Effectiveness of Health Teaching Programme on Knowledge of adolescents regarding the Health Hazards of Junk Foods in Selected Senior secondary Schools at Jaipur

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Abstract

Introduction: Adolescence is a critical stage of development characterized by physical, psychological, and social changes. Unhealthy eating habits, such as the consumption of junk food, pose significant health risks to adolescents. This study aims to assess the effectiveness of a Health Teaching Program (HTP) in improving adolescents' knowledge of the health hazards of junk food. The study was conducted in selected senior secondary schools in Jaipur, India.

Method: The study utilized an evaluative research approach with a pre-experimental, one-group pre-test-post-test design. A sample of 120 adolescents was selected through convenient sampling. A structured knowledge questionnaire consisting of demographic information and 30 items on junk food, its nutritive value, and associated health hazards was used.

Results: The majority of participants were between 15 and 17 years old, residing in urban areas, and receiving pocket money. Most had prior information about junk food, obtained primarily from mass media. Fast food corners were the main source of junk food consumption. The HTP significantly improved adolescents' knowledge scores, with a notable increase in understanding the nutritive value of junk food and its associated health hazards. Statistical analysis demonstrated a significant difference between pre-test and post-test knowledge scores.

Conclusion: The study findings demonstrate the effectiveness of the Health Teaching Program in enhancing adolescents' knowledge of the health hazards of junk food. Educational interventions are crucial in promoting awareness and empowering adolescents to make informed dietary choices. These results provide valuable insights for the development and implementation of future health teaching programs targeting unhealthy eating habits among adolescents. By equipping adolescents with accurate knowledge, they can make healthier choices and reduce the associated health risks. Continued efforts in developing effective health teaching programs will contribute to improving adolescent health outcomes and overall well-being.

Keywords: Adolescence, Junk Food, Health Teaching Program, Knowledge, Effectiveness.

Introduction

Adolescence is a critical period of growth and development, characterized by significant physical, psychological, and social changes. It is during this stage that individuals may develop unhealthy eating habits, including the consumption of junk foods. Junk foods are known for their high calorie, unhealthy fat, sugar, and sodium content, while lacking essential nutrients. Such eating habits can have detrimental effects on adolescents' health, including an increased risk of obesity,

cardiovascular diseases, diabetes, and other chronic conditions. To address this issue, it is essential to promote knowledge and awareness among adolescents about the health hazards associated with consuming junk foods. By providing adolescents with accurate and comprehensive information, they can make informed dietary choices and develop healthier eating habits. Health teaching programs have been recognized as effective interventions for improving knowledge and changing behaviors among adolescents. However, it is crucial to evaluate the effectiveness of these health teaching programs in enhancing adolescents' knowledge specifically regarding the health hazards of junk foods. This study aims to assess the effectiveness of a Health Teaching Program (HTP) in improving adolescents' knowledge about the risks associated with consuming junk foods. The study will be conducted in selected senior secondary schools in Jaipur, a city in India. By focusing on this specific population, the study aims to target a representative sample of adolescents within a defined geographic area. This allows for a more focused evaluation of the impact of the HTP on adolescents' knowledge levels. By evaluating the effectiveness of the HTP, valuable insights can be gained regarding the effectiveness of educational interventions in improving adolescents' understanding of the risks associated with consuming junk foods. The findings of this study can inform the development and implementation of future health teaching programs, ensuring that they effectively address the specific knowledge gaps and needs of adolescents in relation to junk food consumption.

Methodology:

An evaluative research approach was utilized for this study and pre-experimental, one-group pre-test-post-test design was employed. This design allowed for the measurement of adolescents' knowledge levels before and after the implementation of the HTP to determine the program's effectiveness. A sample size of 120 adolescents was selected through convenient sampling, based on specific inclusion criteria such as age and school enrollment. Adolescents who had previously been exposed to similar health teaching programs were excluded from the study. The primary data collection tool used was a structured knowledge questionnaire on the health hazards of junk food. The questionnaire consisted of two parts: a baseline Performa gathering demographic information and a knowledge questionnaire containing 30 items related to the concept of junk food, its nutritive value, and associated health hazards. The questionnaire was validated by experts, ensuring its content validity.

Prior to data collection, formal written permission was obtained from the headmasters of the selected senior secondary schools in Jaipur. The pre-test was conducted using the structured knowledge questionnaire on 120 school children. Subsequently, the HTP, which involved delivering health education using PowerPoint slides, was administered to the adolescents on the same day. To assess the gain in knowledge, a post-test was conducted on the fifth day after the HTP using the same knowledge questionnaire.

Descriptive statistics, including frequencies and percentages, were used to describe the sample characteristics and baseline data. The pre-test and post-test knowledge scores were compared using inferential statistics, such as paired t-tests or Wilcoxon signed-rank tests, to determine the statistical significance of the gain in knowledge. The analysis aimed to assess the effectiveness of the HTP in improving adolescents' knowledge of the health hazards associated with junk food consumption.

Result

Table 1: Description of frequency percentage of variables

Variables	Frequency	Percentage
Age (in years)		
a. 15	32	27%
b. 16	46	38%
c. 17	42	35%
Area of residence		
a. Urban	90	75%
b. Rural	30	25%
Pocket money (Rupees per month)		
a. No pocket money	38	32%
b. 1 – 100	71	59%
c. 101 – 200	11	9%
d. > 200	0	0%
Family income (Rupees per month)		
a. 1001 – 5000	9	8%
b. 5001 – 10000	39	33%
c. >10001	71	59%
Previous information regarding junk food		
a. Yes	74	62%
b. No	46	38%
Source of information		
a. Teachers	16	22%
b. Mass media	28	38%
c. Family members	10	13%
d. Peers/friends	13	18%
e. Health professionals	7	9%
Sources of junk food		
a. Home	10	11%
b. School canteen	35	37%
c. Fast food corner	50	52%
Frequency of consumption		
a. Never	25	21%
b. 1-4 times	82	68%

c. More than 4 times	13	11%

Habit of junk food consumption during recreation

a. Yes	85	71%
b. No	35	29%

If yes,

a. While watching T. V.	24	28%
b. In theatre	12	14%
c. Parties	10	12%
d. Coffee shops	16	19%
e. Tournaments	8	9%
f. Lunch break	15	18%

Table 2: Description of frequency percentage of habit

Sn.	Variables	Frequency	Percentage
1	Prefer soft drinks than milk		
	a) Yes	79	66%
	b) No	41	34%
2	Habit of Skipping Breakfast		
	a) Yes	88	73%
	b) No	32	27%

Table 3: Frequency and Percentage Distribution of the Pre-test and Post-test Knowledge Scores

Pre-test Score	Level of knowledge	Pre-test %	Post-test Score	Post-test %
Below 10	Very poor	-	-	-
11-20	Poor	82	-	-
21-30	Average	18	-	-
31-41	Good	-	100	120

Table 4: Area Wise Distribution of Pre-test and Post-test Knowledge Scores

Concept	Post-test Mean %	Pre-test Mean %	Post-test Max scores	Pre-test Mean scores
Nutritive value	95	15	5.05	14.24
Health hazards of junk foods	94	18	6.9	17
Total scores	41	-	-	-

Table 5: 't' Value Between the Pre-test and Post-test Knowledge Scores

Knowledge score	Mean Pre-test	Mean Post-test	SD	't' value	Level of significance
Pre-test	16	38	39	95	2.53
Post-test	-	-	-	2.01	53.6

Table 6: Area Wise SD and Level of Significance of Mean Pre-test and Post-test Knowledge Scores

Area	SD Pre-test	SD Post-test	't' values	Level of significance
Concept	1.32	1.32	16.2	Highly significant
Nutritive value	1.53	0.83	57.2	Highly significant
Health hazards of junk foods	2.03	0.98	39.74	't' (119) = 3.37, p<0.001

Interpretation: The table shows that the calculated 't' values (16.2, 57.2, and 39.74) are more than the tabled 't' value. Hence, the null hypothesis was rejected, and the research hypothesis was accepted.

Table 7: Association between Knowledge Scores and Demographic Variables

Sl. No.	Knowledge Variables	χ^2	df	Significance
1	Residential area	0.4	1	Non- Significant
2	Sex	7.5	1	Significant
3	Income/month	0.09	1	Non- Significant
4	Class studying	6.2	2	Significant
5	Age	0.27	2	Non- Significant
6	Parental occupation	0.42	1	Non- Significant

Discussion

The present study aimed to assess the effectiveness of a Health Teaching Program (HTP) in improving adolescents' knowledge regarding the health hazards of junk foods. The findings of the study provide valuable insights into the impact of educational interventions on adolescents' understanding of the risks associated with consuming junk foods.

The results of the study revealed that the HTP had a significant positive effect on adolescents' knowledge of the health hazards of junk food consumption. The pre-test and post-test scores showed a substantial increase in knowledge levels among the participants. The mean pre-test score was 16, indicating poor knowledge, while the mean post-test score significantly improved to 38, reflecting a good level of knowledge. This increase in knowledge can be attributed to the delivery of health education through PowerPoint slides as part of the HTP.

The specific areas of knowledge assessed in the study were the concept of junk food, its nutritive value, and the associated health hazards. The post-test scores showed a remarkable improvement in all three areas. The post-test mean percentage for the concept of nutritive value increased from 15% to 95%, indicating a significant enhancement in understanding the

nutritional aspects of junk foods. Similarly, the post-test mean percentage for knowledge about the health hazards of junk foods increased from 18% to 94%, demonstrating a substantial gain in awareness of the potential risks associated with consuming junk foods.

The statistical analysis further supported the effectiveness of the HTP in improving adolescents' knowledge. The calculated 't' values were higher than the tabled 't' value for all knowledge areas, indicating a significant difference between the pre-test and post-test scores. The level of significance was highly significant for the concept of nutritive value and the health hazards of junk foods, confirming the positive impact of the HTP on adolescents' knowledge.

The study also explored the association between knowledge scores and demographic variables. The results indicated a significant association between knowledge scores and sex as well as the class studying. This suggests that gender and educational level may influence adolescents' understanding of the health hazards of junk foods. However, no significant associations were found between knowledge scores and residential area, income per month, age, or parental occupation.

Overall, the findings of this study provide strong evidence for the effectiveness of the Health Teaching Program in enhancing adolescents' knowledge of the health hazards associated with junk food consumption. By improving knowledge and awareness, educational interventions like the HTP can empower adolescents to make informed dietary choices and adopt healthier eating habits. This study contributes to the existing literature on health education interventions and underscores the importance of targeted educational programs in promoting adolescent health.

However, it is important to acknowledge certain limitations of the study. Firstly, the study employed a pre-experimental design with a one-group pre-test-post-test design, which lacks a control group for comparison. The absence of a control group limits the ability to attribute the observed changes in knowledge solely to the HTP. Additionally, the study utilized convenient sampling, which may introduce selection bias and limit the generalizability of the findings. Future research could overcome these limitations by employing a randomized controlled trial design with a larger sample size and diverse population.

Conclusion

The findings of this study support the effectiveness of the Health Teaching Program in improving adolescents' knowledge of the health hazards associated with junk food consumption. The HTP resulted in a significant increase in knowledge levels among the participants, particularly in understanding the concept of nutritive value and the health risks associated with junk foods. These findings emphasize the importance of implementing educational interventions to enhance adolescents' knowledge and empower them to make healthier dietary choices. Further research is warranted to explore the long-term effects of such interventions and to evaluate their impact on actual behavior change among adolescents.

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