



Original Research Article

EVALUATION OF MENTAL HEALTH DISORDERS AMONG UNDERGRADUATE MEDICAL STUDENTS AT NSCB MEDICAL COLLEGE, JABALPUR

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ABSTRACT

Medical students are at high risk for mental health disorders due to academic stress, long working hours, and the demanding nature of medical training. This study aimed to assess the prevalence of depression, psychosis, suicidal thoughts, and alcohol use disorder symptoms among first-year and final part-I MBBS students at NSCB Medical College, Jabalpur. A cross-sectional study was conducted using the WHO Mental Health Gap Intervention Guide (mhGAP-IG) questionnaire. Data analysis revealed significant findings, particularly regarding sleep disturbances and reduced concentration. The results highlight the urgent need for early mental health interventions for medical students.

Keywords: Mental Health, Undergraduate Medical Students.

INTRODUCTION

Mental health issues are a major concern among medical students worldwide. The World Health Organization (WHO) reports that nearly 1 in 8 individuals suffer from mental disorders.^[1] Studies indicate that anxiety and depression are prevalent among 43% and 14% of medical students, respectively.^[2] In India, the age-adjusted suicide rate is 21.1 per 100,000, with suicide being the fourth leading cause of death among 15-29-year-olds, an age group that includes medical students.^[3] Academic pressure, lack of sleep, and social isolation contribute to mental distress among medical students. Research has found that the transition from preclinical to clinical years is particularly stressful.^[4] This study aimed to evaluate the prevalence and comparison of mental health symptoms among first-year and final part-I MBBS students at NSCB Medical College, Jabalpur.

Objectives

1. To estimate the prevalence of various mental health issues among first-year and final part-I MBBS students.

2. To compare the prevalence of mental health symptoms between these two groups.

MATERIALS AND METHODS

A cross-sectional study was conducted at Department of Community Medicine, Netaji Subhash Chandra Bose (NSCB) Medical College in Jabalpur from September 1-30, 2023. The study population comprised first-year and final part-I MBBS students, with a total sample size of 310 students (213 first-year and 97 final part-I). Purposive sampling technique was employed to select participants based on their specific characteristics relevant to the study objectives. The World Health Organization's Mental Health Gap Action Programme Intervention Guide (WHO mhGAP-IG) questionnaire was used as the assessment tool to gather data. This methodology allowed for a comprehensive evaluation of the target population within the specified timeframe, providing valuable insights into the mental health status of medical students at NSCB Medical College.

RESULTS

Table 1: Comparison of Depression Symptoms Between First-Year and Final Part-1 Students

Symptoms of depression	First years (n=213)	Final part-1(n=97)	p value	
Depressed mood	28(13.1)	11(11.3)	0.66	Insignificant
Loss of interest	26(12.2)	18(18.5)	0.14	Insignificant
Decreased energy	62(29.1)	32(32.9)	0.49	Insignificant
Reduced concentration	90(42.3)	37(38.1)	0.5	Insignificant
Reduced Self esteem	56(26.3)	17(17.6)	0.09	Insignificant
Ideas of guilt	36(16.9)	13(13.4)	0.43	Insignificant
Bleak and pessimistic view of future	12(5.6)	7(7.2)	0.59	Insignificant
Ideas of self harm	2(0.9)	0	0.33	Insignificant
Disturbed sleep	47(22.1)	37(38.1)	0.003	Significant
Diminished appetite	35(16.4)	13(13.4)	0.49	Insignificant
Difficulty in crying	11(5.2)	7(7.21)	0.47	Insignificant

Two Sample Proportion test

The prevalence of depression symptoms was evaluated, with the following key findings:

- Reduced concentration was the most reported symptom (42.3% in first-year vs. 38.1% in final part-I students).
- Decreased energy was reported by 29.1% of first-year and 32.9% of final part-I students.
- Sleep disturbances were significantly higher in final part-I students (38.1%) than in first-years (22.1%) ($p=0.003$), indicating a statistically significant difference.
- Other symptoms such as depressed mood, loss of interest, and reduced self-esteem did not show significant differences.

Table 2: Comparison of Psychosis Symptoms Between First Years and Final Part-1 Students

Psychosis	First years (n=213)	Final part-1(n=97)	p value	
Irrelevant	7(3.3)	3(3.1)	0.93	Insignificant
Delusion	7(3.3)	1(1.0)	0.25	Insignificant
Hallucination	2(0.9)	0	0.34	Insignificant
Agitation	11(5.2)	2(2.1)	0.21	Insignificant
Belief that thought are being inserted are broadcast from once mind	10(4.7)	5(5.2)	0.86	Insignificant
Social withdrawal	13(6.1)	5	0.74	Insignificant

Psychotic symptoms were infrequent:

- Social withdrawal was observed in 6.1% of first-year and 5.2% of final part-I students.
- Agitation was seen in 5.2% of first-years compared to 2.1% of final part-I students.
- Delusions and hallucinations were rare (<5% prevalence in both groups).

Table 3: Comparison of Suicidal Thoughts Between First Years and Final Part-1 Students

Suicidal thought	First years (n=213)	Final part-1(n=97)
Current thought / plan of suicide	0	0
History of thought/ plan of suicide	8(3.8)	0

- No students reported current suicidal thoughts or plans.
- 3.8% of first-year students reported a history of suicidal thoughts, compared to 0% in final part-I students.

Table 4: Prevalence of Alcohol Disorder Symptoms in First-Year and Final Part-1 Students

Alcohol disorder	First years (n=213)	Final part-1(n=97)
Appearance to be under influence of alcohol	0	1(1.03))
presence with an injury	0	0
somatic symptoms	0	0
difficulties in out usual work	4(1.88)	1(1.03)

Alcohol Use Disorder Symptoms

- 1.88% of first-year students and 1.03% of final part-I students reported difficulties in usual work due to alcohol use.
- Only one final part-I student was noted to appear under the influence of alcohol.

transition into medical school can be a stressful period.^[5,6]

Significantly higher rates of sleep disturbances in final-year students may be linked to increased academic stress and exam pressure. Studies suggest that chronic sleep deprivation among medical students leads to impaired cognitive performance and increased risk of burnout.^[7]

Although the prevalence of psychosis and suicidal ideation was low, depression symptoms were common, emphasizing the need for early intervention strategies. The findings are in line with previous research that suggests medical students

DISCUSSION

Our study revealed that first-year students reported a higher prevalence of mental health symptoms compared to final part-I students. This finding is consistent with previous studies indicating that the

experience high levels of psychological distress but rarely seek help.^[8]

CONCLUSION

The overall prevalence of mental health disorders was found to be higher in first-year students (4.94%) compared to final part-I students (2.6%). Depression and anxiety-related symptoms were most commonly reported, with significant sleep disturbances in final-year students. Our findings highlight the importance of mental health support services in medical colleges to mitigate the psychological burden on students.

Recommendations

- Mental Health Awareness Campaigns: Encourage students to seek help without stigma.
- Counseling Services: Implement accessible mental health counseling services within medical colleges.
- Regular Mental Health Screening: Early identification of at-risk students can prevent worsening mental health outcomes.

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