



## Influence of fast Food on Adolescents of Bhopal City

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### ABSTRACT

Fast food is a type of food that is prepared and served very quickly, first popularized in the 1950s in the United States. While any meal with low preparation time can be considered fast food, typically the term refers to food sold in a restaurant or store with preheated or precooked ingredients, and served to the customer in a packaged form for take-out/take-away. Fast food restaurants are traditionally distinguished by their ability to serve food via a drive-through. Fast food does not have to be unhealthy, but most of the time it is; consumers often order foods with more fat, calories, sugar, sodium, and less nutrition and vitamins than is necessary. Fast food are energy dense foodstuffs that are heavily marketed to adolescents, and are likely to be important in terms of risk of obesity and other health related problems. Adolescence is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood (age of majority). The period of adolescence is most closely associated with the teenage years. This study sought to examine the influences of fast food consumption among adolescents as part of a survey. Almost 100 adolescents (aged 13-19 year) of both sex were randomly selected from high schools of Bhopal.

Students provided information on fast food consumption, and responded to statements examining influences of consumption. Results showed that Fast food consumption was higher among boys than girls in the given age group. Convenience and value for money yielded the strongest associations with fast food consumption in boys, while preferring fast food to meals at home and preferring to "upsized" meals were most strongly associated with consumption in girls. It was also seen that Fast food consumption was associated with increased body weight, and obesity which was shown by high body mass index(BMI). Adolescent (both boys and girls) were assessed for height and weight. Diet counseling was done to improve their dietary habits and to reduce their weight and changes in diet was also observed.

### KEYWORDS

Fast-food, consumption, adolescents, Health problems, BMI

### Introduction:

India is seeing rapid growth in the fast food and restaurant industries. It now accounts for roughly half of all restaurant revenues in the developed countries and continues to expand. The trend is radically changing the way adolescents eat in India. Based on rising disposable income, changing consumer behaviour and favourable demographics, India is witnessing a tremendous growth in its fast food and restaurant industries. Additional reasons include exposure to western cuisine, the rising number of nuclear families and growth in the number of employed women, which are also having a significant impact on the eating out trends and growth of the fast food industry in the country.(2010)

Fast food is specially popular among adolescents (boys & girls) fast food industry is not only a transformation to the traditional diet, but also a new trend to the landscape, economy, workforce and it has created a popular culture within a short period of time. Fast food can be identified as one of the main food choices of adolescents (boys & girls) today. Number of fast food restaurants today and the places where fast food is served have become widen.(2011)

Fast food refers to food that can be prepared and served quickly. Fast food restaurants usually have a walk up counter and/or drive thru window where you order and pick up your food without having to wait long. They're popular because they serve filling food that taste good and don't cost a lot of money. However, the food is often made with cheaper ingredients such as high fat meat, refined grains, and added sugar and fats, instead of nutritious ingredients such as lean meat, whole grains, fresh fruits, and vegetables. Because fast food is high in sodium, saturated fat, trans fat and cholesterol. It isn't something you should eat often. Eating too much over a long period of time can lead to health problems such as high blood pressure, heart disease and obesity.(2015)

Eat healthy and live healthy. is one of the essential requirements for long life. Unfortunately, today world has been adapted to a system of consumption of foods which has several adverse effects on health. Lifestyle changes has compelled us so much that one has so little time to really think what we are eating is right! Globalization and urbanization have greatly affected one eating habits and forced many adolescents to consume fancy and high calorie fast foods, popularly known as .fast foods.. Research into the possible health hazards on consumption of such high calorie foods has given an insight to avoid them, but unfortunately measures taken are not as effective as they need to be. Diseases like coronary artery disease and diabetes mellitus have seen a profound rise in developing countries and such unhealthy fast food consumption is one of the notable factors to its contribution. This global problem of consuming fast food on a large scale and its influence on health needs emphasis and health education which can greatly contribute to its limited consumption and switching over to healthy eating habits for the better living. knowledge highlighting about the eating habits, nutritional aspects, quality of unhealthy foods, their health impact and preventive measures should be given to create awareness and render health education for a change towards good eating practices. (2012)

Fast food simply means an empty calorie food. An empty calorie food is a high calorie or calorie rich food which lacks in micronutrients such as vitamins, minerals, or amino acids, and fiber but has high energy (calories). These foods don't contain the nutrients that your body needs to stay healthy. Hence, these foods that has poor nutritional value is considered unhealthy and may be called as fast food. fast food allows people to eat without planning. eat not only when it is pre-set meal time, but also when they have spare time. Ingredients of junk foods give great taste and make them addictive. Fat

and sugar in combination are capable of producing a dopamine-driven surge of intense pleasure in people with a propensity for addictive behavior. On the other side, it must be noted that they are hazardous to health too. High fat content, particularly cholesterol, sugar and salts have their adverse effects on health. Soaring calorie content with sugar can lead to obesity.(2012)

**Aims:**

The main aim of this study to know the consumption level of fast food in adolescents (boys & girls) and give dietary counseling of the Adolescents (boys & girls).

**Objectives:**

- To identify the influence of fast food consumption on adolescents (boys & girls).
- To assess the anthropometric measurement (Height & weight) of adolescents (boys & girls).
- To calculate BMI (Body Mass Index) and assess health status of adolescents (boys & girls).
- To distribute pamphlet for education & diet counseling of the adolescents (boys & girls) and their mothers for health improvement.

**Method:**

In the study 100 adolescents ( 50 boys & 50 girls) will be selected randomly from schools of the Bhopal city in India. study will find out the influence of fast food on adolescents (boys & girls). Data will be collected of schools, one area in Bhopal city, using questionnaire as a data collection instrument, questionnaire included closed ended questions for the convenience of respondents.

Anthropometric measurements techniques will be used on the basis of height and weights of the adolescents (boys & girls) body mass index will be calculated to evaluate the health status of adolescents (boys & girls). Assessment of fast food consumption and its influence on adolescents. Collected data will be tabulated and statistically analyzed to assess the health status of adolescents (boys & girls). Statistical method like percentage, will be used.

For assessment of fast food consumption of the adolescents (boys & girls) Questionnaire method will be used. In questionnaire method, dietary pattern of adolescents ( boys & girls), frequency of fast food consumption, quantity, which fast food consume more, where eat, etc questions are included. Diet counseling will be conducted to improve health status of adolescents (boys & girls) by giving them charts & pamphlets for influence of fast food and aware them. And their feedback will be taken after one to till three month. In this study counseling adolescents (boys & girls) and their mothers also to given information & educate them about influence of fast food, and giving information:

Given awareness and education of adolescents and their mothers about More consumption of fast food is caused different health related problems like obesity, diabetes. Heart disease, thyroid etc.

Adolescents (boys & girls) and their mothers will be given dietary counseling about balance diet and nutritious foods.

Counseling a mothers for including a green vegetables and fruits for her Children's diet and make attractive & nutritious foods.

Will be given them some nutritious and low fat or low energy diet and charts to reduce fast food consumption of adolescents (boys & girls).

After counseling will be observed adolescents (boys & girls) consumption pattern of fast food. It will be possible through mothers counseling & education related to influence of fast food and improve health status of adolescents (boys & girls).

**Result:**

This study deals about the influence of fast food on adolescents (boys & girls). The study was planned to observe occurrence of health related problems in adolescents (boys & girls) like BMI and health related problems.

The result of the research work are presented through different bar diagram, pie chart and graphical representation are used to make presentation easy to understand. Fast food consumption by adolescents (boys and girls) was taken and found a influence. In this study found a total percent of adolescents (boys and girls) who consumed a fast food.

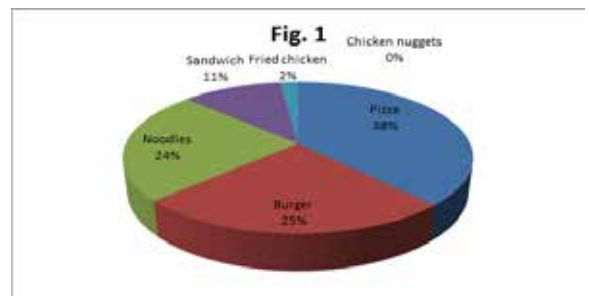
In the study found that the consumption of fast food has become almost a global phenomenon, as more and more adolescents (boys & girls) are turned out irrespective of demographic traits. Adolescents (boys & girls) are attracted by fast food has assumed importance in recent times. Fast food included pizza, burger, Chinese foods, sandwiches, fried chicken, chicken nuggets. Many fast food restaurants offer and adolescents (boys & girls) eat.

**Table: 1 Type of fast food that more consumed by both school going adolescents (boys & girls)**

Types of fast food	Total	Percent%
Pizza	38	38%
Burger	25	25%
Chinese food	24	24%
Sandwich	11	11%
Fried chicken	02	02%
Chicken nuggets	00	00%

The fast food in the world today is a growing business. Fast food as general term which is used for food menu that are used in the production line techniques where suppliers specialize in products such as pizza, burgers, sandwiches, Chinese foods and many more. Table 1 showed that the 38% adolescents (boys & girls) consumed pizza and 25% adolescents (boys & girls) consumed burger and 24% adolescents (boys & girls) consumed Chinese foods and 11% adolescents (boys & girls) consumed sandwiches and 2 or 0% adolescents (boys & girls) consumed fried chicken & chicken nuggets. The result showed that the most of adolescents (boys & girls) eat pizza, burger and Chinese foods.

**Fig. 1 Types of fast food that more consumed by both adolescents (boys & girls)**



**Table 2: Total percent of adolescents both (boys & girls) who consumed fast food**

Adolescents	Highly (daily) consumption of fast food	Total percent	Moderate (twice or thrice in a week) consumption of fast food	Total percent	Low (once in a week) consumption of fast food	Total percent
Boys	48	74%	13	20%	4	6%
Girls	25	71%	6	17%	4	11%

Table 2 showed the total percent of adolescents (boys & girls) . In the study was found a 65 boys and 35 girls, the Result showed that fast food consumption was higher among boys than girls. In boys convenience and value for money yielded the

strongest associations with fast food consumption, while preferring fast food to meals at home and preferring to "upsized" meals were most strongly associated with consumption in girls. Highly (daily) consumption of fast food in boys before counseling were found 74% and in girls 71%. Moderate (twice or thrice in a week) consumption of fast food in boys were found 20% in girls found 17%. Low (once in a week) consumption of fast food in boys were found 6% in girls 11%.

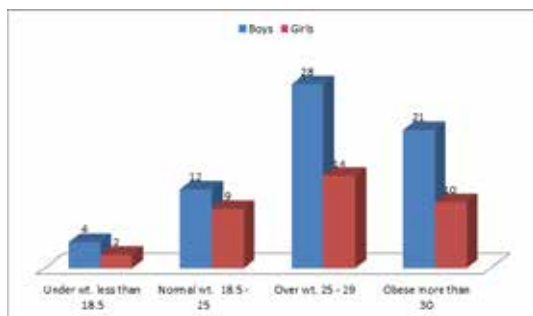
**Table No. 3: Average BMI and percentage of adolescents (boys & girls) and comparison with standard (N: 100)**

BMI value	No of adolescents		Total Percent % of both adolescents	Average BMI of both adolescents
	Boys	Girls		
<18.5 (Under Wt.)	4	2	6.0	16.6
18.5 - 25 (Normal)	12	9	21.0	22.1
25 - 30 (Over Weight)	28	14	43.0	27.8
> 30 (Obese) Grade I, II, III	21	10	30.0	32.4

BMI is a responsible indicator of the nutritional status of an individual. BMI was calculated from the weight in kilograms and height in meters of an individuals. BMI is a quick and easy way to determine stored body fat. Table (1) shows that category of adolescents (boys & girls). This calculation show the poor health status were found in adolescents. For knowing the influence of fast food on adolescents BMI has been calculated. On average 43 and 30 percent of adolescents found overweight and obese (grade 1 obesity). This indicates that overweight and obesity was almost increasing rate in adolescents (boys & girls) due to consumption of fast food. And 21 percent adolescents were found normal and 6 percent adolescents were found underweight according to BMI grades.

BMI of the adolescents is shown in the figure no.(2) which represents the no. of adolescents both (boys & girls) overweight and obesity on the basis of BMI category. It was found on an average 6% were underweight, 21% were normal, 43% were overweight and 30% were obese, this group was influence by fast food at-risk group. This indicates that overweight and obesity was almost increasing rare in among adolescents (boys & girls). Finding of the results show that highly consumption of fast food, ultimately affect the health status of the adolescents (boys & girls).

**Fig.2 Total percentage of both adolescents (boys and girls) health status on the bases of BMI category**



**Table No. 4- Average BMI difference of adolescents after diet counseling (N:100)**

BMI	No. of adolescents		Average BMI of both adolescents
	Boys	Girls	
<18.5 (Under Wt.)	Before	04	16.6
	After	02	18.1
18.5 – 25 (Normal)	Before	12	22.1
	After	09	Nil
25 - 30 (Over Weight)	Before	28	27.8
	After	14	26.9
> 30 (Obese) [Grade-I,II,III]	Before	21	32.4
	After	10	31.6

For healthy person standard BMI should be in between the range of 18.5-25. Table 4 shows that before counseling average BMI overweight and obesity is higher in adolescents (boys & girls). After 3 month feedback has been taken and height & weight has been measure and calculates BMI and found that difference in adolescents (boys & girls).This indicates that counseling help them to improve their health conditions.

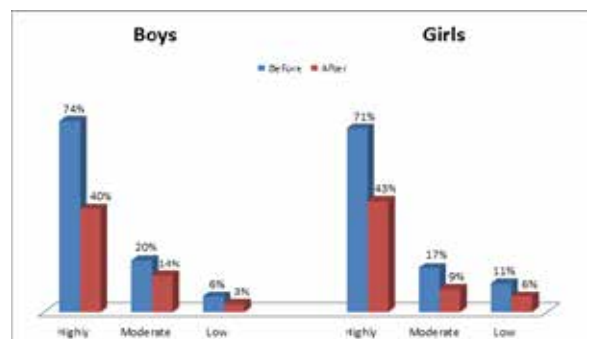
**Changes in dietary pattern :** The impact of counseling on adolescents (boys & girls) dietary pattern was recorded after one month till 3 month through feedback process. All these data collected are analyzed and all the changes before and after counseling are captured in the result. The quality and quantity of fast food consumption are assessed by questionnaire.

**Table 5: difference of adolescents both (boys & girls) After diet counseling who consumed fast food (N= 65 boys & 35 girls)**

Fast food consumption	No. of adolescents							
	Boys				Girls			
	Before counseling	Total percent	After counseling	Total percent	Before counseling	Total percent	After counseling	Total percent
Highly (daily)	48	74%	26	40%	25	71%	15	43%
Moderate (twice or thrice in a week)	13	20%	9	14%	6	17%	3	9%
Low (once in a week)	4	06%	2	03%	4	11%	2	6%

Before counseling the consumption of fast food is higher in adolescents (boys & girls) it was found highly (daily) consumption of fast food in boys 74% and girls 71%. Moderate (twice or thrice in a week) consumption of fast food in boys was 20% and girls 17%. Low (once in a week) consumption of fast food in boys was 6% and girls 11%. And after counseling fast food consumption was decreased, it was found highly (daily) consumption of fast food in boys was 40% and in girls 43%. Moderate (twice or thrice in a week) consumption of fast food in boys was 14% and in girls 9%. Low (once in a week) consumption of fast food in boys was 3% and in girls 6%. In this study the result showed that the counseling was so effective and useful.

**Fig.3 After counseling changes in total percent of adolescents both (boys & girls) who consumed fast food (N= 65 boys & 35 girls)**



The dietary history is an essential component of the nutritional screening. The dietary history provides information not only on the amount and quality of food consumed, but also on the eating patterns and behavior of the family.

In the study during the interaction with adolescents (boys & girls) it was observe that most of the adolescents (boys & girls)

consumed highly fast food. They are consuming food basically to full fill their hunger and enjoyment, they are not having any knowledge about nutritionally adequate diet and harmful effect of fast food. It was found that intake of nutritious food is very low. The most important aspect of this research is to educate & counseled the mother of adolescents and adolescents (boys & girls) to take diet which are nutritious and balanced diet, or avoid consumption of fast food.

#### **Conclusion:**

Fast food is convenient and tasty though it prepared with low nourishing or unhealthy ingredients. Youngsters spend more money on junk food. Fast food companies are targeting adolescents (boys & girls) through great promotion strategies, delicious recipes and attractive advertisement. There are much greater side effects of fast food and adolescents (boys & girls) are unaware of its ill consequences. It can tend to many detrimental diseases. Adolescents (boys & girls) like to eat fast food, outside their homes. Hunger can be satisfied with fast food. Moreover, fast food is not a cost effective mean. Fast food also used for the sake of enjoyment and fun. It is also evaluated that prolonged use of fast food is also a cause of health problems, obesity, indigestion problem and high cholesterol. Due to good taste and fluent availability adolescents (boys & girls) prefer fast food over home cooked food. Fast food is also a major cause of avoiding proper nutrition. Finding from this study revealed that a high influence of fast food on adolescents (boys & girls).

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