Research article

The existing knowledge regarding the health hazards of junk food among adolescents in selected junior college

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Abstract

As we see the food pattern from ancient till today's there is tremendous changes are going on and most of the adolescents are prone to get the habitual to get the fast food because of various factor, which was harming the health of an individual. So there is needed to make the awareness among the people. The aim of this descriptive study is to assess the existing the knowledge of adolescents regarding the health hazards of junk food and to make an attempt to develop information booklet regarding the health hazards of junk food. The study was conducted in following phases: (I) Assessment of existing knowledge of adolescents regarding the health hazards of junk food (n=100), (II) To make an attempt to develop information booklet regarding the health hazards of junk food. The total sample for study was 100 from the selected colleges. As a result the knowledge score is 58%. So there is needed to make an awareness regarding health hazards of junk food.
Keywords: knowledge, Adolescents, junk food, knowledge

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1. Introduction

Food is any substance consumed to provide nutritional support for the body. It is usually of plant or animal origin & contains essential nutrients such as carbohydrates, fats, proteins, vitamins or minerals [1]. Fast food/junk food is the term given to food that can be prepared and served very quickly, first popularized in the 1950s in the United States [2]. Traditional street food is available around the world, usually from small operators and independent vendors operating from a cart, table, portable grill or motor vehicle. Commonly, street vendors provide a colorful and varying range of options designed to quickly captivate passers-by and attract as much attention as possible [3].

The commonest scenario is a child who returns from school and planks himself in front of the television, faithfully accompanied by a bowl of wafers and a can of cola [4]. Most of the children of this age during their meal time eat junk food and get addicted to the taste of the junk food [5]. The consumption of fast food is fostered because of the quick service, convenience, good taste, and inexpensive prices relative to more traditional home-style restaurants. [6] Though, junk foods are tasty but they have low nutritive value and high calories [4].

The National Restaurant Association estimates that the average American eats out an average of four times a week. About 33 percent of children and adolescents in the United States consume fast food on a typical day, and intake increases with age. It is estimated that adolescents visit fast food restaurants approximately twice a week.

India, adolescents account 20 per cent of the total population (UNICEF 2011). Diet plays a major role in the promotion of health and well being of an individual. A good and balanced diet improves the quality of life, while poor diet may lead to morbidity and diseases. Adequate amount of nutrients in the form of daily diet are essential for the maintenance

of health. The eating pattern of adolescents first increasingly gained attention in western countries in recent years. Owing to globalization and urbanization in developing countries, adolescents consume more dietary fats in comparison to fruits and vegetables.

Junk foods are mainly made up by using a lot of saturated fats which are unhealthy after digestion and release a lot of toxins into the body. Moreover, it lacks vitamins and minerals which are necessary to have good health and immunity to fight diseases. Ill effects of regular intake of junk foods are mainly lack of energy, poor concentration and obesity leading to inferiority complex, depression, heart diseases, high cholesterol, stunted growth, premature ageing, and tooth decay.

The incidence of child obesity has more than tripled in the past 30 years. The prevalence of obesity among adolescents aged between 12 to 19 years has been increased from 5.0% to 18.1%. According to WHO report on October 2012 world's adolescent population is 1200 million persons 10-19 years of age, or about 19% of the total population, they faces a series of serious nutritional challenges [7].

Adolescents are ignorant about the hazards effects of junk foods, right choice of healthy and nutritious foods in their daily diet. Nutrition counseling regarding the importance of having proper nutrition, balanced diet and the harmful effects of eating junk foods will help to curb the junk foods addiction and improving their nutritional and health status among adolescents [8-10].

As there is changing of lifestyle, fashion, peer pressure, various advertisements which are looking very appealing there is increase of eating junk food, which are mostly causing health hazards. Hence, the present study was aimed to Know the existing knowledge of health hazards of junk food by pretest, develop information booklet of health hazards of junk food, and to increase the knowledge of community through students [11-14].

It was assumed that adolescents may have some knowledge regarding the health hazards of junk food. and Information booklet is useful strategy for learning to enhance relevance knowledge health hazards of junk food.

2. Populations and methods

This was a descriptive study conducted among 100 adolescents' age-group students at selected colleges. Subjects were included after fulfilling criteria including adolescents studying in 11th and 12th standard, willingness to participate in study, ability to read, write, and understand Marathi and English. Adolescents who were not available during the time of the study, excluded from the study. All subjects were provided with consent forms. Ethical approval was obtained from University Faculty of Medicine Ethics committee. The formal written permission was obtained from the principal to conduct the study. All the students received on explanation about the study before introduction of the questionnaire and they were assured of confidentiality and written consent was taken. Simple random sampling technique was used. The investigator used the questionnaire technique to assess the knowledge score.

The structured knowledge questionnaire consisted of Section I which had 14 items on demographic data, and Section II which comprised of 10 items in order to assess the opinion related to health hazards of junk food of adolescents. All were yes/no type questions. A maximum score of 10 and minimum score 0 was assigned. One mark was given for correct answer, and zero mark was given for each wrong answer, and 23 questions. All were multiple choice type questions. A maximum score of 23 and minimum score 0. One mark was given for each correct answer, and zero mark was given for each wrong answer.

The initial pilot study was done by the researcher on 30 adolescents indicated that the content of tool was adequate to meet the objectives. The reliability coefficient "r" of this questionnaire was 0.91 by split half test.

Statistical analysis

Based on the objectives and hypothesis the data were analyzed by using various statistical tests; Viz. Percentage, mean, standard deviation, and Chi-square, Fisher's exact test were applied to find association between knowledge score and selected socio-demographic variables. P value less than 0.05 was considered significant.

Table 1. Frequency and percentage distribution of selected demographic characteristic

Personal data	Frequency	Percentage (%)
Age in Year		
15-17	92	92
18-20	8	8
Total	100	100
Gender		
Female	15	15
Male	85	85
Total	100	100
Father's education		
Illiterate	9	9
Up to SSC	55	55
HSC	23	23
Graduate and above	13	13
Total	100	100
Father's occupation		
Farmer	58	58
Service	17	17
Business	10	10
Daily wages	15	15
Total	100	100

3. Results

Most of the samples were between age of 15-17 years (92%). The educational qualification of majority of the father was up to SSC i.e. 55(55%), and mothers was up to SSC i.e. 74(74%; most of the fathers were farmers i.e. 58 (58%), and mothers were housewife i.e.91 (91%); while 45% families had more than Rs. 15,000/- monthly family income. Thirty-six (36%) of the adolescents were getting pocket money for their expenditure. Out of them, 24 (66.66%) were getting less than Rs. 100/- pocket money. Majority of the adolescents i.e. 72 (72%) having previous knowledge about health hazards of junk food; from 30 (41.66%) family members, 27 (78.26%) mass/media, 8 (11.11%) peer/friends, and7 (9.72%) health professionals (table 1 and 2).

Table 2. Frequency and percentage distribution of selected demographic characteristics

SN	Personal data	Frequency	Percentage (%)
1	Mothers education		
	Illiterate	11	11
	Up to SSC	74	74
	HSC	8	8
	Graduate	7	7
	Total	100	100
2	Mother's occupation		
	Job	9	9
	Housewife	91	91
	Total	100	100
3	Monthly family income (in rupees)		
	Less than Rs. 5,000/-	21	21
	Rs.5,000/- Rs.15,000/-	34	34
	More than Rs.15,000/-	45	45
	Total	100	100
4	Religion		
	Hindu	80	80
	Muslim	13	13
	Christian	3	3
	Others	4	4
	Total	100	100

Table 3. Frequency and percentage distribution of selected demographic characteristics

SN	Personal data	Frequency	Percentage (%)
1	Type of family		
	Nuclear	44	44
	Joint	56	56
	Total	100	100
2	Place of residence		
	Urban	47	47
	Rural	53	53
	Total	100	100

Subjects had knowledge about junk food

In this study, opinion questionnaire method was also used it was found that majority of the adolescents i.e. 86% (95% C.I.: 0.105-0.175) said that junk food is unhealthy. Most of the adolescents i.e. 79% (95% C.I.:0.169-0.251) knows that junk food not having the high nutritional value. Only 11% (95% C.I.: 0.079-0.141) were taking junk food during recreation. 59% (95% C.I.:0.361-0.459) adolescents were aware about the nutritional information and ingredients content in the junk food. 77% (95% C.I.:0.728-0.812) adolescents said that junk food consumption will cause disease. 80% (95% C.I.:0.760-0.840) adolescents knew about snack consumption between meals results in overweight. 69% (95% C.I.:0.644-0.736) adolescents knew about junk food causes diabetes. 64% (95% C.I. 0.592-0.688) adolescents were thinking that junk food causes poor concentration. 72% (95% C.I.:0.675-0.765) adolescents knew junk food contains high salt.67% (95% C.I.:0.283-0.377) adolescents knew junk food causes infertility (table 4).

Discussion

A study was conducted to assess the existing knowledge regarding the health hazards of junk food among adolescents in selected junior colleges of Sangli, Miraj, Kupwad corporation area. In this study, adolescents are selected from 11th and 12th science class 50-50 adolescents from each class. Total 100 adolescents were selected. It was found that majority of the adolescents' i.e. 92% were in the age group of 15-17 years. It was found that majority of the adolescents i.e. 85% were male, 15% female.

Majority of the father's education i.e. 55% were up to SSC. And 58% of the fathers were farmers. Majority of mother's education i.e. 74% were up to SSC. Most of mothers i.e. 91% were housewives, 45% families having more than Rs. 15,000/- monthly family income, the families' i.e.56% belongs to joint family, 44% nuclear family, these families' belongs to i.e. 80% Hindu, 13% Muslim, 3% Christian & 4% other religion. Majority of the adolescents i.e. 53% were come from rural area and 47% were come from urban area.

In this study it was also found that only 36 (36%) of the adolescents were getting pocket money. Out of them 24 (66.66%) were getting less than Rs. 100/- pocket money. In this study it was also found that majority of the adolescents i.e. 72 (72%) having previous knowledge about health hazards of junk food from 30 (41.66%) family members, 27 (78.26%) mass/media, 8 (11.11%) peer/friends, 7 (9.72%) health professionals.

In this study it was also found that majority of the adolescents i.e. 46 (46%) were like junk food, and 36 (78.26%) consuming junk food per week. In the present study it was revealed that most of the adolescents are belongs to joint family, from the rural area. And majority of adolescents were getting very less pocket money so they are not influenced by the junk food. Whereas the adolescents living in urban area the adolescents are belongs to nuclear family and parents are busy with their daily work. So these adolescents are under the impact of junk food in spite of having knowledge. The similar result was found in the study on Increasing Proclivity for Junk Food among Overweight Adolescent Girls in District Kurukshetra, India, done by Goel S, Kaur T and Gupta M.

Table 4: Frequency and 95% C.I. distribution of opinion related to health hazards of junk food.

S N	Question	Frequency		95 % C.I.	
		Yes	No	Lower limit	Upper limit
1	Do you think junk food is good for health?	14	86	0.105	0.175
2	Do you think Junk foods are foods with high nutritional value?	21	79	0.169	0.251
3	Do you have a habit of taking junk food during recreation?	11	89	0.079	0.141
4	Are you aware of nutritional information and ingredients content in each of fast food that you consume?	41	59	0.361	0.459
5	Are you aware of disease that will effect by consumption of junk food?	77	23	0.728	0.812
6	Do you know snack consumption in between meals results in overweight?	80	20	0.760	0.840
7	Do you know Junk food causes diabetes?	69	31	0.644	0.736
8	Do you think junk food causes poor concentration?	64	36	0.592	0.688
9	Do you know most junk food contains high salt?	72	28	0.675	0.765
10	Do you know Junk food causes infertility?	33	67	0.283	0.377
	Total	482	518	0.466	0.498

Findings related to knowledge of students and health hazards of junk food

In this study, 29 (29%) subjects had average, 58 (58%) good; 13 (13%) had excellent knowledge score of health hazards of junk food (fig 1).

Association of selected demographic variables with knowledge score

In this study, it was found that there was significant association between age, sex and liking of junk food and knowledge score of health hazards of junk food. As their
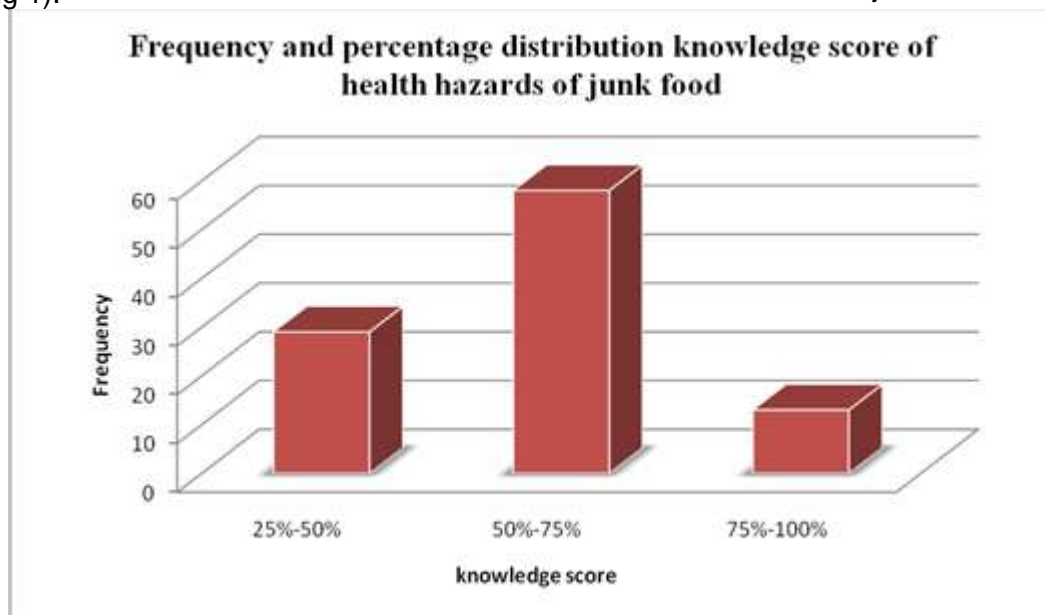

Fig 1. Frequency and percentage distribution knowledge score of health hazards of junk food.

calculated Chi-square and Fisher's exact test values were less than 0.05 (table 5).

The other demographic variables were also correlated with the knowledge score and it was found that there were no significant associations, as their calculated Chi-square and Fisher's exact test values were more than 0.05 (table 5).

In this study, majority female adolescents i.e. 66.70% had knowledge score between 50-75%. And majority of male adolescents i.e.56.50% had knowledge score between 50-75%, i.e. female score > male. The P value is 0.002 by Fisher's Exact Test. i.e. there is significant association between the gender and knowledge score.

Table 2. Representation of association of knowledge score and demographic variables

SN	Demographic variables	Chi-square calculated value	Fisher's exact test calculated value	Association
1.	Age in year	-	0.046	Association present
2.	Sex	-	0.002	Association present
3.	Education of father	-	0.705	No Association present
4.	Occupation of the father	-	0.516	No Association present
5.	Education of mother	-	0.17	No Association present
6.	Occupation of the mother	-	1	No Association present
7.	Monthly Family income (in rupees)	0.578	-	No Association present
8.	Religion	-	0.703	No Association present
9.	Type of family	0.959	-	No Association present
10.	Place of residence	0.859	-	No Association present
11.	Pocket money	0.363	-	No Association present
12.	Previous knowledge regarding health hazards of junk food	0.434	-	No Association present
13.	likes junk food	0.047	-	Association present

In previous study on Knowledge, Awareness and Practice about Food and Nutrition of Adolescence in Muang District, Prachinburi. It was found that the sampling adolescence had good knowledge. Girls in our study were more likely to report using calorie information than boys. And they found that there were no significant associations by age, parents' or region.

In the opinion questionnaire method it was found that majority of the adolescents i.e. 86% (95% C.I.: 0.105-0.175) said that junk food is unhealthy. Most of the adolescents i.e. 79% (95% C.I.:0.169-0.251) knows that junk food not having the high nutritional value. Only 11% (95% C.I.: 0.079-0.141) were taking junk food during recreation. 59% (95% C.I.:0.361-0.459) adolescents were aware about the nutritional information and ingredients content in the junk food. 77% (95% C.I.:0.728-0.812) adolescents said that junk food consumption will cause disease. 80% (95% C.I.:0.760-0.840) adolescents knew about snack consumption between meals results in overweight. 69% (95% C.I.:0.644-0.736) adolescents knew about junk food causes diabetes. 64% (95% C.I. 0.592-0.688) adolescents were thinking that junk food causes poor concentration. 72% (95% C.I.:0.675-0.765) adolescents knew junk food contains high salt.67% (95% C.I.:0.283-0.377) adolescents knew junk food causes infertility.

The similar study done on opinion regarding health hazards of junk foods that, out of 60,000 population 22 percent of them think, consumption of junk foods also help in normal development and growth. In this study, in the structured questionnaire method 29 (29%) samples had average, 58 (58%) good; 13 (13%) excellent knowledge score of health hazards of junk food.

Mean score of knowledge of health hazards of junk food obtained by the sample in the structured questionnaire method was 2.84. S.D score in the structured questionnaire method was 0.631. Dr. Suguna conducted cross-sectional study was done knowledge, and awareness among the adolescents on health, nutrition. The author revealed that knowledge regarding nutrition and development were good.

Overall knowledge score of health hazards of junk food among adolescent

The findings on the knowledge of health hazards of junk food among adolescents indicate that the adolescents had highest mean score group knowledge was 2.84. Thus, data suggest that they have deficit knowledge, regarding health hazards of junk food. This indicates there is need to make awareness among the adolescents.

Conclusion

The various findings of the study showed that the knowledge of health hazards of junk food was not much more.

Recommendations

The study provides the following recommendations: a similar study can be done on larger samples.
The number of adolescents were 100, belonging to junior colleges. More number of adolescents and adolescents from different parts of rural and urban areas might give better statistical results, a comparative study can be done to assess the knowledge, attitude and practices of health hazards of junk food, a similar study can be done among the parents to assess the knowledge, attitude and practices of health hazards of junk food in urban setting.

Implication

If adequate awareness about health hazards of junk food is done in timely and periodically then it could be prevented.

Nursing practice

Nurses are working in various setting like, hospitals, community, schools; colleges, industries etc. should make use of opportunity for providing correct information to adolescents, community about health hazards of junk food also provide preventive measures. They carry out health education; both on one to one basis and in group in varied setting. Posters and chart can be displayed and pamphlets kept in school,

colleges, community etc. and it can be given to them for learning. It is economical way of teaching in terms of time and resources.

The nurses can participate in various nutritional programs, Anganwadis, schools, colleges etc; encouraging parents and adolescents of taking balanced diet. Nurses potential as a health educator is to be utilized. Nurses need to be keep update with advanced knowledge and skill to became involved, in providing various services to adolescents. Nurses, through their own training, acquire positive attitude and knowledge, which they can use in clinical practice.

Nursing education

Consumption of junk food is seriously affected on health, so nursing education must emphasize primary health care approach focusing on preventive measures. The nurses should adolescents be taught to use their nutritional, knowledge and skills in educating regarding health hazards of junk food. This empowers the nurses, to be well prepared community at large to develop self care potentialities.

Nursing administration

Nursing administrator can depute them to various workshops, conferences, special courses; also related to adolescent health can be arranged for nursing staff about nutrition. In the event of changing community trends and health focus, nursing administration has a responsibility to provide nurses with continuing education. This enables them in updating their knowledge and acquiring skills. Nursing administrator can depute them to various workshops, conferences, special courses; also related to adolescent health can be arranged for nursing staff about nutrition.

Nursing research

The result of study will be contributed to the body of knowledge of nursing. Future investigations can use the finding and methodology as reference material.

Community education

A national network of organized educational institutions can play greater role in an adolescent education. It is need of the society to include knowledge nutrition and recommended daily dietary requirement in order to follow safer and healthy practices.

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