

Life- style and physical- activity pattern of school going adolescent girls

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■ **ABSTRACT :** The present study was conducted in Kanpur (U.P.) among 400 school going adolescent girls (13-19 years) for finding out their life style and physical activity pattern. From the investigation conducted it was observed that during their free time 42.6 per cent of girls watched television or laptop; 32.3 per cent slept for 7-8 hours in a day. To use the conveyance 32.7 per cent went to school by cycle and only 27.7 per cent participated in school sports or games. In house hold activity there was no involvement of 40.4 per cent girls. It was observed that 28.5 per cent purchased snacks form the school canteen for 2-3 times in a week; 34 per cent consumed full cream buffalo milk; 36 per cent used tap water and 46.5 per cent girls purchased food items from the market to fulfil their desire for particular taste. From the results of the study it can be concluded that the lifestyle and physical activity pattern of adolescent girls were greatly affected by the changes in their environment and forcing them to lead a unhealthy life. To overcome their problem, family, peer group and school together should plan and make needful efforts.

■ **KEY WORDS:** Adolescent, Lifestyle, Physical activity

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In India, adolescents (from 10 to 19 years) accounted for 22.8 per cent of the population (Anonymous, 2013) and they face a series of serious nutritional challenges that are affecting not only their growth and development but also their livelihood as adults. On the other hand, presently Indians are experiencing nutritional and lifestyle transition due to globalisation. Many of the adolescent girls modify their normal dietary pattern and follow disturbed eating behaviours (Mishra and Mukhopadhyay, 2010) and these also affect their nutritional status (Chugh and Puri, 2001).

Lifestyle is a way used by people, groups and nations and is formed in specific geographical, economic, political, cultural and religious text. Lifestyle is referred to the characteristics of inhabitants of a region in special time and place. It includes day to day behaviours and functions of individuals in job, activities, fun and diet. In recent decades, life style as an important factor of health is more interested by researchers. According to WHO, 60 per cent of related factors to individual health and quality of life are correlated to lifestyle (Ziglio *et al.*, 2004).

Emerging new technologies within IT such as the

internet and virtual communication networks, lead our world to a major challenge that threatens the physical and mental health of individuals. The challenge is the overuse and misuse of the technology (Dariush, 2015). Eating disorders are associated with nutritional problems (growing impairment and weight gain), oral health (cheilitis, dental erosion, periodontitis, and hypertrophy of salivary glands), and social prejudice (Gonçalves *et al.*, 2013).

A healthy diet as well as a physically active lifestyle has been associated with the prevention of a number of health problems during adolescence and adulthood, including cardio-vascular diseases, hypertension, diabetes, cancer, asthma, depression, osteoporosis and dental caries (Strong *et al.*, 2005). Lifestyle changes can be facilitated through a combination of efforts to enhance awareness, change behaviour and create environments that support good health practices. Supportive environments will probably have the greatest impact in producing lasting change (O'Donnell, 1989). Therefore, the present study was conducted on the school going adolescent girls with the following objectives:

- To find out the lifestyle of school going adolescent girls.
- To find out the physical activity pattern of school going adolescent girls.

■ RESEARCH METHODS

The present study was carried out among 400 school going adolescent girls aged 13-19 years of Kanpur Nagar which was selected purposively from Kanpur district during the period from 2017-2018. For covering the whole area of Kanpur Nagar it was divided into five zones (North, South, East, West, and the central part of Kanpur) at the first stage. At the second stage, two schools were selected purposively from each zone making a total of 10 schools. At the third stage 40 girls from each school were selected from classes 8th to 12th through systematic random sampling.

Development and pretesting of questionnaire-cum-interview schedule:

A set of questionnaire-cum-interview schedule was designed to collect the following information:

- General profile: It consists of particulars related to the respondent's name, age, class, religion and food habits.

- Lifestyle and physical activity: Information regarding this was collected with the help of a questionnaire based on multiple choice questions.

Statistical analysis of data:

The collected data were processed and statistically analysed to draw meaningful interpretations.

■ RESEARCH FINDINGS AND DISCUSSION

The socio-economic background of 400 school going adolescent girls of Kanpur Nagar has been presented in Table 1. It reveals that 68.7 per cent of them were in the age group of 13 – 16 years and 31.3 per cent of them were in the age group of 16 – 19 year. The family size of the school going adolescent girls were divided into 3 categories in which 45.7 per cent of them lived in small sized families, 47.5 per cent lived in medium sized families and 6.8 per cent of adolescent girls lived in large sized families. While 11 per cent of school going adolescent belonged to the low income group, while 70 per cent belonged to the high income group.

Table 1 : Socio- demographic profile of adolescent girls (n=400)

Particulars	Percentage
Age in years	
13 - 16	68.7
16 - 19	31.3
Family size	
Small (1 - 4 members)	45.7
Medium (5 - 8 members)	47.5
Large (9 and above)	6.8
Income	
Upto Rs. 50,000/-	11
Rs. 50,000/- to 1,00,000/-	19
Rs. 1,00,000/- and above	70
Religion	
Hindu	86.75
Muslim	7.5
Christian	3
Sikh	2.75
Food habits	
Vegetarian	77.5
Non-vegetarian	22.5

When classified on the basis of religion, a major part of the respondents, *i.e.* 86.75 per cent of the adolescent girls belonged to the Hindu religion, 7.5 per cent were Muslims, 3.0 per cent to Christianity and 2.75

per cent to Sikhism. It was observed that 77.5 per cent of the girls were vegetarian and the remaining 22.5 per cent of them were non-vegetarian.

Omidvar and Begum (2014) conducted a cross-sectional study on 1000 healthy young female students aged 11-28 years in Mysore urban area to assess the food habits and to explore any relationship between SES, age groups and food preferences. They found that adolescents from low SES had higher percentage of daily consuming of fast foods and bakery items. Only 13.7 per cent of subjects use to consume at least one animal product, such as meat or an egg every day. Cultural food preferences vary most dramatically across India particularly vegetarianism because of the attitude towards animal products (Johnston *et al.*, 2014).

Lifestyle and physical activity pattern:

Life style and physical activity pattern of the adolescent girls have been depicted in Table 2. Adolescent girls used to sit on different places to eat their food. It was observed from the data presented in Table 2 that 43.7 per cent were found to sit on the floor, 26 per cent on the dining table, 18 per cent on the bed and 12.3 per cent on other places like (bench, wooden base, stairs and play ground) to eat their food.

Adolescent girls keep themselves busy in different activities during their free time. Table 3 shows that 42.6 per cent were found to be engaged in watching T.V./Laptop, 20 per cent in using mobile phones and 19.8 per cent in sleeping. Only 17.6 per cent were found to play games during their free time. Results also show the duration of the day in which the adolescent girls watched television, using mobile phone and laptop in which 56.7 per cent were found to be engaged in the above mentioned activities for 1-2 hours, followed by 17.6 per cent for 3-4 hours.

Sleeping hours of adolescent girls varied differently in which 32.3 per cent were found to sleep for about 7-8 hours. 26.5 per cent for 6-7 hours followed by 26.5 per cent for 6-7 hours. The sleeping hours of 16.7 per cent were not fixed. It was also observed that 35.5 per cent of adolescent girls were found to sleep between 10 to 11 pm, 22.7 per cent between 11 to 12 pm and 13.5 per cent before 10 pm.

The observation of adolescent girls for eating the snacks from their school canteen revealed that 28.5 per cent of adolescent girls were found to eat snacks from

Table 2 : Life style and physical activity

Sr. No.	Lifestyle and physical activity	Frequency	Per cent
1.	Place of eating food		
	Dining table	104	26.0
	Bed	72	18.0
	Floor	175	43.7
	Other place	49	12.3
2.	Activity during free time		
	Sleeping	79	19.8
	Watching T.V./Laptop	170	42.6
	Using mobile phone	80	20.0
	Playing games	71	17.6
3.	Hours using T.V., mobile, laptop		
	1-2 hours	227	56.7
	3-4 hours	71	17.6
	5-6 hours	32	8.0
	None	70	17.7
4.	Sleeping hours		
	5-6 hours	98	24.5
	6-7 hours	106	26.5
	7-8 hours	129	32.3
	Not fixed	67	16.7
5.	Conveyance using for school		
	Cycle	131	32.7
	Rickshaw/van	112	28.0
	Scooty/motorcycle	86	21.5
	Walking	71	21.8
6.	Physical activity in school		
	Sports/games	111	27.7
	Dancing	29	7.3
	P.T.	132	33.0
	None	128	32.0
7.	Household activity		
	Washing clothes and utensils	64	16.0
	Cleaning and dusting	109	27.3
	Cooking/serving food	65	16.3
	None	162	40.4
8.	Physical activity at home		
	Playing games	88	22.0
	Cycling	95	23.7
	Yoga and exercise	58	14.5
	None	159	39.8
9.	Eating snacks/food in school canteen		
	Everyday	39	9.7
	2-3 times a week	114	28.5
	Once in a week	80	20.0
	None	167	41.8

Table 2 contd...

Contd... Table 2

10.	Sleeping time		
	Before 10 pm	54	13.5
	10 to 11 pm	142	35.5
	11 to 12 pm	91	22.7
	Not fixed	113	28.3
11.	Type of milk used in home		
	Full cream milk of buffalo	136	34.0
	Cow milk/toned milk	147	36.7
	Double toned /skimmed milk	65	16.3
	All types	52	13.0
12.	Type of water drink at home		
	Boiled water	85	21.3
	RO water	88	22.0
	Tap/supply water	144	36.0
	Hand pump/boring water	83	20.7
13.	Reason for purchasing food items from the market		
	Flavour	71	17.7
	Taste	186	46.5
	Nutritive value	88	22.0
	Vegetarian or non vegetarian	55	13.8

the canteen 2-3 times a week, 20 per cent once in a week followed by 9.7 per cent eating snacks daily. Musaiger *et al.* (2011), through their cross-sectional study on 735 subjects (339 males and 396 females), aged 15-18 years, selected from government schools of Bahrain showed that about 88 per cent of adolescents snacked during school break, 70.7 per cent procuring food from the school canteen. About 29.8 per cent watched TV for more than 5 hours a day (51.2% females, 48.8% males). About 69 per cent of males practiced sports everyday as against 30.8 per cent of females, the percentage similar to the present study (27.7%) and 81.6 per cent of those who participated in sport activity outside school were males compared to 18.4 per cent of females. From the past study it was found that the adolescents in Bahrain are moving toward unhealthy dietary habits and lifestyles, which in turn will affect their health status in the future. Therefore, they believe that promoting healthy lifestyle and eating habits should be given a priority in school health programs (Musaiger *et al.*, 2011).

Meena and Varma (2015) in their study on 145 subjects from a girl's school in Jaipur in the age group of 14-16 years reported that the school canteen had several fast food options like carbonated beverages, burgers, pizza, ice cream, shakes, chowmein, pasta etc. From the

total subjects, 25 per cent were missing breakfast everyday and 21 per cent were consuming canteen snacks every day.

Uddin *et al.* (2015), on the basis of their cross-sectional study about the dietary habits and life style of 384 adolescents of Raichur town, revealed that 176 (45.8%) reported consumption of junk food more than once in a week while 338 (88%) reported to use fruits and vegetables occasionally in their diet. Only 147 (38.3%) students walked at least for 30 minutes and did exercise daily.

Adolescent girls were in the habit of using different types of milk which indicated that 36.7 per cent were found to use cow's milk or toned milk, 34.0 per cent full cream or buffalo milk and 16.3 per cent double-toned or skimmed milk. In case of type of water, 36.0 per cent adolescent girls used supply water or tap water followed by 22 per cent to use RO water and 20.7 per cent underground water. Purchasing habit of adolescent girls varied widely depending on various factors like taste preferences (46.5%), nutritive value (22%), flavour (17.7%) and veg. and non-veg. habit (13.8%).

For the means of conveyance, 32.7 per cent of adolescent girls went to their school by cycle, 28 per cent by rickshaw or van, and 21.8 per cent by walking followed by 21.5 per cent who used to go to the school by self-driven vehicle. The percentage of adolescent girls, involved in physical activities in their school showed that 68 per cent girls were engaged in activities like sports, dance and physical training, whereas 32 per cent of did not perform any physical activity in their school.

Declines in physical activity and unhealthy eating patterns are especially clear during adolescence and are likely to persist into adulthood (Biddle *et al.*, 2004; Kelder *et al.*, 1994; Sallis, 2000 and Lien *et al.*, 2001). Children and adolescents spend high amounts of time at school and the school environment is recognized as having a powerful influence on their physical activity (Wechsler *et al.*, 2000 and Sallis *et al.*, 2001) and eating behaviours (Story *et al.*, 2002 and Vereecken *et al.*, 2005).

The household activity pattern of adolescent girls revealed that 59.5 per cent were engaged in various household activities like washing clothes utensils, cleaning and dusting, cooking and serving while 40.4 per cent were not engaged in any such type of household activity.

Baseer *et al.* (2015), on the basis of their cross-sectional study about the dietary habits and life style of

384 adolescents of Raichur town, revealed that only 147 (38.3%) students walked at least for 30 minutes and did exercise daily. They concluded that unhealthy dietary habits are still very much prevalent among adolescents. Obesity is also showing increasing trend among those having such poor dietary habits and life style.

Frequency of adolescent girls involved in various physical activities at home showed that 60.2 per cent were engaged in activities like playing games, cycling, yoga and exercise. On the contrary, 39.8 per cent were not doing any physical activity at home (Table 2). Physical activity is not simple to measure, since it takes place in a variety of domains (e.g. transportation, school, recreation) and intensity, frequency, duration and type of activity need to be considered (Wareham and Rennie, 1998).

A study was conducted by Ritu (2017) on 60 students (12 to 14 years of age) from Rohtak district of Haryana and reported that there was a significant relationship between the life style and adolescent health concern. For treating general health problems, the exercise is included in life style (Dunn *et al.*, 1998). The continuous exercise along with a healthy diet increases the health. Some studies stress on the relation of active life style with happiness (Anonymous, 2011) and Farhud *et al.* (2015). It has been considered very important the benefits of physical activity and fitness in youth (Baranowski *et al.*, 1992).

Conclusion:

From the study the conclusion can be drawn that the school going adolescent girls of Kanpur followed an unhealthy lifestyle and physical activity pattern, which in turn will affect their health status in the future. Therefore, they should be encouraged to adopt healthy lifestyle and physical activity schedule.

Suggestions:

As the adolescents spend a lot of time in their school, the school environment is recognized as a powerful medium to influence their lifestyle, physical activity and eating behaviours. But the school only is not responsible for the promotion of health behaviours among the adolescents; healthy eating and physical activity promotion should be a shared responsibility between school, family and community. Intervening in the broader environment by involving parents, club educators and community agencies and by targeting recreational and

transportation infrastructures might be more promising. Therefore, the schools have to be encouraged to provide nutritious snacks in their canteen along with the focus to organize extra supportive activities beyond those planned in the intervention manual.

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