



DEPRESSION AMONG UNDERGRADUATE MEDICAL STUDENTS: A CROSS SECTIONAL STUDY

Psychiatry

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ABSTRACT

Background : Medical education is a stressful professional course . Periodic assessment of students is imperative to identify psychological problems like depression which adversely affect the physical, social and mental well being of the students . **Methods :** It was a cross sectional study conducted among undergraduate students of a medical college in Gaya, Bihar. Sociodemographic details were collected using a proforma . Beck's depression inventory (BDI) was used to assess depression and its severity. Statistical analysis was done and results tabulated. **Results:** 57 % students were found to be suffering from depression maximum of which were of mild degree(45%) . Maximum students of final year were found to be depressed (60%) followed closely by first year students (56%). **Conclusion :** Medical students are vulnerable to psychological problems like depression. Early identification can help can help them cope with life situations better.

KEYWORDS

Medical Students, Depression, BDI, Psychological Stress

INTRODUCTION

Mental health among undergraduate students represents an important public health entity. University students face considerable demands in school and family, resulting in significant psychological stress that may lead to serious disorders and mental health issues such as depression. Medical students encounter multiple psychological changes in transformation from young insecure students to an efficient physician. The personal and social sacrifice they have to make in order to maintain a good academic result in a highly competitive environment puts them under a lot of stress.²

Depressive disorders are characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. Depression can be long-lasting or recurrent, mild or severe, substantially impairing an individual's ability to function at work or school or cope with daily life (WHO).³ A systematic review of 183 studies from 43 countries revealed the crude prevalence of depression among medical students to be around 27.2%.⁴ Meta-analysis of pooled prevalence estimate of depression among medical students in India by random-effects model was 40%.⁵

The avoidance of professional help and treatment by medical students increases the responsibility of medical schools in identifying and understanding the prevalence of depression among these vulnerable minds. Scarcity of such studies among medical students in India and the growing rates of suicide among youths in professional courses warranted the study which is the aim of the present study.

MATERIAL & METHODS

The study was conducted among the undergraduate medical students from 1st year to interns of Anugraha Narayan Medical College, Gaya, Bihar. The study was approved by ethical committee of the institute. Students were explained the nature of study and given a proforma for sociodemographic details and consent form. Depression was assessed using the Beck's Depression Inventory (BDI) to assess severity of depression. Those returning completed forms in all respect were included in the study. A total of 350 students participated in the study.

Semistructured proforma for details like age, sex, year of medical study, history of psychiatric/ chronic physical illness, family history of medical illness etc.

BDI was used to evaluate depression and its severity. It is a well validated self rating scale. It has 21 items with a likert scale of 0-3. Maximum score is 63. Clinically significant level of depression was defined by score of BDI: 14-20- mild depression, 21-29- moderate depression and >29- severe depression.⁹

Statistical analysis was done using SPSS software in forms of mean, frequency and percentages.

RESULTS

Out of 300 medical students, there were 110 female and 190 male students. Mean age of students was 23. Depression was found among 57% students. Of these 45 % were found to have mild depression, 10% moderate depression and 2% severe depression (Figure 1). Table 1 shows prevalence of depression among students according to year of medical education. It can be seen that prevalence of depression was 56%, 48%, 42% and 60% among students in first , second, third and final year respectively .(Table 1)

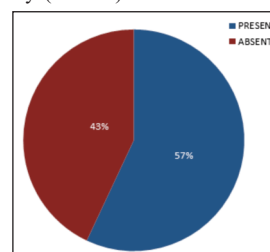


Figure 1 :prevalence Of Depression Among Medical Students

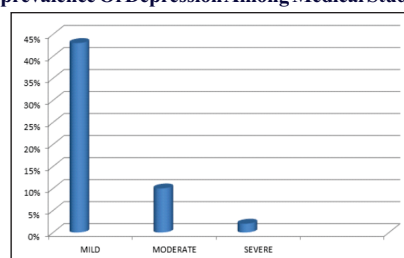


Figure 2 : Severity Of Depression Among Students As Per Bdi

Table 1: Depression Among Students Of Various Years Of Medical Education

YEAR OF STUDY	NO DEPRESSION(%)	DEPRESSION (%)
FIRST	44	56
SECOND	52	48
THIRD	58	42
FINAL	40	60

DISCUSSION

The present study shows prevalence of depression among medical students is high (58%). Our findings are similar to Prakash et al who reported 64% prevalence of depression among students using BDI and higher than that reported by Sharma et al .^{6,7} Medicine as a professional course has become more competitive, financially draining and emotionally challenging which could be an additional reason for high level of depression among students.

Depression rates were found to be highest in the final year students a possible cause of which could be the added stress of postgraduate entrance exams, peer pressure of supporting family needs and financial constraints. This is in contrast to previous studies which have reported decreasing trend in depression across years of education.^{8,9} Depression among first year students was possibly because of new environment, difficulties in coping, missing family and friends.

Medical students are overloaded with a tremendous amount of information with limited time for internalization, a new study environment with obligation to succeed especially during preclinical encounters.^{10,11} This profession has greater degree of workload which creates a feeling of distress and disappointment that predisposes students to having difficulties in solving problems, impaired judgment, and absenteeism from class lessons and breaks their mental stability.¹²

The prevalence rate in our study supports previous findings of increased levels of depression among students. However our study reported increased levels of depression in both initial and final year of medical education which is different from previous findings which reported that depression increased or decreased during the years of medical education which could be an area of further research.^{13,14,15}

CONCLUSION

Depression is an area of concern among the youth considering the increasing cases of suicide among the younger generation. A periodic evaluation of students could help in early identification and better management of such students and prevent any adverse consequence.

Limitations

Cross sectional nature of study is a major limitation of the study. Subjective rating scale was used which could have led to greater reporting of symptoms. Factors causing depression among students have not been assessed in the present study which could be an area of research.

Conflict of interest: none

REFERENCES

1. Mirza AA, Baig M, Halawani MA, Mirza AA. Depression And Anxiety Among Medical Students: A Brief Review. *Advances in Medical Education and Practice* 2021;12: 393-98.
2. Wolf TM, Kissling GE. Changes in life-style characteristics, health and mood of freshmen medical students. *J Med Edu* 1984;59:806-14.
3. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, et al. Prevalence of depression, depressive symptoms, and suicidal ideation among medical students: A systematic review and meta-analysis. *JAMA* 2016;316:2214-36.
4. Dwivedi N, Sachdeva S, Taneja N. Depression among medical students of India: Meta-analysis of published research studies using screening instruments. *Indian J Soc Psychiatry* 2021;37:183-90.
5. Beck AT, Steer RA, Brown GK. *Manual for the Beck Depression Inventory second edition (BDI-II)*. San Antonio: Psychological Corporation; 1996.
6. Prakash J, Prabhu HR. A study of depression among medical students of private medical college in South India. *J Evol Med Dent Sci* 2014;3:3856-61.
7. Sharma A, Gupta SK, Khare N, Agarwal SS. Assessment of depression among medical students of private university in Bhopal, India. *Natl J Community Med* 2015;6:161-5.
8. Basnet B, Jaiswal M, Adhikari B, Shyangwa PM. Depression Among Undergraduate Medical Students. *Kathmandu Univ med J* 2012;39(3):57-60.
9. Inam SNB, Saqib A, Alam E. Prevalence of anxiety and depression among medical students of private university. *J Pak Med Assoc* 2003;53(2):44-47.
10. M Dahlin, N Joneborg, and B Runeson. Stress and depression among medical students: a cross-sectional study. *Medical Education* 2005;39(6): 594-604.
11. Khan M, Mahmood S, Badshah A, Ali S, and Jamal A. Prevalence of depression, anxiety and their associated factors among medical students in Karachi, Pakistan. *Journal of Pakistan Medical Association* 2006; 56:583-86.
12. Yusoff M, Rahim AA, Baba A, Ismail S, Mat PM, and Esa A. Prevalence and associated factors of stress, anxiety and depression among prospective medical students, *Asian Journal of Psychiatry* 2013;6:128-133.
13. Khan MS, Mahmood S, Badshah A, Ali SU, Jamal Y. Prevalence of depression, anxiety and their associated factors among medical students in Karachi, Pakistan. *J Pak Med Assoc*. 2006;56(12):583.
14. Ludwig AB, Burton W, Weingarten J, Milan F, Myers DC, Kligler B. Depression and stress amongst undergraduate medical students. *BMC Med Educ*. 2015;15(1):1-5.
15. Rosal MC, Ockene IS, Ockene JK, Barrett SV, Ma Y, Hebert JR. A longitudinal study of students' depression at one medical school. *Acad Med*. 1997;72(6):542-46.