



Fast Food Consumption Pattern and Its Association with Overweight among High School Boys

Rashmi Ranjan^{1*}

¹Assistant Professor, World College of Medical Sciences, Jhajjar, Haryana, India.

Email:

drrashmiranj2012@gmail.com

*Corresponding author

Received: January 2021

Accepted: February 2021

Abstract

Background: Consumption of fast foods has become almost a global phenomenon. The present study was conducted to assess fast food consumption pattern and its association with overweight. **Methods:** 250 school students of both genders were given a semi-structured questions on food frequency intake of fast foods, vegetables and fruits per week, years of fast food consumption, source of information, reasons for consumption, awareness about its health hazards, amount spent in a week on fast foods and parental consumption of fast foods were obtained. **Results:** Out of 150 subjects, males were 150 and females were 100. Most of the obese (45) and normal subjects (120) were non- veg/mixed. 100 normal and 35 obese subjects used to eat fast food every day, duration of eating was >5 years seen in 45 normal and 22 obese subjects, 110 normal and 21 obese used to eat pizza frequently. The difference was significant ($P < 0.05$). **Conclusion:** There was an association between fast food consumption and overweight and obesity.

Keywords: Caudal Fast food, Overweight, Obesity.

INTRODUCTION

Consumption of fast foods has become almost a global phenomenon. India's fast-food industry is expanding at the rate of 40% every year.^[1] India ranks 10th in the fast food per capita spending figures with 2.1% of expenditure in annual total spending. The percentage of caloric intake from fast foods has increased fivefold over the past three decades among adolescents.^[2] In addition, obesity prevalence increased dramatically worldwide as one of the most serious public health problem especially in childhood and adolescents

in current century. Fast food consumption has increasing trend due to convenience, costs, menu choices, flavor and taste. About 30% of children to more than 50% in college students use fast food daily.^[3] Moreover, more than 33% of adults and 17% of children and teenagers are obese in united states. Increased food consumption and substantial changes in the food habits are the most important factors of obesity epidemic besides the poor diet among young people at recent years.^[4]

As food habits learnt in childhood tend to persist into adulthood it becomes important to educate children about



healthy eating habits and make them aware about the health hazards of fast foods right from school level onwards.^[5] It becomes equally important to have a clear understanding of the factors influencing food choices so as to formulate appropriate nutritional educational strategies.^[6] The present study was conducted to assess fast food consumption pattern and its association with overweight.

MATERIALS AND METHODS

The present study comprised of 250 school students of both genders. All were enrolled after obtaining consent from parents and school authority. Demographic profile such as name, age, gender, standard etc. was recorded. A semi-structured questions on food frequency intake of fast foods, vegetables and fruits per week, years of fast food consumption, source of information, reasons for consumption, awareness about its health hazards, amount spent in a week on fast foods

and parental consumption of fast foods were obtained. Results thus obtained were analyzed statistically. P value less than 0.05 was considered significant.

RESULTS

Table 1: Distribution of subjects

Total- 250		
Gender	Males	Females
Number	150	100

[Table 1] shows that out of 150 subjects, males were 150 and females were 100.

[Table 2] shows that BMI was underweight in 30, overweight in 24, obese in 26 and normal in 170. Type of fast food used was vegetarian in 260 and non- vegetarian/mixed in 140. Frequency was once a week in 120, twice a week in 70 and every day in 60. Duration of consumption was <1 year in 60, 1-3 years in 70, 3-5 years in 55 and >5 years in 65 cases. Type of fast food used was pizza in 110, burger in 70, samosa in 20 and chocolate in 50. The difference was significant ($P < 0.05$).

Table 2: Assessment of parameters

Parameters	Number	P value
BMI		
Underweight	30	0.01
Overweight	24	
Obese	26	
Normal	170	
Type of fast food		
Vegetarian	260	0.05
Non- vegetarian/Mixed	140	
Frequency		
Once a week	120	0.02
Twice a week	70	
Everyday	60	
Duration of consumption		

<1 year	60	0.17
1-3 years	70	
3-5 years	55	
>5 years	65	
Type of fast food		0.02
Pizza	110	
Burger	70	
Samosa	20	
Chocolate	50	

Table 3: Association of various risk factors with consumption of fast foods

Variables	Parameters	Normal/ Underweight	Overweight/ Obese	P value
Diet	Vegetarian	80	5	0.03
	Non-Veg/Mixed	120	45	
Frequency	Once a week	45	5	0.01
	Twice a week	55	10	
	Everyday	100	35	
Duration	<1 year	40	6	0.02
	1-3 years	90	12	
	3-5 years	25	10	
	>5 years	45	22	
Type of fast food	Pizza	110	21	0.05
	Burger	40	19	
	Samosa	30	2	
	Chocolate	20	8	

[Table 3, Figure 1] shows that most of the obese (45) and normal subjects (120) were non-Veg/mixed. 100 normal and 35 obese subjects used to eat fast food every day, duration of eating was >5 years seen in 45 normal and 22 obese subjects, 110 normal and 21 obese used to eat pizza frequently. The difference was significant ($P < 0.05$).

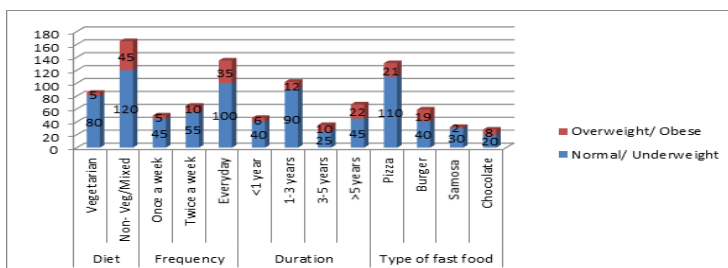


Figure 1: Association of various risk factors with consumption of fast foods

DISCUSSION

Popularity of these food stuffs in this age of urbanization has been attributed to quick preparation and convenience of finishing a meal within no time.^[7] Great taste, attractive appearance along with advertising has played a major role in attracting people particularly adolescents to the selling joints. Unfortunately, the current world's adaptation to a system of consumption of fast foods has resulted in several adverse effects on health. The energy density of fast foods had been found to be more than twice the recommended daily allowance for children.^[8] Experts therefore attribute the current childhood obesity epidemic to fast foods. The prevalence of obesity and overweight has increased rapidly among adults and children over the past three decades. In children, it increased from less than 3% in 1985 to about 20% in 2010. It has reached 42.6% in adults by 2010. It is much more prevalent in major cities, reaching about 50% in children in recent years.^[9] The present study was conducted to assess fast food consumption pattern and its association with overweight.

In present study, out of 150 subjects, males were 150 and females were 100. Joseph et al,^[10] found that the mean age of boys was 13.5±0.9 years. Out of 300 participants, 41 (13.7%) were overweight and 8 (2.7%) were obese. 292 (97.3%) were fast food users of which 42 (14.4%) consumed it every day. Majority of participants were introduced to fast foods through television commercials 193 (64.3%). 73 (57%) developed this habit as they were bored with home food. Awareness of harmful effects of fast food consumption was known to 186 (62%) students and this was

found to be associated with the perceived need to control its usage.

We found that BMI was underweight in 30, overweight in 24, obese in 26 and normal in 170. Type of fast food used was vegetarian in 260 and non-vegetarian/mixed in 140. Frequency was once a week in 120, twice a week in 70 and everyday in 60. Duration of consumption was <1 year in 60, 1-3 years in 70, 3-5 years in 55 and >5 years in 65 cases. Type of fast food used was pizza in 110, burger in 70, samosa in 20 and chocolate in 50. Brener et al,^[11] found that their study subjects tended to over-report their height by 2.7 inches (6.9 cm) on average, and to under-report their weight by 3.5 pounds (1.6 kg) on average, resulting in a BMI understated by 2.6 kg/m² when compared to measured values. White adolescents were most likely to over report their height and female adolescents were more likely to under-report their weight.

We observed that most of the obese (45) and normal subjects (120) were non-Veg/mixed. 100 normal and 35 obese subjects used to eat fast food every day, duration of eating was >5 years seen in 45 normal and 22 obese subjects, 110 normal and 21 obese used to eat pizza frequently. Rasmussen et al,^[12] reported that boys and girls who wished to be leaner under-reported their weight and BMI more than participants who were satisfied with their body size. When we restricted our analysis to measured height and weight data only, the association between higher fast-food consumption and lower BMI was no longer observed in male adolescents, but the association between higher rates of fast-food consumption and lower BMI persisted in female adolescents.



CONCLUSION

Authors found that there was an association between fast food consumption and overweight and obesity.

REFERENCES

1. Duncan JS, Schofield G, Duncan EK, et al. Risk factors for excess body fatness in New Zealand children. *Asia Pac J Clin Nutr* 2008;17:138-47.
2. Ellwood P, Asher MI, Beasley R, et al. The international study of asthma and allergies in childhood (ISAAC): phase three rationale and methods. *Int J Tuberc Lung Dis* 2005;9:10-16.
3. Shan XY, Xi B, Cheng H, et al. Prevalence and behavioral risk factors of overweight and obesity among children aged 2-18 in Beijing, China. *Int J PediatrObes* 2010;5:383-9.
4. Taveras EM. Association of consumption of fried food away from home with body mass index and diet quality in older children and adolescents. *Pediatrics* 2005;116:518-24.
5. Fraser LK, Edwards KL, Cade JE, et al. Fast food, other food choices and body mass index in teenagers in the United Kingdom (ALSPAC): a structural equation modelling approach. *Int J Obes (Lond)* 2011;35:1325-30.
6. Brener ND, McManus T, Galuska DA, et al. Reliability and validity of self-reported height and weight among high school students. *J Adolesc Health* 2003;32:281-7.
7. Steiner-Asiedu M, Jantuah JE, Anderson AK. The Snacking Habits in Junior High School Students: The Nutritional Implication-a Short Report. *Asian Journal of Medical Sciences*. 2012; 4:99-104.
8. Akman M, Akan H, Izbirak G, et al. Eating patterns of Turkish adolescents: a cross-sectional survey. *Nutr J*. 2010;9:67.
9. Li M, Dibley MJ, Sibbritt DW, Yan H. Dietary habits and overweight/obesity in adolescents in Xi'an City, China. *Asia Pac J Clin Nutr*. 2010;19:76-82.
10. Joseph N, Nelliyanil M, Sharada Rai RB, Kotian SM, Ghosh T, Singh M. Fast food consumption pattern and its association with overweight among high school boys in Mangalore city of southern India. *Journal of clinical and diagnostic research: JCDR*. 2015 May;9(5):13.
11. Brener ND, McManus T, Galuska DA, et al. Reliability and validity of self-reported height and weight among high school students. *J Adolesc Health* 2003;32:281-7.
12. Rasmussen F, Eriksson M, Nordquist T. Bias in height and weight reported by Swedish adolescents and relations to body dissatisfaction: the COMPASS study. *Eur J Clin Nutr* 2007;61: 870-6.

Source of Support:Nil,Conflict of Interest: None declared