RESEARCH ARTICLE

EFFECT OF JUNK FOOD ON THE NUTRITIONAL STATUS OF CHILDREN IN QUETTA

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ABSTRACT

Objectives: To determine the effect of junk food on the nutritional status of 12 years old girls. **Background:** Junk food has become a prominent feature of the diet of children worldwide. The ready availability, taste, low cost, media, and peer pressure make them popular among children. Junk food is widely available everywhere making it first choice for not only children but also adults. The fats, sugar, and salt in junk food draw kids like a magnet. Obesity in children has increased threefold or more during the last three decade raising serious public health concerns. Junk food consumption may be one of the contributing factors to this problem. **Materials and Methods:** A cross-sectional study was conducted in a government school in Quetta. Total fifty girls of the same age (12 years) were selected for the study. Their age was taken from the school record. Standardized Questionnaire was used which included 10 questions and 24-hour dietary recall form was filled. Height and weight of students were recorded according to standard methods. BMI was recorded using standard height and weight formula. **Results:** The results of weight according to age in percentile was as 28% (14) girls were at the 5th percentile. 34% (17) were below the 5th percentile for age. 28% were between 5th and 50th percentile for age, 10% (5) were between 60 and 70th percentile. The results of height in percentile was like 40% (20) girls were at the 5th percentile of height for age,20%(10) were between 5th and 50th percentile,10%(5) were between 60th and 75th percentile. 10%(5) were at 75th percentile. **Conclusion:** From this study, it is evident that problems in this area are somewhat different. Although snacking with junk food, use of unhygienic food, intake of empty calories are the same issues but obesity is not our problem rather our kids are underweight and stunted due to inadequate caloric intake, and poor quality food. Unemployment, lack of education and big families all are contributing factors to poor quality diet.

INTRODUCTION

Junk food has become a prominent feature of the diet of children worldwide (Bowman *et al*., 2004). The ready availability, taste, low cost, media, and peer pressure make them popular among children (Kaushik *et al*., 2011). Junk food is widely available everywhere making it first choice for not only children but also adults. The fats, sugar, and salt in junk food draw kids like a magnet (Lewis, 2013). The revolution in children's lifestyle and dietary habits which has occurred over the last twenty-five years can be largely attributed to changes in family environment e.g. increased tendency of women to work outside the home, growing influence of television, earlier age at which children start their school.

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Inadequate parental supervision in food choices. Local tradition and culture play an ever decreasing part in food and meals people eat (Fernández San Juan, 2006). In January 2004 Mr. Shanthy, a bowman *et al* worked on the effects of fast food consumption on energy intake and diet quality among children. They conclude that the use of fast food is highly prevalent in both genders, all racial and ethnic groups and it is causing an increased risk for obesity (Bowman *et al*., 2004). American Academy of Pediatrics published an article in 2009 which was related to children, adolescents, obesity and media. It concluded that there was a correlation between unhealthy eating habits and watching television while eating suppress cues of satiety which leads to overeating (CIAA, 2009; Batada *et al*., 2008). Fast food consumption in children was written by Jayashankal *et al*. in 2011. She wrote there are many factors

related to use of junk food example fast food promotion, the proximity of fast food joint to household, globalization, skipping breakfast at home. They conclude that fast food has become an important part of the diet of children which can lead to early development of obesity and cardiovascular diseases (Kaushik *et al*., 2011). Dietary habits and nutritional status of school-age children in Spain is another article written by PM Fernandez San Jaun. According to him progressive globalization of food supply, international youth culture, influences of television play role in increasing the intake of junk food. He concludes that skipping breakfast may contribute to the making of poorer food choices throughout rest of day. He also concluded that increased use of the industrial product and fatty food full of calories contribute to obesity and rising cholesterol level of Spanish children (Fernández San Juan, 2006).

Consumption of junk food which is high in sugar, saturated fats, salts and caloric content in children can lead to the early development of obesity, hypertension, dyslipidemia, and impaired glucose tolerance. The concern with junk food in developing countries also includes poor hygiene during preparation and storage and handling leading to microbiological contamination (https:// timesofindia. indiatimes.com/india/Indian-food-worse-than-Western-junk/ article show/1755418.cms). The energy density of junk food is more than twice the recommended daily allowance for children. Obesity in children has increased threefold or more during the last three decade raising serious public health concerns. Junk food consumption may be one of the contributing factors to this problem (Vijayapushpam *et al*., 2003). Racheal Lewis wrote another article on May 13, 2013. He worked on the immediate effect fast food has on children. He concluded that junk food encourages children to eat more .it causes depression, damage arteries, cause the school work to suffer, causes constipation, and irritability (Lewis, 2013). The rationale of this disease was to determine the effect of junk food on the nutritional status of 12-year-old girls and its outcomes in terms of weight and height. The article has also assessed various other factors which were affecting the eating habits.

MATERIAL AND METHODS

A cross-sectional study was conducted in a government school of Quetta, with the consent of school authorities. Total where fifty girls of the same age (12 years) were selected for the study. Their age was taken from the school record. Standardized Questionnaire was used which included 10 questions and 24-hour dietary recall form was filled. Height and weight of students were recorded according to standard methods. BMI was recorded using standard height and weight formula.

RESULTS

Although this study shares few of similarities with other studies still there are some of the differences which are as follows. The area where this sample was taken is of lower middle class. they can't afford to go out to eat. Still, kids are snacking in the mohalla shops. These shops are selling unhygienic food which is even more matter of concern. This study reveals that 97 % of girls were taking three meals. 66% of subjects have snacks once with junk food.
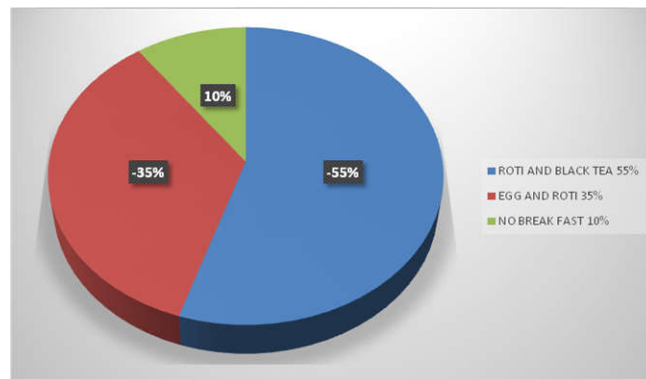

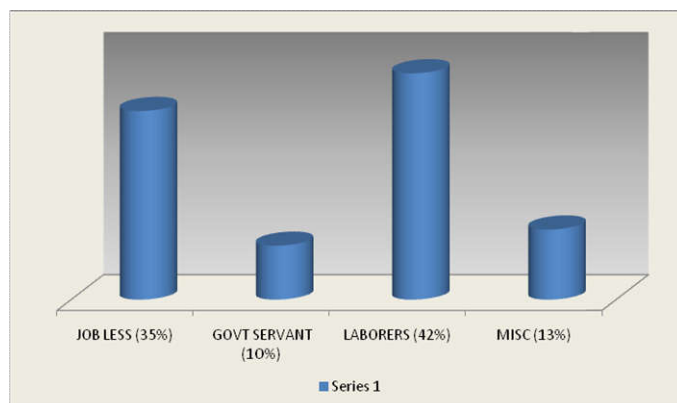**Figure no 1. Percentage of students taking breakfast (n=50)**

Figure 2. Percentage of parental jobs. (n=50)

Table 1. Distribution of girl's height according to CDC growth chart for height (n=50)

Bellow 5th percentile.	At 5th percentile	Between 5th and 50th percentile	At 75th percentile
20% N=10	40% N=20	20% N=10	20% N=10

Table 2. Distribution of girl's weight according to CDC growth chart for weight. (n=50)

Bellow 5th percentile.	At 5th percentile	Between 5th and 50th percentile	Between 50th and 75th percentile	total
34% N=17	28% N=14	28% N=14	10% N=5	100% N=50

33% take black tea with evening snacks. 56% of students were having junk food in school time. Most common items were sweets, toffees, processed chips, and paparh. 18% were bringing lunch from home. Most common items were rice, noodles, chickpeas. 26% of students were not having anything during school time. When their favorite food was asked 66% (33) student reply chips, burger, ice cream, and pizza. 22%(11) were liking meat, vegetables, and legumes.60% likes fruit.4% does not specify anything. 62% were not liking vegetables. 20%dislikes legumes. When food selection was assessed, 60 % responded that their parents choose the type of food for them while 40% were independent in selection. According to Figure no 1, it was evident that 98 % of students were not having milk and fruit. 90% of students were taking breakfast. 35% were taking the egg with bread and black tea while 55% were taking roti and black tea. According to the table no 1, 28% (14) girls were at the 5th percentile of weight according to age. 34% (17) were below the 5th percentile for age. 28% were between 5th

and 50th percentile for age, 10%(5) were between 60 and 70th percentile. According to table no 2, 40%(20) girls were at the 5th percentile of height for age,20%(10) were between 5th and 50th percentile,10%(5) were between 60th and 75th percentile.10%(5) were at 75th percentile. According to Figure no 2, Education status of parents was 2% were middle pass, 55% fathers were laborers,10% were government servant,35% were not having any jobs.

RECOMMENDATIONS

Nutritional information should be the part of the curriculum in the earlier classes. Food services of schools should be parallel with the international standard of school nutrition program. Along with it, root cause not the symptoms should be treated i.e unemployment, lack of education and family planning.

Conclusion

From this study, it is evident that problems in this area are somewhat different. Although snacking with junk food, use of unhygienic food, intake of empty calories are the same issues but obesity is not our problem rather our kids are under weight and stunted due to inadequate caloric intake, and poor quality food. Unemployment, lack of education and big families all are contributing factors to poor quality diet.

Acknowledgment

REFERENCES

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*. Jan 1;113(1):112-8.

Kaushik JS., Narang M., Parakh A. 2011. Fast food consumption in children. *Indian Pediatrics*. Feb 1;48(2):97-101.

Lewis, R. 2013. *The immediate effect fast food has on children.* Retrieved from https://www.thenational.ae/lifestyle/family/the-immediate-effect-fast-food-has-on-children-1.317147.

Fernández San Juan PM. 2006. Dietary habits and nutritional status of school aged children in Spain. Nutrición Hospitalaria. 2006;21(3). *Nutr Hosp.,* 21 (3):374-378

CIAA. 2009. DIET, Nutrition and health. *Annual report 2009* (pp. 29-31). Brussels: Data and Trends 2009. Available from: https://www.fooddrinkeurope.eu/ documents/ brochures/annual%20report%20CIAA%202009.pdf

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. Journal of the American Dietetic Association. Apr 1;108(4):673-8.

S, S. 2007, March 13. *Indian food worse than Western junk?* Retrieved from https://timesofindia.indiatimes.com/ india/Indian-food-worse-than-Western-junk/articleshow/1755418.cms

Vijayapushpam T., Menon KK., Rao DR., Antony GM. 2003. A qualitative assessment of nutrition knowledge levels and dietary intake of schoolchildren in Hyderabad. Public Health Nutrition. Oct;6(7):683-8.

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