ORIGINAL RESEARCH PAPER

Volume-8 | Issue-3 | March-2019 | PRINT ISSN No 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

DEPRESSION AMONG MEDICAL STUDENTS OF A GOVERNMENT MEDICAL COLLEGE OF BIHAR

Psychiatry

Niska Sinha — Assistant Professor, Department of Psychiatry, Indira Gandhi Institute of Medical Sciences, Patna

Satish Kumar Sinha* — Assistant Professor and Head Department of Psychiatry, Anugrah Narayan Medical College and Hospital, Gaya, Bihar *Corresponding Author

ABSTRACT

Background: Depression among medical students is an area of concern, more so in todays demanding era of advancements in medical sciences and henceforth the related stress. This study aimed to assess the prevalence of depression among medical students.

Aim: To study the prevalence of depression among medical students.

Materials and Methods: A cross-sectional study was conducted with a stratified random sample size comprising of 200 medical students of Anugrah Narayan Medical College and Hospital, Gaya, Bihar after obtaining Ethical Committee approval. Students were assessed using a specially constructed semi-structured proforma, and Beck depression inventory (BDI). Data was evaluated using the Statistical Package for the Social Sciences (SPSS Inc. version 17.0).

Results: The overall prevalence of depressive symptoms was found to be 41%. 30% of the students had mild and moderate degree of depression while a significant percentage 11% had major depression. The prevalence of depression was comparatively less among 1st and 2nd year medical students (27% and 33%, respectively).

Conclusions: Depression is highly prevalent among medical students in this area. Our findings emphasise importance of screening and psychiatric counselling of this vulnerable population.

KEYWORDS

Medical students, Beck Depression Inventory, Stress, Depression

INTRODUCTION

Medical education is associated with various pressures and stresses which can lead to depression. Depression among medical students is often an underestimated public health problem in India. A very few studies have been conducted to assess the prevalence of depression among medical students and most of them in Western countries. The depression among medical students is associated with a number of factors like their academic life, social factors like alcohol use, drug addiction, family problems, family history of depression, and staying away from home.[1] In India, epidemiological studies on depression among medical students are scanty.

There is a rising concern about this among the students which affects their mental health and academic performance.[2] It is important to prevent the ill effects of depression on medical education through early detection and proper interventional measures, hence to assess this vital yet neglected aspect of medical students, we planned to study its prevalence among medical students of a government medical college in Gaya.

MATERIALS AND METHODS

The aim of the study was to study the prevalence of depression among medical students. It was a cross-sectional study carried out in a government medical college of Gaya, Bihar during the period of year 2015-2016. It included about 200 medical college students (aged 18-30 years) of both sexes who were willing to participate in the study and gave their consent. Purposive sampling technique was used and a semi-structured Performa specially designed for the study along with the scales Beck depression inventory(BDI) were distributed among the medical students of all batches first year to final year and the interns with necessary instructions given.

The study was conducted after obtaining approval from the ethical committee. Of the total 240 performa distributed using random sampling technique, 40 could not be included in the study as the performa received were incomplete. Thus, a total of 200 students were finally included in the study.

The tools used in the study were:

1. Semi-structured Performa that contained details of age, sex, gender, educational year of medical year, past history of physical, psychiatric illnesses, family history etc.

2. Beck's Depression Inventory (BDI-II, 1996): Beck's Depression Inventory is a widely used, validated instrument for measuring depression. It is a self-rated scale, in which individuals rate their own symptoms of depression. It provides a fast, efficient way to assess depression in either a clinical or non-clinical environment and takes just 5-10 minutes to complete. The test contains 21 items, which assess depressive symptoms on a likert scale of 0-3. Each item is a list of four statements arranged in increasing severity about a particular symptom of depression. Interpretation of scores is done using the following interpretive ranges: 0-13 minimal depression; 14-28 mild depression; and 29-63 severe depression. Higher total scores indicate more severe depressive symptoms.[3]

Statistical analysis:

In this study, the data was evaluated using the Statistical Package for the Social Sciences (SPSS Inc. version 17.0). The Statistical techniques used for analyzing data were frequencies, percentages and correlations. The statistical significance value was set at $p<0.05$.

RESULTS

In the present study, out of 200 medical students, the mean age was 24 years. 42 were female and 238 were males. The overall prevalence of depressive symptoms was found to be 41%. 30% of the students had mild and moderate degree of depression while a significant percentage 11% had major depression. The prevalence of depression was comparatively less among 1st and 2nd year medical students (27% and 33% respectively).

Table 1. Showing depression score range of students on BDI:

Level of Internet use	Scores Range on BDI	Number of students	%
Minimal	0-13	118	59.0%
Mild-Moderate	14-28	60	30.0 %
Severe	29-63	22	11.0%
Total		200	100%

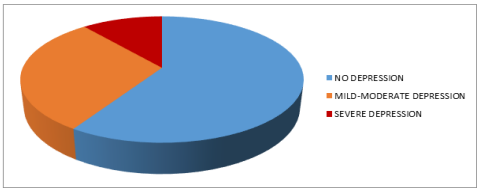

Table 1 reveals that out of 200 medical students 60 (30%) of the students had mild and moderate degree of depression while 22(11%) had major depression.

Table 2.Showing depression (mild-moderate and severe) in relation to year of study of students on BDI:

Year of study	% of students with depression
First Year	27.0%
Second Year	33.0 %
Final Year and Interns	63.0%

DISCUSSION

Consistent with the demands of this competitive era and hence changing stress in academic life in developing country like India, medical student population and risk of depression among them is increasing every year.[4] Studies to determine the prevalence of depression among medical students are few at global level and even lesser in developing countries. To the best of our knowledge, there are no studies using Beck Depression Inventory to assess depression among medical students in state of Bihar. Even from studies done in other parts of the globe, there is a wide difference in prevalence rates.[5,6] Since, the Beck Depression Inventory is a subjective scale[3], used for the study this study has the advantage of easy data collection. In the current study, the BDI has been utilized to detect the prevalence of depression among medical students. Although it is not designed for diagnostic purposes, its epidemiologic utility has been evaluated in several studies, which concluded that it is a reliable and valid instrument for detecting depressive disorders in non-clinical populations.

Depression prevalence among medical students in our study corresponds with prevalence rates found in other developing countries. Studies from Western world report prevalence rates of depression in the range of 14–24%.[7,8] The reason might be the difference of instrument used to assess depression and also possibly because of the fact that students of private medical colleges are at increased risk of developing depression due to associated economic stress. Our study with a subjective tool of assessment assured students about anonymity and encouraged them to give honest responses which may explain differences in results. The prevalence of depressive symptoms was low among newly entered students (1st and 2nd year) as compared to the final year students and interns. This finding is a little varied from other studies. This could be due to stress of preparations for post graduation and greater degree of work load with obligations to succeed, financial indebtedness, lack of leisure time with clinical and academic pressure.[8]

Limitations:

The students were selected from only one medical college, and hence the results cannot be generalized and further studies taking different medical colleges from all parts of India are needed. A limitation of this cross-sectional study is inability to draw cause-effect associations between the studied variables. No data on psychological status of students before entering medical school are available to compare our results with general population.

CONCLUSION

Academic performance and the year of study have an impact on the prevalence of depression. Medical students are reluctant to seek help for depressive symptoms. Initiatives need to be taken to decrease the prevalence of depression in medical students and improve their help-seeking behaviour.

Financial support and sponsorship: Nil
Conflict of Interest: None declared

REFERENCES:

1. Vaidya PM, Mulgaonkar KP. Prevalence of depression, anxiety and stress in undergraduate medical students and its correlation with their academic performance. Indian J of Occup Ther. 2007; 39:7-10.
2. Zoccolillo M, Murphy GE, Wetzel RD. Depression among medical students. J Affect Disord. 1986; 11:91-96.
3. Beck AT, Steer RA and Brown GK (1996) "Manual for the Beck Depression Inventory-II". San Antonio, TX: Psychological Corporation.
4. Kumar GS, Jain A, Hegde S. Prevalence of depression and its associated factors using beck depression inventory among students of a medical college in Karnataka. Indian J Psych. 2012; 54(3):223-6.
5. Dahlin M, Joneborg N, Runeson B. Stress and depression among medical students: A cross-sectional study. Med Educ. 2005; 39: 594-604.
6. Dyrbye LN, Matthew R, Thomas MR Shanafelt TD. Medical Student Distress: Causes, Consequences, and Proposed Solutions. Mayo Clin Proc. 2005; 80:1613-1622.
7. Supe AN. A study of stress in medical students in GS Seth Medical College. J Postgrad Med. 1998; 44:1-6.
8. Givens JL, Tjia J. Depressed medical students' use of mental health services and barriers to use. Acad Med. 2002; 77:918-921.
9. Rosvold EO, Bjertness E. Physicians who do not take sick leave: hazardous heroes? Scand J Public Health 2001;29:71-75.