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FOOD PREFERENCES AND DIETARY INTAKE OF HIGH SCHOOL ADOLESCENTS IN HARYANA



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Short Profile

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ABSTRACT:

The present study was conducted on 120 high school adolescents (15-18 years). The main aim of the study was to explore the food preferences and dietary intake of high school students studying in an established private school in an urban set up.

Majority of the respondents (70%) were in the age group of 15-16 years and out of the total 86.66 per cent were Hindus. Half of the respondents were pure vegetarians. All the respondents (100%) reportedly skipped meals often. The given reason for skipping meals by 50 per cent of the respondents was that, they had no taste for homemade food. More than half of the respondents (70%) skipped meals once a day and breakfast was the most commonly skipped meal by majority (60%) of the adolescents. Eating habits of one third respondents were not influenced by any other person but stated to be their own personal liking. Intake of milk/milk products, fruits, vegetables and greens on daily basis by respondents was reported as 70 per cent, 35 per cent, 45 per cent and 10 per cent respectively. Junk food was the most preferred type of skipped meal substitute of the 50 per cent respondents. Preferred snacks of the students were found to be burger, pastry, maggi, French fries. Majority of the respondents (93.33%) preferred soft cola drinks for beverage consumption followed by cold coffee (83.33%). Fruit consumption pattern shows that ,nearly all the respondents (98 %) eat fruit, majority (86 %) prefer to consume seasonal fruits and only 35 per cent eat fruits on daily basis.

KEYWORDS

Adolescence, Adolescent's diets, Skipping meals, High School adolescents.

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INTRODUCTION :

The eating behavior of adolescents has become increasingly under spotlight in recent years in India, amid claims that, many adolescents have a poor diet [1]. Change in lifestyles and loss of family traditions of eating together trigger the popularity of fast food among young people. The shift from healthy, homemade food to more convenient, longer lasting food combined with sedentary lifestyles has resulted in global fattening and related health complications [2, 3]. Adolescence is the time of increasing autonomy. It provides opportunities to consume more food away from the influence and supervision of family [4, 5]. As many as one third meals may be consumed away from home [4]. Many have poor eating habits, such as consumption of high fat foods that, may become established during adolescence [6, 7]. Intake of vitamins and minerals (with the exception of sodium) may decline as individuals move into adolescence and young adulthood [8]. Data from National Nutrition Survey [9] indicates that 85 per cent of adolescents do not consume the recommended amount of either fruits or vegetables [10]. Irregular meal pattern and skipping meals is very common among adolescents in school age group [4]. Recent studies confirm that, adolescent's diets are nutritionally far from ideal. Despite the importance of healthy eating during adolescence, the adolescents' diets do not meet guidelines such as Food Guide Pyramid [11].

Eating patterns and behavior of adolescents are influenced by many factors, including peer influences, parental modeling, food availability, food preferences, cost convenience, personal and cultural beliefs, mass media and body image [11, 12]. Recent research conducted with Irish adolescents (Walsh & Nelson 2010) indicates that, parents are the biggest influencers in their children's diets. Other factors influencing adolescent's diets included their nutritional knowledge, friends (with whom high fast foods were often consumed), government health campaigns and cooking programs on television [13]. Another study by Wiecha and colleagues highlights the important role of television in shaping young people's intake of increased calorie-rich, low nutrient food often advertised on televisions, and this also explicitly links increased television viewing with increased calorie intake [14]. Adolescents in 11th and 12th grade undergo great deal of pressures and stresses to perform better in 12th standards so that they can have an entry into bachelor's programs of their choice in prestigious institutes. Therefore, a thrust was felt to study the food preferences and dietary intake of high school adolescents so that, the students can be better educated about the different aspects of foods and nutrition that, helps them to bring a behavioral change in eating patterns as all the available research shows that, healthy food habits and healthy students can attain better academic success.

METHODOLOGY:

A cross sectional study was carried out in January, 2015 amongst urban high school students studying in an established private school in Haryana. The sample consisted of 120 students. All of the selected students were well informed of the study aims and informed consent was taken for their participation in the study. Observation cum interview schedule was prepared to collect data. A semi structured questionnaire was prepared by the investigators and pretested on 15 respondents. The students were given about 45 minutes time to fill out the questionnaire and during this time one of the investigators were present in the class to answer any queries that students had. The data on general information included information regarding age, gender, religion, education and family structure.

Dietary habits included the information regarding their food habits, pattern of consumption and skipping of meals. Preferences and practices regarding food items included information on consumption of various nutrients in daily life. Preference for snacks and beverages included consumption of sweet and savory food items and beverages,. Fruit consumption pattern included information on consumption of fruits.

RESULTS AND DISCUSSION:

Table-1: Distribution of Respondents According to General Information

S.No	Age Group	N	Percentage (%)
1	15-16 years	84	70
2	17-18years	36	30
	Gender		
1	Boy	48	40
2	Girl	72	60
	Religion		
1	Hindu	104	86.66
2	Sikhs	12	10
3	Christian	4	3.33
	Educational Qualification		
1	11 th Standard	78	65
2	12 th Standard	42	35
	Family Type		
1	Joint	36	30
2	Nuclear	84	70
	No of family members		
1	Less Than 4	36	30
2	4 -6	72	60
3	More Than 6	12	10

N depicts the number of respondents

Table 1 illustrates that, majority (70 %) of the respondents were in the age group of 15–16 years and 60 per cent of the respondents were adolescent girls and remainder boys. Majority (86.66%) of them were Hindu by religion. Almost 65 per cent of the respondents were studying in 11th standard in School. Majority of them belonged to nuclear family structure having 4 to 6 members in the family

Table 2: Distribution of Respondents According to Dietary Pattern

S.No	Eating Habits	N	Percentage (%)
1	Vegetarian	60	50
2	Non Vegetarian	28	23.33
3	Ovatarian	32	26.66
Skipping Meals			
1	Yes	120	100
2	No	0	0
Reason for skipping meals			
1	Shortage of time	14	11.66
2	Parental pressure	18	15
3	No taste for home-made food	60	50
4	Habit	28	23.33
How often you skip a meal			
1	Once a day	84	70
2	Once a week	4	3.33
3	2-3 times a week	32	26.66
Most common skipped meal			
1	Breakfast	72	60
2	Lunch	18	15
3	Dinner	30	25
Factors affecting eating pattern and Choice			
1	Personal liking	42	35
2	Parents	6	5
3	Peer group	36	30
4	Economic Factor	12	10
5	Impulsive response to advertisements	20	16.66
6	Availability	4	3.33

Table 2 indicates that, half of the respondents (50%) were pure vegetarians while 26.66 per cent were ovatarians and only 23.33 per cent were non vegetarians. Alarmingly cent per cent of the respondents were skipping meals either due to no taste for home made food (50%), out of habit (23.33%), parental pressure (15%) or shortage of time (28.33%). It was found that, majority (70%) of the respondents skipped meal once a day and for more than half of the respondents (60%) breakfast was the most commonly skipped meal despite the fact that, it is well established and reported fact that,

breakfast is the most important meal of the day. When asked about factors affecting the eating pattern and choice, personal liking was found to be the response of maximum students (35%) followed by peer group (30%), impulse response to advertisements (16.66%), economic factors (10%), parents (5%) and availability (3.33%) respectively.

Table 3: Distribution of Respondents According to Food Preferences and Practices

S.No	Preference and practices of respondents related to food consumption	N	Percentage (%)
	Consume milk/milk products daily		
1	Yes	84	70
2	No	36	30
	Eat fruit daily		
1	Yes	42	35
2	No	78	65
	Eat vegetables daily		
1	Yes	54	45
2	No	66	55
	Eat greens daily		
1	Yes	12	10
2	No	108	90
	Most preferred skipped meal substitute		
1	Homemade snacks	34	28.33
2	Junk food	60	50
3	Fruits	6	5
4	Beverages	20	16.66

Table 3 shows the food preferences and practices of respondents related to food consumption in daily life. Though majority (70%) of the respondents consume milk/milk products on daily basis yet 30 per cent of the respondents not consuming milk/milk products is a matter of concern as milk is an important source of number of nutrients required for growth and development at this stage.. Majority (65%) of the respondents were eating fruits on daily basis. Less than half (45%) of the respondents were consuming vegetables and only 10 per cent were eating greens on daily basis. In response to the query on the most preferred skipped meal substitute, almost half (50%) of the respondents preferred eating junk food followed by homemade snacks (28.33%), beverages (16.66%) and fruits (5%). It is alarming to see that diets of high school age adolescents are so poor in vegetables which are protective foods and important sources of vitamins and minerals.

Table 4: Snack and Junk Food Consumption Pattern among Respondents.

S.No	Type Of Snack	N	Percentage (%)
1	French fries	28	23.33
2	Maggi	32	26.66
3	Bread pakora	14	11.66
4	Sandwich	16	13.33
5	Chocolate Bar	24	20
6	Pasta	18	15
7	Samosa	12	10
8	Burger	68	56.66
9	Pastry	52	43.33
10	Ice-cream	8	6.66
Quantity Of Snack			
1	One	74	61.66
2	Two	30	16.66
3	Three and above	16	13.33
Frequency Of Snack			
1	Daily	84	70
2	Alternate day	32	26.66
3	Weekly	4	3.33

Table 4 indicates many respondents consume more than one snack at a time. The refined food items like burger, pastry, maggi are highly preferred snacks and traditional snacks like samosa and bread pakora follow the preference list of urban high school adolescents. A large number of students consume fast foods daily (70%) or on alternate days (26.66%). This high level of consumption of unhealthy foods by school age adolescents is a matter of concern for nutritionists and must be addressed urgently and effectively by parents, teachers and society collectively on war footing.

Table 5: Consumption Pattern of Beverages Among Respondents

Sr No.	Type of beverage	N	Percentage (%)
1	Cold Coffee	100	83.33
2	Milk shake	84	70
3	Soft drink	112	93.33
4	Fruit Juice	40	33.33
5	Alcoholic Beverages	6	5
6	Any other	22	18.33

Table 5 shows that many respondents consume more than one beverage in a day. Majority of the respondents (93.33%) were consuming soft cola drinks followed by cold coffee (83.33%), Milk shake (70%), Fruit Juice (33.33%), while only 5 per cent of the respondents reported to be having alcoholic beverages. Consumption of alcoholic beverages at this tender age highlights the urgency of educating the adolescents to adopt healthy dietary habits.

Figure 1: Fruit Consumption Pattern

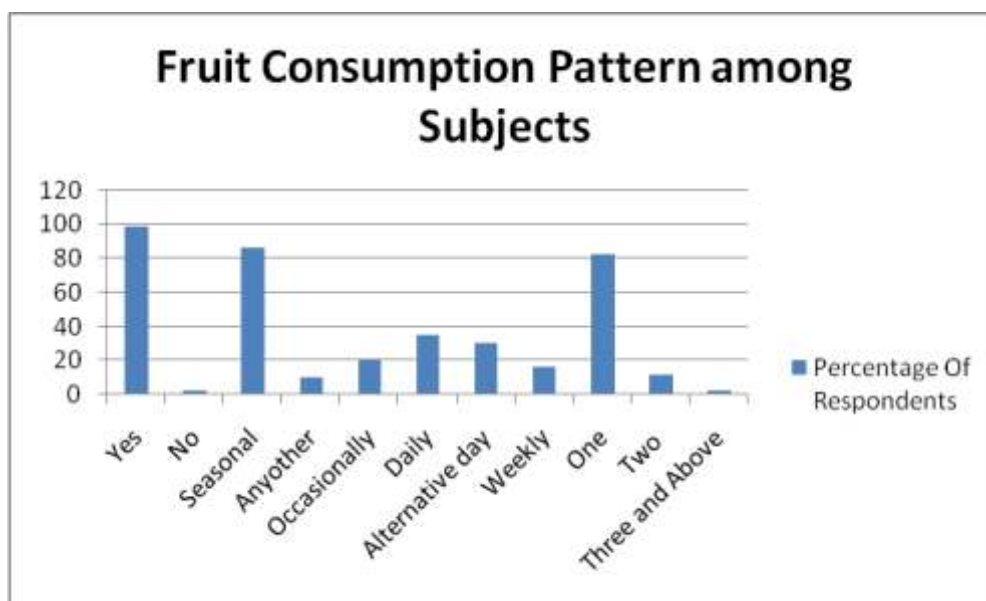


Figure 1 indicates that majority of the respondents (98%) consume fruits while only 2 per cent of the respondents do not consume fruits at all. Majority (86%) consumed seasonal fruits while only 35 % of the respondents were taking fruit daily.

CONCLUSION:

It was found that, adolescents prefer to take their own decisions regarding choice of food items. Even though adolescents know and understand the healthy food message, they do not necessarily consume healthy diets. Their dietary habits in general are poor. They are also not much aware about the effects and consequences of unhealthy eating practices. Therefore, the investigators feel there is a strong need for nutrition intervention programs for high school adolescents as adolescents are vulnerable and deserve special attention. It is suggested that, teachers and school authorities must hold food festivals, celebrate National Nutrition Week from 1st to 7th September, and organize talks, seminars and workshops every year on different aspects of foods and nutrition that focuses on healthy eating and on behavioral changes rather than acquisition of knowledge only.

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