



A study to assess the effectiveness of self instruction module on knowledge and practice regarding harmful effect of junk food among adolescents in selected school at selected city

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Abstract

Statement: A study to assess the effectiveness of Self Instruction Module on knowledge and practice regarding harmful effect of Junk food among adolescents in selected school at selected city.

Objectives: 1. To assess the existing knowledge regarding harmful effect of Junk food among adolescents. 2. To assess the existing practice regarding harmful effect of Junk food among adolescents. 3. To correlate the knowledge and practice regarding harmful effect of Junk food among adolescents. 4. To assess the effectiveness of Self Instruction Module on knowledge and practice regarding harmful effect of Junk food among adolescents. 5. To find out the association between post-test knowledge score with their selected demographic variables. 6. To find out the association between post-test practice score with their selected demographic variables.

Research Methodology: evaluative research approach was used with pre experimental one group pre-test post-test design population was 30 adolescents, non- Probability purposive sampling technique was used for data collection.

Result: In pre-test, the majority of 15(50%) of the adolescents were having poor knowledge, 9(30%) of the adolescents were having average in knowledge, and 6(20%) of the adolescents were having good in knowledge regarding harmful effect of Junk food. In post-test, the majority of 17(56.7%) of the adolescents were having average knowledge, 10(33.3%) of the adolescents were having good in knowledge, and 3(10%) of the adolescents were having poor in knowledge regarding harmful effect of Junk food among adolescents.

Conclusion: The study was drawn Percentage distribution of adolescent according to their level of knowledge and practice showed they had average Self Instruction Module on knowledge and practice regarding harmful effect of Junk food.

Keywords: assess, self-instruction module, knowledge, Junk food, practice and adolescent

Introduction

Food is an important part of a balanced diet. It is something everyone needs, every day. Life can be sustained only with adequate nourishment. Man needs food for growth, development and to lead an active and healthy life. Food 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. Junk food is the term given to food that is high in calories but low in nutritional content. In adolescents both boys and girls undergo several physical and psychological changes which make them to become partly responsible for their own health and welfare. Junk foods have no or very less nutritional value and irrespective of the way they are marketed, they are not healthy to consume. Psychological development of adolescents such as independence and acceptance by peers may affect adolescent's food choices and nutrient intake, which places them to adopt unhealthy eating behaviors like addiction to junk foods. Coming to Indian junk food, locally called 'chat', these mostly include the Samosas, Kachoris, Panipuris /golgappas are fried items with various filling within an outer layer made of refined flour. In India even Chinese food sold in road side stalls is Junk food, because they contain high amount of Monosodium Glutamate (MSG) which is a flavor enhancer & this MSG is recognized as a health hazard if taken in larger quantities because it causes headache, nausea, weakness, wheezing, edema, change in heart rate, burning sensation & difficulty in breathing^[1]. Food is any substance ingested to provide nutritional support for the body. It is usually of plant or animal origin and it contains essential nutrients such as carbohydrates, fats, proteins, vitamins or minerals. Junk food refers to generally the heavy and unhealthy diet that is considered to be having poor nutritional value according to Food Standards Agency. The food that has no or very less nutritional value comes under the category of junk food. Most nutritionists consider junk foods as unhealthy and harmful. Some of the popular junk food that adolescent may show an addiction were burgers, sausages, puffs, candies, sodas, pizzas etc. The continuous

dependency on nutrient-poor foods can leave you with poor appetite for more nutritious foods, increasing your risk of nutritional deficiencies. Highly processed foods contain little fibre, a substance your body needs for a healthy gastrointestinal tract and for control of cholesterol and blood sugar levels [2]. Fast food has appeared in the world during ancient Rome age, Indian introduced dahi vad, vadapav, and panipuri. Fast food is which easily processed food is served in snack bars and restaurant as a quick meal or to be taken away. Fast food is characterized as quickly easily accessible and cheap alternatives to home cooked and meals they also tend to be in high in Saturated fat sugar salt and calories. Fast food outlets a number of which offers drive through service fulfil a need for today's often over-scheduled society. The fast food industry had its beginning around the mid-twentieth century, and it grew tremendously during the last three decades of the twentieth century. The fast food eating causes heart disease high blood pressure and diabetes mellitus. You elevate your risk of health problem such as obesity whenever you eat fast food meals according to a 2007 article in "The New York Time Health Guide" People find it convenient to eat such as food items which please the taste buds more than regular food. They contain no nutritional value and are extremely unhealthy but still fast food items are popular as people find fast food items are popular as people find it hassle free to prepare and consume. Adults and children nowadays eat fast food without its effects on the body and general health; therefore we shall realize the nutritional value of what we eat in order to understand whether we need it or not. About junk food discussing of its, reasons of rapid spread all around the world, its harmful effects, and the possible solution for that problem. There are many examples of junk food such as pizza, French Fries, Burgers, Hotdogs, Fried food, candy, ice cream, and soda pop. Others kinds of junk food are just like the imitation juices that you find nowadays in most of the markets, and so little of the pure natural juice. Advantages of fast food is that it can save money, save time and when it comes to disadvantages the quality of fast food is low, more fattening. When fast food enters our body it will lead to fatigue, constipation, bloating, increase in obesity risk but you will be starving, and increase in cancer, heart and liver diseases risk, your memory and cognitive functions will decline, skin will start deteriorate, kidneys and stomach will suffer more, Teeth will start decaying, blood sugar and cholesterol increases, mental health may be affected³. Fast food indicates food which is quickly prepared and served at outlets such as fast food restaurants. Healthy nutrition rich foods have been substituted by the new food named as fast food. Fast food is made and processed in an industrial fashion, i.e., with standard ingredients, consistent cooking and production methods. Vitamins, minerals, fibre and amino acids are low or lacking in fast food, but have high energy (calories). In the circumstance of the global economy, fast food is a universal phenomenon. The availability of fast food at minimum prices and marketing approaches adopted by manufacturers of such foods has elicited a progression of fast food at high rate. Fast food does not contain the nutrients which are required to sustain our body health. Therefore these foods that have low nutritive value are considered injurious to health and may be named as junk food. Popularity of fast food in this era of growth has been attributed to speedy preparation and ease of finishing a food within no time [3]. there is a rising trend among the newer generation about fast food culture [4].

Review of Literature

In this study review of literature is organized as follows:

1. Literature review related to different types of interventions on knowledge regarding harmful effects of junk food.
2. Literature review related to harmful effects of junk food.

Research Methodology

Research Approach: Quantitative evaluatory approach.

Research Design: Pre-experimental one group pretest- post design

Setting of the study: Study was conducted in Selected school at selected city.

Sample size: 30 Adolescent as per inclusive criteria.

Sampling Technique: Non probability purposive sampling technique was used.

Setting: In Selected school at selected city.

Inclusion criteria

1. Adolescents who are studying in private English medium in 10th standard in selected school.
2. Those who are willing to participate in the study
3. Those who understand English

Exclusion criteria

Those who are present during the period of data collection.

Tool and technique

The data for the present study were collected by constructing the following tool:

Section A: Demographic data of samples. It consisted 6 items.

Section B: Structured questionnaire on knowledge regarding harmful effect of Junk food among adolescents. It consisted 21 items.

Section C: Dichotomous scale on practice regarding harmful effect of Junk food among adolescents. It consisted 15 items.

Validity

The content validity of structured questionnaire was found by submitting the tool to the experts in the field of community health nursing (Doctors and lectures of nursing college and community health nursing).

Pilot study

It was conducted on 10 adolescents' girls in the selected school at selected city.

Reliability

The reliability of the tool was established by Split half method and Section 1(Knowledge) $r=0.85$ which was considered to be highly reliable and adequate. Section 2(Practice) $r=0.80$ which was considered to be highly reliable and adequate.

Findings of the Study

Section A: To find out demographic variables of adolescent.

Table 1: Frequency and percentage distribution of socio-demographic variables of adolescents

Sr. No	Characteristic	Frequency (f)	Percentage (%)
AGE- Group			
1	15	3	10%
2	16	3	10%
3	17	18	60%
4	Above 17	6	20%
Gender			
1	Girl	10	33.3%
2	Boy	20	66.6%
Monthly family income			
1	Less than 5,000/-	0	0%
2	5,001/-10,000/-	7	23.3%
3	10,001-15,000/-	17	56.6%
4	Above 15,0001/-	6	20%
Eating habit			
1	Vegetarian	10	33.3%
2	Non-vegetarian	20	66.6%
Source of knowledge regarding harmful effects of junk foods			
1	Printed Aids	3	10%
2	Mass Media	3	10%
3	Family and Friends	18	60%
4	Social Media	6	20%
Frequency of Junk Food consumption			
1	Daily	0	0%
2	Alternate day	7	23.3%
3	Weekly	17	56.6%
4	Occasionally	6	20%

Section II: Assessment of existing knowledge regarding harmful effect of Junk food among adolescents.

Table 2: Distribution of adolescents according existing knowledge score classification.

N-30		
Pre-test knowledge score	Frequency	Percentage
Poor [0-10]	15	50%
Average [11-20]	9	30%
Good [21-30]	6	20%

In pre-test, the majority of 15(50%) of the adolescents were having poor knowledge, 9(30%) of the adolescents were having average in knowledge, and 6(20%) of the adolescents were having good in knowledge regarding harmful effect of Junk food.

Section III: Assessment of existing practice regarding harmful effect of Junk food among adolescents.**Table 3:** Distribution of adolescents according existing practice score classification.

N-30

Pre-test practice score	Frequency	Percentage
Poor [0-5]	15	50%
Good [6-10]	9	30%
Excellent [11-15]	6	20%

In pre-test, the majority of 15(50%) of the adolescents were having poor practice, 9(30%) of the adolescents were having good in practice, and 6(20%) of the adolescents were having excellent in practice regarding harmful effect of Junk food.

Section IV: To correlate the knowledge and practice regarding harmful effect of Junk food among adolescents.**Table 4:** Correlation between the knowledge and practice regarding harmful effect of Junk food among adolescents

N=30

Statistics	Value
R	0.14
<i>t</i>	2.22
Df	29
<i>p</i> -value	0.000

Section V: To assess the effectiveness of Self Instruction Module on knowledge and practice regarding harmful effect of Junk food among adolescents.**Table 5:** Distribution of adolescents according post-test knowledge score classification

N-30

Post-test knowledge score	Frequency	Percentage
Poor [0-10]	3	10%
Average [11-20]	17	56.7%
Good [21-30]	10	33.3%

In post-test, the majority of 17(56.7%) of the adolescents were having average knowledge, 10(33.3%) of the adolescents were having good in knowledge, and 3(10%) of the adolescents were having poor in knowledge regarding harmful effect of Junk food among adolescents.

Table 6: Distribution of adolescents according post-test practice score classification

N-30

Post-test practice score	Frequency	Percentage
Poor [0-5]	3	10%
Good [6-10]	17	56.7%
Excellent [11-15]	10	33.3%

In post-test, the majority of 17(56.7%) of the adolescents were having good practice, 10(33.3%) of the adolescents were having excellent in practice, and 3(10%) of the adolescents were having poor in practice regarding harmful effect of Junk food among adolescents.

Section IV: To find out the association between post-test knowledge score with their selected demographic variables.**Table 7:** Paired 't' test for effectiveness of Self Instruction Module on knowledge and practice regarding harmful effect of Junk food among adolescents.

Test	Mean	SD	<i>t</i> -value	df	P-value
Knowledge					
Pre-test	19.16	2.74	9.00	29	P<0.05 (S)
Post-test	27.18	5.63			
Practice					
Pre-test	17.85	2.13	8.96	29	P<0.05 (S)
Post-test	26.23	5.15			

Regards to knowledge, the obtained 't' value found to be 9.00 at 29 degree of freedom is more than the table value at $p < 0.05$ level of significance, hence researcher fails to accept null hypothesis. The observed mean post-test knowledge score is 27.18 (SD-5.63) was higher than the mean pre-test knowledge score 19.16 (SD-2.74). Regards to practice, the obtained 't' value found to be 8.96 at 29 degree of freedom is more than the table value at $p < 0.05$ level of significance, hence researcher fails to accept null hypothesis. The observed mean post-test practice score is 26.23 (SD-5.15) was higher than the mean pre-test practice score 17.85 (SD-2.13).

Table 8: Association between knowledge with their selected demographic variables.

Particular		Knowledge classification				Chi-square Value	P-Value
		Poor	Average	Good	Total		
Age	15	1	2	0	3	20.4 (S)	7.82
	16	2	0	1	3		
	17	0	10	8	18		
	Above 17	0	5	1	6		
Gender	Girl	2	5	3	10	3.2 (NS)	3.84
	Boy	1	12	7	20		
Monthly family income	Less than 5,000/-	0	0	0	0	19.86 (S)	7.82
	5,001/-10,000/-	1	4	2	7		
	10,001-15,000/-	1	8	8	17		
	Above 15,0001/-	1	5	0	6		
Eating habit	Vegetarian	2	5	3	10	3.2 (Ns)	3.84
	Non-vegetarian	1	12	7	20		
Source of knowledge	Printed Aids	1	2	0	3	20.4 (S)	7.82
	Mass Media	2	0	1	3		
	Family and Friends	0	10	8	18		
	Social Media	0	5	1	6		

Section VII: To find out the association between post-test practice score with their selected demographic variables.

Table 9

Particular		Practice classification				Chi Square Value	P-Value
		Poor	Good	Excellent	Total		
Age	15	1	2	0	3	20.4 (S)	7.82
	16	2	0	1	3		
	17	0	10	8	18		
	Above 17	0	5	1	6		
Gender	Girl	2	5	3	10	3.2 (NS)	3.84
	Boy	1	12	7	20		
Monthly family income	Less than 5,000/-	0	0	0	0	19.86 (S)	7.82
	5,001/-10,000/-	1	4	2	7		
	10,001-15,000/-	1	8	8	17		
	Above 15,0001/-	1	5	0	6		
Eating habit	Vegetarian	2	5	3	10	3.2 (NS)	3.84
	Non-vegetarian	1	12	7	20		
Source of knowledge	Printed Aids	1	2	0	3	20.4 (S)	7.82
	Mass Media	2	0	1	3		
	Family and Friends	0	10	8	18		
	Social Media	0	5	1	6		
Frequency	Daily	0	0	0	0	19.86 (S)	7.82
	Alternate day	1	4	2	7		
	Weekly	1	8	8	17		
	Occasionally	1	5	0	6		

Implications

The findings of the study have the following implication in nursing.

Nursing Education

Nursing education should emphasize on preparation of nurses, to impact information regarding harmful effects of junk foods and healthy diet and its role in maintaining good health. The present study emphasize on as age,

gender, monthly family income, and sources of information regarding junk foods etc. To make a curriculum for students and academic session regarding health hazards of junk foods among nursing students. They should be encouraged to attained specialized role play and seminar regarding healthy diet in maintaining good health.

Nursing Practice

The nurses can organize role play, work shop, awareness survey and different teaching programme regarding knowledge and practice of junk foods in hospital and community settings for general population and for the non-professional health group as it helps to improve knowledge regarding healthy foods and foods which is harmful for their health.

Nursing Research

The finding and results of this research will motivate nurse research to take up similar studies in different setting and this will serve as guideline for further research. The outcome of such nursing measures can be evaluated and the reports submitted to statutory body like food safety and security act of India. And it can be organized in various categories and enhance to upgrade different settings and implication. So it can utilize as evidence based information to developed effective materials useful in preparing new books and for revising health education for general population.

Nursing Administration

Nurse administrator can inculcate and reinforced better health teaching program about healthy diet in institutional setup and in public place, hospital and college for general population. The nurse administrator should collaborate with various faculties of institute and nongovernmental organization and they collaborate organized different teaching programmes like health education, health exhibitions planned health teaching program for individual to improve their knowledge on healthy diet.

Recommendation

1. A similar study can be conducted by using different health teaching module (Structured teaching programme, Planned teaching programme etc) among adolescents.
2. A similar study can be conducted using large population to generalize the findings.
3. A comparative study can be done to assess the knowledge, attitude, and practice regarding harmful effect of junk food among adolescents.

Reference

1. Ramchandra M. International Journal of Science and Research (IJSR),2015:4(4):43-46.
2. Fancy R *et al.* IOSR Journal of Humanities and Social Science (IOSR-JHSS), Ser. 5,2019:24(1):45-48.
3. Yaazhini T. Medico-legal Update, January-March 2020:20(1):149-151.
4. Khongrangiem T *et al.* / Clinical Epidemiology and Global Health,2018:6:172– 175
5. Amoldeep etal International Journal of Health Science & Research (www.ijhsr.org),2017:7(5):176-182.
6. Maharjan Purna Devi. International Journal of Science and Research (IJSR),8(12):2019:1880-1887.