



Original Research Article

Fast food addiction – The junk enslavement

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Abstract

Research question: What extent do we crave for fast foods?

Background: Fast foods are consumed in larger quantities intended with persistent desire or futile efforts to minimise or to cease the intake of these items; hence it is called as “FAST FOOD ADDICTION”. Nowadays, there is an uncontrollable craving for excess of quick foods that has led to significant life style modifications in the society regardless of the age group. In spite of quantum of this problem, there are very few studies from India investigating the addiction towards fast foods.

Material and methods: This study was done as a community based cross sectional study at the outskirts of Chennai, India during November 2013 to January 2014 with the objectives of assessing the prevalence and its risk factors of the quick food addiction among adults. Individuals of adult age group were randomly selected and the data's were collected using direct questionnaire method with proper informed consent. The data was entered in MS excel sheet and analysis was done using SPSS software.

Results: Total 541 study participants were interviewed of which 58.8% were males with the mean age of 26 years. Among the study population 82.8% belonged to nuclear family and 65.1% were from class I socioeconomic status. The prevalence of quick food addiction was 30% (160). About 49.2% of people liked KFC as their favourite quick food place. Fast food addiction was significantly associated with male gender ($p=0.02$), professionals ($p=0.000$), unmarried ($p=0.000$), who enjoys quick food ($p=0.014$), KFC ($p=0.003$).

Conclusion: The prevalence of fast food addiction among adult population in our study was moderately high and hence interventions should be made to create cognizance among the general population about the risk factors and consequences in consuming large amount of fast foods.

Key words

Fast food, Fast food addiction, Quick food, Junk food, Quick service industry, Fast food eateries.



Introduction

Fast foods are consumed in larger quantities intended with persistent desire or futile efforts to minimise or to cease the intake of these items; hence it is called as “**FAST FOOD ADDICTION**”. Universally, consumption of fast foods has become as an ineluctable part of our daily lives in spite of the cognizance of its hazards. In India, Industrialization plays a major role in the process of manufacturing fast food addicts. Additionally, increased subjection of fast food restaurants in the vicinage and appealing home delivery systems has brought a drastic life style modification among all the individuals irrespective of their ages. Consumers have redesigned their modern scullery with menu items of quick – service industry, which acts as a time saving agent in this fast – paced life and over – scheduled duties. Hence these foods are also known as “**QUICK FOODS**”. These alternatives to home – cooked foods also have a brighter side like Time saving, cost effective in case of an individual, Ready-made food being served fast and right in front of us is like a blessing after a hard day's work, modern invention for hangouts with peer groups and a wide assortment of fast food styles lets you experience foods from various cultures so that you can explore different tastes. Citing a few points about the advantages of fast food does not mean that we are denying its dark side which are very hazardous. Though, fast food eateries strides to offer a healthier menu, these fast foods are rich in saturated fat, salt, sugar and calories which act as a major contributing role in developing obesity, cardio-vascular diseases, and hypertensive disorders. In spite of quantum of this problem, there are very few studies from India investigating the addiction towards fast foods. Based on this perspective, this study was conducted to assess the prevalence and risk factors associated with fast food addiction among adults.

Objectives

- To assess the prevalence of fast food addiction among adult population.
- To find out the factors associated with fast food addiction.

Material and methods

This study was done as a community based cross sectional study among adult population residing in and around the areas of Poonamallee at Chennai, India in between November 2013 to January - 2014. House to house to survey was done in the areas selected randomly around the Poonamallee taluka. These areas were selected by simple random sampling method from the existing list of areas and the houses were surveyed randomly. The persons aged 18 years and above were selected for the study after getting informed consent. The purpose of the study was completely explained to the partakers and strict confidentiality was ensured. Data collection was done by questionnaire and direct interview method using a standardized questionnaire. The questionnaire includes general socio demographic profiles, fast food habits, favourite food items and restaurants, frequency of intake and risk factors like marital status, socio economic status, opinion about fast food, addiction scale questionnaire (Yale's Food addiction scale questionnaire) [1, 2, 3]. The questionnaire was validated by Yale University by Gearhardt, et al. and concluded that YFAS scale is a sound tool in identifying eating patterns and also behaviours related to food addiction [4]. Fast food addiction was assessed using this simplified version of 9 item questionnaire which included nine questions, based on which scoring was given and scores with 3 and above for first 7 questions and yes for the questions 8 or 9. Those scoring 4 and above were considered to have had fast food



addiction and the remaining were not. The data were entered in MS excel sheet and analyzed using SPSS software – 17 and non parametric test was used for assessing the test of significance.

Results

Socio-demographic profile

Out of total 541 study participants, 86.9% (470) were from urban area and remaining 13.1% (71) were from rural area. In both urban slum and rural areas, the male gender constituted 58.8% (318) and 41.2% (223) were constituted by females. The mean age of the study population was 26 years with the range of 18 to 45 years. Majority of the study participants 76% (411) were professionals and 65.1% (352) of the study participants belonged to socio- economic class I. Approximately 72.3% (385) were unmarried and separated, whereas 27.7% (150) were married as per **Table – 1**.

Eating pattern

Among the study participants 80.4% were usually enjoyed the fast food and 50 to 60% of them responded that their favorite fast food shop is KFC restaurant followed by Dominos and Mc Donalds. Only 10.4% of them replied that they like road side shops. Frequency of eating fast food was almost every day by 2% of the study population, whereas 20% of them answered that at least once a week. Surprisingly 10% of the study population thinks that fast foods are healthy to them and that's why they eat them more. When they were asked about the opinion on fast food meals majority 46% said that it is delicious followed by easy take away, hygienic, Around 3% of the study population felt that fast foods are unhygienic and unhealthy whereas 60% want more fast food shops in Chennai as per **Table – 1**.

Addictive behaviors

Fast food addiction was self accepted by 37% (200) of the study participants whereas according to the Yale's questionnaire the prevalence of fast food addiction was 30% (160), of which most of them were males, professionals, higher socioeconomic status, unmarried, from nuclear family, living in urban area than rural areas, and non-vegetarian eating population as per **Table - 1** and **Chart – 1**.

Effects (fast food addiction scale)

The fast foods underwent the evolutionary change from "Requirement (Hunger) to Taste addiction", which our study identified 17.6% of the study participants' consumed fast foods two to three times per week though they were no longer hunger. As the awareness about the harmful effects of fast foods revolves around the community, people tries to avoid consuming fast foods yet, 114 adults (21.1%) and 31 adults (5.7%) worry about cutting down fast foods two to three times per week and four or more times per week respectively. Sluggishness and fatigue are effects of overeating fast foods which was 22.6% (122) among the study participants. We were also startled to know that 32 (5.9%) of the participants were interested in spending their time in eating quick foods at least two to three times a week rather than spending time with family, friends, work or recreation. We define certain partaker as fast food addicts as they are subjected physical outcomes like agitation and anxiety when they cut down fast foods which were 22.9% (124) in this study. Significant distress was found in 23.7% (128) for two to three times a week. About 123 (22.7%), two to three times per week felt that their issues related to food and eating decreases their ability to function effectively (Example: Daily routine, job/school, social or family activities, health difficulties). 45.7% (247) of the partakers kept consuming the same amount of food despite significant emotional and or physical problems



related to their eating and 52.5%(284) told that eating the same amount of food doesn't reduce negative emotions or increase pleasurable feelings the way it used to as per **Table – 2**.

Analysis

There are some significant factors associated with fast food addiction which was analysed using chi square test. The factors are:

- Male gender (p=0.022)
- Professionals (p=0.000)
- Unmarried (p=0.000)
- Who enjoys fast food (p=0.014)
- Favourite fast food place (p=0.003)
- More frequency of eating fast food (p=0.000)

Discussion

Our study had explored that fast food addiction was moderately high in this study population, no such large scale studies were done especially on fast food addiction in India. According to a study conducted Guthrie, et al. in USA on food intake by individuals showed that compared to 1953 there were 8 times more sales of food outside the home by 1997 and fast food expenditure was doubled to 40% by 1995. But as a percentage of total energy intake, fast food 5 times increased from 2% in the 1970s to 10% in 1995 [5]. One-third of US adults report having eaten at a fast food outlet on any given day; 7% of Americans eat at a fast food restaurant daily [6]. In comparison to this study, our research showed only 2% eats fast food daily. Studies have shown that a typical fast food meal contains 1400 kcal, 85% of recommended daily fat intake, 73% of recommended saturated fat, but only 40% of recommended fiber and 30% of recommended calcium [7]. In spite of this awareness, significant proportion (3%) of our study population consumes and 60% feel that more fast food shops should be opened in India.

Our study showed males gender, professionals, unmarried persons, increased frequency of eating fast food were significantly associated with fast food addiction. Similarly a study done by Farzan Yahya et al. [8] demonstrated higher socioeconomic status, higher education were associated with increased likeness towards fast food. Fast food addiction was significantly high in our country compared to our neighborhood country Pakistan which showed 21% of them self agreed that they were addicted to fast food which is a growing concern in developing countries. Similarly study done in Canada among 652 adults, the overall prevalence of food addiction was 5.4% and significantly more in female population and increased with obesity [9]. In contrast to this, our study showed that males are more significantly associated with fast food addiction than females and there was no correlation with BMI and fast food addiction. In addition to this, studies like Merlo, et al. [10] and Gearhardt, et al. [4] showed that the prevalence of food addiction was 15.2% in children and 11.4% in adults using YFAS but Gearhardt, et al. supported our study with the result of normal weight adults has got fast food addiction equal to obese individuals. So to conclude, as developing countries already facing the health problems like increasing trends of non communicable diseases of which the major risk factor is obesity. Our concern is that the trend of fast food eating pattern and obesity and other risk factors goes hand in hand which needs to be at the policy level to stop the addictive behavior on fast food.

Conclusion

Fast food industry has undergone an expeditious augmentation in a short period of time. In India, the trend of eating fast foods was initiated as there were no time for women in the workforce earning as a part of modern phenomenon. But they have encompassed and transfigured the



entire life-style of the personage. Requirement transformed into sophistication that led to craving for quick foods. At this point of time, introduction of fast food eateries in the neighbourhood processed the formation of fast food addicts. Our study was conducted with an intention to uncover certainty of the condition. The study revealed that, about 29.6% (160) of the partakers were addicted to fast foods which are threatening indication for taking necessary actions to create cognizance among the general population about the risk factors and harmful effects of fast foods.

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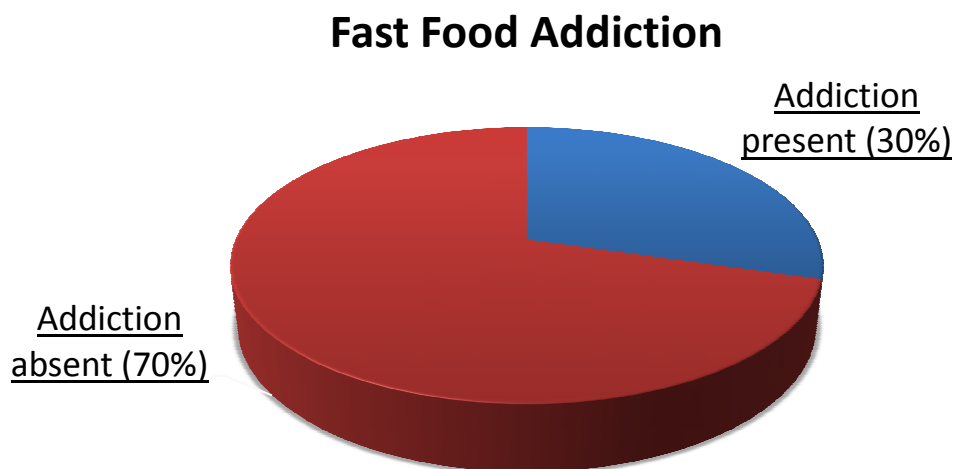
Conflict of interest: None declared.

**Table – 1:** Frequency distribution of the study participants.

Variable	Frequency (n = 541)	%
Gender		
Male	318	58.8%
Female	223	41.2%
Education class		
Degree/Diploma	126	23.3%
Higher secondary	4	0.7%
Professional	411	76%
Socio-economic status		
Class 1	352	65.1%
Class 2	139	25.7%
Class 3	34	6.3%
Class 4	15	2.8%
Class 5	1	0.2%
Relationship status		
Married	150	27.7%
Separated	6	1.1%
Unmarried	385	71.2%
Type of family		
Joint	93	17.2%
Nuclear	448	82.8%
Location		
Rural	71	13.1%
Urban	470	86.9%
Diet		
Non vegetarian	493	91.1%
Vegetarian	48	8.9%
Do you usually enjoy fast food?		
No	106	19.6%
Yes	435	80.4%
Which is your favorite fast food place?		
Dominos	38	7%
KFC	266	49.2%
Marybrown and Mcdonalds	40	7.39%
Ordinary restaurant	36	6.7
Pizza hut	47	8.68%
Road side shops	57	10.4%
Others	57	10.6%
How often do you eat fast food?		
Everyday	11	2%
Few times a month	73	13.5%

Never	17	3.1%
Once a month	124	22.9%
Once a week	107	19.8%
Three or more times a week	80	14.8%
Twice a week	67	12.4%
Two or more times a week	1	0.2%
Whenever I absolutely must	61	11.3%
Do you think fast food meals are healthy?		
No	489	90.4%
Yes	52	9.6%
What is your opinion on fast food meals?		
Delicious	250	46.2%
Easy takeaway	114	21.1%
Hygienic	52	9.6%
Just spicy	1	0.2%
Not good	1	0.2%
Speedy	103	19%
Tasty	1	0.2%
Unhealthy	16	2.95%
Unhygienic	2	0.4%
Waste of money	1	0.2%
Do you think there should be more fast food shops in India?		
No	218	40.3%
Yes	323	59.7%
Do you feel you are addicted to fast food?		
No	341	63%
Yes	200	37%

Chart – 1: Prevalence of fast food addiction.



**Table – 2:** Addictive behaviors towards fast food among the study participants.

Behavior pattern	Frequency	%
I find myself consuming fast foods even though I am no longer hungry.		
0 – Never	224	41.4%
1 – Once per month	111	20.5%
2 – Two to three times per month	88	16.3%
3 – Two to three times per week	95	17.6%
4 – Four or more than four times per week	23	4.3%
I worry about cutting down on fast foods.		
0 – Never	174	32.2%
1 – Once per month	142	26.2%
2 – Two to three times per month	80	14.8%
3 – Two to three times per week	114	21.1%
4 – Four or more than four times per week	31	5.7%
I feel sluggish or fatigued (tired) from over eating.		
0 – Never	184	34%
1 – Once per month	105	19.4%
2 – Two to three times per month	103	19%
3 – Two to three times per week	122	22.6%
4 – Four or more than four times per week	27	5%
I prefer eating fast foods more than spending time with family, friends, work, or recreation.		
0 – Never	393	72.6%
1 – Once per month	76	14%
2 – Two to three times per month	31	5.7%
3 – Two to three times per week	32	5.9%
4 – Four or more than four times per week	9	1.7%
I have had physical symptoms such as agitation and anxiety when I cut down on fast foods.		
0 – Never	214	39.6%
1 – Once per month	95	17.6%
2 – Two to three times per month	56	10.4%
3 – Two to three times per week	124	22.9%
4 – Four or more than four times per week	52	9.6%
My behaviour with respect to food and eating causes me significant distress.		
0 – Never	203	37.5%
1 – Once per month	99	18.3%
2 – Two to three times per month	65	12%
3 – Two to three times per week	128	23.7%
4 – Four or more than four times per week	46	8.5%
Issues related to food and eating decreases my ability to function effectively (e.g. daily routine, job/school, social or family activities, health difficulties).		
0 – Never	170	31.4%



1 – Once per month	117	21.6%
2 – Two to three times per month	76	14%
3 – Two to three times per week	123	22.7%
4 – Four or more than four times per week	55	10.2%
I kept consuming the same type or amount of food despite significant emotional and or physical problems related to my eating.		
No	294	54.3%
Yes	247	45.7%
Eating the same amount of food doesn't reduce negative emotions or increase pleasurable feelings the way it used to.		
No	257	47.5%
Yes	284	52.5%