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A CROSSSECTIONAL STUDY TO ASSES THE EATING DISORDER AMONG FEMALE MEDICAL STUDENTS IN A RURAL MEDICAL COLLEGE OF KARNATAKA STATE

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ABSTRACT

Background: Eating Disorder is real complex and divesting condition that can have serious consequences for health, productivity and relationships. They have serious potentially life threatening condition that affects a person's emotional and physical health. Unfortunately, the diagnosis of eating disorders can be elusive, and more than one half of all cases go undetected. Objective of the study was to assess the prevalence of abnormal eating attitudes among female medical students in a Medical College.

Materials and Methods: A Cross Sectional study was conducted from December 2015 to March 2016 among the female medical students in Adichunchanagiri Institute of Medical Sciences. EAT 26 and SCOFF questionnaire was used to obtain the data**.**

Results : A total of 134 female medical students participated in the study.EAT 26 Questionnaire revealed that nearly 39 (29.2%) of the students had eating attitude and behaviour problem. 23 (17.2%) students scored SCOFF score of greater than 2.

Conclusion: The prevalence of eating disorders among the Female medical students can be easily detected using the both Questionnaire. EAT 26 Questionnaire revealed more percentage of students with eating disorder than SCOFF. The SCOFF and EAT 26 questionnaire is easy, effective, simple and memorable to apply and also to evaluate by the healthcare professionals

KEYWORDS: Eating Disorders, Scoff, Eat, Anorexia, Bulimia

INTRODUCTION

Eating disorders are among the most common psychiatric problems that affect young women and these conditions impose a high burden of morbidity and mortality.

Eating Disorder are real complex and divesting condition that can have serious consequences for health, productivity and relationships. They are not a fad, phase or lifestyle choice. They have serious potentially life threatening condition that affects a person's emotional and physical health. Unfortunately, the diagnosis of eating disorders can be elusive, and more than one half of all cases go undetected.[1]

Eating disorders occur most commonly in adolescents and young adults and are 10 times more common in females than in males. The principal eating disorders are anorexia nervosa, bulimia nervosa, and nonspecified eating disorder.[2]

Anorexia has two subtypes—restricting type and binge-eating/purging type. Bulimia also has two subtypes—purging and nonpurging.

It is estimated that 1.0% to 4.2% of women have suffered from anorexia in their lifetime and up to 4% of females will have bulimia during lifetime.[3]

Eating disorders affect people of all ages, but are especially prominent among college students. The Multi-Service Eating Disorders Association (MEDA) [4] revealed that nearly 15% of women in the age group of 17 to 24 have eating disorders of any type. Nearly 40% of female college students have eating disorders. Around 91% of female college students have attempted to control their weight through dieting and other means.

The objectives of the study were to assess the prevalence of abnormal eating attitudes among female medical students in a tertiary rural Medical college; to find out the association between body weight status and eating attitudes of female college students; and also to check the feasibility of the EAT 26 and SCOFF Questionnaire.

MATERIALS AND METHODS

A cross sectional study was carried out among the undergraduate female medical students of Adichunchanagiri Institute of Medical Sciences, B G Nagar, Mandya. All the female medical students studying were included in the study.

A total of 134 female medical students were interviewed and data was obtained from December 2015 to March 2016 in a pretested questionnaire.

SCOFF Questionnaire Method:[5]

The SCOFF questionnaire was used to screen the participants. The SCOFF questionnaire is a brief and memorable tool designed to detect eating disorders and aid treatment. It showed excellent validity in a clinical population and reliability in a student population.[5]The questionnaire had 5 questions pertaining to eating disorder. For every question a score of one point was allotted and a total score of >2 was taken as an indicator of eating disorder (anorexia nervosa or bulimia).[5]

Eating Attitude Test (EAT 26) Questionnaire Method:[6]

Eating attitudes of the female college students were assessed using the EAT-26 developed by Garner, Olmstead, Bohr and Garfinkel (1982). 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

Both the questionnaires are pretested and structured and letter of permission for the usage of questionnaire has been taken.

BMI was computed using formula weight in kilogram divided by height in meter square. The BMI of less than 18.5 was considered as underweight.

Body Mass Index (BMI)) was calculated using the formula weight (kg)/height2 (m2) BMI less than 18.5 was considered under-weight, less than 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 19. Descriptive statistics like mean and standard deviation were obtained for age, body mass index, eating attitudes. The Association between BMI and the EAT 26 and SCOFF Results was tested using chi square test.

RESULTS

A total of 134 female medical students participated in the study. Mean age of the study participants was 21.4+2.2 years of age.

EAT 26 Questionnaire revealed that nearly 39 (29.2%) of the students had obtained the score of more than 20 suggesting problem in there eating attitude and behaviour. The mean BMI was 22.38+ 3.3 kg/m2. Majority of the participants 79(58.9%) had their BMI in the normal range, while 29(21.6%) were underweight and 24(17.9%) were overweight. only 2(1.4%) were obese based on their BMI Values. (Table 1)

Out of the total 134 study participants 23 (17.2%) students scored SCOFF score of greater than 2 , which indicated the presence of either Anorexia Nervosa or Bulimia.(table 2)

Table 1: Eat 26 Questionnaire and Body Mass index (n= 134)

Group	Female Medical Students		
	N (%)	Mean	S.D
Eating attitudes (EAT-26 score)			
Normal <20	95 (70.8)	8.67	3.42
Abnormal >20	39 (29.2)	25.63	4.27
Body Mass Index			
Underweight (<18.5)	29 (21.6)	16.89	0.76
Normal (18.5-24.9)	79 (58.9)	23.41	1.34
Overweight (25.0-29.9)	24 (17.9)	27.62	1.18
Obesity (>30)	2 (1.4)	30.5	0.5

Table 2: Profile of the participants with Eating Disorder based on SCOFF

	SCOFF Response	Yes (%)	No (%)
1	Do you make yourself Sick because you feel uncomfortably full?	19 (82.6)	4 (17.4)
2	Do you worry you have lost Control over how much you eat?	21 (91.3)	2 (8.7)
3	Have you recently lost more than One stone (6.3 kg) in a 3 month period?	5 (21.7)	18 (78.3)
4	Do you believe yourself to be Fat when others say you are too thin?	23 (100)	0 (0)
5	Would you say that Food dominates your life?	9 (39.1)	14 (60.9)

Table 3: Correlation between Body Mass Index and EAT 26

BMI	Normal Score <20	Abnormal Score >20	Total
Underweight (<18.5)	7(7.3)	22(56.4)	29(21.6)
Normal (18.5-24.9)	66(69.5)	13(33.3)	79(58.9)
Overweight (25.0-29.9)	20(21.1)	4(10.3)	24(17.9)
Obesity (>30)	2(2.1)	0(0)	2(1.4)
Total	95	39	134

Pooled X^2 =39.22 , Df= 2, P value= <0.0001; Normal= EAT26 <20
Figure in parenthesis indicate percentage

Table 4: Correlation between Body Mass Index and SCOFF Questionnaire

BMI	SCOFF Score >2	SCOFF Score < 2	Total
Underweight(<18.5)	16(69.5)	13(11.7)	29(21.6)
Normal (18.5-24.9)	4(17.4)	75(67.5)	79(58.9)
Overweight (25.0-29.9)	2(8.6)	22(19.8)	24(17.9)
Obesity (>30)	1(4.3)	1(0.9)	2(1.5)
Total	23	111	134

Pooled X^2 =38.18 , Df= 2, P value= <0.0001
Figure in parenthesis indicate percentage

Out of the 23 who had an eating disorder 19(82.6%) made themselves sick because they felt uncomfortable , 21(91.3%) worried that they have lost control over their eating pattern, 5(21.7%) had lost around 6 kg in a 3 month period to reduce their weight through dieting and other means. All the participants felt they are fat and only 9(39.1%) said that food dominates their life. (Table 3)

The interpretation of both EAT 26 [pooled X^2 =39.22, Df= 2, P value= <0.0001] and SCOFF questionnaire [pooled X^2 =38.18, Df= 2, P value= <0.0001] was found to be significantly associated with the BMI of the female medical students on doing pooled chi square test. (Table 3 and table 4)

DISCUSSION

In our study the mean age of the students was 21.4 years as the study participants were studying in the second, third and fourth year of the MBBS courses.

Nearly 39 (29.2%) of the students had obtained the score of more than 20 in the EAT 26 Questionnaire indicating the abnormal eating patterns among the students. The study finding in our study was similar to the findings of Anna Rangini and karunanidhi (30%) [7] in Chennai but much higher when compared to the findings of Ramaiah R (16.9%) [8] , Srinivasan Et al [9] (15%) , 11.5% in Turkish university students [10] and 17.5% in mid Atlantic university students.[11]

The prevalence of female children who were overweight and obese in our study was found to be 19.3% which is similar to the study findings of Rammaih R [8] (17.4%) done in the year 2014. Other studies done by Chabra et al (11.7%) in Delhi [12] and Fernandez (13.2%)[13] observed lesser numbers of overweight students than our studies. 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.

In our study 23 (17.2%) students scored SCOFF more than 2 and were considered having

For eating habit disorder other studies done by Mallikarjun Biradar [14] (14.6%) and Mary Anne (9.3%) [15] of the respondents scored more than 2 in SCOFF questionnaire.

CONCLUSIONS AND RECOMMENDATIONS

The prevalence of eating disorders among the Female medical students can be easily detected using the both Questionnaire. EAT 26 Questionnaire revealed more percentage of students with eating disorder than SCOFF. .

The Questionnaire used in the study was standardized easy and feasible to implement on large scale in short span of time with high proportion of accuracy. The SCOFF and EAT 26 questionnaire is easy, effective, simple and memorable to apply and also to evaluate by the healthcare professionals.

Limitations of the Study:

The present study was conducted among female medical students in a medical college hence can't be generalized to all the female students as the social profile of the students vary from medical college to other degree colleges

REFERENCES

1. Neda Feeding Hope. Facts on eating Disorder.[Internet] [assessed on 13/5/2016] avialble from : https://www.nationaleatingdisorders.org/get-facts-eating-disorders.

2. A. Mija´n de la Torre et al. Is an integral nutritional approach to eating disorders feasible in primary care?. British Journal of Nutrition .2006;96(1):82–85.

3. Hope Eating Disorder Statistics & Research.[Internet] [Assessed on 14/5/2016]. Avialable http://www.eating disorderhope.com/information/statistics-studies

4. Multi-service eating disorders association. [Assessed on 14/5/2016]. Available: http://www.eatingdisorderhope. com/information/help-overcome-eating-disorders/non-profits-organizations/meda.

5. Morgan J F, Reid F and Lacey J H ."The SCOFF questionnaire: assessment of a new screening tool for eating disorders.BMJ.1999;319:1467-1468.

6. David M Garner, Marion P Olmsted, Yvonne Bohr and Paul E Garfinkel. The eating Attitudes Test:Psycometric features and clinical Correlates.Psychological Medicine.1982;12:871-878.

7. Anna Rangini Chellappa & Karunanidhi, S. Eating Attitudes and its Psychological Correlates among Female College Students. Global Journal of HUMAN SOCIAL SCIENCE Arts & Humanities.2013;13(4):32-39.

8. Ramaiah RR. Eating disorders among medical students of a rural teaching hospital: a cross-sectional study. Int J Community Med Public Health 2015;2:25-8.

9. Srinivasan TN, Suresh TR, Jayaram V, Fernandez MP. Eating disorders in India. Indian J Psychiat. 1995;37(1):26-30.

10. Sanlier Nevin, Nurcan Yabanci, Omur Alyakut . An evaluation of eating disorders among a group of Turkish university students.2008;51:641-645.

11. Prouty AM, Protinsky HO, Canady D. College women: eating behaviors and help-seeking preferences.Adolescence.2002;37(146):353-63.

12. Chhabra P, Grover VL, Aggarwal K, Kanan AT. Nutritional status and blood pressure of medical students in Delhi. Indian J Community Med. 2006;31:248-51.

13. Fernandez K, Singru SA, Kshirsagar M, Pathan Y. Study regarding overweight/obesity among medical students of a teaching hospital in Pune, India. Med J DY Patil Univ. 2014;7:279-83.

14. Biradar M K, Biradar S M , Shashank K J. Study To Assess Eating Disorder Among Female Medical Students. Int. J. Lifesc. Bt & Pharm. Res.2013;2(4):241-244.

15. Mary-Anne Et Al., "Four Simple Question Can Help Screen For Eating Disorder", Journal Of General Internalmedicine.2013;18(1):53-56.