

A K.A.P Study of Health Hazards Associated with Junk Food

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Abstract: *Vast gaps exist in the data and information about knowledge, attitude and practices related to consumption of junk foods and associated health hazards. The present study is an attempt to bridge this gap in the knowledge. The study aims to assess the knowledge, attitude & practice related to intake of junk food among students as well as identify the associated factors for such practices. Methods: cross-sectional study was conducted for 6 months & Complete Enumeration methods was used for sampling. Results: Majority (95.5%) were aware of the commonly used food additives in preparation of junk foods. When questioned about the health hazards associated with the consumption of junk food, the responses were -Obesity (73.1%), CVD (47.7%) and Diabetes (44.7%). Despite the knowledge status of junk food and their health hazard among the students, practice of having junk food frequently (100%) was found high. Despite the knowledge of hazardous effects almost 80% students ate junk foods frequently (4-5 days) in a week. Conclusion: The study showed an excellent status of knowledge about Junk food- composition, concepts, definition and health hazards associated with junk food among the study population. However the huge difference between knowledge and practice was a cause of alarm.*

Keywords: Junk food, Health hazards, knowledge, practices and associated factors

1. Introduction

Globalization has influenced all the countries of the world. No country can claim to be an island unto itself. India too is not immune to such influences, which are visible not only in economic spheres but in all walks of cultural and social life. Food habits are no exception. New generation, which has been brought up in a world where geographical boundaries are no constraint, is ready to try new recipes from across the world. The trend is catching up with the older generation also. People of all ages are slowly shifting from home-made food to readymade foods. But all such foods are not safe. Various studies have shown detrimental effects of such so called "junk foods" on health of children and adolescents. But only few studies have studies associated factors. Vast gaps exist in the data and information about knowledge, attitude and practices related to consumption of these foods and associated health hazards. The present study is an attempt to bridge this gap in the knowledge. The study aims to assess the knowledge, attitude and practice related to intake of junk food among students as well as identifies the associated factor for such practices.

2. Literature Survey

A literature review is a descriptive, analytic summary of the existing material relating to a particular topic or area of study. The literature review process involves a systematic examination of prior scholarly works.[1]

- In A descriptive study it was found that *prevalence of knowledge regarding health hazard of junk food was average (69.56%), some had good knowledge (24.35%), & few poor knowledge (6.08%) Association between expense of junk food and knowledge regarding health hazards of junk food was found significant. In that study males were found to have junk foods most frequently than the females. The common source for junk food was from their hostel.*[2]

- In another study it was illustrated habits of *junk food consumption along with soft drinks simultaneously* among the students. They found that out of 66.8% who consumed junk food, 50% of teenagers consumed junk food 3-5 times and 1-3 bottles of aerated drinks per week. Teenagers with very good *knowledge regarding ill effects of junk food was abysmally low (7.21%), 46.15%* of teenagers had average knowledge and remaining 11.54% had poor knowledge. Concerning expenses, 46.15% received no pocket money whereas 15.87% received pocket money between Rs 201-300 per week and only 1.44% received more than Rs 300 per week as pocket money. [3]
- In another study it was found that majority of the respondents (84%) had *correct concept regarding junk food* as a food that is *high in calories, high in salt and low in nutritive value*. Most of the respondents (94%) patronized junk foods. 41% of the respondents consumed sweet snacks such as cake every day and 37% of them consumed 2 to 3 times per week, 21% consumed 1 to 2 times per week. The result also indicated that 38% of respondents consumed yoghurt every day. 43% of them consumed 3-4 times per week and 8% of them reported to have consumed rarely. Further the study revealed that 53% of the respondents *consumed soft drinks daily*. Still 43% of the respondents reported consuming fried yams and potato chips. About 68% of the respondents agreed that *heart diseases* are caused by consumption of junk food. 72% of them agreed that there were *harmful chemicals* added in junk food.[4]
- In a cross-sectional study among Medical College student of Chennai by random sampling in March 2014 which found *appreciably good status of knowledge of junk foods* among the students. 93.3% of medical students were aware of the *definition* and 61.7% were aware of the *composition* of the junk foods. 67% of students were unaware of the fact that *artificially added phosphate*, in the form of a preservative, is routinely added in processed

soft drinks. Moreover, 67.7% were not at all aware of the ajinamotto salt, *monosodium glutamate*. 31.3% of the students choose fried chips as their choice, while 32.3 % liked to eat all the items like pizza, burgers, chocolates, sweets, fried chips etc. 73 % preferred based on *the taste* and 7.3 % were influenced by *advertisement* and 11.7 % choose because of the *quick service* .[5]

3. Methodology

The study was a cross-sectional study by using Complete Enumeration method with a sample size 67. Data was collected by using structured questionnaire from all students who are in the class register of M.Sc in Applied Nutrition & Diploma in Dietetics courses were eligible for the inclusion in the study. As this study was conducted by census method, no statistical test was applied. Data thus collected were tabulated and analyzed using Microsoft Excel by which proportion, means were calculated.

4. Results

In the study majority of the respondents (83.6%) belonged to age group 20-24 years, in terms of gender 60(89.5%) subjects were females. Majority (41.9%) of the participants were pursuing Diploma in Dietetics. Majority 61(91%) of the participants were Hindus. In case of the marital status most of the respondents are unmarried that is 97%. Above 60% of the students were day scholar and only 37.3 % were hosteller. Majority of the student (49.2%) had family members of 4. Student having part time job were only 3 % and majority(65.7%) of the students' monthly expenditure were about INR 500- 2000 followed by INR 2001-3500 (19.4%) and remaining (14.8%) had expenditure INR 3501 and above per month. Student receiving stipend/ scholarships were only 41.8%. The parents of majority of the students had education of Higher Secondary and above, both mother (77.6%) and father (89.5%). Majority of the students' father had Service jobs (34.3%), 32.8% were Businessman, 14.9 % were already retired and very few 3% were farmers. 9 % of the students' father were unemployed. Majority (88%) of the students' were housewives and only few 12% students' mother had service.

Majority (70.1%) of the students belonged to families with per capita income more than equal to INR 6254. The participants were mostly non-vegetarian accounting of about 92.5 % of total participants, remaining 7.1% were all vegetarian. Most of the students (55.2%) had normal BMI but 23.9% students were in pre-obesity stage and 10.4 were already in Obesity stage. Few student (3%) were overweight and 7.5% student were underweight

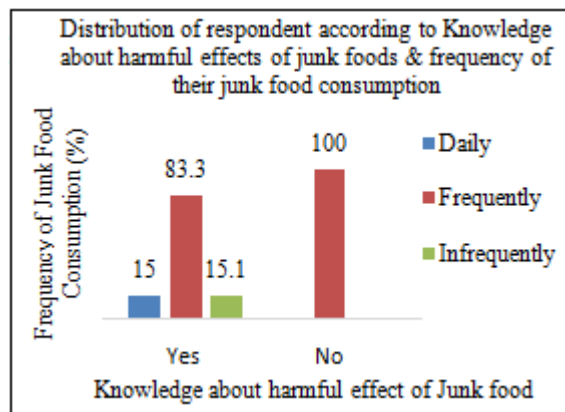


Figure 1: Association between knowledge of junk food of participants and their frequency of consumption rate.

From this study it reveals that, the knowledge of concepts, effects of junk foods among the students were high (100%). Among surveyed population, 95.6% respondents are aware of food additives that are being used in junk food & 80.6% respondents knows M.S.G as a food additive which is the commonly used in junk foods. Almost all respondents (98.5%) are aware of health hazards associated with eating junk foods & most of the respondents (73.1%) answered obesity followed by C.V.D (47.7%) and D.M (44.7%) as a health hazards due to adapting junk food. In this study, the most commonly recalled available junk food was kfc chicken (62.7%), pizza (61.1%) and burger(58.2%) & most of the respondents (50.7%) most commonly liked noodles as a junk food. 83.6% of the respondents consumed junk food frequently & 55.2% of the respondents had take soft drinks frequently as a junk food. Majority of the respondents (89.5%) liked spending their recreational activities, 47.8% of the respondents did not do any extra physical activity excluding normal daily activities in the past week & 46.2% of the respondents spent around 2-4 hours with mobile phone, television, computer, tablets etc. From finding observation, frequency of junk food consumption is more in males than females. Among those who had part time job, the frequent consumption of junk food was higher(100%) as compared to those who did not have part time job.

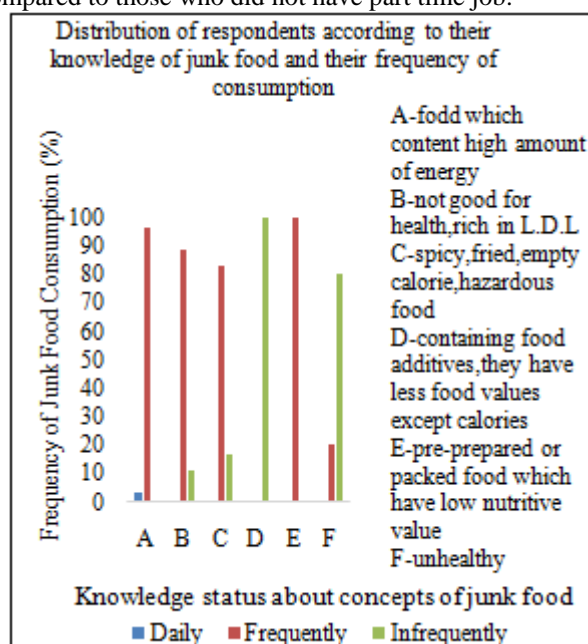


Figure 2: Association between knowledge about harmful effect of junk food and their frequencies of consumption of junk food.

Figure no. 2- shows that 83.33% respondents consume junk foods who has the knowledge about health hazards where 100% of the respondents consume junk foods who have no idea about the health hazards.

Most of the students (84.6%) without stipend consumed junk food frequently than those getting stipend. In this study have no relation between the literacy level of fathers and mothers with eating junk food of their children. Among all non-vegetarians (83.9%) consumed junk food frequently than vegetarians. It can be seen that those with infrequent physical activity consumed junk food frequently(90.6%) at higher rate than compared to those with frequent physical activity (72.7%) and daily physical activity (84.6%). In this study, it reveals that, 100% of all obese class ii students (based in B.M.I classification according to W.H.O classification) consumed junk food frequently, as such this may lead to risk of different health hazards. Among all respondents those preferring indoor activity consume junk food more frequently (84.7%). 88.88% of the respondents consumed soft drinks frequently & those spending higher amount of money per month i.e INR 3501-5000(100%) have habit of having junk foods more frequently compare to others.

5. Discussion

The present study was carried out on postgraduate students of m.sc in applied nutrition and Diploma in dietetics in sector III, salt lake, Kolkata, west Bengal and included 67 respondents, all aged above 18 years. The study was carried out with the help of a prepared questionnaire, used as a data collecting tool, by interviewing each adult respondent.

In the present study among the total male respondents 85.7% consume junk food frequently where 83.3% of females consume junk food frequently. Junk food consumption is high among the male respondents probably they spend more time outside of the home than females candidates so junk foods are easily available, low cost and easily accessible to them.

Male students are usually given more pocket money compared to females by their parents, as such they are more likely to spend on buying food from outside.

They are given more pocket money than females so, to satisfy their hunger they spend all their pocket money on buying food. Another probable reason may be that there is a social believe that male can't cook their food, so they are more accustomed to eat outside the home.

These findings are similar to previous study conducted by Ramchandra Muetal and Mohit V.R, Maharashtra in 2015 on " Knowledge regarding health hazards of junk food among adults" where it was also found that most of the males frequently consumed junk foods compared to females.[6]

Those who had part time job, the frequent consumption of junk food was higher (100%) as compared to those who did not have part time job. Those having part time jobs are likely to spent most of their time outdoor for work, and with lack

of time at home for household chores and cooking and their earning they are more exposed to buying and eating from outside.

Majority (82.1%) of the students with stipend consumed junk foods frequently. However among those without stipend about 84.6% also consumed junk foods frequently which is slightly much higher than those getting stipend. In the present study the participants who are not getting any stipend, consume junk food more frequently than the participants who are getting stipend.

Probably it could be the students who are getting stipend are mainly of Diploma in Dietetics, and who are not getting stipend are M.Sc students. Diploma in Dietetics students get more time to prepare meal for themselves because they have less academic stress than M.Sc students. so the dip diet students (who are getting stipend) consume less junk food than the M.Sc students (who are not getting any stipend).

It could be that diploma in dietetics students are getting stipend Rs.7500, which is a great pride for their family. so, this may be reason that their parents send them a Tiffin that's why they don't consume outside food frequently.

The present study has no relation between the literacy of parents and eating of junk food of their children.

In case of vegetarian and non vegetarian, among all vegetarians 80% and among all non vegetarians about 83.9% consume junk foods frequently so, its clear that non vegetarians consume junk food slightly higher than the vegetarians.

This could probably be because most of the junk foods are prepared with non -veg ingredients (egg, fish, meat etc) and some flavouring agents (onion, garlic) which are usually considered as non vegetarian food, as such vegetarians usually avoid junk food. Junk food are consumed less frequently by the vegetarians as both non veg and veg items are prepared in the same place or utensils, so they avoid it.

From this study it reveals that, the knowledge of concepts, effects of junk foods among the students were high(100%) may be due to their field of study in Applied Nutrition which is a quite similar finding among medical students by Thamarai R et al(2015) where he found knowledge of definition and components of junk foods among young medicos was 93.3%.[7]. However, despite having good knowledge about various concepts, facts and the health hazards regarding junk food, it is quite paradoxical that they practice it frequently. Thus there is a huge gap between the knowledge and practice among the students.

In the present study it was found that the frequency of physical activity against frequency of junk food consumption. Overall it was found that maximum proportion of student consumed junk food frequently irrespective of their type of physical activity. However, it can be seen that those with infrequent physical activity consumed junk food frequently (90.6%) at higher rate than compared to those with frequent physical activity(72.7%) and daily physical activity (84.6%). Junk food is universally available and

don't require any effort to buy it. so they get more addicted to eat junk food. Those who are physically inactive desire to get the food easily with minimum physical effort. So, they buy from those place which are nearer to them. As such, their physical inactivity and preference for more junk food may lead to vicious cycle of detrimental effects on health.

From the present study it reveals that the frequency of junk food consumption rate is high among mildly underweight and obese class ii students. In case of obese class ii students, almost all (100%) consumes junk foods frequently. As such this may lead to risk of different health hazard.

In this study those preferring indoor activity consume junk food more frequently (84.7%) contrary to those preferring outdoor activity (75%).It may be because in this generation it has become fashionable to consume junk food while performing recreational activities indoors.Those spending indoor are mostly exposed to spending time with TV, Mobile, Tab etc which further exposes them to influence of advertisements for junk foods.

In case of the knowledge of health hazards associated with junk food among the MSC and Dip Diet students is higher as compared to finding of Ramchandra MU et al among Medical students(69.5%) and Anatomy C (45.1%) and Sharma Vet al (81.7%)[8].In this study that despite having knowledge about the health hazard of junk majority of them consume junk foods frequently (83.3%) which may be due to various practical consideration and constraints such as the taste ,convenience , variety of item and due to low quality foods in hostel canteen which force them to consume junk food frequently.

In this present study we can see that those who consumed soft drinks frequently also consumed junk foods frequently (88.9%) which is a similar finding of Thamarai et al in which students consumed 1-5 cans of soda drinks per day[9]. Now a day it become popular practice in restaurants that they sometimes give soft drinks in combo offer with any types of junk foods or with soft drinks they give junk foods in combo offer to draw their attention and increase the sell.We are trying to adopt western culture blindly ,where they have the habit of taking soft drinks, with junk food which is not a good practice .But we ignore their healthy practices for maintaining good health. Study conducted during 2015,on knowledge about the health hazards due to eating junk food by Thamarai et al., India among the surveyed population,46.3% of students consumed 1-5 cans of soda drinks per day. Another study was conducted by Anatomy 'c' et al ,(2015).their result shows that 50% of study population consumed 1-3 bottles/cans of aerated drinks /week[10].The results of the present study had similar results with above previous study.

In case of relation between pocket money and consumption rate f junk food, present study shows that those spending higher amount of money per month i.e INR 3501-5000 (100%) have habit of having junk foods more frequently compared to others.Nonlineer relationship between the pocket money given and frequently of eating junk foods.

6. Conclusion

The study showed an excellent status of knowledge about Junk food- composition, concepts, definition and health hazards associated with junk food among the study population. However the huge difference between knowledge and practice was a cause of alarm. Despite the knowledge of hazardous effects almost 80% students ate junk foods frequently(4-5days) in a week. Few students were already in obese stage who are most at risk of future health problems. The factors that contributed to consumption of junk food in the present study were engagement in part-time jobs, perceived unsatisfactory quality food in the hostel canteens and physical inactivity.

Measures can be taken to improve the quality of hostel food by monitoring and guidance by a designated Nutritionist or may also be included in the curriculum of academic session of the department which will further provide opportunity for the students in practical field. Further, homemade food and tiffins should be encouraged by the department and motivation for exemplary action should be initiated from the department itself.

7. Future Scope

Nutrition students plays a major role to generate the awareness about the hazardous food & its associated factors among the population. This study will help to improve the knowledge & practices related to the consumption of junk food and associated health hazards among not only he students of nutrition but also the students of others background and it will be helpful for the other population also in future.

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