

## Fast Food Consumption in Children

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**F**ast food refers to food that can be served ready to eat. The terms fast food and junk food are often used interchangeably. Most of the 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 [1]. The definitions of various food items are described in **Table I**.

Fast food culture is an emerging trend among the younger generation. The ready availability, taste, low cost, marketing strategies and peer pressure make them popular with children and adolescents. Fast food restaurants are primed to maximize the speed, efficiency and conformity. The menu is kept limited and standardized essentially to minimize the waiting time so that the customers eat quickly and leave. This perspective delineates the emerging fast food culture in India, its impact on children and strategies to counter it.

### FAST FOOD PROMOTION

Fast food sale is promoted among children through sponsorship of sports or cultural competitions with attractive free gifts. The sponsors offer discounts on purchase of their brand of fast food. Film celebrities and sports stars are often involved for marketing their products. Fast foods are marketed to children through television advertisements by use of animation and favorite cartoon characters [2]. Television advertisement has an important role in promoting unhealthy dietary practices among children, including diets which are high in fat, sodium or added sugar [3]. Apart from advertising

through television, other media like newspaper, magazines, billboards, radio and cinemas are also used for marketing [4].

### FACTORS RELATED TO FAST FOOD CONSUMPTION

Fast food chains are gaining popularity with nuclear families as working parents have less time for meal preparation at home. The vast majority of working parents with school going children are labored with exhausting commutes, other household chores and stress. While their children spend most of their time away from home by attending tuition classes after their school hours or engaged in recreational activity.

For children skipping breakfast at home, fast food comes handy in school. A positive correlation of increased fast food consumption, skipped breakfasts and increased body mass index was found among adolescents [5]. Socio economic status is an important factor related to fast food consumption among children. In a study conducted in Hyderabad, children from high socio-economic status preferred fast foods to traditional foods despite their better nutritional knowledge [6]. Proximity of fast food joints to households could also predispose to increased consumption.

### FAST FOODS AND SCHOOL

Junk foods are widely available in schools through variety of outlets. Cafeterias at the schools offer sodas, cold drinks, chips and many other foods of low nutritional value. Sale of junk foods in school cafeteria often competes with more nutritious school lunch schemes. Most of western countries and few

TABLE I DEFINITIONS RELATED TO FAST FOODS

Type of Food	Definition	Examples
Fast food	Foods sold in a restaurant or store which are rapidly prepared and quickly served in a packaged form for take away	Burgers, pizzas, fries, hamburgers, patties, nuggets. Indian foods like <i>pakora</i> , <i>samosa</i> , <i>namkeen</i> etc.
Junk food	Energy dense foods with high sugar/ fat/ salt content and low nutrient value in terms of protein, fiber, vitamin and mineral content.	Chips, chocolate, icecream, soft drinks, burgers, pizzas etc.
Instant foods	Foods that undergo special processing that are ready to be served once dissolved or dispersed in a liquid with low cooking time	Noodles, corn flakes, soup powder.
Street foods	Ready to eat foods and beverages prepared and sold by hawkers or vendors in streets or other public places	<i>Chaat</i> , <i>gol guppa</i> , <i>samosa</i> , <i>tikki</i> , noodles, chowmein, burgers etc

schools in India have banned the sale of junk foods in the school cafeteria. *Akshaypatra foundation*, a nongovernmental organization in India has introduced school mid-day meal programs in government aided schools, where healthy Indian foods are offered to children [7].

In United Kingdom and many European countries, all commercial activities in primary schools are restricted as per the directive of Union of European Beverages Association (UNESDA). According to these, secondary school students may be offered full range of beverages including water, 100% juice, sports drink, and low calorie drinks in different portion sizes in active participation with educators and parents [8]. However, there is lack of stringent laws and regulation pertaining to fast food sale in Indian schools.

### INDIAN FAST FOODS

India has rich heritage of foods and recipes. Popular north Indian fast foods include *aloo tikki*, *bhel puri*, *chaat*, *pakora*, *chole bhature*, *pav bhaji*, *dhokla*, *samosa* and *pani puri*. Calorie and fat content in Indian fast food depends on the cooking method. Most of Indian fast foods are prepared by deep frying in fats especially trans fat and saturated fats [9]. Foods which are baked, roasted or cooked in *tandoor* have lower fat content.

*Hydrogenated oil* used in Indian cooking are rich in trans fats and have been replaced in many

restaurants by refined vegetable oil. Trans fat content in Indian fast food are far higher than western foods. 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 [10]. South Indian foods like *idli* and *uthappam* are better as they are rich in carbohydrates and proteins rather than fat.

### CONSEQUENCES OF EXCESSIVE FAST FOOD CONSUMPTION

Consumption of diet high in sugar, saturated fat, salt and calorie content in children can lead to early development of obesity, hypertension, dyslipidemia and impaired glucose tolerance [10]. The concerns with fast food consumption in developing countries also include poor hygiene during preparation storage and handling leading to microbiological contamination.

Fast foods have high level of fat and sugars that are not only unhealthy but addictive and that creates a vicious cycle making it hard for children to choose healthy food. High content of trans fat in commercially available fast foods predispose children to risk of future heart diseases [12]. Energy density of fast food is more than twice the recommended daily allowance for children [13]. Fast food intake leads to higher proportion of calories being derived from total and saturated fat [14]. Moreover, the micronutrient content (carotene, vitamin A, vitamin C) of the fast food is also low [15]. Low levels of calcium and magnesium in the

diet can contribute to osteoporosis. Diets rich in free sugars can lead to increased risk of dental caries.

Junk foods often contain colors that are inedible, carcinogenic and harmful to the body. Food coloring may result in hyperactivity and lapses of concentration in children. Poor nutritional habits can undermine these pre-requisites of learning, as well as decrease the strength that children need for making friends, interacting with family, participating in sports and games or simply feeling good about themselves.

Fast food consumption and globalization of diet has lead to loss of traditional healthy food practices. One of the consequences of ready availability of cheap food outside the home is devaluation of cooking skills.

### **Strategies to Reduce the Trend of Fast Food**

Considering the burden of non communicable diseases among adults and its origin to childhood dietary habits, fast food consumption needs to be curtailed among children and adolescents. Strategies for healthy food intake include availability of healthy standard foods, information campaigns and surveillance of diets and disease burden. Health education and school based intervention programs can improve the dietary pattern of children [16].

Price reduction is one of the most effective strategies to increase the purchase of healthy foods among children and adolescents [17]. Price reduction on low fat snacks (fresh fruits and salad) and placement of low fat label were associated with significant increase in their consumption among adolescent population [18]. In a study by Powell, *et al.*, it was observed that a 10% increase in the cost of fast food meal led to 3% increase in consumption of fruits and vegetables [20].

Healthy lifestyle and eating among children and adolescents should be presented through televisions, newspapers and effective school education campaigns. Children should be encouraged to consume foods with high nutritious value like food grains, pulses, legumes, fruits and vegetables. In developing country like India where poverty still prevails in major part of country, government has

taken measure to liberalize the international trade to reduce the cost of food grains. However, trade liberalization has led to massive infiltration of Indian market with fast food joints. Imposing heavy tax on imported and manufactured readymade food items might control this encroachment.

### **Nutritional Labeling**

Nutritional labeling refers to disclosure of nutritional content (calories, added sugar, total fat, Trans fat, saturated fat, sodium and protein content) in product labels. Nutritional value should be provided in menu, menu boards, food wrappers and containers in fast food restaurant. This might restrict the quantity and choice of food among children of educated parents.

In a recent study conducted on parents of children aged 3-6 years, it was observed that parents who were offered the nutritional value menu card ordered food of lesser calorie [20]. However in a study by Yamamoto *et al.*, it was observed that provision of nutritional value did not modify the food ordering behavior among the enrolled adolescents [21]. It has been often debated that labeling might result in financial loss to fast food industry, but it has been shown that restaurants which project lower fat menu have a better customer satisfaction [22].

### **Regulation of Marketing**

International bodies which regulate the media advertisements include confederation of food and drink industries of Europe (CIAA) and Union of European beverages association (UNESDA). CIAA is a body governing the food and drink sector in Europe. It facilitates the development of an environment where all the European food and drink companies can meet the needs of consumers and society [23]. It has laid down principles for food and beverage product advertisement. The key features of CIAA principles include: advertisement should depict size, content, nutritious and health benefits; nutritious benefits must provide scientific basis; should not encourage excessive consumption or large portion size; it should not undermine the promotion of healthy lifestyle and balanced diet [24].

Union of European beverages association (UNESDA), in addition has laid down guidelines to

**BOX: PROMOTING HEALTHY FOOD INTAKE IN CHILDREN**

1. Child should be offered with a plate filled with plenty of brightly colored vegetables, fruits and sprouts.
2. Ice-cream, chocolates and other heavy desserts can be replaced by low fat fresh yogurt.
3. Fresh lime juice, coconut water and fresh fruit juices should be preferred to sodas and soft drinks as beverages.
4. Prefer grilled fresh sandwiches to fried ones. Similarly, when choosing the meat or poultry select baked, broiled, grilled items rather than fried ones.
5. Avoid giving chocolate bars as gifts or reward to the children for their good habits or academic achievements.
6. Limit the portion size of the food ordered. Regular size meal may be opted against 'mega meal offer' or 'combo meal offer'.
7. While eating away from home, avoid opting for dishes with rich creamy layers and lots of spices.
8. Replace *naan* with *tandoori roti* as low fat option breads in Indian menu.
9. Dishes can be stir fried rather than deep fry to decrease the fat content.
10. Dough used for preparing *poori/pakor*as should be thick and avoid using ghee or oil for making the dough as this might increase oil absorption.

restrict marketing communication to be placed in printed media, web sites, or programs aimed at children. It directs not to directly appeal to children to persuade parents to buy their products, nor should the promotional activities encourage children to consume larger quantities for participation [8].

In India, media advertisement and publicity is under the control of ministry of information and broadcasting (Government of India). A committee has been set up by the ministry to review the complaints, decide whether the advertisement violates the rules and issue a notice to TV channels in case of violation. Media rules and regulation are set in India cable television network act 1994 and advertising standard council of India (ASCI) [24]. Guidelines related to quality of food products advertised in Indian media should be urgently formulated. Some suggestions related to encouraging healthy food habits and decreasing unhealthy fast foods consumption are outlined in Box.

**CONCLUSIONS**

Fast foods have become an important part of dietary menu for most children and adolescents. Children are lured by convincing marketing strategies and peer pressure. Consumption of diet high in sugar,

saturated fat, salt and calorie content in childhood can lead to early development of obesity and cardiovascular diseases. Fast food intake among children can be reduced by implementation of stringent laws to regulate the marketing of fast foods in Indian market. Nutritional labeling of food might restrict the quantity of food ordered and choice of low fat menu among children of educated parents. Promotion of healthy eating habits and education about junk foods needs to be strengthened.

*Contributions:* JK, MN and AP: Literature searches, writing of the manuscript. MN: conceptualized the idea and approved the final version. JK would act as the guarantor.

*Funding:* None.

*Competing interests:* None stated.

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