EATING HABITS AND DIETARY BEHAVIOUR OF ADOLESCENT BOYS & GIRLS

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Abstract -
Aim: The aim of the study was to observe the eating habits and dietary behaviour of adolescent boys and girls.
Method: One hundred (N=100, 51 males and 49 females) adolescents between the ages 16-19 years were randomly selected. Each subject was administered with a set of a questionnaire, a 24- hour dietary recall and food frequency questionnaire after taking consents. Height and weight of adolescents were also noted in order to find out their Body Mass Index (BMI).
Results: The mean height and weight of boys was 168.9 cm and 67.2 kg and that of girls was 155.8cm and 52.7 kg respectively. The 17.8% of the boys were found to be overweight as compared to only __% of girls. A very irregular food eating pattern was observed in both boys and girls. The 63% of subjects followed 3-meals per day pattern of food intake. In addition to 3-meals per day pattern, 57% of subjects were also taking snacks more than two times in a day. The 45% subjects said that they were eating snacks because they 'missed a meal' and an astonishing 29% said they were habituated to take snacks.
Conclusion: It was concluded that there was an irregular eating meal pattern in the adolescents. They consumed lots of snacks because they missed regular meals especially breakfast. Some of them were also habituated to take snacks or eating junk food like fried food, chips, instant noodles etc

Keywords - BMI, junk food, snacking, RDA

I. INTRODUCTION

Adolescence is the period of rapid transition between childhood and adulthood. As stated by WHO (1986), individuals between the ages 10-19 years are termed as 'adolescents'. They roughly make about 20% of the total word population, out of which India is home to the highest number of adolescents globally. (UNICEF, 2011).Adolescence is also considered as a period of rapid growth and development. During this period, a child experiences changes not just in the physical parts of his body but also in cognitive and behavioral dimension of human development (Simmons et al. 1987). Physical changes include changes in height and body structure along with attainment of pubertal characteristics. About 45% of skeletal growth takes place during adolescence (Rees, Christine, 1989). This period also sees changes in relationships of adolescents with parents and society. Increase in the sense of autonomy, self-belief takes place during adolescence and opinions of peers, advisors and role models suddenly gain more importance than parents. (Noller and Callan 1991, Shepherd and Dennison 1996, Jackson 1993) All these changes in some way or the other effect the dietary habits of an adolescents. Although nutrition effects growth and development in all stages of life, but the need for optimal nutritional intakes highest during adolescence. (Litshitz, Tarim et al, 1993)Indian Council of Medical Research, (ICMR) has given certain guidelines called'Recommended Dietary Allowance' (RDA) for all Indians. They stress on consumption of certain amounts of nutrients for proper growth and development of adolescents. For children aged 16-17 energy requirements 3020Kcals (boys) and that of girls is 2440Kcals (girls). The major percentage of energy should come from carbohydrates. Proteins along with calcium and iron are also very essential in this phase as they are directly related to formation of muscles and growth.
Adolescents are mostly observed to have a very unhealthy eating behavior during these ages. It is also seen that some of the dietary habits that are formed at this age remain even in adulthood. (Birch, 1987)Since it is very difficult to change dietary habits of adults (Prattala, 1989), thus the best way to inculcate good eating habits in an individual is during adolescence. The present study was thus taken up to identify the present dietary pattern of adolescents and then try and influence them to adopt good nutritional habits or eating pattern.

II. MATERIALS AND METHOD

An institute falling in the local area was selected (Institute of Hotel Management Catering and Nutrition, PUSA, New Delhi) depending on the availability of subjects of the desired age groups. Then, subjects under the age group of 16-19years were selected based on the requirement of the study. Random selection of 100 samples was done from the above age group (16-19years) and taken as subjects for the study. Random selection of samples was done in order to obtain genuine results and minimize bias. After, the subject were selected, they were categorized into two groups based on gender. The two categories consisted of 51 boys and 49 girls respectively. A questionnaire, 24hr-dietary recall and food frequency questionnaire was given to each subject.

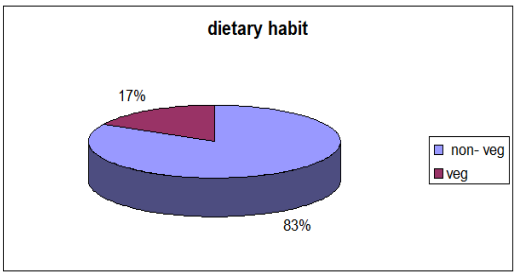
III. RESULTS & DISCUSSION

The mean height and weight of boys was5'6'' and 67.2 kg and that of girls was 5'2'' and 52.7 kg's respectively. The Body Mass Index (BMI) of boyswas 22.3 and that of girls was 21.1. More boys (13.7%) as compared to girls (2.1%) were found to be overweight. It was seen that girls were very conscious about their weight and appearance and thus most of them feel in the normal BMI category and about 8.5% of girls were underweight also,(Diane Carlson et al 2004).

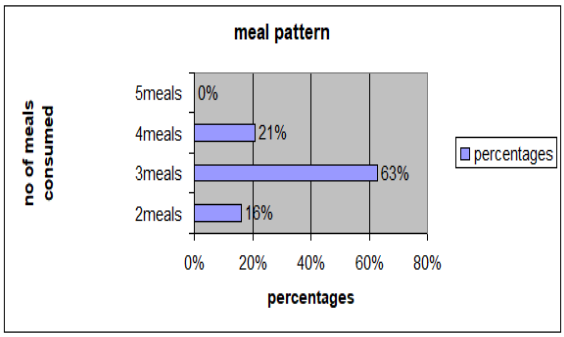
Age (yr)	Height (feet and inches)		Weight (kg)	
	Boys	Girls	Boys	Girls
	Mean ± SD	Mean ± SD	Mean ± SD	Mean ± SD
17-18	5'6''± 0.25''	5'2''± 0.5''	66.5± 9.5	50.6± 4.2
18-19	5'5''± 0.35''	5'3''± 0.3''	69.0± 11.3	53.8±8.4

BMI (kg/m²) category	Percentage %	
	Boys	Girls
<18.50 (Underweight)	7.8%	8.5%
18.5-24.99 (Normal)	78.4%	89.4%
>25.00 (Overweight)	13.7%	2.1%

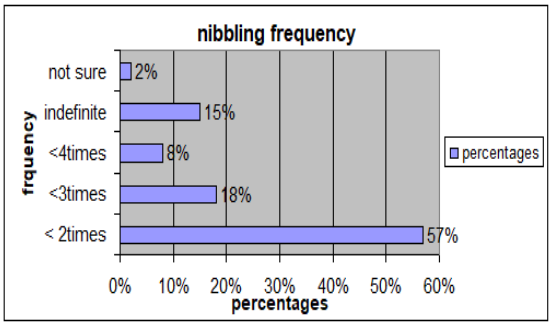
Source: Adapted from WHO, 1995, WHO, 2000 and WHO 2004.

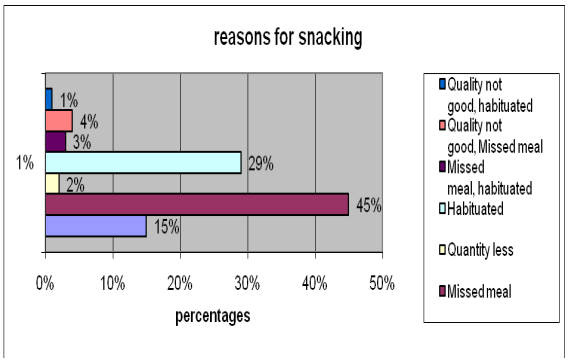


Majority of subjects were found to be non-vegetarians and consumed three major meals in a day. (A Slosberg et al 2003) A striking high 21% of individuals were seen consuming a 2 meal pattern (major meal) signifying missing of a meal.



Adolescents indulge in eating snacks on a very frequent basis. They consume snacks at any time of the day. (Gayle's 2007) A strikingly high 63% of subjects were observed to eat snacks more than two times in a day. About 15 % of the subjects ate snacks multiple times in a day. A lot of variation in the type of snacks consumed was also seen according to the taste preference of the subjects but snacking eventually revolved around consumption of high calorie food called 'junk food'. Potato chips, fried foods like samosa, french fries, pakora etc along with instant noodles, bakery products like cakes, pastries, and other such bakery products.(Hoglund.D 1998, Johnson B 1997, Sameulson. G et al 2002). An adolescent's diet is characterized by missed meals, unconventional meals, fast food, and frequent 'snacking' (Greenwood &Richardson 1979; Truswell&Darnton-Hill, 1981; Bull, 1985; Rolls, 1988). About 57% of adolescents said that they consumed all kinds of junk food whenever they felt the urge for snacking. They said that during the day they ate snacks from the college cafeteria or canteen and at night consumed instant food items.





The main reason for snacking was because a lot of adolescents missed meals. Breakfast was the most commonly missed meal .When enquired about the reason for snacking then an astonishing 45% of individuals said that snacking was done because they missed a meal. Also about 29% of the subjects were seen to consume snacking because they were habituated to snacking. (Salmaani Barough N, et al 2007)

IV. CONCLUSION

Adolescents were seen to have very irregular eating habits. They missed meals and indulged in snacking behavior. The main reasons for eating snacks were

because adolescents missed meals regularly and because they were 'habituated to eating snacks'. Junk food like fried food, chips, noodles etc were found to be the most consumed snack.

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