



## Dietary Practices & Food Fads Among Adolescent Girls

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### ABSTRACT

Adolescent is a period of rapid growth in which optimal nutrition practice play a critical role. Calorie deficient food intake and wrong dietary belief may play an important part in determining the nutritional profile of adolescents and having long term varied consequences.

To find out about dietary intake pattern & to know regarding myths & fads regarding foods, a cross sectional study was conducted among 400 school going adolescent girls of rural and urban area in Jamnagar district. Data related to dietary intake, eating pattern, belief, myths and fads relating to food were collected. A vast majority of respondents are consuming two major meals in the day. More than 60% of girls have misbelieves regarding hot foods & cold foods and avoidance of various food items during menstruations is higher among all classes. The intake of fast food items is quite frequent. 81.5% often go to restaurant.

**Keywords :** Adolescent girls, Dietary practices, Food fads.

### Introduction:

Adolescence is a period where nutrition deprivation is one of the major problem .(1)Calorie deficient food intakes and wrong dietary belief & faulty practices may play an important part in determining the nutritional profile of adolescents and having long term varied consequences.(2,3) Worship of thinness has heightened low self-esteem and poor body image as an expectable and normative aspect of adolescent female development.(4) Females have become obsessed with a fear of fat and with improving their body. (5) Adolescent girls are more afraid of becoming fat than they are afraid of other things. It has caused a wide array of medical problems such as dry skin, bone decay, and undernourishment. (6) Their food habits are rapidly changing nowadays with the undergoing nutrition transition in developing countries (7). Poor eating patterns documented in western countries are now spreading in developing countries, with potential negative impact on health. For instance, pupils are exposed to street foods that influence their food choices, which may track in. (8). While street foods are convenient in the absence of school feeding programs, they are often criticized for lack of hygiene and their high fat and sugar content & totally lack of nutrients. Several social, psychosocial and physical factors, such as food availability and accessibility, children's knowledge and attitudes, and the influence of significant others, play a great role in their food behaviors (9, 10). However, adolescent's diets and underlying factors are poorly documented.

**Materials & methods:** A cross sectional study was conducted among 400 school going adolescent girls, two public & two private schools of rural and urban area in Jamnagar district. These four schools were selected by simple random sampling. As the prevalence of this kind of study isn't avail-

able, applying WHO formula, sample size came to 384. For feasibility of calculation total sample size of 400 is taken. Pre-tested semi-structured proforma was used. Data collected with the use of a validated, questionnaire by interviewer to all individuals one by one. The study subjects were informed about the purpose of the study and sought verbal consent before distributing the questionnaires. Anyone was to opt out of the study. A questionnaire was used to collect the demographic and socioeconomic information including age, place of residence, education levels, total family members, type of employment of parents, and approximate monthly income. Information of dietary habits like major meals a day, type of diet, preferred food for breakfast, lunch & dinner, frequency of intake of green leafy vegetables, fruit, egg & meat intake per week, visit to restaurants, belief, myths and fads relating to food during menstruation, seasonal variation were collected. Data entry & analysis is done using M.S.Excel & SPSS. Chi-square test was used to analyze the significant difference and  $p \leq 0.05$  was considered as statistically significant value.

**Results:** The purpose of the study was to document 'healthy' and 'unhealthy' food consumption.

Table 1 outlines the socioeconomic characteristics of all study participants. Of 400 participants majority belonged to age group 14-16 year, whereas 117(29.25%) were in 11-13 year age group & rest of the participants were in 17-19 years age group. 377(94.25%) pupils were hindus & 322(%) student's mothers were housewife. Almost the students (49.25%) belonged to middle socio-economic class, followed by lower class (37.75%)

**Table: 1 socio-demographic profile.**

Variables	Participants	Number (n=400)	Percent (%)
Age	11-13 Years	117	29.25%
	14-16 Years	234	58.50%
	17-19 Years	49	12.25%
Religion	Hindus	377	94.25%
	Muslims	23	5.75%
Socio-economic class	Upper	52	13.00%
	Middle	197	49.25%
	Lower	151	37.75%
Education status of Father	Illiterate	24	6.00%
	Primary	93	23.25%
	Secondary	98	24.50%
	Higher Secondary	113	28.25%
	Graduate	59	14.75%
	Post-graduate	13	3.25%
Education status of Mother	Illiterate	72	18.00%
	Primary	142	35.50%
	Secondary	77	19.25%
	Higher Secondary	57	14.25%
	Graduate	46	11.50%
	Post-graduate	6	1.50%
Occupation of Father	Business	96	24.00%
	Labror	52	13.00%
	Farmer	54	13.50%
	Service	112	28.00%
	Others	86	21.50%
Occupation of Mother	Housewife	322	80.50%
	Labror	09	2.25%
	Farmer	21	5.25%
	Service	31	7.75%
	Others	14	3.50%
	Business	03	0.75%

Table 2 represents dietary practices & food fads among adolescent girls. Of 400 subjects, about 93.50% took two major meals a day but it was lacking in balanced diet. Only about 10% people found having non-vegetarian diet. About 85% of girls used to take unhealthy, not nutritious & snacks. They did not eat green leafy vegs & fruits regularly. Use of simple chap-aati and tea was very common. These food servings contain phytase and tenin which inhibit absorption of iron. Another thing was that food rich in proteins like meat, chicken and fish were taken by only about few (5%). The menu for dinner was quite poor. Regarding misbelieves 59% girls considered fried & spicy foods as hot food, of which 14% girls used to avoid it during menstruation. Same for cold food, 48.5% considered certain fruits & dairy products as cold food. Consumption of ghee, oil, rice, potato even in recommended daily allowance was recognised as weight gaining food.

**Table: 2 Dietary Patterns & myths related to food intake.**

Dietary Pattern	Number	Percent (%)
Major meals per day	One	23 05.75%
	Two	374 93.5%
	Three or more	03 0.75%
Type of food they eat	Vegetarian	363 90.75%
	Non-vegetarian	37 09.25%
Preferred main item for meal	Only cereals	86 21.50%
	Only Pulses	02 0.50%
	Both	312 78.00%
Frequency of Snacks per day	One	340 85.00%
	Two	40 10.00%
	Three	03 0.75%
Frequency of green leafy vegetables	Regular	96 24.00%
	Occasional	256 64.00%
	Never	48 12.00%
Frequency of Fruit	Regular	60 15.00%
	Occasional	273 68.25%
	Never	67 16.75%
Preferred menu for Breakfast	Chapatti, tea	178 44.50%
	Chapatti, milk	96 24.00%
	Bread, Tea, egg	13 03.25%
	Others	91 22.75%
Preferred menu for Lunch	Chapatti, Pulses	154 38.50%
	Chapatti, Vegetables	107 26.75%
	Rice, Pulses(Dal)	123 30.75%
	Others	16 04.00%
Preferred menu for Dinner	Chapatti, vegetables	117 29.25%
	Chapatti, Cooked meat	20 05.00%
	Chapatti, tea	75 18.75%
	Rice, Pulses(Khichdi)	99 24.75%
	Others	89 22.25%
Hot Foods	Fried & spicy foods	236 59.00%
Cold Foods	Banana, Buttermilk, Ice-creams	194 48.50%
Food avoided during menstruation	Sour foods	90 22.50%
	Spicy Foods	56 14.00%
	Others	112 28.00%
Consumption of food gains weight	Rice, Potato	168 42.00%
	Ghee, Oil, Cheesy Fast-food	192 48.00%
	Others	40 10.00%

Table 3 shows there was significant association in preference for breakfast, lunch, dinner & fast-food as well as Avoidance of dairy products & frequent visit to restaurants with different variables like age, religion, social class, education & occupation of mothers of participants

**Table: 3 Association between various variables with dietary practices & food fads.**

Factor	Response	Preferred food for breakfast	Preferred food for lunch	Preferred food for dinner	Fast-food preference	Avoiding Milk	Frequent visit to restaurant
Age	14.54±2SD	378 p=0.022*	384 p=0.491	394 p=0.800	299 p=0.05*	357 p=0.102	
Religion	Hindus Muslims	356 22 p=0.303	361 23 p=0.000*	371 23 p=0.173	284 15 p=0.00*	264 12 p=0.07	338 18 p=0.211
Social class	Upper Middle Lower	50 189 137 p=0.000*	52 188 143 p=0.004*	52 191 150 p=0.276	44 179 133 p=0.000*	47 138 91 p=0.000*	47 175 127 p=0.014*
Education of mother	Illiterate Primary Secondary Higher-Secondary Graduate Post-graduate	68 135 72 43 36 5 p=0.07	69 137 74 57 46 6 p=0.096	71 142 74 45 39 5 p=0.023*	67 127 68 30 35 4 p=0.002*	48 87 54 32 50 5 p=0.017*	57 125 74 53 40 5 p=0.004*
Occupation of mother	Housewife Labourer Farmer Service Others Business	304 8 19 31 14 2 p=0.119	311 7 19 31 14 2 p=0.006*	317 9 21 31 13 3 p=0.539	291 5 17 25 14 3 p=0.028*	214 4 16 26 14 2 p=0.019*	293 9 13 26 13 2 p=0.014*

\* p value < 0.05 considered as statistically significant.

**Discussion:** We hypothesized that unhealthy foods were widely consumed and we intended to identify influential factors. Despite global recognition, malnutrition is still a major health problem especially in developing countries like India despite having various nutrition programmes. The prevalence seems to be increasing. The reasons being malnutrition & poverty. Socio-economical problems, lack of knowledge on proper & healthy dietary habits and misbeliefs are the major cause. Most of the patients belonged to low socio-economic class with lack of proper education, employment and a low quality lifestyle and diet. In such conditions it was very difficult for them to fulfil their daily nutritional requirements. Some claimed that the shortage of time was the main reason for that. The rush to school each day means some things have to be sacrificed and often that includes breakfast. Another reason was the loss of appetite especially in the morning. The

study reveals that animal proteins, leafy un-cooked vegetable and yellow fruits are not present in the food of the poverty-stricken population. Therefore the people are prone to malnutrition.

**Conclusion:** To prevent nutritional disorders, lifestyle approaches that promote healthy eating are encouraged, with focus on fruit, vegetable, animal foods, cereals and legumes as sources of essential nutrients for health. These foods are qualified as 'healthy', while the so-called 'empty-calorie foods', such as biscuits, pastries, sweets and sugar-added beverages are qualified as 'unhealthy'. Unhealthy foods are so named because of their high energy density and high content in saturated and Trans fats, sodium, cholesterol and sugar while being poor in essential nutrients. Those foods are considered responsible in a large part for the global obesity epidemic in children.

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