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Original Research Paper

A STUDY OF EATING ATTITUDES AMONG UNDERGRADUATE FEMALE MEDICAL STUDENTS - A HOSPITAL BASED STUDY

Authors:
Dr. Versha Deepankar, Dr. S.G. Mehta, Dr. Neha Agarwal, Dr. Harmandeep Kaur, Dr. Vartika Mishra, Dr. Deepak Salvi
(Final Year Resident, Dept. of Psychiatry, Pacific Medical College and Hospital, Udaipur, Rajasthan)
(Prof. & Head of Dept. of Psychiatry, Pacific Medical College and Hospital, Udaipur, Rajasthan)
(Senior Resident, Dept. of Psychiatry, Pacific Medical College and Hospital, Udaipur, Rajasthan)
(Final Year Resident, Dept. of Psychiatry, Pacific Medical College and Hospital, Udaipur, Rajasthan)
(2nd Year Resident, Dept. of Psychiatry, Pacific Medical College and Hospital, Udaipur, Rajasthan)
(Prof. & Head of Dept. of Clinical Psychology, Pacific Medical College and Hospital, Udaipur, Rajasthan)
Corresponding Author:
Dr. Deepak Salvi
Prof. & Head of Dept. of Clinical Psychology, Pacific Medical College and Hospital, Udaipur, Rajasthan

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ABSTRACT:
Background: Disordered eating attitudes and behaviors have been shown to be prevalent among young women, particularly those in healthcare professions. However, little is known about the prevalence and correlates of disordered eating attitudes among undergraduate female medical students. **Aim**: This study aimed to assess faulty eating behaviour amongst undergraduate female medical students according to their academic year. **Material and Methods**: A cross-sectional study was conducted among 328 undergraduate female medical students from a medical college in Rajasthan. Participants completed the Eating Attitudes Test-26 (EAT-26) and provided demographic and health-related information. Descriptive statistics like mean and standard deviation were obtained for body mass index, eating attitudes according to their academic year. The association between BMI and the EAT 26 results was tested using chi square test. **Results**: In our study we observed that 70% of the students fall into the normal BMI 18.5-25. out of those in underweight category (BMI<18.5), maximum were in second year 11 (3.8%), as compared to first year 8 (2.7%), third year 5 (1.8%), and final year 7 (2.4%). **Conclusion**: The study findings suggest that a significant proportion of female medical students exhibit disordered eating attitudes, which may have negative consequences for their physical and mental health. Early detection and management for disordered eating attitudes and behaviours among undergraduate female medical students are important to prevent the development of eating disorders and improve the overall well-being. Healthcare professionals shall promote healthy attitudes towards food and eating patterns among female medical undergraduates

Key words: Female medical undergraduates, faulty eating attitudes, stress, EAT-26

INTRODUCTION:

Richard Morton, was one of the first physicians to report a case of 18 year old female suffering from anorexia in the year 1689. Over the past few decades, there has been a dramatic rise in people suffering from eating disorders, especially in adolescents[1] Eating disorders is a condition which is characterized by persistent disturbance in eating behaviours and associated distressing thoughts and emotions. They can range from being mild to very serious conditions affecting physical, psychological and social functioning. Various types of eating disorders include anorexia nervosa, bulimia nervosa, binge eating disorder, avoidant restrictive food intake disorder, other specified feeding and eating disorder, pica and rumination disorder(American Psychiatric Association). The exact cause of eating disorders is unknown, however a combination of biological, psychological and/or environmental factors play a role in its causation. A common phrase in such conditions is that "Genetics loads the gun, environment pulls the trigger"[2]. It was observed that medical students are associated with high levels of stress that stands as a critically important causative factor of eating disorders[3]. Thus, it is quite important to analyze all such instabilities in medical students who are an asset for the future of this country. Studies have been conducted in western scenario to assess eating disorders in medical students. A study from US showed that 15% of the female medical students had history of eating disorders[4]. While eating disorders are characterized as a mental health condition, they have

the potential to lead to other serious physical health problems. Keeping such ominous medical consequences in view, it is naturally alarming that the future physicians of India, prone to such stressful conditions might be at significantly high risk of contracting eating disorders that would hamper the availability of dependable medical services in future[5]. The earlier these disorders are diagnosed and assessed, the better the chances are for enhanced treatment and better recovery. Therefore, we intend to undertake a descriptive study to assess the incidence of high-risk of eating disorders among medical students of India[6].

MATERIAL AND METHODS:

A questionnaire-based cross-sectional study was distributed among undergraduate medical female students (aged 18–30 years) in a medical college in Rajasthan, according to their academic year. A total of 328 female students were provided with questionnaire (based on EAT-26) for initial interview and screening. The Ethical Committee of the medical college and hospital approved the study. EAT-26 questionnaire was used to measure any faulty eating behaviour and presence of any eating disorders. Also, the similar age and sex of the study group eliminates confounding by age or sex. The undergraduate female medical students received the EAT 26 questionnaire to complete during teaching sessions conducted at the Hospital. The ethical committees approved the verbal consents. Those students who were on any medication or suffering from any chronic medical or psychiatric illness were excluded from the study. Eating Attitude Test (EAT 26) Questionnaire Method: was developed by Garner, Olmstead, Bohr and Garfinkel (1982)[7]. The instrument contains twenty six items with six possible answers ranging from never (0) to always (3). The total score on the EAT-26 are derived as sum of the composite items, ranging from 0 to 78. Actual EAT test item consists of 26 questions, it is to be answered as always, usually, often, sometimes, rarely or never which was graded as 3, 2, 1, 0, 0, 0 respectively for first 25 questions and 0, 0, 0, 1, 2, 3 for 26th question. Scores that are greater than or equal to 20 on the EAT-26 are frequently associated with abnormal eating attitudes and behaviour and scores that are less than 20 are associated with normal eating attitudes. The questionnaire is pretested and structured and letter of permission for the usage of questionnaire has been taken. Body Mass Index (BMI) was calculated using the formula weight (in kg) / height^2 (m^2). BMI less than 18.5 was considered under-weight, BMI between 18.5- 25 was considered normal, 25- 29.9 was overweight and 30 or above obese.

Data Analysis: The data collected were coded and analysed using the SPSS (Statistical Package for Social Sciences) version 27. Descriptive statistics like mean and standard deviation were obtained for body mass index, eating attitudes according to their academic year. The association between BMI and the EAT-26 results was tested using chi square test.

RESULTS:

A total of 328 undergraduate female medical students were given consent forms of which only 295 participated in the study after giving consent.

Mean age of the study participants was 25.2 ± 2.4 years of age.

EAT 26 Questionnaire revealed that nearly 190 (64%) students had obtained the score of more than 20 suggesting problem in there eating attitude and behaviour.

The mean BMI was 21.49 ± 3.2 kg/m2.

Majority of the participants 208 (70.5%) had their BMI in the normal range (18.5-25), while 31(10.5%) were underweight (<18.5) and 56 (19%) were overweight/obese (>25) based on their BMI Values. (Table 1)

On the EAT 26 questionnaire, score > 20 suggests faulty eating behaviour whereas <20 suggests normal eating behaviour.

It was observed that 53 (18%) second year students, whereas 47 (16%) third year students, 45 (15%) first and final year students respectively had an EAT score >20. (Table 2)

Out of all the academic year, 15(5%) students of second year had an EAT score of <20, whereas scores were obtained for first year {32(11%)}, third year {25(9%)} and final year {33 (11%)} respectively.

It was seen that within the normal BMI range (18.5-25), 12.5% of second year students, 12% third year students, 11.8% first year and 11.5% final year students had a score on EAT 26 questionnaire >20, suggesting faulty eating behaviour.

In our study we observed that 70% of the students fall into the normal BMI 18.5-25. Out of those in underweight category (BMI<18.5), maximum were in second year 11 (3.8%), as compared to first year 8 (2.7%), third year 5 (1.8%), and final year 7 (2.4%).

It was observed that out of those in normal BMI category, the EAT-26 score of >20 was seen highest in second year students 37 (12.5%), followed by third year students 35 (12%), first year 35 (12%), final year 34(11.5%).

The study finding in our study was similar to the findings of Anna Rangini and Karunanidhi (30%) in Chennai[8] as well as when compared to the findings of Ramaiah R (16.9%)[9] , Srinivasan Et al (15%)[10] , 11.5% in Turkish university[11] students and 17.5% in Mid-Atlantic university[12] students. The prevalence of female students who were over-weight and obese in our study was found to be 19 % which is similar to the study findings of Rammaih R (17.4%)[9] done in the year 2014. Other studies done by Chabra et al (11.7%) in Delhi[13] and Fernandez (13.2%)[14] observed similar number of overweight students like our studies.

Table 1: Academic Year vs. BMI

Academic Year	BMI			Total
	<18.5	18.5-25	>25	
1st year	8 (2.7%)	57 (19.3%)	12 (4.1%)	77
2nd year	11 (3.8%)	37 (12.5%)	20 (6.8%)	68
3rd year	5 (1.8%)	53 (17.9%)	14 (4.7%)	72
4th year	7 (2.4%)	61 (20.7%)	10 (3.4%)	78
Total	31 (10.7%)	208 (70.4)	19	100

Table 2: Academic Year vs. EAT-26

Academic Year	EAT-26	EAT-26	Total
	<20	>20	
1st year	32 (11%)	45 (15%)	77
2nd year	15 (5%)	53 (18%)	68
3rd year	25 (9%)	47 (16%)	72
4th year	33 (11%)	45 (15%)	78
	105	190	295

Table 3: Comparative Analysis of Academic Year to BMI & EAT-26

Academic Year	BMI	EAT 26	EAT 26	Total
		<20	>20	
1st year	<18.5	2	6	8
	18.5-25	22	35	57
	>25	8	4	12
2nd year	<18.5	2	9	11
	18.5-25	8	37	37
	>25	5	12	20
3rd year	<18.5	2	3	5
	18.5-25	18	35	53
	>25	5	9	14
4th year	<18.5	2	5	7
	18.5-25	27	34	61
	>25	4	6	10

DISCUSSION:

We observed that not only those students who fell into the underweight or overweight/obese category had faulty eating behaviour, but it was seen that maximum students having a normal BMI had faulty eating behaviour. Of these it was seen maximum second year students had faulty behaviour as compared to final year students who were seen to have least faulty eating behaviour. The possible reasons for observing this trend was a sudden shift of routine from academic lectures to being newly posted in clinical posting. Also we observed an increased wish for specific body shape and figure influenced by social media projecting a specific body and The presence of junk foods, study time patterns and hostel mess might be the reason for the students to have a different eating pattern and getting overweight. The study on eating attitudes among undergraduate female medical students conducted in a hospital setting has provided valuable insights into the prevalence of disordered eating attitudes and behaviours among this population. The findings suggest that a significant proportion of female medical students exhibit disordered eating attitudes, which may have negative consequences for their physical and mental health. However, the study also highlights the importance of early detection and intervention for disordered eating attitudes and behaviours. By identifying risk factors and promoting healthy eating habits, healthcare professionals can help prevent the development of eating disorders and improve the overall well-being of this vulnerable population. Overall, this study serves as a valuable contribution to the field of healthcare and underscores the importance of promoting healthy attitudes towards food and eating pattern among young female undergraduates. Through this study we feel that more research should be conducted in this area with more generalized sample size.

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