

Psychological factors affecting dietary habits of college going adolescents (17–19 years) in urban area of Belgaum

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Abstract

Background: In India due to urbanization and various other factors, students are less focused on eating healthy and tend to eat for various other reasons such as when they are bored, depressed, or for the sake of going out with friends. Poor eating habits such as binge eating is a major public health concern among college students who experience transition into university life and has led to increased risk of obesity and other diseases.

Objective: To determine the psychological factors affecting the dietary patterns of adolescents.

Materials and Methods: Cross-sectional study conducted among 400 college going adolescents (17–19 years) residing in urban area of Belagavi. Questions were selected from the validated compulsive eating scale (CES) that was used to measure uncontrolled eating patterns.

Result: Of the total number of students 18.4% were seen to eat when they feel lonely, 40.8% completely stuffed themselves with food, 40.8% ate when they felt bored. While, 64.5% of students said that they never ate without knowing how much they ate or the taste of food, 35.5% of them still ate without knowing the taste of the food. 23.5% of the participants said that they ate till their stomachs hurt.

Conclusion: It was seen in this study that various psychological factors affected a large number of students eating habits. Hence it is important to provide them health education and formulate strategies which will address social and psychological factors which will affect their eating pattern.


KEY WORDS: Psychological factors, eating pattern, compulsive eating scale (CES)

Introduction

World Health Organization has defined adolescence as a period between 10–19 years.^[1] The current population of adolescents in India is 253.2 million which comprises of 21% of world's total population.^[2] Adolescence is a period of transition from childhood to adulthood. Rapid changes in physical

and mental growth are seen in this age group. Adolescents are a mentally vulnerable group as they are exposed to peer pressure and their eating habits are widely affected by the environment around them.^[3] These are the years during which they are establishing their own identity and during this time they are seen to experiment more and also show varied psychological behavior. Disturbances to an individual's mental well-being can adversely compromise these capacities and choices and affect their eating behaviours.^[4]

In India due to urbanization and various other factors, students are less focused on eating healthy and tend to eat for various other reasons such as when they are bored, depressed, or for the sake of going out with friends. Poor eating habits such as binge eating is a major public health concern among college students who experience transition into university life and has led to increased risk of obesity and other diseases. College-going students have more freedom to

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make their own choices and lead an independent lifestyle so detrimental habits picked up during this age generally persist in adult life.^[5-7]

Hence, identification of psychological causes which cause adolescents in this age to eat unhealthy may help in increasing and implementing vigorous healthy food promotional activities by parents, college authorities, food providers and health promotion officers. Results of this study may help to create a groundwork for possibility of forming different interventional programs on promoting the advantages of eating healthy and maintaining a healthy lifestyle.

In the view of the above facts the present study was planned to study the psychological factors affecting dietary pattern among urban adolescents.

The objective of this study is to determine the psychological factors affecting the dietary patterns of adolescents.

Materials and Methods

Source of data

College going adolescents (17–19) years residing in urban area of Belagavi Were taken for the study.

Study Design and Period

Cross sectional study over a period from August 2014 to September 2014 has been done. The study was conducted under KLE University's Department of Community Medicine, JNMC, Belagavi.

Study Population

400 college going adolescents studying in S.G. Balekundri Institute of Technology, an engineering college, in urban area of Belagavi were considered for the study. 200 boys and 200 girls were selected randomly for the study by simple random sampling method.

Method of collection of data

Data was collected by interviewing the study participants using predesigned and pretested questionnaire in the college. After taking permission from principal and lecturers, students were approached in the classroom after lectures. Informed written consent and assent was taken from each participants.

Study variables

- i) Socio demographic characteristics such as age, gender, education level, marital status, and living circumstances were considered. Body mass index (BMI) and lifestyle such as smoking, alcohol intake, and exercise were considered.
- ii) Psychological factors that influenced dietary habits of respondents using validated compulsive eating scale (CES)^[8] were considered to measure uncontrolled eating patterns.

Questions were selected from the validated CES that was used to measure uncontrolled eating patterns among college

students; items included in this study were eat because of feeling lonely, feel completely out of control when it comes to food, eat so much until stomach hurts, eat too much because you are upset or nervous, eat too much because you are bored, go out with friends just for the purpose of over-stuffing yourselves with food, eat so much food so fast that you don't know how much you ate or how it tasted, and get out of bed at night, go in to the kitchen, and finish the remains of some delicious food, because you knew it was there. The response options were 'Yes' or 'No'.

Inclusion criteria include only adolescents (17–19 years) of age residing in urban area and studying in S.G. Balekundri Institute of Technology, an engineering college, in Belagavi.

Exclusion criteria include adolescents less than 17 years of age and college students of other colleges.

Data Analysis

Data was coded and entered into Microsoft excel software and statistical analysis was done using percentages, proportions, and chi square test. Ethical clearance was obtained from Institutional Ethics Committee of JNMC, Belagavi.

Result

In the present study, 226 (56.5%) were aged 19 years. A majority of them were Hindus (84.4%) while Muslim and Christian constituted 10% and 0.8%, respectively. Out of the total, 53.5% consumed a vegetarian diet and 46.5% followed a non-vegetarian diet along with a vegetarian diet. Regarding mother's education level, 53% had collegiate education, 41.7% had high school or less. Regarding father's education, majority had tertiary education (75.6%), 22.1% had high school or less. Most of the mothers were not working (62%). A majority of them that is 316 (79%) of them belonged to nuclear family. The majority had denied smoking (94.7%) and alcohol consumption (92.5%) (Table 1).

The age distribution of the adolescent boys and girls showed that half of them belonged to the age-group of 19 years. About 22% were of 17 years, and the rest belonged to 18 years. The mean age of boys was 18.4 ± 0.84 years and mean age of girls was 18.3 ± 0.78 years. This difference in distribution of age among boys and girls was found to be statistically significant, $p=0.001$ (Table 2).

Out of the total, 27.5% of boys and 32% of girls belonged to Class I socioeconomic status, 21.5% of boys and 35.5% of girls to Class II, 31% of boys and 21% of girls to Class III, 19.5% of boys and 10.5% to Class IV and only 0.5% of boys and one percent of girls belonged to Class V. This difference in socioeconomic status among boys and girls was found to be statistically significant, $p=0.002$ (Table 3).

It was seen that various psychological factors affected a large number of students eating habits, 174 (43.5%) of the total number of students were seen to eat when they feel lonely, 40.8% completely stuffed themselves with food, 40.8% ate when they felt bored. While, 64.5% of students

Table 1: Socio demographic characteristics of respondents

Characteristics		Number	Percentage (%)
Gender	Boys	200	50
	Girls	200	50
Age	17	88	22
	18	86	21.5
	19	226	56.5
Religion	Hindu	338	84.4
	Muslim	40	10
	Christian	3	0.8
	Others	19	4.8
Diet	Vegetarian	214	53.5
	Mixed	186	46.5
Mother's education level	Illiterate	21	5.3
	Primary	44	11
	High school	123	30.7
	Collegiate (PUC, Degree, PG)	212	53
Father's education level	Illiterate	9	2.3
	Primary	23	5.8
	High school	65	16.3
	Collegiate (PUC, Degree, PG)	302	75.6
Type of family	Nuclear	316	79
	Joint	84	21
Smoking	NO	379	94.7
Alcohol consumption	YES	170	92.5

Table 2: Distribution of study participants according to age and sex

Age	BOYS	GIRLS	Total
17	47 (23.5)	41 (20.5)	88 (22)
18	26 (13)	60 (30)	86 (21.5)
19	127 (63.5)	99 (49.5)	226 (56.5)
Total	200	200	400

$\chi^2 = 17.320$, $df = 2$, $p < 0.001$

Table 3: Distribution of study participants according to socioeconomic status

SOCIOECONOMIC STATUS	Boys	Girls	Total
	Number (%)	Number (%)	
Class 1	55 (27.5)	64 (32)	119 (29.75)
Class 2	43 (21.5)	71 (35.5)	114 (28.5)
Class 3	62 (31)	42 (21)	104 (26)
Class 4	39 (19.5)	21 (10.5)	60 (15)
Class 5	1 (0.5)	2 (1)	3 (0.75)
Total	200	200	400

$\chi^2 = 17.137$, $df = 4$, $p = 0.002$

Table 4: Psychological variations among study participants

Psychological Factors	YES	NO	Total
	Number (%)	Number (%)	
Eating when feeling lonely	174 (43.5)	226 (56.5)	400
Feeling out of control when it comes to food	120 (30)	280 (70)	400
Eating till stomach hurts	94 (23.5)	306 (76.5)	400
Eating when upset	97 (24.2)	303 (75.8)	400
Not knowing how much eaten or taste of food	142 (35.5)	258 (64.5)	400
Eating leftovers at night	73 (18.2)	327 (81.8)	400
Eating when bored	163 (40.8)	237 (59.2)	400
Stuffing of food	192 (48)	208 (52)	400

said that they never ate without knowing how much they ate or the taste of food, 35.5% of them still ate without knowing the taste of the food. 23.5% of the participants said that they ate till their stomachs hurt. A majority of students (81.8%) said that they never ate leftovers at night and 70% of students said that they never felt out of control when it comes to food such that they ate very quickly (Table 4).

Discussion

Attending a university or college can be a stressful experience for many college students.^[8] Previous studies found that behavioral consequences of stress may affect eating habits. People living in a stressful society tend to eat more as a way of coping with stress.^[9,10] In this study, 63.5% were boys and 49.5% were girls and majority of them were aged 19 years. Where as in a study conducted in Baroda showed that 52% were girls and 48% were boys and half of them belonged to age group of 14–16 years.^[11] In the present study, fathers' educational level was better than mothers' and more than half of the mothers were not working. The majority had denied smoking (94.7%) and alcohol consumption (92.5%). These findings were similar to studies conducted in Malaysia on dietary pattern in adolescents.^[5,12] A possible new innovation in this study was the association between eating habits and psychosocial factors among college going students. It was seen in this study that various psychological factors affected a large number of students eating habits, 174 (43.5%) of the total number of students were seen to eat when they feel lonely, 40.8% completely stuffed themselves with food, 40.8% ate when they felt bored. While, 64.5% of students said that they never ate without knowing how much they ate or the taste of food, 35.5% of them still ate without knowing the taste of the food. In a study on college students it was seen that a majority of students said that they never ate leftovers at night and never felt out of control when it comes to food such that they ate very quickly, suggested that uncontrolled eating patterns among college students could be due to compulsive eating behaviors.^[13] This study exhibited psychological factors affecting eating habits among students. Results of this study may help to create a

foundation for possible interventional programs on healthy eating habits promotions. Blended with different socio-cultural and psychological attributes across different regions, a unified healthy eating policy should be drafted, and practiced in all regions including developing and developed nations.

Conclusion

It was seen in this study that various psychological factors affected a large number of students eating habits. Hence, it is important to provide them health education and formulate strategies which will address social and psychological factors which will affect their eating pattern. The strategies must be formulated in a way which will address the influence of family, college, and community on their eating behaviour.

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