

A Pre-experimental Research Investigation was Conducted to Evaluate the Impact of a Structured Teaching Program on Understanding the Detrimental Effects of Junk Food on Health and Methods for Its Prevention Among Adolescent Students at Kashmir Harvard Educational Institute in Habak, Naseem Bagh, Srinagar

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Abstract

*In today's interconnected world, the consumption of unhealthy foods among adolescents has become increasingly prevalent. This shift in dietary habits is heavily influenced by economic prosperity and evolving lifestyles, leading to rapid changes in food consumption patterns. The importance of proper nutrition cannot be overstated, especially in the physical and mental development of young individuals. Adolescents must comprehend the repercussions of their dietary choices on their overall well-being. Despite the widespread popularity of junk food among adolescents, many are oblivious to its detrimental effects on health. In the hustle and bustle of modern life, there is often little room for thoughtful consideration of food choices. Junk food, with its allure of quick satisfaction and convenience, is notably lacking in nutritional value. Loaded with empty calories, saturated fats, and devoid of essential nutrients and fiber, it poses a significant health risk. It is abundantly clear that junk food is inherently unhealthy and should be consumed sparingly. Educating adolescents about the adverse effects of excessive junk food consumption is paramount. By promoting awareness and fostering healthy eating habits, we can empower the younger generation to make informed choices that positively impact their long-term health and well-being. **Objectives:** To assess the pre-test knowledge score regarding the hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem Bagh, Srinagar, Jammu & Kashmir 2. To assess the post-test knowledge score regarding hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar, Jammu & Kashmir 3. To evaluate the effectiveness of a structured teaching programme regarding the hazardous effects of junk food on*

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health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar, Jammu & Kashmir 4. To determine the association between knowledge score regarding hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem Bagh, Srinagar, Jammu & Kashmir with their selected socio-demographic variables. **Method:** This study employed a quantitative research approach, with a pre-experimental design known as the one-group pretest-posttest design. It was conducted at the Harvard Educational Institute in Habak, Naseem Bagh, Srinagar. The sample included 30 students, comprising both adolescent boys and girls, selected using a convenient sampling technique. **Results:** The study findings revealed that in the pre-test, 24 (80%) study subjects had inadequate knowledge regarding the hazardous effects of junk food on health, 6 (20%) study subjects had moderately adequate knowledge, and 0 (0%) had adequate Knowledge, whereas in post-test, majority of the study subjects 30 (100%) had adequate knowledge. **Conclusion:** The STP intervention led to an enhancement in the understanding of adolescent students concerning the harmful effects of junk food and methods for its prevention. The evaluation of knowledge enhancement was conducted through a post-test administered after a period of four days.

Keywords:

INTRODUCTION

“If junk food is the devil, then a sweet orange is as scripture”

In today's global context, junk food has become a prevalent dietary choice among adolescents, driven by rapidly evolving food consumption patterns and lifestyle changes influenced by economic growth. Adequate nutrition is crucial for the physical and mental development of children, emphasizing the importance of understanding the impact of dietary choices on growth and behavior. Despite the popularity of junk food among adolescents, many are unaware of its detrimental health effects. These foods are typically quick, tasty, convenient, and fashionable, but lack essential nutrients, vitamins, and minerals, being high in calories, saturated fats, and low in fiber and nutrients [1]. Commonly available junk foods in India include breads, cookies, chips, candy bars, muffins, burgers, fries, pizzas, pancakes, and various street foods. The widespread availability of these foods in urban areas, coupled with their attractive colors, flavors, and tastes, contributes to adolescents' attraction to them, despite the associated health risks. The excessive consumption of junk food has been linked to fatigue, impaired digestion, fluctuations in blood sugar levels, brain function impairment, increased risk of heart disease, kidney disease, liver damage, type 2 diabetes mellitus, cancer development, and depression in teenagers [2]. According to a WHO report, excessive intake of junk food leads to approximately 40,000 deaths worldwide annually. India is experiencing an obesity epidemic, with a 20% increase in overweight rates, necessitating immediate intervention through restrictions on food advertisements and clearer food labeling. Adolescents, constituting about 19% of the world's population, face significant nutritional challenges, including undernutrition and obesity, due to poor eating habits. Recommendations for action include emphasizing nutritional adequacy for adolescent girls, implementing mass information and awareness programs, promoting healthy eating habits, strengthening education about junk foods, and providing adolescents with highly nutritious diets [3]. Sound nutrition knowledge is crucial for preventing health hazards associated with junk foods, such as obesity, high blood pressure, and cardiovascular diseases. Junk food has become a prevalent dietary component among children worldwide, posing health risks both due to their contents and what they replace in the diet [4].

NEED OF THE STUDY

Adolescence is a critical period marked by rapid growth and personal development, heavily influenced by nutritional intake. The physiological and psychological changes, combined with increased physical activity, create heightened nutritional requirements during this phase compared to any other life stage. Inadequate nutrition during adolescence can potentially hinder physical growth,

intellectual capacity, and delay sexual maturation. Junk food consumption among adolescents is linked to various health issues [5]. Regular consumption of junk foods replacing nutritious options in daily diets can lead to obesity, vitamin and mineral deficiencies, and other health complications. The prevalence of fast food culture among school children underscores poor dietary habits. Junk foods, often readily available and affordable, lack essential nutrients and are high in saturated fats, posing significant health risks. Contrastingly, meals prepared at home typically consist of healthier options such as fruits, vegetables, and milk, essential for proper growth, development, and prevention of health issues among youth.[6] The study aims to assess adolescents' knowledge regarding the harmful effects of junk food and its prevention, implement a planned teaching program, and evaluate its effectiveness in promoting healthier lifestyle choices among adolescents

OBJECTIVES OF THE STUDY

1. To assess the pre-test knowledge score regarding hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar, Jammu & Kashmir
2. To assess the post-test knowledge score regarding hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar, Jammu & Kashmir
3. To evaluate the effectiveness of structured teaching programme regarding hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar, Jammu & Kashmir
4. To determine the association between knowledge score regarding hazardous effects of junk food on health and its prevention among adolescent students of Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar, Jammu & Kashmir with their selected socio-demographic variables [7].

HYPOTHESIS OF THE STUDY

- *H01*: There will be no significant difference between mean pre-test knowledge score and mean post-test knowledge score after administration of structured teaching programme.
- *H1*: The mean post-test knowledge score of adolescents regarding effects of junk foods on health will be significantly higher than the mean pre-test score.
- *H02*: There will be no significant association between the adolescents knowledge with their demographic variables.
- *H2*: There will be significant association between the adolescents knowledge with their socio-demographic variables (gender, socio-economic status, place of residence, source of information) [8].

OPERATIONAL DEFINITIONS

Effectiveness

In this study, it pertains to the intended improvement resulting from the educational program developed by researchers, which is assessed by the increase in the post-test knowledge score.

Educational Programme

In this study it refers to systematically well planned information or awareness to adolescent students regarding junk food and its prevention through lecture method and with the help of, PPT and banners.

Knowledge

In this study knowledge refers to the respondent's response to the questions regarding hazardous junk food and is measured by structured knowledge questionnaire

Adolescent Students

In this study it refers to the students of age group 12–19 years, both boys and girls studying in Harvard Educational Institute [9].

DELIMITATION

1. The study is limited to
2. Selected adolescent students of age group 12 to 19.
3. Sample size of 30.
4. Period of one week

METHODOLOGY**Research Approach**

Quantitative approach was used in the study. Quantitative approach was conducted to determine how well a programme was implemented and how well it accomplished its purpose. This approach was undertaken with the aim of providing answers to questions about the effectiveness of educational programme under consideration

Research Design

The study utilized a pre-experimental research design with a single group, employing pre-test and post-test measurements. The pre-test and post-test knowledge scores were labeled as O1 and O2, respectively. The intervention is denoted by X. The symbolic representation for the research design is shown below [10].

Variables***Independent Variable***

In the present study the independent variable was the structured teaching programme on knowledge regarding junk food [11].

Dependent Variable

In the study, the dependent variable was the knowledge of adolescent students regarding junk food.

Setting

The study was conducted in selected school i.e Kashmir Harvard Educational Institute Srinagar. The criteria for selecting the setting were geographic proximity, feasibility of conducting the study, availability of samples and familiarity of researcher with the setting.

Population

In this study the total population consists of Adolescent students (12–19 years) studying in Kashmir Harvard Educational Institute, Habak, Naseem bagh, Srinagar. Total number of students was 750 students.

Sample size: 30

Criteria for Sample Selection***Sampling Technique***

The following criteria were set for the selection of study subjects.

Inclusion Criteria

- Students who are willing to participate in the study.
- Adolescents student both boys and girls who are studying in class 9th and 10th.
- Students who are present at time of data collection.

Exclusion Criteria

- Students who are not willing to participate in the study.
- Students who are physically ill and are not present at the time of data collection

DATA COLLECTION INSTRUMENT

Instrument used was structured closed ended questionnaire to assess the effectiveness of structured teaching programme on knowledge regarding effects of junk food on health and its prevention among adolescents in selected higher secondary school of district Srinagar [12].

DEVELOPMENT OF THE TOOL

The tool was developed on the basis of:

- Objectives of the study.
- Extensive review of literature-Related literature from books, journals, articles, periodicals, published and unpublished research studies were reviewed and used for the development of the tool.
- Researchers own experience.
- Informal discussion with peer group.

DESCRIPTION OF THE TOOL

Structured closed ended questionnaire is used to assess the effectiveness of structured teaching programme on knowledge regarding effects of junk food on health and its prevention among adolescents it is divided into two sections.

1. *Section 1:* Demographic data related to adolescent students. it includes; Gender, age, dietary pattern, place of stay, socioeconomic status, source of income.
2. *Section 2:* Deals with the knowledge among students reading effects of junk food on health and prevention includes; Definition of junk food, anatomy of gastro-intestinal tract, hazardous effects of junk food, preventive measures.

SCORING PATTERN

The questionnaire consists of 31 questions with single correct answer. Each correct answer is awarded a score of one (1) and each incorrect answer or unanswered is awarded zero (0).

ETHICAL CONSIDERATION

Permission was accorded from the concerned authorities of the higher secondary to conduct the study on the adolescent students. The purpose of the study was informed and explained to the students of the selected higher secondary and permission was obtained by taking informed consent from them, prior to their inclusion as sample in the study privacy, confidentially and anonymity has been guarded as shown in Table 1.

ANALYSIS

Score Grading Comparison Between Pre and Post-test

In the pre-test series 24 (80%) adolescent students had inadequate knowledge and 6 (20%) had moderately adequate knowledge were none had adequate knowledge regarding junk food among adolescent higher secondary students and after the implementation of structured teaching programme on adolescent students, all adolescent students i.e. 30 (100%) showed adequate knowledge, were none showed moderately adequate and inadequate knowledge in post-test analysis. This means that there was a high significant improvement in the knowledge among adolescent students with a p-value of <0.001 as shown in Figure 1.

Table 1. Score grading comparison between pre and post-test.

Grade	Pre-test		Post-test	
	Number	%age	Number	%age
Inadequate	24	80	0	0
Moderately adequate	6	20	0	0
Adequate	0	0	30	100

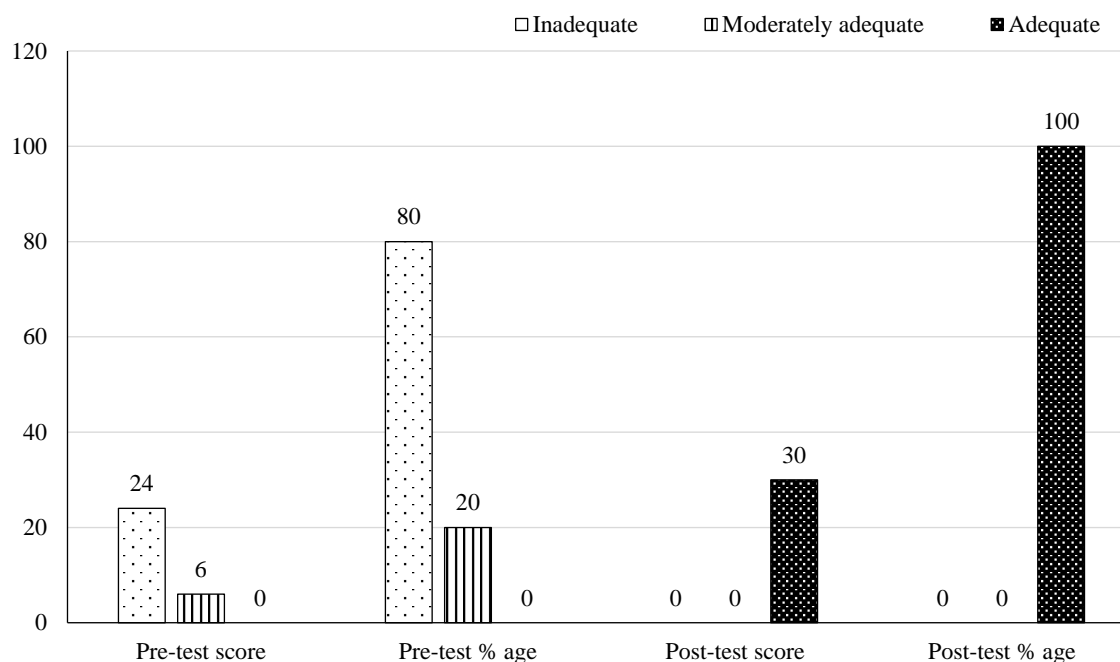


Figure 1. Score of pre test and post test students from inadequate to adequate knowledge.

FINDINGS OF THE STUDY

Description of the Demographic Variables of Study Subjects

This section presents the frequency and percentage distribution of study participants across various demographic and lifestyle factors:

- Among the participants, 22 (73.3%) fell into the age bracket of 14–15 years, while 8 (26.6%) were aged 16–17 years.
- Gender distribution was equal, with 15 (50%) males and 15 (50%) females.
- All 30 (100%) participants followed a mixed diet.
- All participants were day scholars; none were boarders.
- Regarding fathers' occupations, 14 (46.6%) participants had fathers in government jobs, 3 (10%) had fathers employed in the private sector, none were homemakers, and 13 (43.3%) had fathers involved in business.

Assessment of Knowledge Level of Study Subjects Regarding Hazardous Effects of Junk Food and it's Prevention Before and After Implementation of STP

In pre-test, 24 (80%) study subjects had inadequate knowledge regarding hazardous effects of junk foods and it's prevention, 6 (20%) study subjects had moderately adequate knowledge and 0 (0%) had adequate knowledge, where as in post-test, majority of the study subjects 30 (100%) had adequate knowledge. The mean post-test knowledge score 689 (87.99) was significantly higher than the mean pre-test knowledge score 326 (41.79). The mean difference between pre-test & post-test knowledge scores were 46.2 at p value < 0.001 which indicates that there is significant difference between pre-test and post-test mean knowledge scores. So, there is enough evidence that this change occurred due to intervention (EP).

Comparison Between Pre-test & Post-test Knowledge Score of Study Subjects Regarding Hazardous Effects of Junk Food

While comparing the knowledge of study subjects regarding hazardous effects of junk food and it's prevention, in the pre-test series 24 (80%) adolescent students had inadequate knowledge and 6 (20%) had moderately adequate knowledge were none had adequate knowledge regarding junk food among adolescent higher secondary students and after the implementation of structured teaching programme

on adolescent students, all adolescent students i.e. 30 (100%) showed adequate knowledge, were none showed moderately adequate and inadequate knowledge in post-test analysis. This means that there was a high significant improvement in the knowledge among adolescent students with a p-value of <0.001 . So, there was enough evidence that change occurred due to intervention not by chance.

Association of Pre-test Knowledge Score of Study Subjects Regarding Hazardous Effects of Junk Food On Health And It's Prevention With Their Selected Demographic Variables (Age, Gender, Socio-Economic Status, Dietary Pattern, Place Of Stay And Source Of Information)

The study findings revealed that Age ($p \leq 0.7$), gender ($p = 0.416$), source of information ($p = 0.416$), of study subjects was found to have no association with the pre-test knowledge scores but monthly income ($p = 0.001$) have highly significant association with the pre-test knowledge score [13].

MAJOR FINDINGS

Related to demographic variables:

out of 30 subjects

- 22 (73.3%) were in the age group of 14–15 years, 8 (26.6%) were in the age group of 16–17 years.
- 15 (50%) were males and 15 (50%) were females.
- 30 (100%) study subjects were taking mixed diet
- All the study subjects were day scholars and no one was hosteller
- 14 (46.6%) study subjects were having their father's occupation as govt job, 3 (10%) were having private job, no one was house maker, 13 (43.3%) were doing business.

Related to Level of Knowledge

- In pre-test, 24 (80%) study subjects had inadequate knowledge regarding hazardous effects of junk food, 6 (20%) study subjects had moderately adequate knowledge and 0 (0%) had adequate knowledge, where as in post-test, majority of the study subjects 30 (100%) had adequate knowledge.

Related to Comparison of Pre-test & Post-test Knowledge Scores

- The mean post-test knowledge score (87.99) was significantly higher than the mean pre-test knowledge score (41.79). The mean difference between pre-test & post-test knowledge scores were 46.2 at p value <0.001 which indicates that there is significant difference between pre-test and post-test mean knowledge scores. So, there is enough evidence that this change occurred due to intervention (EP).

Related to Association Between Pre-test Knowledge with the Selected Demographic Variables

- Age ($p \leq 0.7$), gender ($p = 0.416$), source of information ($p = 0.416$), of study subjects was found to have no association with the pre-test knowledge scores but monthly income ($p = 0.001$) have highly significant association with the pre-test knowledge score.

Conclusion

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