

## Assessment of Mental Health Status Pertaining To Anxiety among Second Year MBBS Students in Kurnool Medical College

Safia Banu S<sup>1</sup>, Ramya murthy C N<sup>2</sup>, Sharon Sonia S<sup>3</sup>, Vijaya Bhaskar Reddy Y<sup>4</sup>

<sup>1</sup>Post graduate, <sup>2</sup>Postgraduate, <sup>3</sup>Professor, <sup>4</sup>Professor and Head, Department Of Pharmacology, Kurnool Medical College, Kurnool, Dr NTR University Of Health Sciences, Vijayawada, Andhra Pradesh -518002, India

\*Corresponding Author: Safia Banu S\*

**Abstract: Introduction:** Medical education can impose significant psychological stress on undergraduates<sup>1</sup>. Considerable degree of psychological morbidity has been reported among medical students ranging from stress, interpersonal problems and suicidal ideation to psychiatric disorders<sup>2,3,4</sup> and they tend to have greater psychological distress than the general population. Now-a-days, anxiety is most commonly found among medical students.

**Materials and Methods:** A semi-structured questionnaire based study to test the level of anxiety, was conducted among 155 second year MBBS students at Kurnool Medical College, Kurnool. The questionnaire used was hamilton anxiety rating scale (HAM-A) and some of the structural questions related to anxiety and anti-anxiety drugs. The questionnaires were distributed, students were informed about the purpose of the study and were explained the details for filling the questionnaire. The data was collected, analyzed and presented in the form of figures.

**Results:** Out of 155 students, 83 (53.55%) students scored mild anxiety levels, 30 (19.36%) students scored mild to moderate anxiety levels and 42 (27.09%) students scored moderate to severe anxiety levels.

**Conclusion:** Mild form of anxiety is much more common among medical students and majority of these medical students are females. Out of 77 female students 45 students are having mild anxiety. Regular counseling, relaxation sessions and engaging them in extracurricular activities will help in curtailing this condition which can blowup if the students face a critical situation.

**Keywords:** hamilton anxiety rating scale (HAM-A), anxiety scoring, medical students.

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### I. Introduction

Medical education is a full-time commitment and responsibility of students that entails academic tasks, activities, social conduct, support, and care provided to patients. Mental health of a medical student remains affected throughout training due to long study and working hours, extensive course content, examinations, peer competition, un-inspiring environments, sleep deprivation, and loneliness including other factors interfering in everyday personal, social, and family life. Medical education is generally perceived as being stressful and considerable degree of psychological morbidity has been reported among medical students ranging from stress, interpersonal problems, and suicidal ideation to psychiatric disorders.<sup>2,3,4,5</sup> Globally, it has been demonstrated that 25%–90% of medical students are stressed, which is an important determinant of depression and anxiety. The demand for curbing mental health conditions, especially depression, is gaining momentum across the world since the last couple of decades.<sup>10</sup> It is no surprise that mental health of medical students in India as an area of research domain has attracted the second highest attention of the faculty in medical colleges of country after medical education, learning process, and evaluation.<sup>11</sup> With this background, a study was undertaken to assess the prevalence of anxiety among second year MBBS students at Kurnool Medical College, Kurnool.

### II. Materials and Methods

A semi-structured questionnaire based study to test the level of anxiety, was conducted among 155 second year MBBS students at KMC, Kurnool. The questionnaire used was hamilton anxiety rating scale (HAM-A) and some of the structural questions related to anxiety and anti-anxiety drugs. Willingness to answer the questionnaire was considered as informed consent and those were included in the study and their questionnaires analyzed. The questionnaires were distributed, students were informed about the purpose of the study and were explained the details for filling the questionnaire. The Hamilton Anxiety Rating Scale (HAM-A) is a widely used and well-validated tool for measuring the severity of a person's anxiety. The HAM-A probes 14 parameters. Each item is scored on a 5-point scale, ranging from 0=absent to 4=incapacitating. Hamilton Anxiety Rating Scale<sup>6</sup> (HAM-A)

**1. Anxious mood**

- Worries
- anticipation of the worst

**2. Tension**

- startles
- cries easily
- restless
- Trembling

**3. Fears**

- fear of the dark
- fear of the strangers
- fear of being alone
- fear of animal

**4. Insomnia**

- difficulty falling asleep or staying asleep

**5. Intellectual**

- poor concentration
- memory impairment

**6. Depressed mood**

- decreased interest in activities
- anhedonia
- insomnia

**7. Somatic complaints-**

**Muscular**

- muscle aches or pains
- bruxism

**8. Somatic complaints-Sensory**

- tinnitus
- blurred vision

**9. Cardiovascular symptoms**

- tachycardia
- palpitations
- chest pain
- sensory of feeling faint

**10. Respiratory symptoms**

- chest pressure
- choking sensation
- shortness of breath

**11. Gastrointestinal symptoms**

- dysphagia
- nausea or vomiting
- constipation
- weight loss

**12. Genitourinary symptoms**

- urinary frequency or urgency
- dysmenorrhea
- impotence

**13. Autonomic symptoms**

- dry mouth
- flushing
- pallor
- sweating

**14. Behavior at interview**

- fidgets
- tremor

Hamilton Anxiety Rating Scale (HAM-A)

Classification of symptoms

- 0-absent
- 1-mild
- 2-moderate
- 3-severe
- 4-incapacitating

- HAM-A scoring level of anxiety
  - <17-mild
  - 18-24 mild-moderate
  - 25-30-moderate-severe.

**QUESTIONNAIRE**

S.NO	QUESTION	YES	NO
1.	Some degree of anxiety is a part of normal life		
2.	Hypnotic subdues excitement and calms the subject without inducing sleep		
3.	Sedative induces and/or maintains sleep similar to normal aurosal sleep		
4.	Sedatives are also known as anti-anxiety drugs		
5.	Some of the commonly used anti-anxiety drugs are---		
	a)Diazepam		
	b)Buspirone		
	c)Alprazolam		
	d)Pheniramine		
6.	Which of the following drugs are used to treat anxiety neurosis		
	a)selective serotonin reuptake inhibitors(SSRIs)/serotonin and noradrenaline reuptake inhibitors(SNRIs)		
	b)benzodiazepines(BZDs)		
	c)SSRIs/SNRIs+BZDs		

**Results: Out of 155 students, (Table 1)**

**83 (53.55%) students scored mild anxiety levels**

**30 (19.36%) students scored mild to moderate anxiety levels and**

**42 (27.09%) students scored moderate to severe anxiety levels**

**Table 1:** prevalence of anxiety among second year MBBS students

Anxiety scoring(HAM-A)	Total No (155)	%
Mild anxiety	83	53.54
Mild- Moderate anxiety	30	19.35
Moderate- Severe anxiety	42	27.09

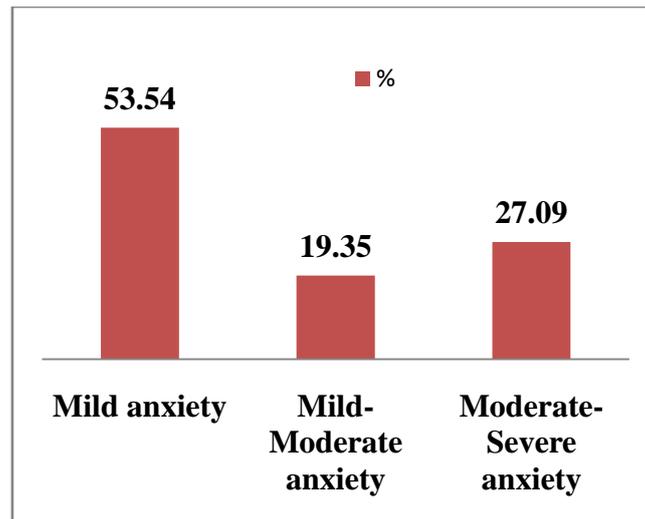


Figure 1: Anxiety scoring in 2<sup>nd</sup> yr MBBS students

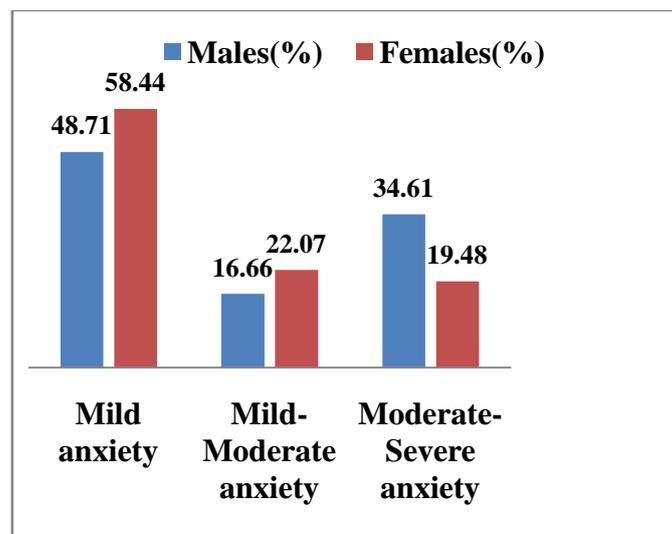


Figure 2: Gender comparison of anxiety levels

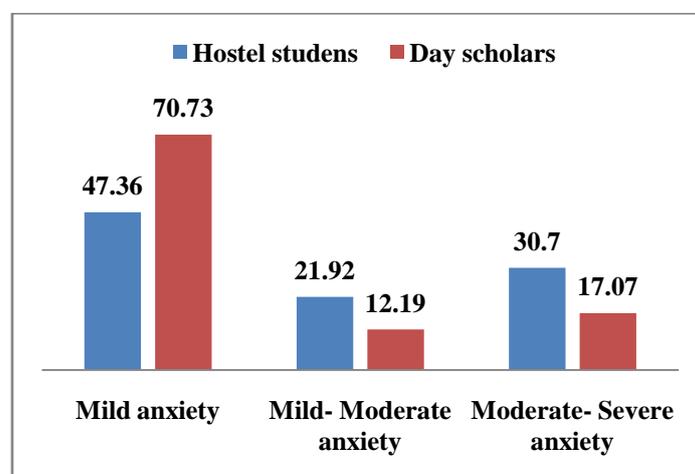


Figure 3: Comparison of anxiety levels between hostel students and day scholars

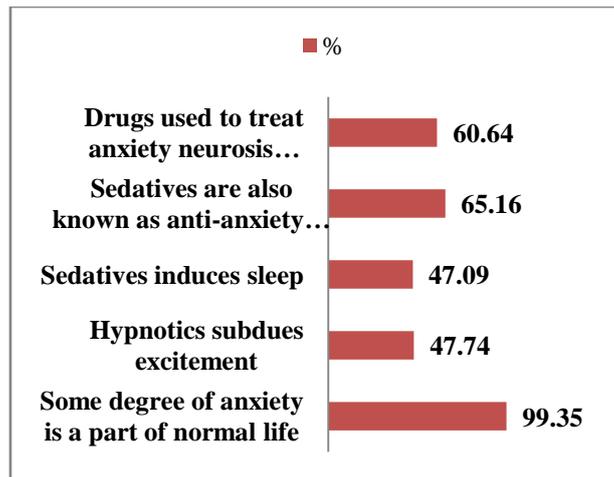


Figure 4: % of students correctly answered

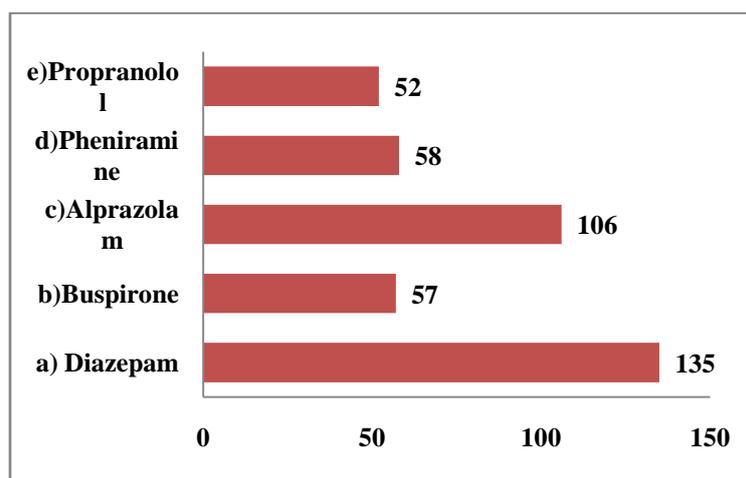


Figure 5: Commonly used anti-anxiety drugs

### III. Discussion

Anxiety is universal experience which has an important function in the face of danger.<sup>7</sup> Anxiety can be taken as a reliable indicator for assessment of mental illness in the community.<sup>8</sup> Results of this study indicate that the mild form of anxiety is much more common among medical students. This study found difference between gender and anxiety (figure 2) and also different anxiety levels between hostel students and day scholars (figure 3). On the basis of gender discrimination anxiety is common among females. Female medical students mostly suffer from mild and mild to moderate form of anxiety while male medical students mainly suffer from moderate to severe form of anxiety. On the other hand mild to moderate and moderate to severe forms of anxiety is common in students residing at hostel compared to day scholars.

Further study also includes percentage of students who are aware of anxiety and anti-anxiety drugs. Out of 155 students (figure 4) 99.35% knows some degree of anxiety is a part of normal life, 47.74% students know hypnotics does not subdue excitement and calm the subject without inducing sleep, 47.09% students know sedatives does not induce or maintain sleep similar to normal arousal sleep, 65.16% are aware of sedatives are also known as anti-anxiety drugs, 60.64% students are aware about treatment of anxiety neurosis i.e., selective serotonin reuptake inhibitors (SSRIs)/serotonin and noradrenaline reuptake inhibitors (SNRIs) and benzodiazepines (BZDs).

Out of 155 students, 135 students (figure 5) know diazepam is most commonly used anti-anxiety drug. Other drugs like buspirone, alprazolam, pheniramine and propranolol as commonly used anti-anxiety drugs correctly answered by 57, 106, 58 and 52 students respectively.

### IV. Conclusion

Mild form of anxiety is much more common among medical students and majority of these medical students are females. Out of 77 female students, 45 students are having mild anxiety. Moderate and severe form of anxiety is more common in hostel students compared to day scholars. Chandavarkar U et al in their

study“Anxiety symptoms and perceived performance in medical students”<sup>9</sup> concluded that more than half of the medical undergraduate students were found to be affected by depression, anxiety and stress. Regular counselling ,relaxation sessions and engaging them in extracurricular activities will help in curtailing this condition which can blowup if the students face a critical situation.

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