

# Prevalence of depressive symptoms in medical students: A pilot study

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## Abstract

**Background:** Globally, depression and depressive disorder are common amongst people of all ages, especially amongst 15–29 years old. The prevalence of depression amongst medical students was studied on the World Health Day 2017 using the Brief Patient Health Questionnaire.

**Objective:** The objective was to study the prevalence of depression and depressive symptoms amongst students of a class of MBBS based on responses collected anonymously in the year 2017.

**Materials and Methods:** A class of students in a medical college was administered the questionnaire consisting of nine items, and 81 students participated in this study. Each item was explained, and the students were given time to think and mark their respective responses. The results of responses of 79 students who answered all questions are reported. Based on the cumulative score of their responses, depression was graded as minimal, mild, moderate, moderately severe and severe depression.

**Results and Discussion:** Twenty-four male students and 55 female students constituted the study population. Overall, 91% of the students reported some degree of depression in the previous 2 weeks. Nearly 8.9% of the students did not have any depressive symptoms over the previous 2-week period. Almost 12.7% and 5.1% of the students reported moderately severe and severe depression, respectively. Minimal, mild and moderate depression were reported by 21.5%, 32.9% and 22.8% of the students, respectively. Students with depression were informed to consult with a psychiatrist for formal evaluation.

**Conclusion:** The prevalence of depressive symptoms is very high amongst medical students, and a formal study with intervention is the need of the hour.

**Keywords:** Depression, Medical students, Prevalence, South India

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## INTRODUCTION

Globally, depression and depressive disorder are common amongst people of all ages, which profoundly affect individuals, families and the society.<sup>[1]</sup> It is the second leading cause of death amongst 15–29 years old. The World Health

Day 2017 was observed with the theme ‘*Depression-Let us talk*’ so that more people with depression, in all countries, seek and get help.<sup>[1]</sup> A pilot study was conducted amongst medical students to know the profile of depressive symptoms based on the Brief Patient Health Questionnaire or PRIME-MD TODAY<sup>®</sup>. This client-administered

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questionnaire is said to have comparable diagnostic validity to that of the clinician-administered PRIME-MD and is quite efficient to use.<sup>[2]</sup> Criteria for diagnosing depressive disorder and its nosology are well documented in the International Classification of Diseases-10.<sup>[3]</sup>

### Objective

The objective was to study the prevalence of depression and depressive symptoms amongst students of a class of MBBS.

### MATERIAL AND METHODS

This is a cross-sectional, anonymous, questionnaire-based study of medical students of one batch at a medical college in South India. The study is based on responses provided by the students during the course of an awareness programme conducted on the World Health Day 2017. The questionnaire consisted of nine items, and 81 students participated in this study. Each item was explained, and the students were given time to think and mark their respective responses. Responses of 79 students, 24 male students and 55 female students, who answered all questions, were entered in Microsoft Excel Working Sheet and were analysed. The results were analysed using tabulated data and were reported as percentage. Based on the cumulative score of their responses, depression was graded as minimal, mild, moderate, moderately severe and severe depression. Point prevalence of depression was reported. The proportions of positive response for each item were reported. Those who reported self-perceived depression were reassured and were advised to take formal psychiatric consultation. Statistical difference, if any, between genders, was examined using Chi-square test.

### RESULTS

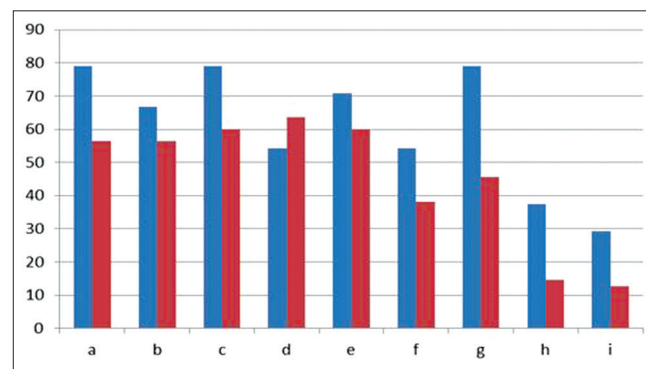
Overall, 91% of the students reported some degree of depression in the previous 2 weeks. Nearly 8.9% of the students did not have any depressive symptoms over the

previous 2-week period. Almost 12.7% and 5.1% of the students reported moderately severe and severe depression, respectively. Minimal, mild and moderate depression were reported by 21.5, 32.9 and 22.8% of the students, respectively. Table 1 shows the summary of the prevalence of depression by gender and severity. There was no statistical difference between genders with respect to those who reported depression or no depression. Overall 77.2% of the students reported self-perceived depression of minimal-to-moderate severity. Only 8.9% of the students reported absence of depression. Table 2 and Figure 1 represent the frequency of various depressive symptoms by gender. For all items, a higher proportion of males reported positive except for the symptom of 'feeling tired or having little energy'. Nearly 17.7% of the students reported an intention of self-destructive behaviour.

**Table 1: Frequency of depression by gender and severity**

Self-perceived severity of depression	Male (n=24)	Female (n=55)	All students (n=79) No. (%)
No depression	1	6	7 (8.9)
Minimal	3	14	17 (21.5)
Mild	9	17	26 (32.9)
Moderate	3	12	15 (22.8)
Moderately severe	5	5	10 (12.7)
Severe	3	1	4 (5.1)

$\chi^2=0.76545$ ,  $df=1$ , table value=3.84,  $P>0.05$



**Figure 1: Proportion of students with positive response to items of the Brief Patient Health Questionnaire by gender. Blue = Male; Red = Female**

**Table 2: Proportion of students with positive response to items of the Brief Patient Health Questionnaire**

Item of the questionnaire	Percentage in the parenthesis		
	Male (n=24)	Female (n=55)	All students (n=79)
Little interest or pleasure in doing things	19 (79.1)	31 (56.4)	50 (63.3)
Feeling down, depressed or hopeless	16 (66.7)	31 (56.4)	47 (59.5)
Trouble falling or staying asleep or sleeping too much	19 (79.1)	33 (60.0)	52 (65.8)
Feeling tired or having little energy	13 (54.2)	35 (63.6)	48 (60.8)
Poor appetite or overeating	17 (70.8)	33 (60.0)	50 (63.3)
Feeling bad about yourself, or that you are a failure or have let yourself or your family down	13 (54.2)	21 (38.2)	34 (43.0)
Trouble concentrating on things, such as reading newspaper or watching television	19 (79.1)	25 (45.5)	44 (55.7)
Moving or speaking so slowly that other people could have noticed. Or the opposite being so fidgety or restless that you have been moving around a lot more than usual	9 (37.5)	8 (14.5)	17 (21.5)
Thought that you would be better off dead, or of hurting yourself in some way	7 (29.2)	7 (12.7)	14 (17.7)

## DISCUSSION

Depression or depressive symptom is easily amenable to diagnosis even by a primary care physician. Considering the global burden in general and alarmingly greater prevalence amongst medical students due to myriad reasons including academic stress, interpersonal relations and demanding nature of the work, an institutional mechanism needs to be created to cope up with this problem. It has been found that students with good psychological support have less adjustment problems. Maintaining student–faculty relations and providing opportunities for recreation might help in emotional adjustment of the students.<sup>[4]</sup>

In this study, the prevalence of depression was found to be alarmingly high at 91%. In other studies<sup>[5,6]</sup> depression was documented in 48.4%,<sup>[5]</sup> 64% (major depression in 26.6%) students.<sup>[6]</sup> In another study,<sup>[7]</sup> depression was noted in 51.3% of students, and that the morbidity was more amongst 5<sup>th</sup> semester students; females reported higher score than male students. They stressed the need for counselling services to be made to the students in the medical college to control this morbidity.<sup>[7]</sup> In this study, male students appeared to report more of self-perceived depression.

Because the questionnaire was administered to students in a classroom, there was the possibility of peer influence in their pattern of response. At best, this study can be taken as a preliminary appraisal, and a detailed study with in-built mechanism for intervention to alleviate suffering is needed in every medical college.

The prevalence of depressive symptoms and depressive disorders of all severities appears to be common amongst

medical students, and the current health needs of future healers require to be addressed promptly.

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## Conflicts of interest

There are no conflicts of interest.

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