

Full Length Research Article

Adolescents' Knowledge Regarding the Effects of fast food on Health

Saranya, P.V, Shanifa, N., Shilpa Susan, Simy Thomas, *Umarani, J. and
Dr. Asha P. Shetty

Yenepoya Nursing College, Yenepoya University, Mangalore

Received 18th February 2016; Published 31st March 2016

Background: The present scenario flashes light on many adult diseases, have their roots in childhood and adolescence. This is due to lack of knowledge and awareness regarding bad food habits. The present study was conducted to assess the knowledge regarding the effects of fast food on health among adolescents in selected Pre University College at Mangaluru.

Objectives: To assess the knowledge regarding the effects of fast food on health among adolescents in selected Pre University College. To find the association between knowledge of adolescents regarding the effects of fast food on health and the selected demographic variables.

Methods : A non experimental descriptive survey design was adopted. A structured knowledge questionnaire regarding effects of fast food consumption was prepared in order to assess the knowledge of adolescents. A sample of 100 adolescents were selected by using non probability purposive Sampling technique.

Result: The result revealed that 13% of adolescents had inadequate knowledge, 69% has moderate knowledge and 18% has adequate knowledge regarding effects of fast food on health. It was also found that there is a significant association between the knowledge score with selected demographic variables.

Conclusion: The study results show that only 18% of adolescents were having adequate knowledge regarding effects of fast food on health. Hence it is necessary to improve the adolescent's knowledge on health hazards of fast food in order to save them from the ill effects of fast food.

Key words: Fast food, Adolescents, Descriptive study, Knowledge.

INTRODUCTION

Fast food restaurants are often the overall choice for food away from home. Socioeconomic trends, such as longer work hours, more women employed outside the home, and a high number of single-parent households have changed the way families obtain their foods. As parents experience busier lifestyles, they demand convenience for their family foods. The consumption of fast food is fostered because of the quick service, good taste, and inexpensive prices relative to more traditional home-style restaurants (<http://www.healthline.com/health/fast-food-effects-on-body.html>) Teenagers are frequent visitors to fast food restaurants, different store and the visits occur immediately after school. The best way to attract a child to eat healthy foods is by allowing them to read upon information about fast food. There is a lot of information on fast food that children can get through website, schools, children's magazines and etc (Poti, 2013). Trends including fast food consumption and skipping breakfast increased during the transition period of adulthood and such dietary behaviours are associated with increased weight gain from adolescents to adulthood (Niemeier, 2006) Nutrient profiling, a method for categorising foods according to nutritional quality, is both feasible and practical in promoting public health through better dietary choices. The development of nutrient profiling is an enviable step in support of strategies to tackle obesity and other non-communicable diseases (Lobstein, 2009). Obesity is a worldwide chronic disease which may lead to type 2 diabetic and cardiovascular diseases (Apovian, 2010).

The prevalence of obesity and overweight among Iranian population was estimated to be 67% for women and 29% for men. Nutrition transition is an important factor which can affect dietary intake, particularly in developing countries. The rate of processed foods consumption (e.g.: fast food) is going to be increased due to nutrition transition (Azadbakht, 2005). Children and adolescents taking more calories in fast food and other restaurants than at the home. Eating out added between 160 and 310 extra calories a day. When fast food frequently replaces nutritious foods in the diet, it can lead to poor nutrition and poor health. Food is the prime necessity of life. It can be any substance or material eaten or drunk to provide nutritional support for the body or for pleasure.

It usually consists of plant or animal origin that contains essential nutrients, such as carbohydrates, fats, proteins, vitamins, or minerals. Good nutrition is a high priority among adolescents as it is a period of rapid growth and development, which depends to a large extent on the nutrition. Nutritional intake during this stage may have long term health implication (Jeffery, 2006). In today's age of convenience, fast food needs no introduction. It's delicious, filling, affordable, and readily available at any time of the day. Teenagers are typically fond of eating fast food not only for its taste but also for the peer group habits. Salted snack foods, candy, most sweet desserts, fried fast food and carbonated beverages are some of the major fast foods. Most harmful effects of fast food include increased cholesterol levels, cardiac problems, hypertension, obesity, dental caries, cancer and many other threatening health hazards (Bowman, 2004). Globally fast food market grew by 4.8 percent and reached a value of 102.4 billion and a

*Corresponding author: Umarani, J.
Yenepoya Nursing College, Yenepoya University, Mangalore

volume of 80.3 billion transactions. In America adolescents aged between 11-18 years visit fast food outlets average of twice a week and by 14 years of age, 32 percent of adolescent girls, 52 percent of boys consume three or more servings of sweetened soft drinks daily. In India fast food industry is growing by 41 percent a year (http://www.fastfoodmarketing.org/fast_food_facts_in_brief.aspx). A study conducted by the All India Institute of Medical Sciences, Department of Science and Technology found that the consumption of fast food was increasing among teenagers. The same study had shown that this trend and associated lifestyle factors in the urban adolescent and young adult population had resulted in the increase in non-communicable diseases (Fast food popular among teenagers, 2005).

MATERIALS AND METHODS

A descriptive study was done among pre university students of 1 & 2 PUC in Mangaluru. The study protocol was approved by the ethics committee of the institution. The sample size of 100 was obtained at pre university school. The permission to conduct the study was obtained from the respective school principal. Ethical clearance from the institution ethics committee and written informed consent from the participants were obtained before the data collection. The tool consists of demographic data and a self administered questionnaire on fast food with 24 multiple choice questions with general aspects of fast food and health effects of fast foods. The questionnaires were distributed to students in each class. The questionnaires were in English and were pre tested in a group of 10 students before its used for the study. Content validation of the questionnaire was done by experts from medical, education, unit of the institution. At the end of data collection investigator educated students on effects of fast food on health.

RESULTS

The age distributions of majority adolescent’s girls are of 16-17 years 45% belongs to Muslim religion. 61% are from 2 PUC. With regards to family income 33% comes around 10,000-20,000. 68% students are staying in home. Among the 100 adolescents 76%of students are consuming fast food because of delicious taste and 74% student are not undergone any teaching programme (Table 1).

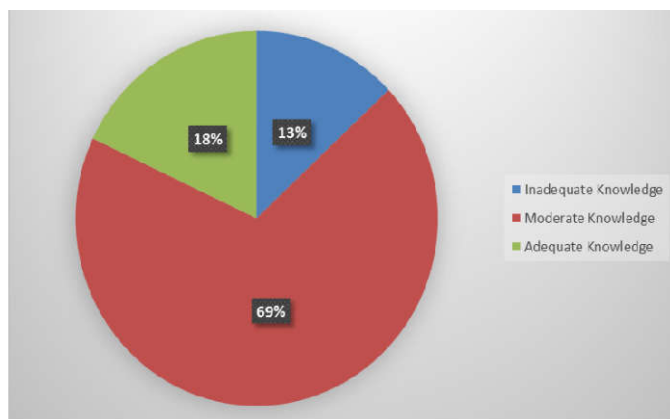


Figure 1. Percentage distribution of level of Knowledge

The study results show that 69% of adolescents are has moderate knowledge regarding effects fast food on health (Figure 1). The area wise distribution of knowledge score is shown in Table. 2. The knowledge score is depends selected demographic variables. i.e.; monthly income ($\chi^2=8.838$, $P < 0.05$), place of living ($\chi^2=11.714$, $P < 0.05$), reason for fast food consumption ($\chi^2=8.04$, $P < 0.05$).

Table 1. Description of demographic characteristics of the adolescent

N=100			
S. No	Demographic variables	Frequency	Percentage
1	Age in years		
	a) 16-17	45	45%
	b) 17-18	44	44%
	c) Above 18	11	11%
2	Gender		
	a) Male	35	35%
	b) Female	65	65%
3	Religion		
	a) Hindu	10	10%
	b) Muslim	72	72%
	c) Christian	18	18%
4	Educational Status		
	a) 1 PUC	39	39%
	b) 2PUC	61	61%
5	Monthly Family Income In Rupees		
	a) <10,000	19	19%
	b) 10,000-20,000	33	33%
	c) 20,000-30,000	16	16%
	d) >30,000	32	32%
6	Place Of Living		
	a) Hostel	32	32%
	b) Home	68	68%
7	Are You Consuming Fast Food		
	a) yes	76	76%
	b) no	24	24%
8	What is the Reason for fast food consumption		
	a) delicious taste	69	69%
	b) attractive	15	15%
	c) convenience	16	16%
9	Whether you have undergone any teaching programme regarding the effects of fast food?		
	a) Yes	26	26%
	b) No	74	74%

Table 2. Description of area wise, mean, Standard deviation, and mean percentage of knowledge score

N=100					
S. No	Area of knowledge	Maximum possible score	Mean score	Standard deviation	Mean%
1	General knowledge regarding fast food	12	7.33	7.25	56.77
2	Effects of fast food on health	12	5.58	5.24	43.22

Table 3. Association between knowledge of adolescents regarding effects of fast food on health and selected demographic variables

Demographic data	Median<13	Median≥13	Chi-square value	Table value
Monthly Income				
a. <10,000	7	12		
b. 10,000-20,000	15	18	8.838	7.82 *
c. 20,000-30,000	7	9		
d. >30,000	13	19		
Place of living				
a. Hostel	13	19	11.714	3.84 *
b. Home	29	39		
Reason for fast food consumption				
a. Delicious	26	43		
b. Attractive	6	9	8.04	5.99 *
c. Convince	9	7		

P< 0.05 level * significance

The result of the study shows that there is a significant association between the knowledge score with selected demographic variables (Table 3).

DISCUSSION

In a study natural experimental survey and receipt data were collected from low-income areas in NYC, and Newark, NJ. A total of 349 children and adolescents aged 1-17 years, who visited the restaurants with their parents (69%) or alone (31%). In total, 90% were from racial or ethnic minority groups. Results showed that many adolescents reported, Approximately 35% of adolescents ate fast food six or more times per week and 72% of adolescents reported that taste was the most important factor in their meal selection. Adolescents in our sample reported that parents have some influence on their meal selection (Elbel, 2011). In a cross sectional study of (ISAAC) results showed that 72,900 children (17 countries) and 199,135 adolescents (36 countries) provided data. Frequent and very frequent fast-food consumption was reported in 23% and 4% of children, and 39% and 13% of adolescents, respectively. Children in the frequent and very frequent groups had a BMI that was 0.15 and 0.22 kg/m(2) higher than those in the infrequent group ($p<0.001$). Male adolescents in the frequent and very frequent groups had a BMI that was 0.14 and 0.28 kg/m(2) lower than those in the infrequent group ($p<0.001$). Female adolescents in the frequent and very frequent groups had a BMI that was 0.19 kg/m(2) lower than those in the infrequent group ($p<0.001$) (Braithwaite, 2014).

A similar study was conducted to investigate the consumption of ten types of fast food practices among adolescents in Beijing. Samples of 1019 adolescents between 8-16 years were selected. A questionnaire technique was used to obtain the information. One month prior to the study 97.5 percent of the adolescents had eaten at least one type of fast food and 15.88 percent of them had eaten all ten types of fast food. Most of the adolescents ate fast food during breakfast at home (Zhu et al., 2008). An interventional study which was conducted to find the inclination towards fast food consumption and effect

of health education among 904 adolescent school children of 9-11 standards in Chandigarh. The information was collected regarding the dietary intake and eating habits through interview. Most common food item consumed by adolescents were samosa (42.4%), chat (39.7%), burger (24.5%), pizza (23.3%). A team comprising of doctors, medical social workers and supporting staffs gave education regarding diet and nutrition. One month later post test was done. The results showed that 58.8 percent of adolescents preferred fast food items but after intervention it is declined to 31.2 percent (Puri, 2008). Similar study was conducted to find out association between fast food restaurant use and food choices among adolescents in Minnesota. Community based samples of 4746 adolescents of grade 7-12 were selected. Among them 50.2 percent were males and 49.8 percent were females and mean age was 14.9 years. Their dietary intake was assessed by using semi quantitative food frequency questionnaire. The result indicates that 75 percent of the students reported eating at a fast food restaurant during a past week. The most consumed fast food by females were, soft drink 45 percent, cheeseburger 100 percent, French fries 60 percent by males, soft drink 42 percent, cheeseburger 73 percent, French fries 53 percent (French, 2001). A study examined the associations between high school students' lunch patterns and vending machine purchases and the school food environment and policies. obtained results showed Students at schools with open campus policies during lunchtime were significantly more likely to eat lunch at a fast food restaurant than students at schools with closed campus policies (0.7 days/week vs. 0.2 days/week, $p < .001$). Student snack food purchases at school were significantly associated with the number of snack machines at schools ($p < .001$) and policies about the types of food that can be sold. In schools with policies, students^{reported} making snack food purchases an average of 0.5 ± 1.1 days/week as compared to an average of 0.9 ± 1.3 days/week in schools without policies ($p < .001$) (Neumark-Sztainer, 2002).

Conclusion

Children and adolescents taking more calories in fast food and other restaurants than at the home. Eating out added between 160 and 310 extra calories a day. When fast food frequently

replaces nutritious foods in the diet, it can lead to poor nutrition and poor health. The study results show that only 18% of adolescents were having adequate knowledge regarding effects of fast food on health. Hence it is necessary to improve the adolescent's knowledge on health hazards of fast food in order to save them from the ill effects of fast food.

Acknowledgement

The authors of this study thank the participants of the pre university college, all teaching faculty, principal and all other experts who had helped for the successful completion of the study.

Declaration

Its hereby declared that the above mentioned manuscript has not been published anywhere, accepted for publication elsewhere or under editorial review for publication elsewhere.

REFERENCES

- Annpietrangelo. Health line[internet].[place unknown]; [published 2014 oct 22;][cited 2015 may 22.]Available from:http://www.health_line.com/health/fast-food-effects-on-body.html.
- Apovian, C M. 2010. The causes Prevalence and treatment. American journal of clinical nutrition: vol; (9):277-79.
- Azadbakht, L, Mirmiran, P., Shiva, M. and Azizi, F. 2005. "General obesity and central obesity in representative sample Teharanian adults:prevalence and determinants." *Intrnational Journal for Vitamins and Nutrition Research* vol(75);297-304:2005.
- Bowman, S.A., Gort Maker, S.L., Ebbeling, C.B., Perara, M. A., Ludwig, D. S. 2004. Effects of fast food consumption on energy intake and diet quality among children in a national house hold survey:www.uptodate.co/contents/fastfood_for_children_and_adolescents/abstract/11-13. Pediatrics.113 (1pt1):112.
- Braithwaite, I, Stewart, A.W., Hancox, R.J., Beasley, R., Murphy, R., Mitchell, E.A. 2014. ISAAC Phase Three Study Group; ISAAC Phase Three Study Group, 2014 Dec 8;4(12):e005813.doi:10.1136/bmjopen2014005813.Available from:[http://www.ncbi.nlm.nih.gov/pumped/?term=ISAAC Phase Three study Group](http://www.ncbi.nlm.nih.gov/pumped/?term=ISAAC+Phase+Three+study+Group)[corporate Author]; PMID: 25488096[Pub Med - indexed for MEDLINE]
- Elbel, B., Gyamfi, J., Kersh, R. 2011. Child and adolescent fast-food choice and the influence of calorie labeling: a natural experiment. *Int J Obes* (Lond).2011 Apr;35(4):493-500. doi: 10.1038/ijo.2011.4. Epub 2011 Feb 15.
- French, S. A., Story, M., Neumark, D., Fulkerson, J.A., Hannan, P. 2001. Fast food restaurant use among adolescents. *International Journal*, 2001 Dec; 25.
- Jeffery, Robert, Baxter, Juclly, McGuire, Mauiree, Lincle, Jennifer. 2006. "Are fast food restaurants an environmental risk factor for obesity";<http://www.jstor.org/stable/20439143/>. (published:25 Jan)
- Lobstein, T., Davies, S. 2009. Defining and labelling 'healthy' and 'unhealthy' food. *Public Health Nutr* 12: 331-340. Doi: 10.1017/ S1368980008002541
- Neumark-Sztainer, D., Story, M., Hannan, P.J., Croll, J. 2002. Overweight status and eating patterns among adolescents: *Am J Public Health*, 92:844-851. PubMed Abstract
- Niemeier, H.M., Raynor, H.A., et al. 2006. Fast food consumption and breakfast skipping: predictors of weight gain from adolescence to adulthood in a nationally representative sample. *J Adolesc Health*, 39: 842-849. Doi: 10.1016/j.jadohealth.2006.07.001
- Poti, J.M., Duffey, K.J., Popkin. B.M. 2013. The association of fast food consumption with poor dietaryoutcomesandobesityamongchildren: AmericanJournalo clinicalnutrition;99[1]:162DOI:10.3945/ajcn.113.071928;2013[cited2015may22].Availablefrom:en.m.wikipedia.org/wiki/criticism_of_fast_food. [online].
- Puri S, Bhatia V, Swami HM, Rai S, Mangat C. Impact of a diet and nutrition related education package. *Internet Journal of Epidemiology*; 2008 June.
- Yale University Rudd Center for food policy and obesity.Fastfood fact[internet]2011 may23[Accessed on 2011may23;cited2015may23]Availablefrom:[http://www.fast foodmarketing.org/fast_food_facts_in_brief.aspx](http://www.fastfoodmarketing.org/fast_food_facts_in_brief.aspx) Fast food popular among teenagers. The Hindu 2005 Aug 11.
- Zhu, S.P., Ding, Y.J., Lu, X.F., Wang, H.W., Yang, M. 2008. Studies on factors related to top ten junk food consumption;2008 Aug 29.
