Original Research Article

A Preliminary Study on Eating Habits among School Going Adolescent Girls in Barabanki District, Uttar Pradesh

Dr. Nirpal Kaur Shukla[1], Dr. Mukesh Shukla[2], Siraj Ahmad[3], Dr. Ram Shukla[4]
[1]Post-graduate Resident, Hind Institute of Medical Sciences, Safedabad, Barabanki, Uttar Pradesh, India
[2]Assistant Professor, Hind Institute of Medical Sciences, Ataria, Sitapur, Uttar Pradesh, India
[3]Professor Department of Community Medicine, Hind Institute of Medical Sciences, Barabanki, Uttar Pradesh, India
[4]Department of Rural Management, Baba Saheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh, India

*Corresponding author
Mukesh Shukla
Email: drmukeshshukla@gmail.com

Abstract: School going adolescent period is often associated with increased number of meals taken other than home and increased consumption of junk foods in the form of snacks and soft drinks which may result in health problems associated with nutrition. The study aimed to assess eating habits among school going adolescents girls in Barabanki, Uttar Pradesh. A cross sectional study was conducted among 336 school going adolescent girls in Barabanki district from June 2016 to September 2016. Multistage sampling was used to enroll the study subjects. A maximum of 336 school going adolescent girls were interviewed using self-administered questionnaire and their dietary pattern, food habits and preferences were thus assessed. The mean age of the adolescent girls in study sample was 14.3 ± 3.1years. The consumption of deep fried snacks/namkeens/potato chips was reported in four- fifth of the cases (near about 80%). About one-fourth of the girls stated that they never take breakfast before coming to school (22.6%). Daily intake of breakfast was found in 16.9% of the study subjects while 43.0% of the girls stated about frequent missing of meals. The study findings highlights the need to bring out behavioral change in eating habits among school going adolescent girls through appropriate and timely interventions so as to prevent them from diet related health problems.
Keywords: Adolescent, Diet, Habit, Pattern, Preferences

INTRODUCTION
Adolescence is defined as the period of human growth and development that occurs after childhood and before adulthood (ages 10 to 19 years) [1]. It is estimated that about 18 % of the world's population is in the adolescent age-group, of which more than half reside within the Asian subcontinent. India has highest number of adolescents in absolute terms [2]. Dietary habits are well known modifiable risk factor for both over and under nutrition. Among Indians, the rising trend towards overweight and obesity has been observed. Trends show that 10% to 30% of the children and youth (ages 5 to 17) are either overweight or obese and the global prevalence of obesity for this age group is estimated to be about 10%. [3, 4]. Various dietary behaviours have been found to be linked with childhood obesity like increased number of meals eaten outside the home, higher portion sizes of meals at restaurants and fast-food takeaways along with increased consumption of snacks items and soft drinks [5]. Dietary patterns like snacking, skipping meals especially breakfast; irregular meal timings, wide use of fast food and low consumption of healthy foods etc. are common among adolescents in school going age group [6, 7]. Many life style factors and poor eating habits acquired during adolescence can lead to severe morbidities in later stages of life. [8] Adolescent girls suffer mostly from under nutrition because of the increased nutritional needs and decreased intake of diet lacking in essential nutrients [9]. At this stage they also have lack of awareness and knowledge about their nutritional needs and requirements [10]. Diets of Indian adolescent girls especially in rural areas are inadequate both in terms of quality and quantity [11]. With this background, the present study was carried out among school going adolescents girls to assess their eating habits in Barabanki district, Uttar Pradesh.

MATERIAL & METHODS
Study area: The present study was conducted in the government and private schools and inter-colleges of the Barabanki district, U.P.

Study design: Cross-sectional study.

Study participants: School going girls aged 10–19 years.

DATA COLLECTION -

A list of schools and inter colleges was obtained from DEO (District Education Office). Out of the 15 blocks in Barabanki district, three were randomly choose. One school and one intercollege were then taken from each of the respective block by simple random sampling. A maximum of 336 school going adolescent girls were enrolled in the study from these six randomly selected schools and inter colleges. Data was collected from each study subject using a self-administered questionnaire. Bio-social parameters such as age, socioeconomic status etc were assessed and reconfirmed *via.* School records.

RESULTS:
Biosocial characteristic of study population

The mean age of the adolescent girls in the study sample was 14.3 ± 3.1years. About half of the adolescent girls (55.6%) were in the age group of 10 – 13 years. Most of them (67.2%) belonged to nuclear families. Majority of the adolescent girls were Hindu by religion. Almost half of them belonged to Other Backward Castes (48.8%); followed by General and Schedule Caste/Tribes category (39.2% and 11.9% respectively). Near about two-third of adolescent girls belonged to the upper lower and below socio -economic status. [Table No. 1]

Table No. 2 shows the food consumed by the adolescent girls in the last 24 hours. Most of them had consumed regular food items like chapatti, rice and dal (more than 80%). Nearly half of them had consumed green leafy vegetable and snacks in between meals like papads, pickles, bakery products and fast food like chowmein/burger etc. However the consumption of deep fried snacks/namkeens/potato chips was also reported in four- fifth of the cases. The consumption of milk as such was found in 32.7% of cases. Similar pattern was seen with respect to consumption of chocolate/pastries/sweets. Also the eating of egg and meat products was reported in 30.4% and 32.7% subjects respectively. Regarding regularities in meals, about one-fourth (22.6%) of the girls stated they never take breakfast before coming to school. However none of the girls reported any missing with respect to lunch and dinner. Daily intake of breakfast was found in 16.9% of the study subjects. However 43.0% of the girls stated about frequent missing of meals.

Table 1: Socio-demographic characteristics of school going adolescent girls (N=336)

Variables		Number	Percentage (%)
Adolescent (yrs)	14-19 (Mid and late adolescents)	149	44.3
	10-13 (Early adolescents)	187	55.7
Type of family	Nuclear	226	67.2
	Joint	110	32.8
Residence	Rural	167	49.7
	Urban	169	50.3
Educational status of Mother	Illiterate	116	34.5
	Literate	220	65.5
Religion	Hindu	260	77.4
	Non- Hindu	76	22.6
Caste	OBC	164	48.8
	SC/ST	40	11.9
	General	132	39.3
Standard (Class)	11th -12th	266	79.1
	6th-10th	70	20.9
Socioeconomic status	Upper lower and below	215	63.9
	Lower middle and above	121	36.1

*** Modified BG Prasad socioeconomic scale 2015*

Table 2: Distribution of adolescent girls on the basis of food items consumed during last 24 hours (N=336)

Food item	Number	Percentage (%)
Chapatti	286	85.1
Rice	310	92.2
Dal/Pulses	299	88.9
Milk	110	32.7
Green leafy vegetables	172	51.1
Fruits and fruit juice	21	6.2
Chocolate/pastries/sweet	120	35.7
Papads and pickles	232	69.1
Biscuits or other bakery	170	50.6
Items, like bread, toast, buns, etc.	74	22.1
Salads	89	26.5
Paratha/ puri	92	27.4
Cold drink/soft drinks	110	32.7
Potato chips/ Namkeens/ deep-fried snacks/gol-gappas/tikki	270	80.3
Chowmein/burger (including Chinese food)	173	51.5
Egg	102	30.4
Meat/fish/chicken	110	32.7

Table 3: Distribution of adolescent girls on the basis of consumption pattern of breakfast and missed meals (N=336)

Dietary habit	Daily		3 – 4 times a week		1 – 2 times a week		Never	
	Number	%	Number	%	Number	%	Number	%
Consumption of Breakfast	57	16.9	179	53.3	24	7.1	76	22.6
Missing meals (Lunch/Dinner)	0	0	72	21.4	74	22.0	190	56.5

DISCUSSION:

The present study was conducted to have an overview of the eating pattern of the school going adolescent girls. The consumption of high sugar as well as cholesterol rich food items was quite high (35.7% and 80.3% respectively). Similar types of findings were also reported in a study conducted by Kotecha *et al.,* who in their study found that more than half of the study population were consuming chocolates, soft drinks etc. And more than one-third were consuming fast food items [12]. The findings of the studies were also in line with the studies conducted in Nepal and Punjab [13, 14]. This is quite a matter of concern as these high lipid and sugar rich diets are risk factors of non- communicable diseases and may lead to overweight and obesity in this age group [15]. Apart from this the consumption of fast food items like chowmein/burger adds an extra burden on their diet. Regarding the consumption of essential amino-acid rich food items like milk and egg, the proportion of those consuming them was quite less as compared to that reported in other studies conducted in Baroda and Bangladesh [12,16]. However the findings were favorable as compared to the findings of Kotecha *et al.,* as in present study more than 50% of the girls never missed their meals. However the non-consumption of breakfast by about 16.9% is quite a matter of concern. The study has some limitations, since the present study was aimed to assess the eating habits only, no nutritional measurement in terms of intake of nutrients as per recommended dietary allowance was done. However the finding of the study provides an insight about the eating habits and food preferences among adolescent girls.

CONCLUSIONS:

The finding of the study reveals the rising craze of the adolescent girls towards the high calorie and lipid rich fast and junk foods. This emphasizes the need to create awareness among the upcoming young generation about the potential harms of such type of

foods on the health, so that the required favorable changes could be attained on time.

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