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RISING FAST FOOD CONSUMPTION AMONG ADOLESCENT GIRLS IN URBAN AREA : CALL FOR CONCERN

Home Science

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ABSTRACT

Consumption of fast food is emerging as potential threat for the physical and mental health of adolescent girls. This study primarily focused on fast food consumption by urban adolescent girls as well as their awareness about fast food and adverse effect on health. These information were obtained by interviewing subjects with the help of pre-designed and pre-tested proforma. Consumption of fast food was predominant in the urban adolescent girls; as much as 65.5%, 21.5% and 9.3% of subjects consumed fast food 1-2, 3-4 and 5 times a week. 1 out of 5 subjects were not aware of the fast-food consuming by them. Nearly 2 out of 3 (66.3%) had knowledge regarding ingredients in the fast food consumed by them. Majority of the subjects were aware about major adverse effect due to the consumption of fast-food.

KEYWORDS

Adolescent girls ,Consumption Pattern, Fast Food , Physical Health, Mental Health

INTRODUCTION:

Consumption of fast food has become a universal phenomenon particularly among young adults and adolescents. National Institutes of Health (NIH) has defined fast foods as quick, easily accessible and cheap alternatives to home-cooked meals. They also tend to be high in saturated fat, sugar, salt and calories (1) .Vitamins, minerals, fibre and amino acids are low or lacking in fast food, but have high energy. Junk food is an informal term applied to some foods that are appeared to have little or no biological process worth and have ingredients which add empty calorie (2). Fast foods have certain characteristics: They can be accessed easily and quickly; they do not need to be prepared; they come out of a bag or box ready to go right into one's mouth. Fast foods also include chips, soda, cookies, candy, breakfast cereals, bars, French fries, burgers, pizza, white flour baked goods, and all other high-calorie, low-nutrient foods that people often eat multiple times per day. These foods have little enzyme manufacturing vitamins and minerals and contain high level of calories in their place. A food that's high in fat, sodium, and/or sugar and provides high calories yet useless in worth is mostly called a junk food (3) Most junk foods are fast foods as they are prepared and served fast. However, not all fast foods are Junk foods, especially when they are prepared with nutritious contents, for example, momos, idli, and dosa. (4)

India is a country of unity in diversity with diversity in food habits in different regions and states. Traditionally, most of Indians like to have home-cooked meals: a concept supported religiously as well as individually. However, due to globalization and urbanization there is robust growth of multinational fast food companies in the Indian food market (5). The fast-food sector in India is rising at the rate of 40% per annum. India ranks 10th in the fast food per capita expenditure data with 2.1% of spending in yearly overall expenditure. (2)This resulted in eating out culture. Digital movement has now replaced home delivery of food through mobile applications and easy delivery at home is in vogue rather than going out to eating in without any physical activity at own convenience. This has shifted the food consumption patterns. Triggered by a complex mix of marketing, social, and economic policies, nutrition transition in India has been associated with a significant change in the lifestyles (6).

These changing food preferences have contributed to consumption of diet high in sugar, saturated fat, salt and calorie content which in children can lead to early development of obesity, hypertension, dyslipidaemia, and impaired glucose tolerance (7)

Nutritional requirements in proper proportions plays important role in the overall growth and development process. Generally, a junk food is given a attractive appearance by adding food additives and colours to enhance flavour, texture and for increasing period of time . the fast foods can cause various disorders and diseases like obesity which is likely to cause heart diseases in the future. (8,9) low nutritive value and high calories of fast food causes obesity. Junk foods also contain colours which are often inedible, carcinogenic and injurious to the body. Fast food affects the digestive system and its effects can occur after several years (10) Adolescence (10–19 years) is a vulnerable period of life as health-related behaviours Adolescents' food habits are important determinants of both their present and future health (11,12) Presently another obsession is consumption of food based on calorie count. Popularity of diets such as Atkins diet (low carbohydrate diet), Keto diet (low carbohydrate and high fat), Zone diet (40% carbohydrates, 30% fats and 30% protein) and veganism (excludes the use of food of animal origin) are a rage among health fanatics. (13,14) Celebrities following such diets influence people in a major way which further increases the popularity of such diets. Extreme forms of diet followed over a long period of time may lead to the deficiency of important nutrients. These deficiencies in turn enhance consumption of supplements such as multivitamins, protein powders, energy drinks or steroids. Another diet change gaining popularity are meal replacements such as Herbalife, and Nutrilite, to achieve the ideal weight/ body goals.

A nutritarian diet is designed to establish adequate micronutrient intake without excess calories. A nutritarian diet is designed to help prolong the human life span, decrease the risk of cancer, and keep the brain functioning well for many years. This principle is represented by the equation I use: H = N /C, which means healthy life expectancy (H) is proportional to the micronutrient (N) per calorie intake (C) over your life span. Therefore, foods that are rich in nutrients is encouraged to include in a plate and empty-calorie foods and drinks is to be excluded. There is increasing attraction of adolescents towards fast food and increasing prevalence of overweight/ obesity among adolescents, with this back ground the present study was conducted to examine and understand the eating behaviour of adolescent girls in urban area of Varanasi.

METHODS :

Setting, Study design, and subjects:

The study was conducted in urban area of Varanasi, India. A community based cross-sectional study was conducted among adolescent's girls of age 10 -19 years. Considering consumption of fast food as 40% and taking permissible level of error as 5% (absolute) the sample size worked out to be: 369; multiplying this by 1.5(design effect) the sample size became 554. Allowing a dropout of 10% the final sample size was fixed at 615.

Sampling methods:

The study sample was selected by adopting multistage sampling procedure. Following steps was involved in the selection of the sample. Step 1: Selection of four census enumeration block was done from 90 census enumeration blocks of urban Varanasi by simple random sampling. Step 2: In the selected enumeration block one mohalla was selected by simple random sampling [lottery method]. Step 3: In selected mohalla households was selected by systematic random sampling as per probability proportion to size. From the selected household family selection was done by lottery method, In the selected family one adolescent girl was selected by lottery method. In case no adolescent girl was present then the same was selected from

adjoining family.

Data Collection Methods:
After obtaining consent of parents and accent of subjects, data was collected from the subjects by interview technique using pre-designed and pretested proforma. Specific areas of exploration included details on socio-demographics of the participants, and information pertaining to knowledge and practice of fast food consumption by the subjects.

Data management and statistical analysis:
Analysis of data was done using Personal Computer. SPSS 21 version software was used for data analysis. Frequency tables were generated to have insight about fast food related information pertaining to urban adolescent girls.

2.5. Ethical Consideration:
Ethical approval was obtained from Institutional Ethics Committee , of Banaras Hindu University, Varanasi, India.

RESULTS:
According to this study, 47.3% subjects considered fast food as tasty , 15.8% as healthy and only 9.9% were of the opinion that fast food is unhealthy . Fast food restaurant most frequently revisited by adolescent girls were McDonald (41.0%) followed by Pizza Hut . Pizza was only ordered fast food by 26% of girls; 17% of girls preffered tea/coffee as beverage when ordered fast foods and 35% of subjects preferred fast food during dinner. Out of 615 subjects, 23 (3.7%) subjects did not eat fast food in last week while 65.5,% 21.5,% and 9.3% consumed it 1-2 times, 3-4 times and 5 times a week . [Table 1]

Table 1: Perception of study subjects regarding fast food and their consumption Pattern : (N=615)

Particulars	Number	Percent
Thinking about fast food		
Tasty	291	47.3
Healthy	97	15.8
Interesting	126	20.5
Pleasuring	37	6.0
Unhealthy	61	9.9
Not applicable	3	0.5
Opinion regarding revisiting fast food shop in future		
KFC	75	12.2
McDonald	252	41.0
Pizza hut	174	28.3
Domino	76	12.4
Burger King	16	2.6
Not applicable	22	3.6
Fast food usually ordered		
Burger	60	9.8
Fries	88	14.3
Pizza	160	26.0
Fried chicken	38	6.2
Sandwich	10	1.6
Ice cream	57	9.3
Others (Pakodas, aloo tikki , Maggie , Chowmin , cake etc.)	181	29.4
Beverages usually ordered with fast food		
Mineral water	151	24.6
Carbonated soda	74	12.8
Diet soda	42	6.8
Fruit juice	33	5.4
Milk and shake	48	7.8
Lemon water	40	6.5
Tea/coffee	107	17.4
Not Applicable	115	18.7
Pattern of eating of fast food by subjects		
Not applicable	22	3.6
Breakfast	75	12.2
Lunch	205	33.3
Dinner	219	35.6
Snack	94	15.3
Frequency of consumption of fast food in a week by subjects		
0 times	23	3.7
1-2 times	403	65.5
3-4 times	132	21.5
>5 times	57	9.3

In general 16.9% subjects were always aware about fast foods consumed by them but 20% of subject were not aware of the fast food consumed by them; 66.3 % girls had no knowledge regarding the ingredients in the fast food consumed by them. [Table 2].

It was found that 60% of the study subjects were aware about the adverse effect resulted from consumption of fast foods. Out of 615 subjects 32.7% were not aware of any physical health consequences of consumption of fast foods where as 30.7% knew about obesity as the physical health consequence of fast food consumption and 16.6% considered depression as the mental health consequence of eating fast food. [Table 3]

Table 2: Knowledge and awareness of subjects regarding fast food (N=615)

Particulars	Number	Percentage
Awareness about fast food consumed by the subjects		
Never	124	20.2
Sometimes	387	62.9
Always	104	16.9
Knowledge regarding ingredients in the fast food		
Ammonium sulphate	27	4.4
Ammonium chloride	75	12.2
Calcium carbonate	34	5.5
Trans fats	71	11.5
Do not Know	408	66.3

According to 43.4% of subjects choice of fast food depended on the taste. In case of 10.5% and 20.5% subjects influencing factors for choice of fast foods were influence of advertisement and family as well as friends, respectively. The consumption of fast food was not influenced by nutrient content in case of 24.9% subjects. As much as 15.8%, 13.4% and 13.7% subjects response on the statement "choice of fast food depends on the emotion of the subjects" were strongly agree, agree, and neutral respectively. Where as 29.8% of subjects disagreed with this statement.[Table 4]

Table: 3 Awareness of subjects about health consequences of junk food

Particular	Number	Percent
Awareness about adverse effect of consumption of fast food		
No awareness	105	17.1%
Certain	139	22.6%
Absolutely	371	60.3%
Fast food and physical health:		
Heart diseases	95	15.4
Obesity	189	30.7
Polycystic ovary syndrome	24	3.9
Sleep apnoea	5	0.8
Arthritis	9	1.5
Stroke	6	1.0
Hypertension	1	0.2
Fatigue feeling	13	2.1
Effect on kidney and liver	1	0.2
Caffein toxicity	4	0.7
Gastritis	43	7.0
Dental carries	5	0.8
Cancers	1	0.2
Allergic manifestation	1	0.2
Infertility	1	0.2
I don't know	201	32.7
Heart/obesity	2	0.3
Heart gastritis	9	1.5
Obesity / gastritis	5	0.8
Fast food and mental health	32	5.2
Alzheimer's disease	102	16.6
Depression	82	13.3
Low IQ in children	5	0.8
Attention deficit hyperactive disorder		

Table 4: Factors influencing the consumption of fast food by subjects:

Particular	No.	Percentage
Factors influencing the choice of fast food by subjects		
Advertisement	65	10.5
Enjoy the taste	267	43.4
Lack of cooking skill	58	9.4
Limited time	50	8.1
Cost/price	14	2.3
Variety of menu	13	2.1
Eat with friend/family	26	20.5
Influence of nutritional information		
Not applicable		
Not at all	22	3.6
Rarely	153	24.9
Sometimes	167	27.2
Always	230	37.4
	43	7.0
Emotions of subject		
Not applicable	22	3.4
Strongly agree	108	15.8
Agree	218	34.5
Neutral	95	13.7
Disagree	97	29.8
Strongly disagree	75	2.9

DISCUSSION:

As per study of Amin et al 2017 (10), about 3.9% of the respondents consume fast foods about once a week, 54.9% consume twice week, 15.7% consume thrice a week, 15.7% consume four times a week, and 9.8% occasionally consume fast foods a week. However, none of the respondents consume fast foods everyday per week. In this study more than half of the respondents disagreed with the view that fast food consumption predisposes one to developing Non-Communicable Diseases(NCDs) such as diabetes and only 1% of the respondents agreed with the risk factors for non-communicable diseases. Another study by li et al 2020 (15) has shown that approximately 55.2% of adolescents consumed fast food at least 1 day per week, and the overall mean frequency of fast-food consumption was 2.3 times per week. These study support findings of the present study.

In a study from Karnataka(3) majority of the respondents 72.5% reported that the main reason for their consumption is the delicious taste of fast food followed by easy availability in 8.8% and attractive advertisement-related consumption was in 6.9% , Soft drink (51.9%) is the most common drink ordered followed by tea/coffee (10.0%). Pizza is preferred by 11.2% but the majority 62.5% prefer Chinese.

Study of Sahu 2018 (16) shows that knowledge on ill effects of junk food revealed that 51.5% (majority) pointed out stomach problem and 16.8 % mentioned obesity as ill effect of junk food consumption while 22.4% of the participants do not know the ill effect of junk food consumption. In the present study, physical and mental adversities of consumption of fast food was known to the majority of subjects.

REFERENCES :

1. Subhalakshmi.K, Dhanasekar.M . A study on fast food culture among teenagers in urban India. International Journal of Pure and Applied Mathematics Volume 120 No. 5 2018, 215-238
2. Ashakiran S, Deepthi R. Fast foods and their impact on health. JKIMSU. 2012;1 (2):7–15.
3. Khongrangjem.T , Dsouza.S.M, Prabhu.P et al. A study to assess the knowledge and practice of fast food consumption among Pre-University students in Udupi Taluk, Karnataka, India,Clinical Epidemiology and Global Health,Volume 6, Issue 4,2018, Pages 172-175.
4. Gupta A, Kapil U, Singh G. Consumption of junk foods by school.aged children in rural Himachal Pradesh, India. Indian J Public Health 2018;62:65.7.
5. Goyal, A. and Singh, N. 2007. Consumer perception about fast food in India: an exploratory study. British Food Journal, 109.
6. Rathi, N., Riddell, L. & Worsley, A. Food consumption patterns of adolescents aged 14–16 years in Kolkata, India. Nutr J 16, 50 (2017). https://doi.org/10.1186/s12937-017-0272-3
7. Kotecha, P., Patel, S.V., Baxi, R., Mazumdar, V., Shobha, M., Kotecha P. et al. 2013. Dietary pattern of school going adolescents in Urban Baroda, India. Journal of Health Population and Nutrition, 31: 490-496.
8. Antony M, Bhatti RK. Junk food consumption and knowledge about its ill effects among teenagers: a descriptive study. IJSR. 2015;4(6):1133–1136.
9. Steffi S, Josephine RM. A Case Study on Trend of Food Style among College Students. IJAPBC. 2013;2(1):103–107.
10. Amin, Tawheed & Choudhary, Nisha & Naik, Haroon & Jabeen, Abida & Rather, A. (2017). Study of Fast Food Consumption Pattern in India in Children Aged 16-20 years. 1-8.
11. Kelder SH, Perry CL, Klepp K-I, Lytle LL. Longitudinal tracking of adolescent smoking, physical activity, and food choice behaviors. Am J Public Health. 1994;84:1121–6.
12. Wennberg M, Gustafsson PE, Wennberg P, Hammarström A. Poor breakfast habits in adolescence predict the metabolic syndrome in adulthood. Public Health Nutr. 2015;18:122–9.
13. Raman R. The Zone Diet: A Complete Overview. [Internet] 2017April 4th Available at: healthlinehttps:// www.healthline.com/nutrition/zone-diet#section2 [last accessed on : 2nd Aug 2019].
14. Sa Vanna S, MS, RDN, LD. What's the Difference Between Keto and Atkins? [Internet] 2019 June 13th. Available from: Healthlinehttps://www.healthline. com/nutrition/atkins-vs-keto#atkins [Last accessed on: 10th Aug 2019].
15. L.Li et al 2020. Fast food consumption among young adolescents aged 12–15 years in 54 low- and middle-income countries. Global Health Action2020, VOL.13, 1795438 https://doi.org/10.1080/165497 2020.1795438
16. Sahu PK, Das BR. Consumption pattern and knowledge about ill effects of junk food amongst school children in urban area of Jorhat. Int J Health Sci Res. 2018; 8(6):7- 13.