

Fast Food Consumption in Children: A Review

Jagadish C Das

Associate Professor, Department of Neonatology, Chittagong Medical College, Chittagong, Bangladesh.

Abstract

Fast food refers to food that can be served ready to eat fast. Fast food and junk food are often used interchangeably. Energy dense food with high sugar/fat/salt content and low nutrient value in terms of protein, fiber, vitamin and mineral content is termed junk food. Many of our children are fond of such readymade food. Sponsorship of sports or cultural competitions with attractive gifts is the main way of promotion of fast food sale. Nuclear families, working mother, socioeconomic status, close proximity of fast food shop, food test and quick service in the shop are important contributing factors of fast food consumption. This kind of food is responsible for obesity, hypertension, dyslipidemia, heart disease and diabetes. Easy availability of healthy food with reasonable prices along with its campaign, school midday-food programme and health education can improve dietary habits of children. Implementation of laws for regulation of marketing and selling of fast food may be another step in controlling consumption of such food by our children.

Keywords: Fast foods, Junk foods, Children, Review

Corresponding author: Jagadish C Das

Associate Professor, Department of Neonatology, Chittagong Medical College, Chittagong, Bangladesh.

✉ jagadishcdas@yahoo.com

Tel: 0088-01711077900

Introduction

Food is essential for growth and development of a child. A child cannot live without food. 'Good food means the right kind of food for good health; it is nutritious'. It contains natural substances that body needs to grow properly and stay healthy. We must choose the right food in daily diet for good health of our child [1]. Socioeconomic conditions and cultural norms of our community have been changing. Food habits of our children are also changing facing such changes. Many of children are fond of readymade outside food. Some guardians are even reluctant in changing food habits of their children. They admit readymade outside food for their babies even willingly. 'Food that can be served ready to eat fast' refers to fast food. Fast foods and junk foods are often used interchangeably. Most junk foods are fast foods as they are prepared and served fast. But not all fast foods are junk foods, especially when they are prepared with nutritious contents [2]. Fast food culture is an emerging trend among children. 'Energy dense food with high sugar/ fat/ salt content and low nutrient value in terms of protein, fiber, vitamin and mineral content is termed junk food'[3]. Easy availability, taste, parent's occupation and marketing strategies make them popular among children. One important aspect of fast food restaurant is that it is primed to maximize the service speed and is standardized to minimize

waiting time. So customers can save their time in taking their food. Here, food menu is limited in number [3]. It has been seen that on a typical day in United States, nearly 30% of 4-19 years children consumes fast food[4].

Situation in Bangladesh, particularly in affluent society is not reverse. Approximately 56% of a private university students in Dhaka goes to fast food restaurants at least once per week and 44 % goes regularly (≥ 2 times/wk)[5]. In a country like Bangladesh, paradoxically coexisted with malnutrition among children and adolescents, multiple factors including rapid urbanization and inappropriate dietary practices, have attributed to an emerging overweight and obesity problem among young children in urban and especially among affluent families[5]. Thinking of our physicians is limited on such alarming food habit of children. Moreover, fast food taking by our children is less addressed. The review is written to orient our physicians particularly pediatricians regarding some fundamental aspects of such food culture which may help in developing a preventive strategy in reducing fast food taking by our children.

Fast Food Promotion

In adolescents' aged 12-18 years of US, there is a decrease in percentage of energy intake from foods consumed at home,

whereas the proportion of energy intake from restaurant food and fast food increased over time [6]. Consumption of fast food promoted in various ways throughout the globe. Sponsorship of sports or cultural competitions with attractive gifts is the main means of promotion of fast food sale. This offers discounts on purchase of their fast food brand. Sports stars are often involved in advertisement of fast food products. Advertisements in television with animation and cartoon are another way of lurching fast food. [7]. This activity has an important role in promoting unhealthy dietary practices with diets rich in fat, sodium or added sugar among children [8]. Apart from advertising via television, other media like posters, magazines, billboards, radio and cinemas favor fast food marketing [9].

Factors Related to Fast Food Consumption

Fast foods are taking popularity by nuclear families because working parents have less time for meal preparation by themselves. Majority of working parents with school going children are in stress. Children spend most of the time away from home by attending tuition classes after school hours. Children take breakfast at home and fast food in school or outside school. A positive correlation of increased fast food consumption and increased body mass index was found among adolescents [10]. Socio economic status is an important factor related to fast food consumption. Children from high socio-economic status prefer fast foods to traditional foods despite their better nutritional knowledge [11]. It has been seen that children who are overweight are significantly more likely to recognize fast food restaurant logos than other food logos. Again, families' socio-demographic characteristics play a role in children's recognition of food logos [12]. Factors related to fast food preference by Bangladeshi university students are convenience, easy accessibility, taste, cost and quick service in fast food shop. Most of the fast food users take such kind of food though they know well about negative effects on themselves associated with fast food consumption [5].

Fast Foods and School

Scenario of food presentation in school areas differ from region to region. Junk foods are widely available by the sides of schools of country like ours. Cafeterias at the schools are reluctant with balanced nutritious diet; rather interested to offer cold drinks, chips and many other foods of low nutritional value. Junk foods in school cafeteria often compete with nutritious home-made school tiffin. Banning of junk foods in school cafeteria is a rare occurrence in this region. Mid-day meal program is not introduced in private schools of our country but this program has been introduced specially in government schools of many countries. Healthy foods are offered to children through this program [13]. In primary schools of many European countries, commercial food activities are restricted. Beverages may be offered among secondary school students of these countries with active participation of educators and parents [14].

Bangladeshi Fast Foods and Junk Food

There are different types of fast foods and junk foods throughout the country. These include *burger, sandwich, hotdog, chicken hot, mutton chop, beef steak, roasted chicken, chicken tikka, grill*

chicken, role, patties, pakora, samosa, sngara, pizza, tandoor, French fries, fusk, ontho, nodules, aloo tikki, dal puri, chaat, chole bhature, pav bhaji and dhokla. Fat and calorie content in fast food depends on cooking process. Most of the fast foods are prepared by deep frying in fats especially trans fat and saturated fats [15]. Foods which are baked, roasted or cooked in *tandoor* have lower fat content. Hydrogenated oil used in cooking is rich in trans fats. Trans fat content in fast food is far higher than western food. Trans fat content in *bhatura, parantha* and *puris* is 9.5%, 7.8% and 7.6%, respectively as compared to 4.2% in regular French fries [16].

Effects of Excess Fast Food Consumption

Fast food consumption is definitely harmful to child health. Children who eat fast food have higher intake of energy, fat, saturated fat, sodium, carbonated soft drink, and lower intake of vitamins A and C, milk, fruits and vegetables than those who do not take fast food ($P<0.001$) [17]. Diet with high sugar, salt, saturated fat and calorie is responsible for disabilities like obesity, hypertension, dyslipidemia and impaired glucose tolerance [18]. There is positive correlation ($p<0.001$) between frequency of consumption of fast food and body mass index. An increased odds of being obese (OR 2.2; 95% CI 1.3-3.9) among a private university students of Dhaka taking fast foods regularly is also observed. Subsequently, obesity related problems in terms of morbidity and mortality is evident [5]. Fast food may be associated with poor hygiene during preparation, storage and handling. It invites microbiological contamination and is a risk factor of heart diseases even [19]. Energy content of such food is much more than recommended allowance for children [5,20]. It leads to higher calories from total and saturated fat [21] where micronutrient content is low [22]. Calcium and magnesium depleted fast food are responsible for osteoporosis. Diets rich in free sugars may lead to increased risk of dental caries also [3]. Very often fast food restaurants and habit of fast food consumption are becoming issue of criticism in the media of Bangladesh due to adulteration of food items with food colors, other hazardous chemicals, microbial safety and hygiene of the restaurants [23]. The coloring agents in the foods are regarded as carcinogen [3].

Reduction of Fast Food Consumption

Availability of healthy food along with its campaign and surveillance on disease and association with dietary habits improves healthy food intake. School based programs and health education can also improve dietary habits of children [24]. Price reduction is one of the most effective strategies of healthy foods purchasing [25]. Price reduction on low fat snacks and placement of low fat label is associated with significant increase in their consumption among adolescent population [26]. Time has arrived when advertisement of fast food and junk food in mass media is to be controlled strictly. Healthy feeding should be focused through televisions, radios, newspapers and school mid day food programme [3]. Children should be encouraged to take readily available and affordable home made nutritious foods. Government has to take measures to reduce cost of food grains in countries like ours. Implementation of tax on readymade food items might be appreciated. Disclosure of nutritional content in

terms of calorie, added sugar, fat, minerals and protein in product labels may be a forward step in this respect. Implementation of laws for regulation of marketing and selling of fast food may be another step in controlling consumption of such food by our children. [3] Recently added beautiful chapters on food and nutrition in different text books of school going children is definitely a positive steps in controlling unhealthy fast food. Such step also encourages our children and their parents to take balanced healthy food.

Conclusions

Taking of fast food is a dietary habit of our present day children.

Consumption of diet rich in sugar, saturated fat, salt and calorie in children can lead to early development of health hazards. There are various reasons for consumption of such food by children. Most of fast food users know well about negative effects associated with fast food consumption. However, they take fast food without considering their health complications. The young generations are getting addicted to fast food which indicates a serious public health problem. Prompt necessary actions should be undertaken to tackle this health problem. Implementation of laws to regulate the marketing of fast foods may be an important step in reducing fast food consumption by children. Awareness regarding healthy feeding may save children from harmful effects of fast food in this area.

References

- 1 Hoque MS, Banu Y, Majumder SR, Razzaque MA, Shahzadi N, et al. (2012) Food and nutrition. In. Subhan A, (eds) English for Today, trial ed. Dhaka. National curriculum and text book board 21.
- 2 www.en.wikipedia.org/wiki/Fast_food
- 3 Kaushik JS, Narang M, Parakh A (2011) Fast food consumption in children. *Indian Pediatrics* 48: 95-101.
- 4 Bowman SA, Gortmaker SL, Ebbeling CB, Pereira MA, Ludwig DS (2004) Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. *Pediatrics* 113: 112-118.
- 5 Goon S, Bipasha MS, Md.Islam MS (2014) Fast food consumption and obesity risk among university students of Bangladesh. *European Journal of Preventive Medicine* 2: 99-104.
- 6 Nielson SJ, Siega-Riz AM, Popkin BM (2002) Trends in food locations and sources among Adolescents and young adults. *Prev Med* 35: 107-113.
- 7 Kelly B, Hattersley L, King L, Flood V (2008) Persuasive food marketing to children: use of cartoons and competitions in Australian commercial television advertisements. *Health Promot Int* 23: 337-344.
- 8 Batada A, Seitz MD, Wootan MG, Story M (2008) Nine out of 10 food advertisements shown during Saturday morning children's television programming are for foods high in fat, sodium, or added sugars, or low in nutrients. *J Am Diet Assoc* 108: 673-678.
- 9 Hawkes C (2010) Marketing activities of global soft drink and fast food companies in emerging markets: a review. In: *Globalization, Diet and Non communicable Diseases*. World Health Organization.
- 10 Niemeier HM, Raynor HA, Lloyd-Richardson EE, Rogers ML, Wing RR (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.
- 11 Vijayapushpam T, Menon KK, Rao RD, Maria Antony G (2003) A qualitative assessment of nutrition knowledge levels and dietary intake of school children in Hyderabad. *Public Health Nutr* 6: 683-688.
- 12 Arredondo E, Castaneda D, Elder JP, Slymen D, Dozier D (2009) Brand name logo recognition of fast food and healthy food among children. *J Community Health* 34: 73-78.
- 13 www.akshaypatra.org
- 14 www.unesda.org/our-unesda-commitments-act-responsibly
- 15 www.timesofindia.indiatimes.com/article/show/1755418.cms
- 16 Paeratakul S, Ferdinand DP, Champagne CM, Ryan DH, Bray GA (2003) Fast-food consumption among US adults and children: dietary and nutrient intake profile. *J Am Diet Assoc* 103: 1332-1338.
- 17 World Health Organization. Life Course Perspective on Coronary Heart Disease, Stroke, Diabetes. whqlibdoc.who.int/hq/2001/WHO_NMH_NPH_01.4.pdf
- 18 Asgary S, Nazari B, Sarrafzadegan N, Parkhideh S, Saberi S, et al. (2009) Evaluation of fatty acid content of some Iranian fast foods with emphasis on trans fatty acids. *Asia Pac J Clin Nutr* 18: 187-192.
- 19 Printice AM, Jebb SA (2003) Fast foods, energy density and obesity: a possible mechanistic link. *Obesity Rev* 4: 187-194.
- 20 Schmidt M, Affenito SG, Streigl-Moore R, Khoury PR, Barton B, et al. (2005) Fast food intake and diet quality in black and white girls. *Arch Pediatric Adolesc Med* 159: 626-631.
- 21 Bowman SA, Vinyard BT (2004) Fast food consumption of US adults: impact on energy and nutrient intakes and overweight status. *J Am Coll Nutr* 23: 163-168.
- 22 Tabassum A, Rahman T (2012) Differences in Consumer Attitude towards Selective Fast Food Restaurants in Bangladesh: An Implication of Multiattribute Attitude Model. *World Review of Business Research* 2: 12-27.
- 23 French SA (2003) Pricing effect on food choices. *J Nutr* 133: 841.
- 24 Gortmaker SL, Peterson K, Wiecha J, Sobol AM, Dixit S, et al. (1999) Reducing obesity via a school-based interdisciplinary intervention among youth: Planet Health. *Arch Pediatr Adolesc Med* 153: 409-418.
- 25 French S, Jeffery RW, Story M, Brietlow KK, Baxter JS, et al. (2001) Pricing and promotion effects on low fat vending snack purchases: the CHIPS study. *Am J Public Health* 91: 112-117.