



Fast Food and Junk Food Culture, Nutritional Status and Cognitive and Abnormal Behaviour among Teens

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Abstract

Junk Food is everywhere and it is being consumed by our students in record quantities, "Junk Food" which traditionally has no nutritional value. It deprives the body of necessary nutrition's and its over consumption over time leads to obesity, medical problems and behavioural problems. Some examples are skated snacked foods candy, gum, most sweet, deserts, fried fast food and carbonated beverages, the consumer student children, was primary consumers and purchases of junk food, many was so used to this type of food that if it was taken away from them. They brought their own from home or left during lunch period at open campus schools. Junk foods are altering the structure and function of the human brain while increasing and decreasing insulin levels so quickly that junk food leaves students groggy in class's child's brain continues to develop through until adulthood. That students eat effect the growth of critical areas of their brain when growth is disrupted It can cause negative behaviour reactions in the society, class room and family. The main objective of the paper to assess the role of regular and high intake of fast and junk food for developing cognitive and abnormal behaviour in teen girls. The validation cohort: total number of subject 50 teen girls selected for the purpose of study. The changing in behaviour, components among teens was observed 32% irritability; 26% anxiety; 22% uncooperativeness with family; mood depression 48%; loss of appetite 28%; 10% self-care; 26% unforgetfulness and overall impression 26%. The calculated value of chi-square it was found much more higher (8.0) as compared to table value(3.841) at one degree of freedom and five percent significant level that is null hypothesis rejected and alternate hypothesis accepted. (Regular intake of fast and junk food could develop cognitive and abnormal behaviour and also effect nutritional status).

Keywords: Fast food, junk food, medical problems, behavioural problem.

Introduction

Junk Food is everywhere and it is being consumed by our students in record quantities. "Junk Food" which traditionally has no nutritional value. It deprives the body of necessary nutrients and its over consumption over time leads to obesity, medical problems, and behavioural problems. Some examples are : "Sakted snack foods, candy, gum, most sweet desserts, fried fast food and carbonated beverages. Fast/Junk Food consumption is associated with various physical and medical ailments including obesity, type 2 diabetes, heart attacks, decreased life expectancy. Because of junk food, fast/food, "our teens life expectancy could be lower than our own." Intake of fast and junk food is also a major cause in the 23 percent of American children who are overweight. The increasingly available category of junk food is strongly correlated to the "300 percent increase in the rate of us. Children who are either overweight or obese." Junk Food Is Defined as commercial product 'which have little or no nutritional value but do have plenty of calories, salt and fats. ' fast food is 'ready to eat foods served promptly after ordering, Alphabetically arranged entries cover the types of junk-food (Extruded snacks ginger ale; Hot

dogs specific brands noon pie, mounds bar mountain dew). Because of commercial emphasis on speed, uniformity and low cost fast food products were often made with ingredients formulated to achieve a certain flavour or consistency and to preserve freshness hydrogenated vegetable oils are pumped in to fast food which contain high amounts of transfat. Trans-fats which are commonly found in fast-food have been shown in many tests to have a negative healthy effect on the body. A recent study fed monkeys a disconcerting of a similar laves of trans-fast as what a person who ate fast food regularly would. This requires a high degree of food engineering, the use of additives and processing technique substantially alter the food from its original form and reduce its nutritional value. In the united states alone, consumers spent about us 110billion on fast-food in 2000 (which increased from US\$ 6 Billion in 1970) the national restaurant association forecasts that fast-food restaurants in the U.S. was reach us 412 Billion in sale in 2006 as % increase over 2005 in comparison, the full service restaurant segment of the food din dustry was expected to generate \$ 173 billion in sales fast-food had been losing market share to 50- called fast causes dining restaurants. Which offer more robust and expensive cuisines¹. Excessive calories are

another issue with fast-food. A regularly but not overly filling meal at MC Donald of a big Mac, large coca-cola drinks amounts to 1430 calories, a diet of approximate lately 2000 calories was consider a healthy amount of calories for an entire day (which is different depending on several factors such as weight, height, physical and gender¹). The marketing that is used in the junk food industry is primarily targeted at teen with the goal of hooking life-long consumers of their products, Each year, the average child sees about 40,000 commercials on television alone. The majority targeted at them are for candy, cold drink sugared cereal, and fast food/junk food². Unfortunately, young children do not understand the intent behind marketing and they take advertising as unbiased, especially when they are infused with their favourite cartoon characters or colourful graphics that appeal to young children². Junk food are altering the structure and function of the human brain while increasing and decreasing insulin levels so quickly that junk food leaves students groggy in class. A child's brain continues to develop through until adulthood; many of the foods that students eat affect the growth of critical areas of their brain. When growth is disrupted, it can cause negative behaviour reactions in the classroom³. Often times, doctors do not seek the root of the problem (food) but instead they mask the behavioural symptoms with drugs as Ritalin or Prozac which have their own series of side effects, all while the brain development continues to be damaged⁴. The marketing has also targeted children due to their purchasing power with disposable income (just enough to buy junk fast/food) and their persuasive ability to in fluency parents, food purchase decisions⁵. Marino Nestle devotes an entire book, Food politics to the behind-the-scenes dealings of the food industry. The major focus in the text was on the marketing towards teens it points out that the new era of marketing is in product placement all around us. This food marketing is aimed directly at children through video games, movies, the Internet, billboards, radio and is even found in schools⁵. The process of planning and executing the pricing, promotion and distribution of good, ideas, and services to create exchanges that satisfy individual and organizational goals⁶.

Review: Continued research has shown that kids whose diets are saturated with high sugar, low-nutrition content junk food function poorly in the classroom. Their cognitive skill are impaired and most frequently they face anxiety and hyperactivity which affect their ability to concentrate on tasks that require serious attention in the classroom¹. Teachers can have the greatest influence on children, especially those at a young age. It's important for teachers to teach the right information at as young an age as possible. By mikkle school, most students have already developed their eating behaviours which are very hard to break. Teachers can set examples by how they eat, introduce new food to students, and offer healthy foods on party days and as rewards². Evidence shows that by continually working to form habits with children, the students was had "better attendance, better behaviour, and overall better performance"². Coupled with student preference for junk food, due to addiction and flavour, school administrators use various rationales to criticizes the anti-

junk food rallying cry. In the Terry Fox Secondary school, lunch offers include fast food chain option pizza hut along with candy, chocolate and lollipops³. The school principal says that the addition of branded foods (which generates additional revenue for the school) has been a form of "behaviour control" in that it keeps students on campus. He also proclaims its virtues in employing union workers and costing less so all student can afford it³. The dietary patterns of children from families in which television viewing is a normal part of meal routines may include fewer fruits and vegetables and more pizzas, snack foods, and sodas than the dietary patterns of children from families in which television viewing and eating are separate activities⁴. Most students have access, in schools, or at least in their lunches, to high sugar caffeinated beverages. Parents of teenagers see this as a symptom of having a lot of work and that their children feel they have to drink these beverages to "stay awake". Perhaps the stress of school was increased so much that the average student need to consume 26 ounces of soft drink per day⁵. The contributing factor to the 325 to 600 calories that the typical teenager consumes all come from sugar because sugar creates a roller coaster of energy in one's body, the more likely problem is that of sugar addiction. This is where the hyper activity(after sugar) and drowsiness (one to three hours after sugar) come from.

Food lobbies are one of the main influencing factors in children's health education. Free lessons from M and Ms, soda machines in schools, and the extremely flawed food pyramid are all found in most schools. Unfortunately, one of the biggest contributor to the alarming rise in obesity and the behavioural consequences of poor nutrition in the past 15 years is the food pyramid, strongly influenced by food lobbies⁶. The food pyramid was largely touted as scientifically based and include in all health text books even up through 2005. Most scientific have long argued that this pyramid (showing the highest quantity of intake) indicates that the average person should take in 6-11 servings of carbohydrates. The old pyramid of the early 90s does not differentiate between highly refined carbohydrates and whole grains. Most food distributors actually switched to highly refined versions and cut out the fat (but added high fructose corn syrup). Refined grains is not the answer; it the same effects on behaviour as sugar since it enters the blood stream so quickly and does not leave a "full" message for the brain to indicate that the child should stop eating. Instead, that student sits in class craving more carbohydrates and sugar. Both carvings are linked due to their similar effect on the body. Schools and even individual teachers and students can begin to make an impact on cutting out the sugar and fat saturation of schools cafeterias. However, it is a challenge; most teens who consume these products are addicted and was demand more. Across the country, teachers and students are tired of the negative effects junk food is having on student attention and they are beginning to change their school's offerings while properly educating students or practical nutrition information that will allow them to become informed consumers. The results from those teens that have made the changes are very promising. A typical fast food meal in the United States consists of fries, a burger (or other main item and a soft drink). Fast Food is the term

given to main items that can be prepared and served quickly. While any meal with low preparation time can be considered to be fast food, such as TV dinners, typically the term refers to food sold in a restaurant or store which is rapidly prepared and served to the customer in a packaged form for take out/take away. The term "fast food" was recognized in a dictionary by Merriam-Webster in 1951. Outlet may be stands or kiosks, which may provide no shelter or seating, or fast food restaurants (also known as quick service restaurants). Franchise operations which are part of restaurant chains have standardized foodstuffs shipped to each restaurant from central locations. The capital requirements to start a fast-food restaurant are relatively small, particularly in areas with non-existent or poorly enforced health codes. Small, individually-owned fast food restaurants have become common throughout the world. Fast food restaurants with higher sit-in ratios, where customers can sit and have their orders brought to them, are known as fast casual restaurants. Although fast-food restaurants are often viewed as are presentation of modern technology, the concept of "ready-cooked food to go" was as old as cities themselves; unique variations are historical in various cultures.

Ancient Roman cities had bread-and-olive stands, East Asian Cultures feature noodle shops. Flat bread and olive stands, East Asian cultures feature noodle stops. Flat bread and falafel are ubiquitous in the Middle East. Popular Indian "fast" food delicacies include Veda pav, papri chaat bhelpuri, panipuri and dahi vada. In the French-speaking nations of west Africa, meanwhile, roadside stands in and around the larger cities continuer to sell as they have done for generations-a range of ready-to-eat, char grilled meat sticks known locally as "brochettes" (not to be confused with the bread snack the same of the name found in Europe). Fast food has existed in the UK since at least Roman Times, although the distinction between fast food items and fast casual restaurants has sometimes been blurred. Prior to the modern age, fast food in the UK has included meat pies and pastries as well as fried or battered items. Recently on New Year's Day 2008 a study was conducted world-wide counting the number of fast food restaurants per person. The UK has name claimed this title with Australia second and United States third. England alone accounted for 25% of all fast food.

By the Medieval Period it was not unknown for large cities or major towns to have 'pie shops' or cookhouses. Local pubs and taverns were also providers of 'rapid' if not fast food; As well as these fixed outlets, stalls selling cooked food were not uncommon. Cornish pasties and their descendants go back at least as far as the 13th century. The content of pies varied, with poultry (such as chickens) or wildfowl commonly being used. Post WWII, turkey has been more frequently in fast food. In areas which had access to coastal or tidal waters, 'fast food' would frequently include local shellfish or sea food, (such as oysters or as in London eels), often this seafood woolds be cooked directly on the quay or close by. The development of trawler fishing in the mid nineteenth century would lead to the development of a British favourite fish and chips partly due to such activities.

Owing to differing availability of ingredients and tastes, until the Great War, British fast food had considerable regional variation. Sometimes the regionality of dish became part of the culture of its respective area.

A peculiarly British form of fast food is the sandwich, introduced by John Montagu, the 4th Earl of Sandwich c. 1762 when he wrapped dried meat in bread so as not to interrupt his work or his gambling (accounts vary). The sandwich has similarities in other cuisines and cultures such as the filled baguettes seen in France. Despite its wide appeal and consumption in the UK, it is only in recent years that the sandwich in its various forms has been considered to be fast food, initially being promoted as such by niche chains such as subway and pret-A-manger. As well as its native forms, the UK has adopted fat food from other cultures, such as pizza, noodles, kebabs and various other forms of fast foods from other parts of the British Commonwealth and further a field. In some areas imported fast food had become part of both the local, and British culture in general. More recently healthier alternatives to conventional fast food have also emerged.

In 1867, Charles Feltman, a German butcher, opened up the first Coney Island hot dog stand I Brooklyn, New York, though the origin of the term is iun dispute. The World's Columbian Exposition of 1893 (Chicago and the st. Louis world's fair of 1904 are credited with mass promotion of a number of portable food, including the hot dog, the ice cream cone and iced tea. The "diner" concept dates back to 1872, when Walter Scott of providence, RI out fitted a horse-drawn lunch wagon with a simple kitchen so that he could bring hot dinners to workers. The appetites of teenagers can seem to know no bounds, especially when it comes to fast food. Although some adolescents can indulge with few ill consequences, others start packing on the pounds. Not only do slender teens eat less than their heavier counterparts, they also compensate for their fast-food binges by eating less later in the day⁷.

Overweight teens maintain their usual food intake ever after a 1,500 calorie fast-food lunch, according to a study published in the June 16 issue of the journal of the American Medical Association. Certainly, The findings provide a basis for how fast food could promote excessive weight gain, "said the study's lead author, Cara Ebbeling, an obesity researcher at Children's Hospital Boston. She and colleagues gave 54 teens who regularly eat fast food an extra-large lunch in a food court. They told the teens to eat as much or as little as they wanted in an hour; Some ate a nine-piece chicken nuggets meal and then got more. On average, the 13th to 17th year olds consumed 61.6 percent of their daily required calories in one sitting; those who were overweigh ate 400 calories more than their slender counterparts. "Fast food promotes higher energy intake, and among people susceptible to being overweight, it is going to be more dramatic," said simone French, an epidemiology professor at the University of Minnesota. The overweight adolescents did not adjust their other meals and ate about 400 more calories on fast-food days. Over time, those calories could add up. About three or four teenagers

eat fast food at least once a week. The Consumer students (children) was primary consumers and purchasers of junk food. Many was so used to this type of food that if it's taken away from them, they was bring their own from home or leave during lunch period at open campus schools. Administration likewise, schools are often hard-pressed for money to fill in their budget gaps⁸.

Objective of Study: The main objective of the study is to find out and assess fast/junk food intake and developing cognitive and abnormal behaviour among teens girls.

Hypothesis: Null Hypothesis: Regular fast food and junk food intake could develop cognitive, abnormal behaviour and also nutritional status among teens girls.

Alternative Hypothesis: Regular fast/junk food intake can develop cognitive and abnormal behaviour among teens girls.

Tools: Interview Schedule Method

Methodology

Study Area: Public Schools of Lucknow City. Sample: 50 teen girl students were selected randomly for interview.

Analysis of Data

The collected data were tabulated and analysed in accordance with statistical and scientific method.

Conclusion

Age-wise distribution of subject: a maximum number teens with age group 18-20 years, 20% 17-18 years, 24% 15-16 years, 20% 23-24 years, 18%, 21-22 years, 12% and the total number of sample 50 were selected for interviewing at face to face situation. All the subjects families living in pauce area of Gomti Nagar and Indira Nagar. The academic status of the subjects: 16 percent school level and 84% college level girl students. The activity status of respondent family 68%;govt. jobs, 8%; pvt. services and rest-24%; depend on businessman. The economic class of subjects; all the subjects were selected from upper economic class that family income were Rs. 50,000 and more per month. On the basis of 24 hours dietary recall. On an average 125 gm cereals was taking includes 54.8% prefer rice whereas 45.2% prefer wheat flour. The intake of pulses a 62% respondent taking up to 50 gms whereas 48%, 50-100 gms, preferably in the order of arhar, urd, rajma etc. As for the concern of cooking media; a 28% using mustard oil and rest 72% refined oil, nearly all the subject taking up 25gms of ghee daily. The intake of milk was found very poor a 50% teens girls were intake up to one cup of milk either in tea, coffee etc. whereas 20% respondents taking a glass of milk

daily. Fruits consumption among teens girls was found satisfactory; nearly all the subjects were taking fruits either one or two or more preferably seasonal fruits. The vegetables intake was also found satisfactory. All the respondents were taking green vegetables with potatoes etc. of store vegetable preferably seasonal vegetables. As for the intake of fast foods/junk foods; nearly all the respondent very much like fast/junk foods and regularly taking daily either one or more than one in order of preference; Chou men/ noodles/ Maggie, pizza, hotdog, berger, samosa, patties etc. in large amounts. The most liked cold drink preferably pepsi, 10%, whereas coke 80% and rest 10% like thumbs-up and sprite etc. The traditional breakfast food did not like such as khirl 11%, halwa 20%, sewavin 19% and rest other food items such as paratha puri-subji etc. The changing in behaviour components among teens was observed 32%; irritability, 26%; anxiety, 22%; uncooperativeness with family; mood depression 48%; loss of appetite 28%; 10% self care, 26% non-forgetfulness and overall impression 26%.It was observed that high intake of fast and junk food were decreasing the intake of healthy nutrition recipies. That is why 64% teens were altering their nutritional status from requirement order to lower order nutritional status. The calculated value of chi-square it was found much more higher (8.0) as compared to table value(3.841) at one degree of freedom and five percent significant level that is null hypothesis rejected and alternate hypothesis accepted. (Regular intake of fast and junk food could develop cognitive and abnormal behaviour and also effect nutritional status.)It was also through simontacchi, 2000 That the junk foods are altering the structure and functions of the human brain while increasing and decreasing insulin levels so quickly that junk food leaves student groggy in class A children, brain continues to develop through until adulthood; many of the foods that student eat affect the growth of critical areas of their brawhen growth is disrupted, in can cause negative behaviour reactions is the class room⁹.

Reference

1. [http:// specrun.diabetesjournals.org/cgi/contents/full/15/2/83](http://specrun.diabetesjournals.org/cgi/contents/full/15/2/83) (2013)
2. <http://hpq.sagepub.com/cgi/content/abstract/13/3/336> (2013)
3. <http://www.scribd.com/doc/3634255/complete-book-of-buildpower> full never force (2013)
4. Pediatrics, 107(1) (2001)
5. <http://hpq.sagepub.com/content/co/issue> (2014)
6. Nestle Report, (2003)
7. Wikipedia, Org
8. PFNDAL Bulletin, SEP, 7-13 (2011)
9. Raju SM ; Nutrition and Biochemistry for Nurses, 3-15 (2010)