



DEPRESSION, ANXIETY & STRESS AMONG FIRST YEAR MEDICAL UNDERGRADUATES OF A GOVERNMENT MEDICAL COLLEGE IN CENTRAL INDIA.

Community Medicine

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ABSTRACT

a.Background:- In India, a first-year medical student enters college fresh from junior college. The skills required to deal with a new and challenging environment may not be fully developed yet. The inability of the student to cope with vast academic content compounded by high expectations of parents and peers further adds to the challenge. **b.Objectives:-** 1)To assess depression, anxiety & stress levels among first year medical undergraduates of a government medical college in Central India by using Depression Anxiety Stress (DAS) scale. 2)To suggest suitable recommendations based on study findings. **c.Methods:-** This cross-sectional study was conducted in a Government Medical College in Central India. All first-year medical undergraduates willing to participate in the study were included. The Depression Anxiety Stress Scale (DASS) was used to assess levels of depression, anxiety and stress among medical students. **d.Results:-** Among 238 students enrolled in the study, 214(90%) were in the age group of 17-19 years, 117(49.2%) were females. The proportion of undergraduates found to be suffering from depression, anxiety and stress were 102 (42.85%), 129 (54.20%) and 151 (63.44%) respectively. Most of the students were found to be suffering from mild-moderate degree of depression, anxiety and stress. **e.Conclusion:-** Medical curriculum may incorporate novel strategies to address depression, anxiety and stress among first year medical undergraduates to prepare them for future challenges.

KEYWORDS

Depression, Anxiety, Stress, Medical students.

INTRODUCTION

In India, a first-year medical student enters college fresh from junior college. The skills required to deal with a new and challenging environment may not be fully developed yet. The inability of the student to cope with vast academic content compounded by high expectations of parents and peers further adds to the challenge.(1)

Medical Schools and colleges are recognized as a stressful environment that often exert a negative effect on the academic performance, physical health, and psychological well-being of the students.(2,3)This creates stress in them which will have a negative impact on their mental health status leading to problems like sleep deprivation, reduced concentration, loss of self-esteem, anxiety, depression, interpersonal conflict, substance abuse and suicidal attempts.(4)

Depression among first-year medical students is a neglected public health problem in India. High rates of psychological morbidity among medical students, such as anxiety and depressive symptoms, have been reported in several studies from different western countries as well as from other parts of the world.(5,8-14) However, studies on first-year Indian medical students are lacking even though India has one of the largest number of medical colleges and medical students in the world.(6)

With these perspectives, we conducted the present study to assess depression, anxiety & stress levels among first year medical undergraduates of a government medical college in Central India by using Depression Anxiety Stress (DAS) scale and to suggest suitable recommendations based on study findings.

METHODS:-

This cross-sectional study was conducted using a self-administered Depression Anxiety Stress (DAS) questionnaire. The duration of the study was 1 month. The Depression Anxiety Stress Scales (DASS) by Lovibond and Lovibond, a 42-item self-reported measure was used to assess depression, anxiety and stress. Items on the DASS are rated on 4-point Likert - type, ranging from 0 (Did not apply to me at all) to 3 (Applied to me very much, or most of the time). Each of the three scales contains 14 items, divided into subscales of 2-5 items with similar content. The depression scale assesses dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/involvement, and inertia. The Anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious affect. The Stress scale (items) is sensitive to levels of chronic non-specific arousal. It assesses difficulty relaxing, nervous arousal, and being easily upset/agitated, irritable/over-reactive and impatient. Respondents are asked to use 4-point severity/frequency scales to rate

the extent to which they have experience each state over the past week. The DASS has been found to be a reliable and valid method for assessing client changes in depressive mood and anxiety.

The study was conducted after obtaining the Institutional Ethics Committee approval. All students who gave consent were included in the study. After an initial briefing regarding the study, the questionnaire was distributed to all students. Out of a total of 250 first year medical undergraduate students enrolled in the college, 238 students consented to participate in the study.

RESULTS

Among the 238 students enrolled in the study, 211 students (88.6%) were in the age group of 17-19 years and 117(49.2%) were females. (Table 1)

Table 1.Socio demographic characteristics of study participants (n = 238).

Age group (years)	Number	Percentage (%)
17-19	211	88.7
>19	27	11.3
Total	238	100
Gender	Number	Percentage (%)
Male	121	50.8
Female	117	49.2
Total	238	100

The proportion of undergraduates found to be suffering from depression, anxiety and stress were 102 (42.85%), 129 (54.20%) and 151 (63.44%) respectively. According to DAS scale, majority of students were found to be in moderate stage of anxiety (44.2%) & stress (41.7%), whereas majority (35.2%) of students were found to be in mild stage of depression. (Table 2)

Table 2 Distribution of study participants based on severity of the psychological traits.

Degree	Mild		Moderate		Severe		Extremely severe	
	No.	%	No.	%	No.	%	No.	%
Depression	36	35.2	33	32.4	21	20.6	12	11.8
n=102								
Anxiety	47	36.4	57	44.2	15	11.6	10	7.8
n=129								
Stress	45	29.8	63	41.7	24	15.9	19	12.6
n=151								

There was a statistically significant association found between presence of depression and age group (Chi square = 3.565, p value < 0.05). No statistically significant association was found between depression and gender. Statistically significant association was found

between presence of stress and gender (Chi square = 3.073, p value < 0.05). However, no such association was found between stress and age group. No association was found between anxiety with age and gender of the participant. (Table 3)

Table 3:-Psychological traits in relation to age & gender

Psychological traits	Age (years)				Gender			
	17-19		>19		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Depression n=102	95	93.1	7	6.9	54	52.9	48	47.1
	chi square=3.565, p value =0.02				chi square=0.3152, p value =0.28			
Anxiety n=129	118	91.5	11	8.5	72	55.8	57	44.2
	chi square=2.223, p value =0.06				chi square=2.788, p value =0.04			
Stress n=151	138	91.4	13	8.6	80	52.9	71	47.1
	chi square=3.073, p value =0.03				chi square=0.7568, p value =0.19			

DISCUSSION

This study was conducted in a Govt Medical College in Central India wherein 238 first year medical undergraduate students were enrolled. The proportion of undergraduates found to be suffering from depression, anxiety and stress using DAS scale were 102 (42.85%), 129 (54.20%) and 151 (63.44%) respectively. A cross sectional study conducted by Sunil D. Kumar et al. in Mysore Medical College of 332 medical students had found the prevalence of depression, anxiety and stress to be 124 (37.3%), 168 (50.6%) and 109 (32.8%) respectively. (4) These findings were comparatively lower as compared to our study. This could be an outcome of difference in cultural background, lifestyle, academic management of students.

A cross sectional study conducted by Rashmi Yadav et al. in medical college, Jhansi, Uttar Pradesh on 330 medical students had found that the overall prevalence of depression and anxiety was 64%. The prevalence of depression was comparatively more among first year medical students (61%). (5) These finding corroborates with our study findings. A cross sectional study done by Ajit Singh et al. in Rohilkhand Medical College, Bareilly of 381 medical students had found that a total of 49.1% students reported depressive symptoms. (6) Above all study findings do suggest high prevalence of depression, anxiety and stress in medical students all over India, irrespective of the geographical region.

A cross sectional study done by Farwa Rizvi et al. in Islamabad Medical and Dental College, Pakistan of 66 medical students had found that the prevalence of depression, anxiety & stress was 40.9%, 74.2% & 50% respectively. (3) This is also quite similar to our study findings.

CONCLUSION:-

This study reported high proportion of depression, anxiety and stress among medical students. Hence, medical curriculum may incorporate novel strategies to address depression, anxiety and stress among first year medical undergraduates to prepare them for future challenges. Therefore we recommend proper training of medical teachers to facilitate them to identify early signs of depression, anxiety and stress among medical students.

Mentorship programme may be implemented so that medical students can share their personal problems with a reliable faculty member or seniors. Yoga & meditation courses may be conducted for at least 1 hour a day, to help medical students to better cope with their problems.

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