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FAST FOOD CONSUMPTION AMONG ADOLESCENT SCHOOL GIRLS IN JAIPUR

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ABSTRACT

Fast food is popular among adolescents however its consumption has often been associated with negative impairment on nutritional status and health. The purpose of this study was to assess the fast food consumption pattern and the amount of money spent by the subjects from school canteen and fast food restaurants. The study was carried out on 145 subjects from a girl's school in Jaipur in the age group of 14-16 years. All subjects were belonging to upper income group. The number of subjects who received more than Rs. 1000 as monthly pocket money was 39% out of which 15% were receiving more than 3000Rs. Maximum numbers of subjects was spending money in fast food ranging from Rs 200 per month to Rs 1000 or above. The school canteen had several fast food options like carbonated beverages, burgers, pizza, ice cream, shakes, chowmein, pasta etc. 25% subjects were missing breakfast everyday and 21% were consuming canteen snacks everyday. The subjects who were consuming fast food everyday had higher BMI than others. They also were missing lunch after school after intake of high calorie snacks during recess and after school.

Keywords: *Fast Food, BMI*

INTRODUCTION

Fast food culture is an emerging trend among the younger generation. The ready availability, taste, low cost, marketing strategy and peer pressure makes them popular children and adolescent.

Consumption of fast foods has become almost a global phenomenon. India's fast-food industry is expanding at the rate of 40% every year. India ranks 10th in the fast food per capita spending figures with 2.1% of expenditure in annual total spending (Ashakiran, 2012).

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 (Printice, 2003).

Fast food has strong positive associations with weight gain and insulin resistance, that fast food increases the risk of obesity and type 2 diabetes (Pereira, 2005).

Effects of regular intake of junk food mainly lack of energy, poor concentration, and obesity leading to inferiority complex, depression, heart disease, high cholesterol, and stunted growth premature aging and tooth decay (Chubbier, 2010).

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. It becomes equally important to have a clear understanding of the factors influencing food choices so as to formulate appropriate nutritional educational strategies (Joseph, 2015).

Therefore this study was done to find out the awareness of health hazards of fast foods, consumption pattern of fast foods high school students.

MATERIALS AND METHODS

The study was conducted out in the Maharani Gaytri Devi girl's School in Jaipur district Rajasthan.

Setting and Participants

A total 150 subjects were selected between the age group of 14 – 16 years.

The duration of data collocation was 3 months October to December 2012. For data collection questionnaire and interview method was used.

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Development of Tool

A pre- tested questionnaire was formulated for the collocation of information. The questionnaire was simple and brief. Pilot study was conducted to assess reliability and validity of the questionnaire. The self-made questionnaire was developed.

(a) General information:- the schedule was used to collect the information on general profile, name, age, education, family details, received pocket money among school going girls.

(b) Anthropometric assessment: - the schedule was used to anthropometric assessment include body weight, body height, hip circumference, waste circumference

(c) *Dietary Intake*: - The fast food consumption frequency was recorded in terms of intake of Pizza, burger, chocolate, ice cream, and cookies/cake, chowmein, and pasta, Maggi etc. The fast food consumption pattern assess by the fast food frequency questionnaire in term of daily, 5-6 time per week, 2-4 time per week, once per week, never.

(d) *Statistical Analysis*: SPSS version 10 was used to draw meaningful inferences from the collected raw data.

RESULT AND DISCUSSION

Table 1 shows that the general profiles of the subjects were. Categorized into two classes 9th and 10th 65.5% subject was 9th class and 34.4% subjects were 10th class. 14-15 year of age group 49.6% and 15-16% year of age group 50.3%. Most subjects were day's scholars 80.6% and hosteller was 19.31%. 72.41% subjects were belonged to nuclear family and only 31.72% was belonged to joint family.

Table 1: General Profile

Variables		No.of Respondents	% of Respondents
Class	9th	95	65.5
	10 th	50	34.4
Age	14-15	72	49.6
	15-16	73	50.3
Residence	Days scholar	117	80.6
	Hosteller	28	19.31
Family type	Joint family	46	31.72
	Nuclear family	105	72.41

Table 2: Money received and spent per month on food/snacks

Variables		No. Of respondents	% Of respondents
Received pocket money	Daily	1	0.68
	Weekly	3	2.06
	Monthly	37	25.5
	As Needed	104	71.7
Amount of money received per month	500 or less	57	39.31
	500-1000	33	22.75
	1000-2000	34	23.4
	3000-5000	16	11.03
	5000& above	5	3.44
Amount of money spent per month of food/snacks	200 or less	59	40.68
	200-500	33	22.75
	500-800	23	15.86
	800-1000	14	9.655
	1000-above	16	11.03

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Table no.2 shows money received and spent on foods/ snacks. Most of the respondents 71.7% were receiving money as needed. Other respondents 25.5% receive money monthly.

Most of the respondents 39.3% were receiving money about Rs. 500 from home. Moreover 22.75% respondents were receiving money about Rs. 500-1000 money from home. Around 23.4 % of the respondents were receiving Rs. 1000 -2000 and 11.03% respondents were receiving money from home Rs. 3000-5000. Only 3.44% respondents were receiving money from home Rs. 5000& above 40.68% respondents' spends Rs. 200 or less money per month on food/snacks. Around 22.75% respondents spend Rs. 200-500 money per month on food/snacks.11.03% respondents spend Rs.1000 & above money per month on food/snacks.

Table 3: Comparison between pocket money received and spent on fast-food

Amount of money received per month	Amount of money spent per month of food/snacks					Total
	200 or less	200-500	500-800	800-1000	1000&above	
500 or less	38 (26.2)	16(11.03)	3(2.06)	0	0	57
500-1000	14(9.65)	7(4.82)	8(5.51)	4(2.75)	0	33
1000-2000	7(4.82)	8(5.51)	9(6.20)	2(1.37)	8(5.51)	34
3000-5000	0	2(1.37)	3(2.06)	8(5.51)	3(2.06)	16
5000&above	0	0	0	0	5(3.44)	5
Total	59	33	23	14	16	145

Table no. 3 reports that 26.2% respondents receive less than Rs.500 and they spend their money on fast-food approximately less than Rs.200. 5.51% respondents received money Rs.1000-2000.moreover, they spend money on fast-food Rs.1000&above. 10.06% subjects receive money per month Rs.3000-5000 and they mostly spend money per month on food/snacks Rs.800-1000 (5.51%). Only 3.44% subjects received money per month Rs5000& above and they spend of money on fast food is Rs.1000 & above.

Table 4: BMI compared with WHO standard

Presumptive Diagnosis	BMI class	No. of respondents	% of respondents	T- test value
*CEDIII Severe	<16.0	0	0	0
CEDII Moderate	16.0-17.0	4	2.75	0.25(NS)
CED I Mild	17.0-18.5	3	2.06	0.22(NS)
Low weight-normal	18.5-20.0	33	22.7	0.47(NS)
Normal	20.0-25.0	95	65.51	0.66(NS)
Obese grade	25.0-30.0	10	6.89	25.19(S)
Obese grade II	>30.0	0	0	

*Chronic energy deficiency

According to the classification given by WHO (2000) table no.4 shows that the BMI comparison with WHO. The mean BMI of subjects was 20.8 kg/m. The mean BMI of subjects was 20.8±2.40 which falls in the normal category.it was observed from the data that 65.51% subjects were normal, & 6.89% were pre obese grade1 and 22.7% were low weight but normal.

Table no. 5 depict subjects regarding breakfast and eating out mostly respondents of the hosteller 85.87% eat breakfast in the morning because hostel time decide for meals and days scholar were 41.0% eat breakfast in the morning. 25.6% of the respondent's day's scholars miss breakfast every day and no subjects of the hosteller miss breakfast. Majority of the subject 1-2 times/week miss the breakfast 50%. 2.56% of the respondents never miss breakfast.

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Only 35.7% subjects of the hosteller eat out in a week. They live in hostel and not allowed going out from hostel. Respondents of the day's scholar eat out in a week 57.2%.

Majority of the respondents of day's scholar 82.5% were found eat snacks in the home and recess time or after school. Other had 71.4% respondents of hosteller were found eat snacks in the recess time and after school. 21.4% respondents of the hosteller consume canteen snacks. Both respondents approximately 7.6% were found not eat anything.

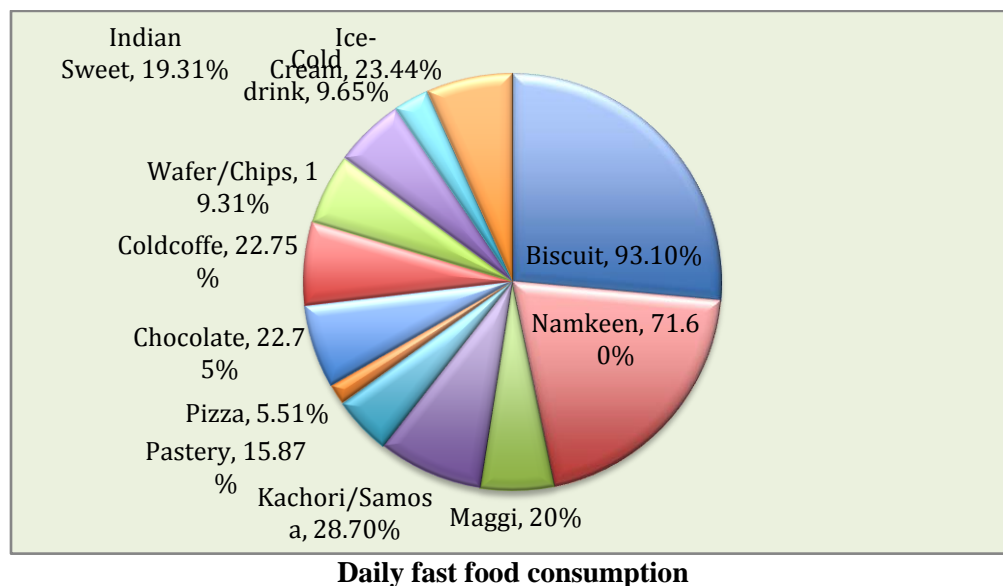
Table 5: Regarding breakfast& eating out food practices

Variable		No. Of respondents		%No. Of respondents	
		D	H	D	H
Eat in the morning	Breakfast	48	24	41.0	85.97
	Milk only	58	2	49.5	7.14
	No food	11	2	9.40	7.14
Miss breakfast	Everyday	30	0	25.6	0
	1-2 times/week	49	14	41.8	50.0
	1-2 times/month	35	10	29.9	35.7
	Never	3	4	2.56	14.2
Eat out	Week	67	10	57.2	35.7
	Month	50	18	42.7	64.2
Eat in recess time and after school	Home /Hostel snacks	96	20	82.05	71.4
	Canteen snacks	12	6	10.25	21.4
	Not eat anything	9	2	7.6	7.14

Table 6: Comparison to eat out and BMI

S.no	Eat Out	Subjects Measurements		BMI	t-test
		Height	Weight		
1.	Week	155.2±4.87	52.9±6.87	21.3±2.81	0.16(NS)
2.	Month	158.5±5.89	50.7±5.87	20.9±1.81	0.47(NS)

This table shows mostly subjects eat out in a week & they weight (52) and their BMI (21.3) was high in comparison to those eat out in a month because they subject eat out in a week while fast food frequency was also high.



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Table no. 7 shows that daily fast food consumption. That 22.75 % subjects were eating chocolate daily. chocolate are easily available of cheap price. 20% subjects daily and Maggi most favorite food of the children consumed Maggi. Namkeen and biscuit are very common in children the subjects were eating namkeen and biscuit 72.03%.

Conclusion

- Meal skipping, more intake of junk food, carbonated drinks were some of the unhealthy eating habits depicted among adolescent girls.
- The data also revealed that girls were consuming excess of energy, and fat which may be one of the cause of girls being overweight
- Most of the were sedentary life style.

Limitation of the study

- The study was conducted on school and most of the subjects was days scholar due to no regarding information of dietary intake.
- Skipping meals only information of breakfast no information of dinner or lunch
- The fast food frequency item is no categorized i.e. south Indian, bakery item, fried food, Chinese food, beverage etc.
- No information of family income.

Suggestion

- Create awareness in the school going children about hazards of fast food consumption.
- Banned fast food use in school
- Banned carbonated beverage in school campus
- Nutrition education should given to the school students
- In canteen healthy foods like dhokla, idli etc. can be sold instead fast food.

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