



“A Study To Assess The Effect Of QR Coded Self Instructional Module (SIM) On Knowledge Regarding Health Hazards Of Junk Food Among College Students.”

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ABSTRACT

INTRODUCTION: Consuming fast food on a regular basis can have detrimental effect on persons health. For instance, the consumption of intercalary fats, refined grains, salt, intercalary carbohydrates, and sweets all contribute to an increased likelihood of becoming obese.

AIM: To assess the level of knowledge regarding health hazards of junk food among college students.

METHODOLOGY: A descriptive and survey was conducted at the Dr. D. Y. Patil college of Arts, Commerce, Science, Pimpri, Pune - 18. 200 students consuming junk food were selected by convenient sampling technique. The researcher used the google questionnaire to assess the quality of life of students consuming junk food.

RESULT: The result showed that the 15.5% of the college students had poor knowledge, 40% of them had average knowledge and 44.5% of them had good knowledge regarding health hazards of junk food. Average knowledge score in pretest was 12.9 which increased to 21.8 in posttest. T-value for this test was 26.4 with 199 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. Average knowledge score in posttest was significantly higher than that in pretest.

CONCLUSION: The study concluded that the QR coded self-instructional module is significantly effective in improving the knowledge among college students regarding health hazards of junk food.

INTRODUCTION

Food is an important part of everyone's 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. 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. It is not healthy to consume.¹

(Jones, 2021) Addictive substances like cocaine and heroin change brain activity, excessive junk food consumption does the same. Additionally, it can raise the risk of dementia, impair appetite management, cause depression, learning difficulties, and memory loss Similarly, consuming junk food over a brief period of time might affect blood pressure, blood sugar, and inflammation. In the long run, eating a lot of fast food can cause problems with digestion, immunity, inflammation, allergies, heart attacks, strokes, kidney illness, heart disease, and obesity².

BACKGROUND AND NEED OF STUDY:

Mr. Manoj V.S and Dr. Santhi (2018) conducted study on “Health hazards of junk food among adolescent”. Junk food is high in calorie but low in nutritional content. This kind of food has no vitamins and minerals. These Junk foods are commonly available in urban area, adolescents can be attracted to this food items because of its colors, flavor and taste. Majority of Junk foods are sold in the streets and petty shops without considering hygiene problems in the adolescents. At present era adolescents forget the naturally available foods and got addicted to Junk foods taste and facing many health problems in early shapes of life. According to the investigator point of view, now days usually during evening time huge number of junk food stall will be opening on the side of the road and most of the stall will be filled with adolescents. The main reason is easy availability, cost-effectiveness and good taste, but they are unaware of the health hazards of eating junk foods.³

According to the American Heart Association, consuming foods high in trans fats may put vascular system at risk of damage. The person may get chance of developing cardiovascular disease and stroke will go up. Toxins and potentially harmful substances are found in abundance in fast food. Food will take the role of a diet that is rich in vitamins and omega-3 fatty acids, both of which contribute to improve psychological characteristics and cognitive skills.⁴

Frequently, thirst and hunger or food cravings are confused. If person get a sudden need for a certain dish, consider drinking a big glass of water and waiting for a while. Once realize that body was indeed thirsty, it will find that the need subsides. Additionally, drinking enough of water may have health benefits. In older adults, drinking before meals may lower cravings and help in weight loss.⁵

So, the study is essential to improve the knowledge, and attitude regarding the health hazards of eating junk foods among adolescents was chosen by the investigator.

PROBLEM STATEMENT

“A study to assess effect of Self-Instructional Module (SIM) on knowledge regarding health hazards of junk food among college students.”

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge regarding health hazards of junk food among college students.
2. To assess the effect of QR coded self-instructional module regarding health hazards of junk food among college students.
3. To find out the association of knowledge about health hazards of junk food with selected demographic variables.

RESEARCH METHODOLOGY

Research approach: The research approach adopted for this study is a quantitative research approach.

Research design: The research design used for this research is quasi experimental research.

Variables

Independent Variable: The independent variable in this study is the QR Coded Self Instructional Module (SIM).

Dependent Variable: The dependent variable in this study is knowledge regarding health hazards of junk food among college students.

Setting of the study: Dr. D Y Patil college of Arts, Commerce and Science, Pimpri, Pune-18.

Sample size: The sample size for this study is 200 Samples.

Sampling Technique: Convenient sampling technique.

Inclusion criteria

- Students who are willing to participate.
- Students those who are available at the time of data collection.

Exclusion criteria

- Students who refuse to participate in the study.

Tools and Techniques

Tool: Structured Google Form questionnaire; QR code linked to Self-Instructional Module (SIM).

- Section A: Demographic data.
- Section B: MCQs on junk food definition, effects, prevention.
- Section C: QR Coded SIM with educational content.

- Scoring: 1 mark per correct answer; total score categorized as Good (75–100%), Average (50–74%), Poor (<50%).

PILOT STUDY

A pilot study was conducted from 0.0.2024 to 0.0.2024 at the Dr. D Y Patil college of Arts, Commerce and Science, Pimpri, Pune-18.

RESULT:

Section I: Table 1: Description of samples (college students) based on their personal characteristics in terms of frequency and percentage N=200

Demographic variable	Freq	%
Age		
18 years	42	21.0%
19 years	31	15.5%
20 years	52	26.0%
21 years	75	37.5%
Education		
HSC students	41	20.5%
Diploma students	89	44.5%
Degree students	70	35.0%
Religion		
Hindu	96	48.0%
Muslim	37	18.5%
Buddhist	49	24.5%
Christian	18	9.0%
Gender		
Male	92	46.0%
Female	108	54.0%
Diet		
Vegetarian	52	26.0%
Nonvegetarian	148	74.0%

Table no 1 showed that the 37.5% of them had age 21 years, 44.5% of them were diploma students 48% of them were Hindu, 54% of them were females, 74% of them were nonvegetarian.

Section II: Analysis of data related to knowledge regarding health hazards of junk food among college students.

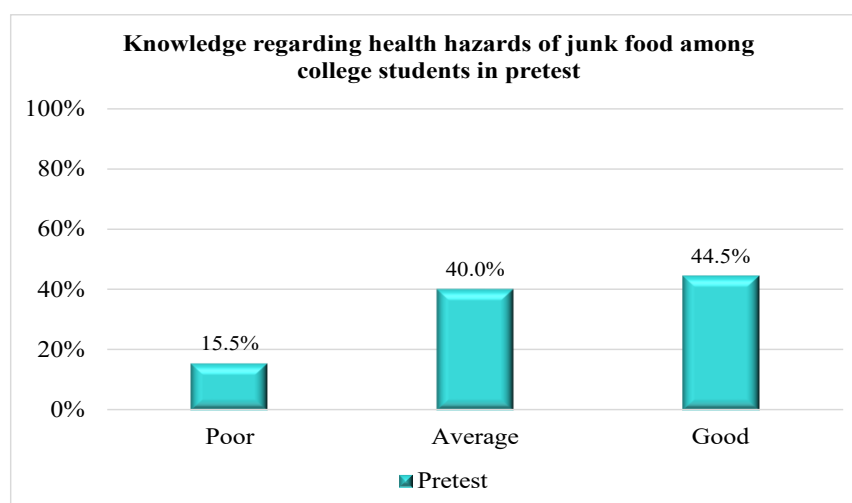


Figure no 1 showed that the 15.5% of the college students had poor knowledge, 40% of them had average knowledge and 44.5% of them had good knowledge regarding health hazards of junk food.

Section III: Analysis of data related to the effect of QR coded self-instructional module regarding health hazards of junk food among college students

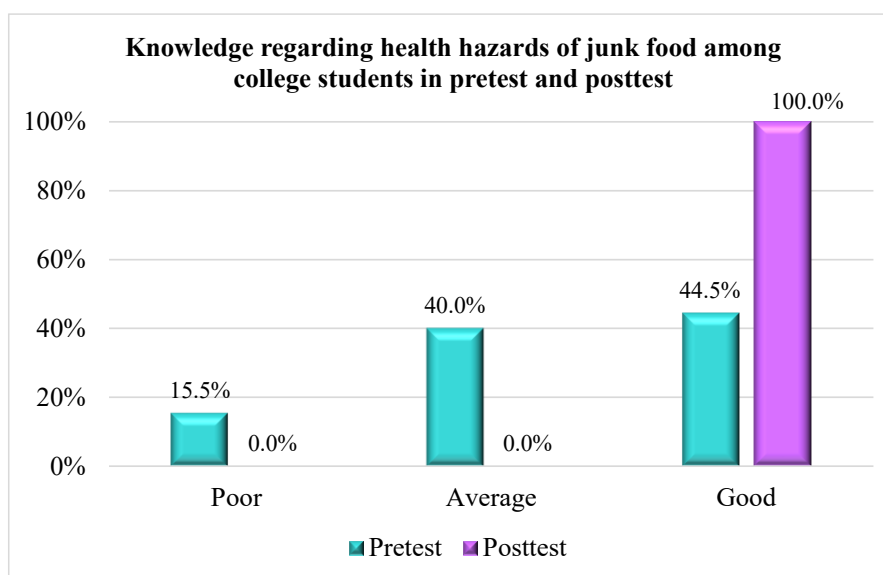


figure no 2 In pretest, indicated that the 15.5% of the college students had poor knowledge, 40% of them had average knowledge and 44.5% of them had good knowledge regarding health hazards of junk food. In posttest, all of them had good knowledge regarding health hazards of junk food. This indicates that the knowledge among college students regarding health hazards of junk food improved remarkably after QR coded self-instructional module.

Paired t-test for the effect of QR coded self-instructional module regarding health hazards of junk food among college students.

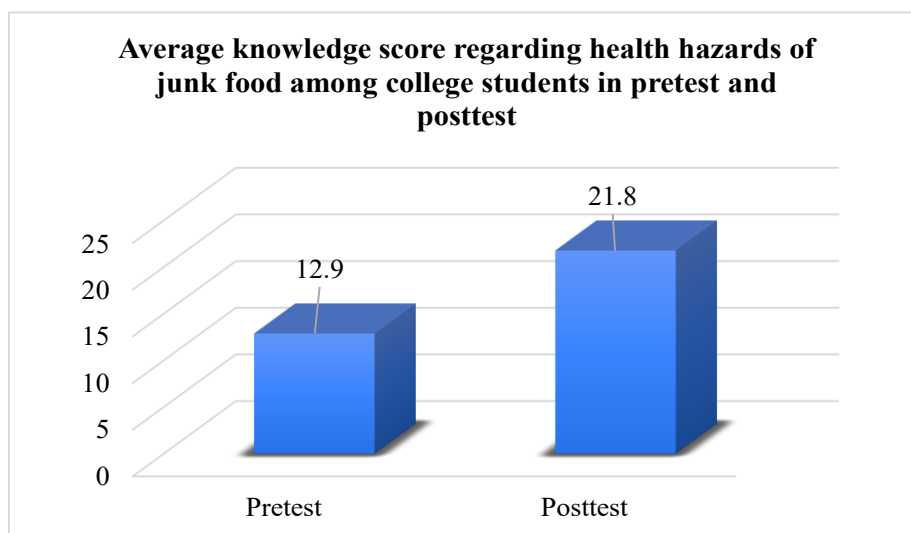


Figure showed that the t-test for the effect of QR coded self-instructional module regarding health hazards of junk food among college students. Average knowledge score in pretest was 12.9 which increased to 21.8 in posttest. T-value for this test was 26.4 with 199 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. Average knowledge score in posttest was significantly higher than that in pretest. It is evident that the QR coded self-instructional module is significantly effective in improving the knowledge among college students regarding health hazards of junk food.

Table 2: Knowledge item analysis**N=200**

Knowledge	Pretest		Posttest	
	Freq	%	Freq	%
What is junk food ?	148	74.0%	200	100.0%
Which of the following is a major health hazard of junk food?	134	67.0%	196	98.0%
What is junk food primarily high in?	129	64.5%	198	99.0%
Which of these diseases is most commonly linked to the consumption of junk food?	71	35.5%	198	99.0%
How does junk food affect the cardiovascular system?	149	74.5%	200	100.0%
What effect does consuming excessive junk food have on mental health?	141	70.5%	199	99.5%
Junk food consumption is known to cause which of the following digestive issues?	122	61.0%	200	100.0%
Which of the following is a significant consequence of regularly eating junk food?	140	70.0%	198	99.0%
What is the impact of junk food on the immune system?	119	59.5%	200	100.0%
Which of these is NOT a common ingredient in junk food?	39	19.5%	194	97.0%
Which health problem is associated with the excessive consumption of junk food and high sugar intake?	126	63.0%	199	99.5%
What effect does junk food have on students' energy levels?	140	70.0%	200	100.0%
What is the most harmful fat found in junk food that raises cholesterol levels?	76	38.0%	199	99.5%
Which of the following is a major risk associated with the long-term consumption of junk food?	133	66.5%	200	100.0%
What nutrient is often deficient in a junk food diet?	102	51.0%	200	100.0%
How does junk food contribute to the development of metabolic syndrome?	152	76.0%	200	100.0%
What effect can junk food have on skin health?	125	62.5%	200	100.0%
How does junk food impact the liver?	109	54.5%	199	99.5%
Which of the following is not a health hazard of junk food consumption?	62	31.0%	176	88.0%
Which nutrient is abundant in junk food but should be consumed in moderation?	95	47.5%	200	100.0%
What is junk food typically high in?	148	74.0%	200	100.0%
Which of these is not typically considered junk food?	116	58.0%	200	100.0%

Table 2 presents the frequency and percentage of correct responses by college students to each knowledge item in pretest and posttest. This indicates that the correct responses improved remarkably in posttest. It is evident that the after QR coded self-instructional module, knowledge among college students improved.

Section IV: Table 3: Fisher's exact test for the association of knowledge about health hazards of junk food with selected demographic variables **N=200**

Demographic variable		Knowledge			p-value
		Poor	Average	Good	
Age	18 years	6	20	16	0.191
	19 years	6	14	11	
	20 years	9	24	19	
	21 years	10	22	43	
Education	HSC students	9	17	15	0.550
	Diploma students	11	38	40	
	Degree students	11	25	34	
Religion	Hindu	11	30	55	0.021
	Muslim	5	21	11	
	Buddhist	11	21	17	
	Christian	4	8	6	
Gender	Male	19	34	39	0.178
	Female	12	46	50	
Diet	Vegetarian	12	26	14	0.008
	Nonvegetarian	19	54	75	

Since p-value corresponding to religion is small (less than 0.05), the null hypothesis is rejected. Demographic variable religion was found to have significant association with the knowledge among college students regarding health hazards of junk food.

DISCUSSION

Deepali A and Chaitanya Prakash (2023) conducted study on “A study on junk food consumptions on first year MBBS students aged 19-21 years of batch 2021-2022 at shri Siddharth medical college and hospital, Tumakuru”. The aims of this study showed that the study was taken up to take an insight into the adverse effects of excess calorie consumption during stress which is associated obesity and depression. A study also focuses on the relationship between mental and physical health with the consumption of junk food among 1st-year MBBS students. A modified questionnaire was circulated among 150 1st year MBBS students through Google forms. The data collected were subjected to descriptive statistics and interpreted. The result showed that the about 49% of the participants consumed junk foods regularly with 34% of the participants consuming more than once per week. More than 65% of participants consumed junk food in the evening. Around 46% of participants preferred weekend to consume junk foods. More than 50% of the participants consume junk foods when they are residing in hostel rather than home. More than 70% of the participants prefer junk food consumption during screen time. Conclusion showed that the factors that have led to consumption of junk food are affordability and cravings. The study also shows a strong association of junk food consumption with stress and screen time behavior. Due to its low nutritional value, junk food should be discouraged. Hence, awareness program should be included in to the curriculum of all medical students and in other professions also.⁶

CONCLUSION

Average knowledge score in pretest was 15.15 which increased to 20.5 in the posttest. The T-value for this test was -6.02 with 19 degrees of freedom. Corresponding p-value was small (less than 0.05), the null hypothesis is rejected. Average knowledge score in posttest was significantly more than that in pretest. It is evident that the information booklet is significantly effective in improving the knowledge among individuals regarding Endometriosis.

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