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# Prevalence of Mental Distress and Addiction Habits among Medical Undergraduates

## Abstract

**Introduction:** Medical education across the globe is perceived as being inherently stressful leading to mental distress in medical undergraduates. Among all psychological problems, stress is one of the common problems faced by medical students. Stress is a situation that leads to tension, pressure or negative emotions such as anxiety, depression and anger. Exposure to chronic stress can lead to both physical and mental illnesses. The stressors among medical students are academic, social, personal and financial. Psychological distress among students reduces their self-esteem, quality of life and academic performance. They may engage in potentially harmful methods of coping with stress such as tobacco, alcohol and substance abuse.

**Objective:** The present study was conducted to determine the prevalence of stress-related problems among medical undergraduates using DASS 21 scale and also to find prevalence of addiction habits in relation to stress.

**Methods:** It was a cross-sectional study done among medical undergraduate students. Prevalence of psychological mood disorders was assessed by using DASS-21. A pretested and predesigned questionnaire was also prepared assessing correlation of mental distress with sociodemographic characteristics and addiction habits among medical undergraduates.

**Results:** Prevalence of depression, anxiety and stress was found to be very high among medical undergraduates with prevalence being more in females as compared to males. Hostellers were found to have more mental distress as compared to day scholars. As compared to females, males were more engaged in addiction habits mostly consumption of alcohol.

**Conclusion:** Family support, counselling lessons and various other methods of stress management should be given to the medical students to decrease the stress level and make them aware of healthy ways of living.

**Keywords:** Depression, Anxiety, Medical students, Stress management.

## Introduction

Mental health problems nowadays are of major public health concern. Medical education across the globe is perceived as being inherently stressful. A study among medical undergraduates in the United States revealed that 23% of them had depression while 57% were suffering from stress.<sup>1</sup> Excessive working hours, competitive academic environment, lack of peer support, staying away from home and financial problems put them under a lot of stress, which leads to development of depression and anxiety.<sup>2</sup> Several studies have suggested that medical undergraduates are the most distressed group of students as compared to undergraduates from any other course or from general population and from other age-matched peers.<sup>2,3</sup> As a result, they may engage themselves in potentially harmful methods of coping with stress such as tobacco,

alcohol and substance abuse, suicidal tendencies, inter-personal relation difficulties, which are of global concern.<sup>4</sup> Nowadays among youth, there is an increasing trend for the abuse of psychoactive substances in the developing countries like India. But when it affects young doctors who are the future of healthcare system of India, it is frightening.<sup>5</sup> Substances such as tobacco, smoking, alcohol, cannabis and various allopathic drugs have been widely abused by medical students for various reasons in spite of their knowing about their ill effects.<sup>6</sup>

Worldwide, studies including India have estimated a high prevalence rate of substance abuse (20–40%) among students of all streams.<sup>6-8</sup> Studies on psychological problems and addiction habits among medical students revealed that these disorders are under-diagnosed and under-treated. There is an alarming need of the hour for early diagnosis and treatment of such psychological disorders and addiction habits among medical students. So keeping in view this issue as need of the hour, the present study was conducted.

## Methods

This cross-sectional study was conducted in a medical college of Uttar Pradesh from March to August 2016. Taking prevalence of depression anxiety and stress to be 50%<sup>9</sup> and allowable error as 10%, the sample size came out to be 384. Prevalence of psychological mood disorders such as depression, anxiety and stress were assessed by using previously standardized and validated survey instrument DASS-21 scale.<sup>2,9</sup> A pretested and predesigned questionnaire was also prepared assessing correlation of mental distress with sociodemographic characteristics and addiction habits among medical undergraduates.

## Results and Discussion

Present study reveals that stress disorders among medical undergraduates are very high. Out of total 384 medical undergraduates 217(56.5%) were boys and 167(43.5%) were girls. On analyzing the data using DASS 21 scale on overall 384 medical undergraduates, Table 1 shows that 251(65.30%) undergraduates were depressed, which is higher than the study done by Iqbal et al. (51.3%).<sup>9</sup> While 265(69.10%) undergraduates had anxiety, which is higher than the study done by Iqbal et al. (66.9%)<sup>9</sup> and 194(50.40%) undergraduates had stress which is lesser than the study done by Iqbal et al. (53%).<sup>9</sup> Table 2 shows the grading of depression, anxiety and stress into mild, moderate, severe and very severe which is comparable to study done by Iqbal et al.<sup>9</sup> Depression, anxiety and stress were more prevalent among girls as compared to boys as shown in Table 3 which is comparable to the study done by Iqbal et al.<sup>9</sup> and Sunil et al.<sup>4</sup> It was found that hostlers had more stress disorders than day scholars (Table 4). Out of total 384 undergraduates, 129(33.6%) were addicted but 255(66.4%) were normal which is lower than the study done by Gouri and Sourajit<sup>5</sup> which has total addicted as (45.87%). In the present study, out of 129 addicted 88(67.9%) were boys and 41(32.1%) were girls (Table 5). This shows addiction habits among boys were significantly higher than girls which is similar to the study done by Gouri and Sourajit.<sup>5</sup> Majority of medical undergraduates who were having moderate, severe and very severe degree of stress disorders (whether depression, anxiety or stress) were addicted more (Table 6) which is similar to the study done by Arindam et al.<sup>10</sup> Among the single substance abuse, alcohol and tobacco were majorly consumed by boys as compared to girls (Table 7) which is also similar to the study done by Gouri and Sourajit.<sup>5</sup> Similarly, sleeping pills were mostly consumed by girls. Gutka and bhaang were only consumed by boys and not by girls.

**Table 1. Overall Prevalence of Stress Disorders (N=384)**

Type	Affected		Normal	
	No.	Percent	No.	Percent
Depression	251	65.30	133	34.70
Anxiety	265	69.10	119	30.90
Stress	194	50.40	190	49.60

**Table 2. Severity Grading of Depression Anxiety and Stress**

Grades	Depression		Anxiety		Stress	
	n=384	Percent	n=384	Percent	n=384	Percent
Normal	134	34.8%	119	30.90%	190	49.6%
Mild	75	19.5%	29	8%	61	15.8%
Moderate	114	29.7%	123	32%	81	21.1%
Severe	35	9.2%	54	14%	43	11.2%
Very severe	26	6.8%	59	15%	9	2.3%

Table 3. Sex-Wise Distribution of Stress Disorders (N=384)

Type	Male		Female		P value
	n=217	Percent	n=167	Percent	
Depression	119	54.8	132	79.04	<0.05
Anxiety	133	61.3	132	79.04	<0.05
Stress	95	43.7	98	58.7	<0.05

Table 4. Distribution of Stress Disorders According to Residence of Undergraduates

Type	Hostler		Day Scholar		P Value
	n=309	Percent	n=75	Percent	
Depression	211	68.3	40	53.3	<0.05
Anxiety	223	72.2	43	57.3	<.005
Stress	166	53.7	28	37.3	<.005

Table 5. Prevalence of Addiction among Boys and Girls

Gender	Addicted		Not Addicted	
	N=129	Percent	N=255	Percent
Boys (n=217)	88	40.6	129	59.4
Girls (n=167)	41	24.6	126	75.4

Addicted 129 (33.6%); Chi Square: 10.83, DF:1, p-value <0.005

Table 6. Prevalence of Addiction in Relation to Stress Disorders (Out of 129 addicted)

Grading	Depression		Anxiety		Stress	
		Percent		Percent		Percent
Normal	23	17.8	25	19.4	40	31
Mild	18	14	10	7.8	25	19.4
Moderate	43	33.3	40	31	34	26.4
Severe	23	17.8	23	17.8	23	17.8
Very severe	22	17.1	31	24	7	5.4

Table 7. Prevalence of Abuse of Various Substances among Undergraduates

Substance	Male		Female	
	n=217	Percent	n=167	Percent
Alcohol	88	22.90	37	22.15
Tobacco	79	36.40	19	11.37
Sleeping pills	19	8.75	32	19.16
Gutka	10	4.60	0	0
Bhaang	8	3.68	0	0

## Conclusion

The present study revealed that prevalence of psychological problems whether depression, anxiety and stress are alarmingly high among medical students. This study also revealed that a large number of students indulged in addiction, particularly males.

Hostlers are having more stress disorders and are engaged more in addiction as compared to day scholars. Most of them did so despite knowing the ill effects and legal consequences of such use. Nearly one-half of the study participants had made attempts to quit in the past but failed to maintain due to lack of will power.

## Recommendation

In spite of such a high prevalence of distress and addiction habits among medical students, till date there has not been any mandate recommendations. So in order to improve the life of medical undergraduates and ensure their happiness in the stress-prone career, it is important to curb the disease for its causation. Medical care committee should be formed in colleges with teacher-in-charge who can actually see through hidden problems of suffering students and can help them. There should be female teachers who can look into female-related problems. Support from experts of psychiatry department for proper counselling and

treatment is required. Proper communication and participation with parents should be there. Counselling sessions should be organized and students should be guided for healthy ways of living like exercise, meditation, etc.

**Conflict of Interest:** None

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