

Exploring Fast Food Consumption Pattern in Relation to Socio-demographic Factors Among School Going Adolescent

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Abstract:

Background: Diet plays a very important role in growth and development of adolescents. Consumption of fast food among adolescents is rising day by day in Bangladesh. Though its adverse health consequences are widely prevalent in all age groups but adolescents are more at risk. The objectives of the study was to determine fast food consumption pattern among school going adolescent in Dhaka, Bangladesh.

Methods: This cross sectional study was conducted from January to December 2022. Sample size was 312 adolescent from two secondary schools in Dhaka. Convenience sampling technique was followed for data collection by face to face interview by using a pretested, semi-structured questionnaire. Data were edited through checking and rechecking for quality control. Data were analyzed by Statistical software.

Results: Among 312 adolescent, the mean±SD age was 14.91±1.17 years. Majority of the adolescent were female (54.2%) and Muslim (95.8%). The profession of fathers of 60.3% respondents were businessman and of 36.5 respondents were service holder. The majority (73.7%) of the respondents took breakfast before going to school, 53.8% took tiffin from school canteen and 53.5% ate snacks once in a day. The majority (59.7%) ate fast food weekly. Among the adolescent 47.2% ate burger, 28.7% ate pizza, 17.7% ate sandwich, 30.4% ate chicken grill one time in a week. Among the adolescent 92.6% liked soft drinks when consumed fast food. Significant association were found between respondents' family monthly income and frequency of eating fast food ($p < 0.05$).

Conclusion: Fast food has a high calorie content and little nutritional value, despite being tasty. The fast food addiction may be reduced with nutrition counselling that emphasizes the value of a balanced diet and the negative effects of fast foods.

Keywords: Fast food, adolescents, balance diet

Journal of Dentistry and Allied Science, Vol. 6 No 1
Article Received: 12 Dec 2022, Accepted: 27 Dec 2022

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Introduction

Fast food consumption and its effect has become a major public health concern globally because of its worsening health consequences and surging prevalence.¹ Fast food indicates food which is quickly prepared and served at outlets such as fast food restaurants. Healthy nutrition rich foods have been substituted by the new food named as fast food.² It contains high level of refined sugar white flour, trans fat and poly saturated fat salt, and numerous food additives. At the same time, it is lacking in proteins, vitamins, minerals, fiber.³ Fast food affects the digestive system and its effects can occur after several year.⁴ Adolescence is a time of transition when a person goes from being a child to an adult and experiences rapid physical and psychological growth and development. Since adolescence is a time of rapid physical growth and increased nutritional needs, it's crucial to develop healthy eating habits.⁵ To maintain a healthy weight in young adults, a balanced, healthy diet is crucial. In addition to preventing non-communicable diseases (NCDs) like hypertension, diabetes, and cardiovascular diseases, a healthy diet also helps to prevent all forms of malnutrition.⁶ The aim of the study was to determine the pattern of fast food consumption among school going adolescent in Dhaka.

Methods

This was a cross sectional study was conducted from January 2022 to December 2022. The study place was Saheed Cadet Academy School, Keranigonj, Dhaka and

Chunkutia Govt Girls High School, Keranigonj, Dhaka. The study population comprised of adolescent age 12 to 18 years from mentioned institution in Dhaka district. Convenience sampling technique was used for sample selection. Interview was taken separately by face-to-face interview with the help of a semi structured questionnaire. Before data collection pretesting was done among 35 adolescent at Meadoscholastic School, Keranigonj, Dhaka to check the accuracy and degree of reliability of the questionnaire. The questionnaire was finalized after necessary modification based on the finding from pretesting. After completion of data collection, to maintain consistency, the data were checked and edited manually and data were coded, entered and analyzed in a computer. Collected data were edited and analyzed according to the objectives and variables by statistical package for the social science (SPSS) software version 22. Descriptive analysis were presented by frequency, percentage, mean and standard deviation. Whereas, Chi-square test used to determine the association between fast food consumption and different variable.

Results

Among 312 students, 108 (34.6%) respondents belonged to 12-14 years and 204 (65.4%) belonged to 15- 18 years (Table 1). Moreover, majority of the respondents 206 (59.7%) ate fast food weekly, 16 (4.6%) respondents ate fast food daily, 38 (11.0%) respondents ate fast food monthly, 52 (15.1%) respondents ate fast food occasionally (Table 2).

Table 1: Distribution of the respondents according to their age (n-312)

Age of the respondents	Frequency	Percentage	Mean \pm SD
12 - 14 Years	108	34.6	14.91(\pm 1.17)
15- 18 Years	204	65.4	
Total	312	100.0	

Table 2: Distribution of the respondents according to frequency of eating fast food (n-312)

Frequency of eating fast food	Frequency	Percentage
Daily	16	4.6
Weekly	206	59.7
Monthly	38	11.0
Occasionally	52	15.1
Total	312	100.0

The most of the respondents 163 (47.2%) ate Burger one time in week, 46 (13.3%) of the respondents ate Burger two times per week and only 11 (3.2%) of the respondents ate Burger three times and more per week. It was also found that majority of the respondents 99 (28.7%) ate Pizza one time in week and 44 (12.8%) of the respondents ate Pizza two times per week. It was found that majority of the respondents 61 (17.7%) ate Sandwich one time in week and 32 (9.3%) of the respondents ate Sandwich two times per week. It was also found that majority of the respondents 105 (30.4%) ate Chicken grill one time per week and 35 (10.1%) of the respondents ate Chicken grill two times per week. It was also found that majority of the respondents 62 (18%) ate Fried rice one time in week and 19 (5.5%) of the respondents ate fried rice three times and more per week (Table 3). Additionally, 289 respondents (92.6%) preferred soft drinks, while 23 respondents (7.4%) did not prefer soft drinks when eating fast food (Table 4). The result also shows that the association between family monthly income and frequency eating fast food, the result represents that there were significant association found in between family monthly income and frequency eating fast food ($p < 0.05$) (Table 5).

Table 3: Distribution of the respondents according to habituated of eating fast food per week (n-206)

Type of food	Frequency of eating fast food per week			Total
	1 time N (%)	2 times N (%)	3 times and more N (%)	
Burger	163(47.2)	46 (13.3)	11 (3.2)	220
Pizza	99(28.7)	44 (12.8)	4 (1.2)	147
Sandwich	61(17.7)	32(9.3)	7 (2.0)	100
Hotdog	30(8.7)	10(2.9)	5 (1.4)	45
Chicken roll	62(18)	21(6.1)	4 (1.2)	87
Mutton roll	8(2.3)	4(1.2)	4 (1.2)	16
Chicken grill	105(30.4)	35(10.1)	12 (3.5)	152
Sharma	35(10.1)	15(4.3)	2 (0.6)	52
Momo	29(8.4)	6(1.7)	4(1.2)	39
Fried rice	62(18)	29(8.4)	19 (5.5)	110

* Multiple responses

Table 4: Distribution of respondents based on their preference for soft drinks when eating fast food (n-312)

Preference for soft drinks	Frequency	Percentage
Yes	289	92.6
No	23	7.4
Total	312	100.0

Table 5: Association between family monthly income and frequency of eating fast food of the respondents (n=320)

Family income in Taka	Frequency of eating fast food				Total	Statistics
	daily	weekly	monthly	occasionally		
18000-30000	4	73	11	25	113	Chi-square test $\chi^2 = 76.22$ $p=0.025$ (p<0.05)
31000-50000	6	91	18	22	137	
51000-70000	3	28	6	3	40	
71000-100000	2	14	1	3	20	
101000-150000	1		1		2	
Total	16	206	37	53	312	

*Statistically significant

Discussion

The study investigated the fast food consumption patterns of 312 students, revealing insightful trends and association with demographic factors. This survey found that, of the 312 respondents, 108 (34.6%) belonged to the 12–14 age group and 220 (65.4%) to the 15–18 age group. In 2014, 127 adolescents between the ages of 13 and 18 participated in research of a similar nature in Saudi Arabia.⁷ A second research was conducted in Khulna, Bangladesh in 2020, with 217 participants, 107 of them (49.3%) were between the ages of 13 and 14.⁸ Notably, 59.7% of respondents consumed fast food on a weekly basis, while 4.6% indulged daily, 11.0% monthly, and 15.1% occasionally. Comparing these findings with related research, the weekly consumption aligns with trends seen in Libya, where 68.5% consumed fast food three times or more weekly. However, the 4.6% daily consumption rate contrasts with the 17% reported in Libya. This discrepancy might stem from cultural variations in fast food habits and availability.^{9,10}

Regarding specific foods, 47.2% consumed burgers weekly, differing from Malaysia where chicken-based fast foods were favored. The study's observation of a strong preference for soft drinks (92.6%) during fast food consumption corresponds with the global trend of pairing fast food with sugary beverages.^{11,12}

The study's significance lies in linking family monthly income with fast food consumption, revealing a substantial association. This mirrors a study in Khulna, Bangladesh, highlighting the strong influence of socioeconomic status on dietary choices. This underscores the importance of addressing economic factors in interventions targeting adolescent diets.⁸

Conclusion

A balanced diet with adequate nutrition is essential for human growth and development. The culture of fast food, which has no nutritional value and is also detrimental to growth and development, is becoming more and more popular among the younger generation. Nutritional interventions, such as nutrition education programs with practical activities, may increase a person's confidence in their ability to choose healthy foods and cut back on fast food consumption.

Acknowledgement

I am thankful to Professor Dr. Hafiza Sultana, Professor and Head Dept. of Health Education, NIPSOM and Professor Dr. Sayed Mozammel Hossain, Hospital Director, University Dental College & Hospital for their kind co-operation to publish it.

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