy is one of the essential requirements for long life. Unfortunately, today world has been adapted to a system of consumption of foods which has several adverse effects on health. Globalization and urbanization have greatly affected ones eating habits and forced many people to consume fancy and high calorie fast foods, popularly known as Junk foods. Healthy nutritious foods have been replaced by the new food mantra – junk food. This global problem of consuming junk food can be prevented by health education which can greatly contribute to its limited consumption and switching over to healthy eating habits for the better living. This study was carried out to assess effectiveness of planned teaching program through a structured knowledge questionnaire. A quantitative research approach and pre experimental one group pre test post test research design was adopted to conduct study. Structured knowledge questionnaire was used to assess the knowledge of adolescents regarding harmful effects of junk food. Pre test was taken on first day followed by planned teaching programme to group and then post test was taken after seven days. In pre test majority adolescents (65%) had average level of knowledge but in post test majority adolescents (55%) had good level of knowledge. There was significant difference between the mean pre test and post test knowledge score (t = 9.590, p = 0.0001) at p<0.05 level. There were significant association of the selected socio demographic variables age and educational status. Planned teaching program was highly effective in enhancing the knowledge of adolescents regarding harmful effects of junk food.

Key words: junk food, adolescents, effectiveness

INTRODUCTION

"If junk food is the devil, then a sweet orange is as scripture".- **Foris A**

In today's world scenario, junk food has become a prominent feature of diet for adolescents. [1] The rapidly changing food consumption pattern and diet transition emerging in the society due to economic growth and new life style choices. [1] Good nutrition is very essential in development of children both physically and mentally. [2] Children must know what they eat, it affects their growth and behaviour. Today many adolescents like to eat junk food but they do not know about harmful effects of junk food on their health. [2] People have forgotten that the primary reason for eating is nourishment. Lifestyle changes has compelled us so much that one has so little time to really think what we are eating is right! Junk foods comprises that quick, tasty, convenient and fashionable. [2]

Junk food is a term describing food that is perceived to be unhealthy or having poor nutritional value, according to food standard agency. [3] Junk food is high in calorie but low in nutritional content, sometime that is appealing or enjoyable but of little or no real value. [4] This kind of food has no vitamins and minerals. Junk food is

loaded with saturated fat and high calorie, and its low in fibre and nutrients. It is clear that junk food is generally unhealthy. [4] Term has since become common usage. Junk food includes those food items that do not add any value to a person's diet. Here value denotes essential nutrients, vitamins and minerals. [3] In India, Commonly available junk foods are Breads, Cookies, Chips, Candy Bar, Muffins, Burger, Fries, Pizza, Pan Cake, Bujji, Samosa, Pani Puri, Carbonated Beverages etc. As these foods are commonly available in urban area, adolescents will be attracted to this food items because of its colour, flavour and taste. Majority of junk foods are sold in the streets without any protection leads to many health problems in the adolescents. Now a day's many adolescents forgot the naturally available foods and got addicted to junk foods taste, and facing many health problems in early stages of life. [5]

10 reasons for junk food is bad for your health includes- junk food be reason behind your fatigue, it impair digestion, it causes fluctuation in blood sugar level, it effect the brain function, it increases the risk of heart disease, it can cause kidney disease, it can damage your liver, it can cause type 2 diabetes mellitus, it increases the risk of cancer development and junk food can also lead to depression in teenagers. [6]

According to WHO report 40,000 deaths occur per year in world due to excessive intake of junk food. [7] It has been found that India's over weight rates increased by 20%. [6] Now India is in the grip of an obesity epidemic. Experts say the trends needs to be immediately arrested by restricting food advertisements and making food labelling clearer. [8] World's adolescent population is 1200 million persons in 10-19 years of age, or about 19% of the total population faces a series of serious nutritional challenges. At this stage caloric and protein requirements are maximal but poor eating habits leads to nutritional challenges. The main nutrition problems affecting adolescent populations worldwide include, under nutrition and obesity. The consultation's recommendation for action are emphasis on nutritional adequacy for adolescent girls, mass information and awareness program are needed to alert governments and communities to the importance of health and nutrition for adolescent. [9] Promotion of healthy eating habits and education about junk foods needs to be strengthened. [10]

Adolescent's food habit should be changed and they must be provided with highly nutritious diet. Sound nutrition knowledge plays an important role in the prevention of health hazards of junk foods like obesity, high blood pressure, cardio vascular diseases etc. Junk food has become a prominent feature of the diet of children throughout the World. Junk food pose health risks both because of what they contain and what they replace in diet. [8]

Need for the study

Adolescent is a period of rapid growth and personal development. The growth and development of adolescents depends to a large extent on their nutrition. [11] The complex myriad of physiological as well as psychological changes, accompanied by rapid growth and increase in physical activity, creates special nutritional needs that are higher during adolescence than at any other time in life. Failure to consume adequate diet at this time can potentially retard physical growth, intellectual capacity and delay sexual maturation. [11] Junk food is responsible for the development of many health problems in adolescents. If junk foods regularly replace other types of foods in the daily diet, obesity, vitamins and mineral deficiencies and other health problems will occur. Fast food affinity is equated with bad eating habits. Today's school children learned that fast foods are easily available & affordable. Junk foods are typically ready to eat convenient foods containing high levels of saturated fats, or no other health benefits. But the health hazards considerably outweigh those benefits. Meals at home are usually healthier with more fruits, vegetables and milk that is required for proper growth &

development and to prevent health problems among young people. [12]

Breznitz Z. Conducted a survey of what children eat for lunch in nine schools across Jaipur. The study covered 200 children in the age group of 9 to 14 years. It found that 65% of the children ate junk food and fast food and 43% guzzled aerated drinks along with it. The survey showed that pizza was the most preferred food. Noodles were a close second. [13]

Kaur M conducted a pre-experimental study to assess effectiveness of planned teaching program regarding bad effects of excessive intake of junk food and fast food in daily life among school children. Study was conducted on 10 different schools, comprising of 2636 children selected by using convenient sampling technique. The result revealed that mean pre-test score of children was 6.87, maximum (66%) had poor level of knowledge. The mean post-test score of adolescents was 12.98, maximum (59%) had good level of knowledge. It showed that today's children are behind junk foods without knowing their hazardous effect. [14]

Findings suggest that interventions are needed that assists adolescents with the translation of their knowledge into healthy eating behaviour. Planned teaching programme should help in making the healthy eating habits, aimed at reducing the health problems of adolescent by reducing children's consumption of unhealthy food and soda drinks. Researcher would like to narrate an experience that urban schools are surrounded with junk food corners that enhances the intake of junk food among adolescents. Researcher felt that nutritional knowledge is needed for adolescents regarding their food habits. Being as researcher would like to utilize this opportunity to impart knowledge regarding the ill effects of junk foods and tries to limit their consumption by adolescents. The aim of this study to assess knowledge of adolescents regarding harmful effects of junk food and planned teaching programme then evaluate the effectiveness of planned

teaching programme among adolescents and helps the adolescents to make healthy life. The study was conducted in schools of Ambala district in India. This study will shed light on adolescent's knowledge regarding harmful effects of junk food.

Statement of the Problem

A Pre Experimental Study to Assess the Effectiveness of Planned Teaching Program on Knowledge regarding Harmful Effects of Junk Food among Adolescents in a Selected School of Kala Amb.

Objectives of the study

1. To assess the pre test knowledge regarding harmful effects of junk food among adolescents in a selected school of Kala Amb.
2. To assess the post test knowledge regarding harmful effects of junk food among adolescents in a selected school of Kala Amb.
3. To assess the effectiveness of planned teaching program regarding harmful effects of junk food among adolescents in a selected school of Kala Amb.
4. To determine the association between knowledge regarding harmful effects of junk food with selected socio demographic variables.

Hypothesis

H_1-The mean post test knowledge score of adolescents regarding harmful effects of junk food will be significantly higher than the mean pre test knowledge score of adolescents.

H_2-There will be significant association between pre test knowledge regarding harmful effects of junk food with selected socio- demographic variables of adolescents.

Research approach

A quantitative research approach was adopted for the study to assess the effectiveness of planned teaching program on knowledge regarding harmful effects of junk food.

Research design & setting

Pre experimental one group pre-test post-test research design was adopted for the study to collect the data from the adolescents in a selected school of Kala Amb. The study was conducted in a selected school of Kala Amb.

Target population

The target population of the study comprised of adolescents who are studied in 9th, 10th, 11th and 12th classes in a selected school of Kala Amb.

Sample size & sampling technique

100 adolescents both boys and girls were selected for the study. Non-probability convenient sampling technique was used for selecting sample in a selected school of Kala Amb.

Description of tool

The tool consisted of two sections: section-A and section-B

Section:- A Socio-demographic data

This section consists of 8 variables to collect socio-demographic information such as age, gender, educational status, type of family, family income, religion, dietary pattern and source of information regarding harmful effects of junk food.

Section:- B Structured knowledge questionnaire related to harmful effects of junk food

This section consists of 25 items to assess effectiveness of planned teaching program on knowledge regarding harmful effects of junk food.

Criterion measure

The criterion measure used in the study was based on the knowledge score of structured knowledge questionnaire regarding harmful effects of junk food. Total items were 25. Each right item was given 1 score and each wrong item was given 0 score. Maximum score was 25 and minimum zero. Knowledge of subjects was graded as poor, average, good & very good.

Data collection procedure

A formal written permission was obtained from the principal of a selected school of Kala Amb, after discussing the purpose and objectives of the study with them. Consent was taken from the adolescents and also assured about the confidentiality. All subjects were gathered together and pre test data collection was carried out in February 2015. Structured knowledge questionnaire was administered. Each adolescent were taken 20 minutes for answering the questions. After pre test data collection planned teaching program regarding harmful effects of junk food was given to the selected adolescents. All AV aids were used to teach the adolescents. Planned teaching program consists of 20 minutes. After five days, post-test data collection was taken by using same structured knowledge questionnaire.

Section:-A Description of selected socio-demographic variables.

In the present study, it was found that majority of adolescents belong to the age group of 13-15 i.e. 54%. Maximum adolescents in the study are male i.e. 64%. Majority of adolescents were studied in 10th class i.e. 35%. Majority of adolescents belong to joint family i.e. 70%. Majority of adolescents were belong to <5000 family income i.e. 43%. Majority of adolescents were belongs to Hindu religion i.e. 75%. While considering the dietary pattern of adolescents, most of them (77%) were vegetarian. Maximum number of adolescents gets information regarding harmful effects of junk food from newspaper that is 41%.

Section:-B Description of pre-test and post-test knowledge of adolescents regarding harmful effects of junk food.

In the present study, it was found that in pre-test 65% adolescents had average level of knowledge followed by 18% had good level of knowledge, 17% had poor level of knowledge and no adolescents had very good level of knowledge regarding harmful effects of junk food.

Table: 1 Mean, median, standard deviation and range of pre-test and post-test knowledge score of adolescents regarding harmful effects of junk food.   N=100

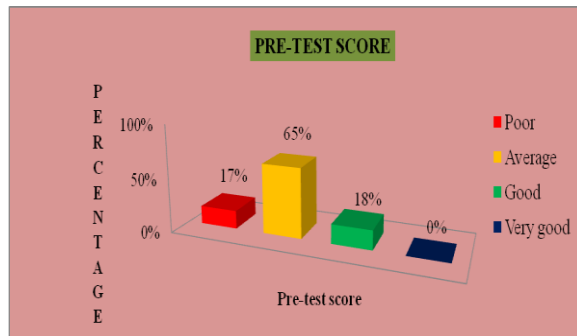| Test	Mean	Median	Standard deviation	Range
Pre-Test	9.5	10	3.113	4-16
Post-Test	13.72	14	3.124	8-21

Fig: 1 Percentage distribution of adolescents according to their pre-test knowledge regarding harmful effects of junk food

In post-test majority of adolescents that is 55% had good level of knowledge followed by 37% had average level of knowledge, 08% had very good level of knowledge and no adolescents had poor level of knowledge. (fig 2)

Table: 2 Paired t-test analysis of pre-test and post-test knowledge score of adolescents.

Sr. No.	Test	Mean	Standard Deviation	Value of t
1.	Pre-test	9.5	3.113	Cal. t Value=9.590 *
2.	Post-test	13.72	3.124	Tab. t Value=1.984 df= 99

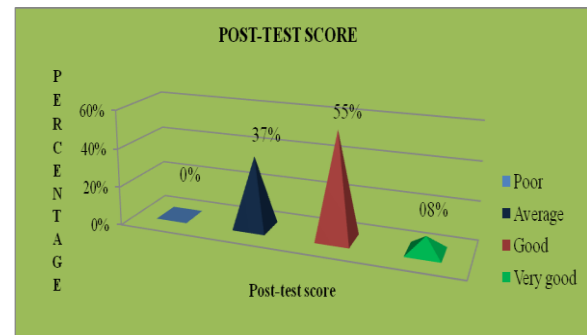**NS=Not Significant *= Significant**

Fig: 2 Percentage distribution of adolescents according to their post-test knowledge regarding harmful effects of junk food.

Table: 3 Association of knowledge with selected socio-demographic variables.   N=100

Sr. no	Selected socio demographic variables	Poor f (%)	Average	Good	Total	Chi square
1.	Age					Cal.χ^2=33.52* Tab.χ^2=9.49 df=04
	13-15 years	08(14.9%)	44(81.4%)	02(3.7%)	54	
	16-17 years	08(21%)	17(44.8%)	13(34.2%)	38	
	18-19 years	01(12.5%)	04(50%)	03(37.5%)	08	
2.	Gender					Cal.χ^2=1.84 Tab.χ^2=5.99 df=02 NS
	Male	14(21.9%)	40(62.5%)	10(15.6%)	64	
	Female	04(11.1%)	25(69.4%)	07(19.5%)	36	
3.	Educational Status					Cal.χ^2=27.09* Tab. χ^2=12.59 df=06
	9th	05(18.5%)	20(74.1%)	02(7.4%)	27	
	10th	07(20%)	28(80%)	0(0%)	35	
	11th	04(20%)	09(45%)	07(35%)	20	
	12th	01(5.5%)	08(44.5%)	09(50%)	18	
4.	Family					Cal.χ^2=11.74 Tab. χ^2=12.59 df =06 NS
	Joint	14(20%)	48(68.6%)	08(11.4%)	70	
	Nuclear	03(11.5%)	13(15%)	10(38.5%)	26	
	Divorced	0(0%)	03(100%)	0(0%)	03	
	Widow	0(0%)	01(100%)	0(0%)	01	
5.	Family income					Cal. χ^2=3.91 Tab. χ^2=12.59 df=06 NS
	Less than 5000	06(14%)	31(72%)	06(14%)	43	
	5000-10000	07(24%)	17(58.7%)	05(17.2%)	29	
	10001-15000	01(7.6%)	09(69.2%)	03(23%)	13	
	Above 15000	03(20%)	08(53.3%)	04(26.7%)	15	
6.	Religion					Cal.χ^2=2.28 Tab. χ^2=9.49 df=04 NS
	Hindu	12(16%)	50(66.7%)	13(17.3%)	75	
	Muslim	04(26.7%)	09(60%)	02(13.3%)	15	
	Sikh	01(10%)	06(60%)	03(30%)	10	
7.	Dietary pattern					Cal.χ^2=1.41 Tab.χ^2=5.99 df=02 NS
	Vegetarian	13(16,9%)	52(67.6%)	12(15.5%)	77	
	Non-vegetarian	04(17.4%)	13(56.6%)	06(26%)	23	
8.	Source Of Information Regarding Junk Food					Cal.χ^2=7.91 Tab.χ^2=15.51 df=08 NS
	Newspaper	09(21.9%)	27(65.9%)	05(12.2%)	41	
	Mass Media	03(10.8%)	16(57.1%)	09(32.1%)	28	
	Internet	03(15%)	14(70%)	03(15%)	20	
	Friends	01(25%)	02(50%)	01(25%)	04	
	Health Workers	01(14.2%)	06(85.8%)	0(0%)	07	

NS=Not Significant *= Significant

Table 2 In paired t-test pre-test and post-test score knowledge test was compared among adolescents and their significance was evaluate at 99 df for 0.05 level of significance. The calculated t value is 9.590 which is more than tabulated t value that is 1.984. There was significance difference between pre-test and post-test knowledge score of adolescents that is from 9.5 to 13.72. Therefore we accept hypothesis (H_1) in this study.

Section:-C Description of the association of knowledge with selected socio-demographic variables.
It was found that in case of age and educational status of adolescents calculated χ^2 value is more than tabulated χ^2 value which shows that there was significant association of age and educational status with the pre-test knowledge of adolescents. Hence research hypothesis was accepted in case of age and educational status of adolescents. (table 3)

DISCUSSION
In post-test, knowledge score of majority of adolescents were had good level of knowledge that is 55%, 37% had average level of knowledge, 08% had very good level of knowledge and no adolescents had poor knowledge. In post-test majority of adolescents that is 55% had very good level of knowledge followed by 37% had average level of knowledge, 08% had very good level of knowledge and no adolescents had poor level of knowledge. Paired t test was used to evaluate effectiveness of planned teaching program. Chi-square was computed to find out the association between pre-test levels of knowledge of adolescents with their selected socio-demographic variables. It was found that there was significance association of pre-test level of knowledge with age and educational status of adolescents. Similar findings of Jackson P study to assess knowledge regarding harmful effect of junk foods in Gujarat. Sample from school children were selected by using convenient

sampling technique. Structured knowledge questionnaire tool was used. Results revealed that mean score of children was 7.9. Maximum number of children had average level of knowledge. Socio-demographic findings showed that there was significant association of educational status and age with knowledge regarding harmful effects of junk food. [14,15]

CONCLUSION
It was concluded that there was increased in post-test knowledge score as compared to pre-test knowledge score. Researcher feels, that any different teaching program should be conducted regarding health hazards of junk foods and that will enable them to practice healthy eating habits. Controlling children from eating junk foods in schools is another step that helps in a long term. School administration along with parents has a combined responsibility to educate children about avoiding junk foods in school premises. It must be remembered that the addiction to junk is great for business. It is all in our hands to choose junk food or health.
"No Junk, Know Health"

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