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**A STUDY ON NUTRITION KNOWLEDGE AND DIETARY  
HABITS OF ADOLESCENT GIRLS OF HARYANA**



Latesh<sup>1</sup> and Veena Garg<sup>2</sup>

**INTRODUCTION**

Westernization, industrialization and modernization as well as increase in purchasing power changed food habits and life style of people of developing countries. Dietary pattern of adolescents especially girls increasingly gained attention in western countries in past few years. Adolescents consume more junk foods having dietary fats as compared to fruits and vegetables resulting in to malnutrition. Poor eating habits such as unhealthy dieting, binge eating, eating fast foods or meal skipping are common in adolescent girls (Gomathy and John 2008). Consumption of fast and junk foods stopped children from eating healthy meals either in school lunch or at

**ABSTRACT**

*Good nutrition is essential to maintain healthy life. Malnutrition is common problem in India. Adolescents are more vulnerable to malnutrition, as requirement of nutrients increases during this period. Unsound food habits and lack of nutrition knowledge are main contributors in poor nutritional status of a person. The aim of this study was to assess nutrition knowledge and food habits of adolescent girls. This study was designed using purposively sampling technique. One hundred adolescent girls were selected. Information related to nutrition knowledge and food habits was collected on a predesigned and pretested questionnaire-cum-interview schedule. The data obtained was analyzed using standard statistical methods. Results showed that 88% of the adolescent girls were vegetarian. Most of the adolescent girls were healthy, only 8% of adolescent girls were suffering from diseases. Majority of the adolescent girls preferred to eat outside and skipped meal. Most of the adolescent girls were having adequate nutrition knowledge. Food habits and nutrition knowledge is strongly associated to nutritional status. Therefore study recommends imparting nutrition education to adolescent girls through various public intervention programmes.*

**KEYWORDS :** Nutritional status, Nutrition knowledge, Adolescent girls, Food habits

**Short Profile**

Latesh is Research scholar and Working as a Assistant professor at Department of foods and nutrition, B.P.S. Institute of Higher Learning in B.P.S. Women University Khanpur Kalan (Sonapat) She Has Completed M.Sc. B.Ed., N.E.T. and pursuing PhD. She Has Professional Experience of 11 years and Research Experience of 5 years.

home. In recent year's school and college canteens are also playing a major role in providing ready to eat foods. These fast foods are containing high fat and sugar that may lead to youth weight gain along with food infections, food poisoning and dental diseases (Pathak, 2010). Women's health is most important for the future of any country as it reflects the health of whole family. The education level of mother affects type and quality of child's diet. A balanced diet improves quality of life of an individual. Nutrition knowledge, attitudes and beliefs related to food affect nutritional adequacy. Food and nutrient intake are directly related to nutritional

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status and health of an individual (Puri et al. 2008).

Adolescents are not aware of potential health risks associated to poor habits (Stang and Story 2005). The goal of nutrition education is to make aware the adolescents about risk factors related to poor eating habits especially junk foods as well as to teach practical importance of balanced diet. Balanced diet that contains variety of foods and an individual can make wise food choices independently.

OBJECTIVES

To assess nutrition knowledge of adolescent girls.  
To study dietary habits of adolescent girls.

METHODOLOGY

**Locale of research:** The present study was carried out in Sonapat district of Haryana.

**Selection of respondents:** The study was conducted on one hundred adolescent girls. One hundred adolescent girls were selected purposively from B.P.S. Institute of Higher Learning, B.P.S. Women University, Khanpur Kalan (Sonapat).

**Development of questionnaire-cum-interview schedule:** Well structured and designed schedule was prepared and pretested on selected adolescent girls. Information regarding nutrition knowledge and foods habits was recorded in schedule.

Nutrition knowledge

Nutrition knowledge was categorized on the basis of statement related to balanced diet, sources of foods and therapeutic nutrition. Replies of the adolescent girls were noted. Each correct answer was given score of ‘one’ and incorrect answer as score ‘zero’. Aggregate scores were computed to find out extent of nutrition knowledge possessed by adolescent girls. The mean and SD of Scores was calculated. The adolescent girls were classified on the basis of

scores obtained. The classification was made as adequate (more than 76%), marginally adequate (50-75%) and inadequate (below 50%).

**Dietary history of adolescent girls:** Information related to dietary history was collected through questions described in questionnaire-cum-interview schedule.

Statistical analysis

Data was tested using standard statistical methods.

RESULTS AND DISCUSSION

**General information:** It was observed that majority i.e. 53 % of adolescent girls belonged to nuclear families where as 47 % of them belonged to joint families. Information on family size depicted that majority of adolescent girls i.e. 38 percent of adolescent girls were having small families (family members less than 5) and 62 percent of families were having more than 5 members. Education of parents plays an important role in education of children. Table 1 showed that none of adolescent girls had their father illiterate.

Table 1 Socio personal profile of selected adolescent girls

S.No.	Socio personal Characteristics	Adolescent girls (n=100)
1	Family type	
	Nuclear	53(53)
	Joint	47(47)
2	Family size	
	Below 5	38(38)
	5-10	62(62)
	Above 10	Nil

3	Education of Father	
	Illiterate	Nil
	Below 10 <sup>th</sup>	6(6)
	10 <sup>th</sup>	20(20)
	10+2th	22(22)
	Graduate	46(46)
	Postgraduate	6(6)
4	Education of Mother	
	Illiterate	10(10)
	Below 10 <sup>th</sup>	28(28)
	10 <sup>th</sup>	39(39)
	10+2th	12(12)
	Graduate	6(6)
	Postgraduate	5(5)
5	Occupation of Father	
	Agriculture	76(76)
	Business	8(8)
	Service	16(16)
	Laborer	Nil
	Any other	Nil
6	Occupation of Mother	
	Working	2(2)
	Housewife	98(98)
7	Religion	
	Hindu	100(100)
	Sikh	Nil
	Muslim	Nil
	Christen	Nil

Figures in parentheses indicate percentage

Six percent of girl’s fathers were educated below matric. Twenty percent of adolescent girl’s fathers were educated up to matric. Twenty two percent of adolescent girl’s fathers were educated up to 10+2 level. Majority of adolescent girls (46%) were having graduate father. Six percent of fathers of adolescent girls were

postgraduate. Majority of adolescent girl’s mothers (39%) were in category educated up to matric, remaining were educated below 10th (28%), 10+2th (12%), illiterate (10%), graduate (6%) and postgraduate (5%).

As far as occupation of adolescent girl’s fathers was concerned, most of them were engaged in agriculture (76%) and followed by service (16%), doing business (8%) and none were engaged in category of labourer and any others. Table 1 data revealed that majority of adolescent girl’s mothers were housewives, which were 98 percent, respectively. Only 2% of adolescent girl’s mothers were working, respectively. Majority of adolescent girls (100%) were Hindu.

**Nutrition knowledge:** Data related to nutrition knowledge is presented in Table 2 and Table 3.

**Table 2 Nutrition knowledge scores (percent) obtained by adolescent girls**

Sr. no.	Nutrition knowledge Category	Nutrition knowledge scores (percent) (n=100)
1.	Balanced diet	54.10 ± 5.55
2.	Sources of nutrients in diet	65.29 ± 4.69
3.	Therapeutic nutrition	50.23 ± 5.12

Values are Mean ± SD

Data in Table 2 shows that the mean nutrition knowledge scores of adolescent girls regarding balanced diet was 54.10 ± 5.55 percent. The scores related to sources of nutrients obtained by the adolescent girls were 65.29 ± 4.69 percent. The adolescent girls scored 50.23 ± 5.12 percent in category of therapeutic nutrition.

Table 3 Adequacy of nutritional knowledge of adolescent girls

Characteristics	Adolescent girls (n=100)		
	Adequate (76% and above)	Marginally adequate (50-75%)	Inadequate (Below 50%)
Balanced diet	59(59)	18(18)	23(23)
Sources of nutrients in diet	80(80)	15(15)	5(5)
Therapeutic nutrition	55(55)	30(30)	15(15)

Adequate nutrition knowledge about the importance of balanced diet (59%), sources of nutrients in diet (80%) and about therapeutic nutrition (55%) was observed in the adolescent girls (Table 3). Nutritional knowledge of adolescent girls was marginally adequate related to balanced diet (18%), sources of nutrients (15%) and therapeutic nutrition (30%). Inadequate knowledge about the importance of balanced diet, sources of nutrients in diet and therapeutic nutrition was observed in 23 percent, 5 per cent and 15 percent of the adolescent girls.

Dietary history of adolescent girls

Data related to food habits is presented in Table 4.

Table 4 Dietary history of adolescent girls

S.No.	Food consumption Pattern	B.P.S.Institute of Higher Learning, Khanpur Kalan(Sonepat) (n=100)
1	Food habit	
	Vegetarian	88(88)
	Non-Vegetarian	Nil
2	Healthy	
	Yes	92(92)
	No	8(8)
3	Prefer to eat outside	
	Yes	85(85)
	No	15(15)

4	Frequency of eating outside	
	Daily	33(33)
	Weekly	49(49)
	Fortnightly	18(18)
5	Food preferred outside	
	Snacks	26(26)
	Full meal	20(20)
	Fast food	54(54)
6	Think about nutrition during eating	
	Yes	78(78)
	No	22(22)
7	Skip meal	
	Yes	64(64)
	No	36(36)
8	Meal skipped	
	Breakfast	58(58)
	Lunch	6(6)
	Dinner	Nil
9	Eating of between snacks meals	
	Yes	68(68)
	No	32(32)
10	Liking of cold drinks	
	Yes	86(86)
	No	14(14)
11	Believe in hot/cold foods	
	Yes	80(80)
	No	20(20)
12	Use of health tonics	
	Yes	52(52)
	No	48(48)

Values in parentheses indicate percentage

Dietary history of adolescent girls was concerned with their food habits, frequency of eating food, food preference, likes, dislikes and regarding meal skipping. Data in Table 4 revealed that majority of adolescent girls (88%) were vegetarian, respectively. Adolescent girls were mostly healthy i.e. 92% of adolescent girls. Rest of the adolescent girls (8%) was suffering from diseases like fever, cold and irregularity in menstruation period. Adolescent girls surveyed were hostler girls and they preferred to eat outside. Majority (85%) of the adolescent girls preferred to eat outside. Only 15 percent of the adolescent girls did not prefer to eat outside. This was might be due to disliking for food of mess. Frequency of eating outside was in daily (33%), weekly (49%) and fortnightly (18%) category.

Fast foods were most preferred food by



adolescent girls i.e. 54% followed by snacks (26%) and full meal (20%). Majority of adolescent girls (78%) thought about nutrition while eating, whereas 22% did not think about nutrition during eating. Sixty four percent of adolescent girls skipped meal, while 36% of adolescent girls did not skip meal. Breakfast (58%) was the main skipped meal followed by lunch (6%). None of adolescent girls skipped dinner. Reasons behind skipping breakfast were fasting, lack of time and non-liking of paranthas in breakfast. Similar results have been reported by Singhla and Dhillon (2013). Singh and Singh (2008) reported that 60 percent of adolescent girls (13-18 years) brought packed lunches, while 40 percent consumed snacks like cake, pastry, sandwich, chocolates, sweets, ice creams etc. from school canteens.

Majority of the adolescent girls (68%) ate snacks between meals, whereas 32 percent did not eat snacks between meals. Eighty six percent of the adolescent girls liked cold drinks; only 14 percent of adolescent girl did not like cold drinks. Maximum number (80%) of adolescent girls believed in hot/cold foods, while rest of adolescent girls (20%) did not believe in hot/cold foods. Fifty two percent of adolescent girls consumed health tonics. Majority of adolescent girls (48%) did not consume health tonics. Intake of fats and oils were higher in girls as compared to boys than recommendations were reported by Kumari and Jain (2005).

#### CONCLUSION

More than fifty percent of adolescent girls had adequate nutritional knowledge about balanced diet and therapeutic nutrition. Majority of the adolescent girls were vegetarian and healthy. Adolescent girls preferred to eat outside. Skipping of meal and eating junk foods were observed the two major problems of adolescent girls. They were more figure conscious this in turn led to under nutrition in them. It is recommended that all the three meals should be nutritious. Limit use of junk, processed and fried foods. No meals should be skipped.

#### REFERENCES

1. Gomathy, R. and John, S. (2008). Measuring psychological, environmental and behavioral factors that influence fruits and vegetables intake of adolescent girls. *J. Indian Dietet. Assoc.* 33(2): 26-37.
2. Pathak, S. (2010). To assess the incidence of overweight and obesity in school going children (13-15 years) and its relationship with mothers nutritional knowledge, attitude and practice. M.Sc. Thesis. Govt. Home Science College, Chandigarh, India.
3. Puri, S. Bhatia, V. Swami, H. Rai, S. and Mangat, C. (2008). Impact of diet and nutrition related education package on the awareness and practices of school children of Chandigarh. *The internet J. Epidemiology.* 6(1).
4. Stang, J. and Story M. (2005). Guidelines for Adolescent nutrition services. US Department of health and human services, university of Minnesota pp.55-57.
5. Singla, P. and Dhillon, P.K. (2013). Study on dietary practices among adolescent girls of working mothers. *Asian J. Dairy & Food Res.* 32(4): 305-311.
6. Singh, P. and Singh, A. (2008). Increasing allurements for fast food in adolescent girls of urban area Varanasi. *Indian J. Prev. Soc. Med.* 39(1&2).
7. Kumari, S. and Jain, R. (2005). Assessment of nutritional status of school children from rural Bihar. *The Indian J. Nutr. Dietet.* 42(7): 326-34.

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