

Research Article**Exploratory Study to Assess Depression, Anxiety and Stress among Medical Students in Consecutive Years of Under Graduation in a Medical College****Naren Amin^{1*}, Kamlesh Patel², Ankit Moga³, Pragna Sorani⁴, Milan Rokad⁵, Abhijit Khanna⁶**¹ Assistant Professor, ² Professor & Head, ^{3,4} Senior Resident, ^{5,6} Resident, Department of Psychiatry, C.U. Shah Medical College, Surendranagar, Gujarat, India***Corresponding author**

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Abstract: It is an exploratory study to assess depression, anxiety and stress among medical students in consecutive years. The study included 302 medical students of consecutive semesters in C.U. Shah Medical College, who were assessed by self-reporting scale Depression, Anxiety and Stress Scale (DASS-42). Results show significant proportion of students having depression, anxiety and stress. From the result, it is advisable that screening and intervention should be done at the earliest.**Keywords:** Medical students, depression, anxiety, stress

INTRODUCTION

Medical college in Surendranagar has intake capacity of 100 under graduate medical students per year. As the hierarchy in education occurs in under graduation, the level and amount of stress, anxiety would be different in various strata. These are highly stressful years. During these years, they try to accomplish their goals. We explored their level of anxiety, depression and stress by administering a self-reported rating scale (DASS - 42).

Medical education is perceived as stressful and higher stress have been documented in medical students in various studies [1-4]. Regarding stress of medical students the transition from pre-clinical to clinical training has been identified as a important stage of medical school [5] that can result in decreased life satisfaction among students [6]. Problems can occur due stress during study in later professional life [7].

Various instruments have been used to report the high rates of psychological morbidity amongst medical students [8, 9], related to academic, financial and social demands. Knowledge of psychiatric morbidity can help in implementing preventive mental health programmes [10].

The relationship between medical school and stress has been reported. It is reported that one in five students strongly felt the need to conceal mental or emotional problems. Reasons given included feeling there was no need to, concerns they would not be believed, fears of being discriminated against, judged or

stigmatized, concerns of privacy and confidentiality being breached, embarrassment and previous negative experiences. So the role of screening becomes important [11]. The British Medical Association has recently published a document on stress within the medical profession [12], but, although comprehensive, it contains no references or information about measured levels of stress or psychological symptoms in senior hospital doctors. Ganguli HC [13] had reported prevalence of depression 34/1000 and anxiety 16/1000 in India. Stress was found to be significantly more in Second and Third MBBS students rather than First MBBS levels [14].

Stress has deleterious effects on person's physical and mental well-being. Experience of stress on a constant or regular basis may become a familiar state and a 'typical' part of life. Unfortunately, excessive stress can then potentially become unrecognizable, by medical students and doctors until the effects of professional burnout become apparent [15]. Potential consequences of stress include alcohol /drug abuse, interpersonal relationship difficulties, depression and anxiety, and suicide. Many of these problems develop during medical school [16]. A study by Salt *et al.* [17], reported that medical students showed an increase in depression from 13% at the beginning of medical school, to 24.5% by the end of the second year.

OBJECTIVE

The objective of the study is to assess the level of depression, anxiety and stress among medical students

in consecutive years of under graduation in a medical college at Surendranagar, Gujarat, India.

METHODOLOGY

A total of 302 undergraduate medical students of C.U. Shah Medical College, Surendranagar were included in the study, in which 74 students of 2nd semester, 65 students of 4th semester, 78 students of 6th semester and 85 students of 8th semester were assessed. Each of them was presented with one copy of questionnaire to assess Depression, Anxiety and Stress Scale (DASS-42). Informed consent was taken from each participant after explaining them the objectives of the study.

Depression, Anxiety and Stress Scale (DASS- 42):

The Depression, Anxiety and Stress Scale (DASS): The DASS is a set of three self-report scales designed to measure the negative emotional states

of depression, anxiety, and stress. The DASS was constructed not merely as another set of scales to measure conventionally defined emotional states, but to further the process of defining, understanding, and measuring the ubiquitous and clinically significant emotional states usually described as depression, anxiety and stress.

The DASS is a 42-item self-report inventory and was developed to extend the understanding and differentiation of the most commonly reported difficulties; depression, anxiety and stress. Further, the intent was to identify the core features of each construct and delete any item overlaps that were associated with difficulties in differentiating the three constructs.

RESULTS

Table-1: Depression, Anxiety and Stress among Medical Students in Consecutive Years

	2 nd Sem. N = 74 Frequency (%)	4 th Sem. N = 65 Frequency (%)	6 th Sem. N = 78 Frequency (%)	8 th Sem. N = 85 Frequency (%)	Total N = 302 Frequency (%)
Depression					
Mild (10-13)	11 (14.86)	10 (15.38)	11 (14.1)	11 (13.4)	43 (14.23)
Moderate (14-20)	1 (1.35)	2 (3.07)	3 (3.85)	7 (8.54)	13 (4.3)
Severe (21-27)	0 (0)	1 (1.54)	0 (0)	2 (2.44)	3 (0.9)
Total	12 (16.21)	13 (20)	14 (17.94)	20 (24.39)	59 (19.53)
Anxiety					
Mild (8-9)	9 (12.16)	11 (16.92)	18 (23.07)	19 (23.17)	49 (16.22)
Moderate (10-14)	4 (5.4)	16 (24.61)	25 (32.05)	12 (14.63)	47 (15.56)
Severe (15-19)	2 (2.70)	3 (4.61)	2 (2.56)	2 (2.43)	9 (2.98)
Total	15 (20.27)	30 (46.15)	45 (57.69)	33 (40.24)	105 (34.76)
Stress					
Mild (15-18)	5 (6.75)	10 (15.38)	10 (12.82)	5 (6.09)	30 (9.73)
Moderate (19-25)	3 (4.05)	11 (16.92)	5 (6.41)	3 (3.65)	22 (7.28)
Severe (26-33)	1 (1.35)	1 (1.54)	0 (0)	0 (0)	2 (0.6)
Total	9 (12.16)	22 (33.84)	15 (19.23)	8 (9.75)	54 (17.88)

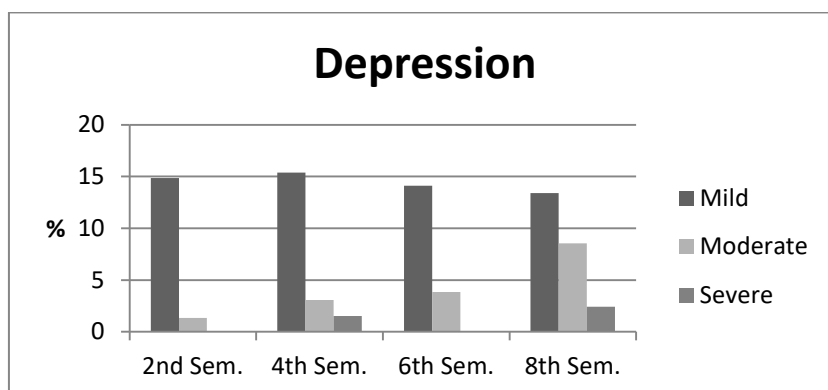


Fig. 1: Percentage of students having Depression

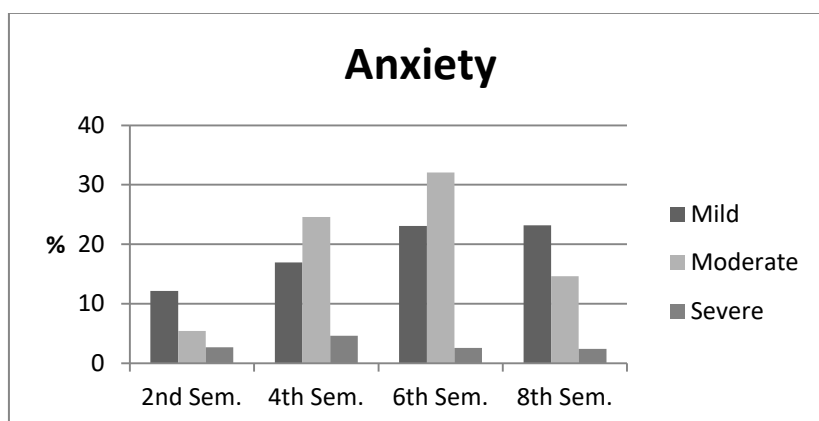


Fig. 2: Percentage of students having Anxiety

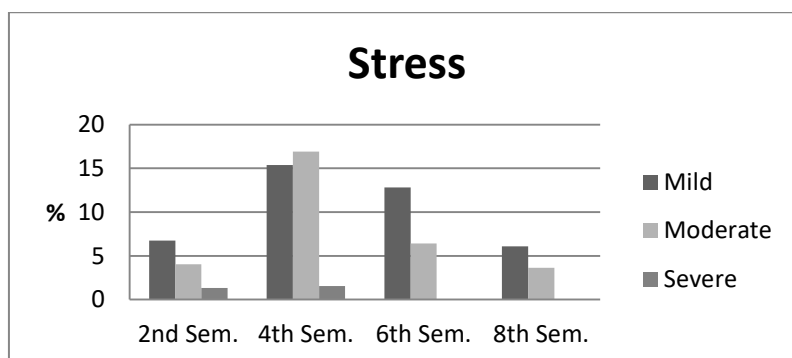


Fig. 3: Percentage of students having stress

DISCUSSION

Significant number of students reported having psychological problem in form of Depression, Anxiety and Stress. Cut of score for stress 15 is probably too high. Score for stress does not co relate as well as that of depression and anxiety. Initial and yearly repeated screening of students during medical study is worthwhile [17].

Our study shows positive for depression (20%), anxiety (35%) and stress (18%) among the medical students is much higher than general population. Our study depicts that as the years of medical curriculum progress the severity of depression increases; we found

highest level of diagnosable depression (24.39%) in 8th semester students (3rd year part II). Our findings show that 8th semester students had mixed symptoms of anxiety and depression. This means that 1 out of 5 students were found to be depressed. In the domain of anxiety, maximum level of anxiety (57.69%) was found among 6th semester students (3rd year part I). Also this was in corroboration that 1 out of 3 students experienced anxiety. Subsequently, maximum level of stress (33.84%) was observed in 4th semester students (2nd year). Our study shows that 1 out of 5 students are having various levels of stress. This may be attributed to the students finding it difficult to get acquainted to the clinical subjects being introduced in the starting of 2nd year of medical

curriculum. In addition to personal suffering it may cause learning and interpersonal problems.

Factors contributing to high level of depression, anxiety and stress in current set up of medical college may be due to the high expectations of parents, peer pressure, tedious medical curriculum. Early screening and intervention are advisable because it will help the students in reducing their stress, anxiety and depression which are in their initial phase and can be managed easily with few sessions of counseling which will boost up their moral and thereby their academic performance will improve. They will be able adjust themselves in a better way with peers and faculty members. Stephenson *et al.* [15] have excellent recommendations to reduce stress among medical students:

- a) Form a study group,
- b) Maintain a close group of friends,
- c) Know your limit and set your own goals,
- d) Maintain social activities outside of medicine,
- e) Be part of a mentorship program,
- f) Organize clinical placements,
- g) Volunteer to run extracurricular events promoting healthcare and support to the community,
- h) Apply for scholarships,
- i) Stay healthy,
- j) Know when to seek help and where to get it.

CONCLUSION

In comparison to general stream students, medical students suffer from higher level of depression, anxiety and stress. 8th semester medical students have high level of depression, 6th semester students have high level of anxiety and 4th semester students have high level of stress. Early intervention is recommended in medical students.

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