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Original Research Article

A CROSS-SECTIONAL STUDY ON DEPRESSION AMONG THE UNDERGRADUATE MEDICAL STUDENTS OF A PRIVATE MEDICAL COLLEGE, HYDERABAD

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Abstract

Background: Depression is to be considered as an important health issue among medical students because medical education is associated with various psychological factors and Depression is one among them.

Objectives:

1. To estimate the prevalence of depression among medical students
2. To find out the association between depression and related stressors.

Methodology: This cross-sectional study was conducted in a medical college at Telangana state in India. The study participants were the students of 1st & 3rd year Medical undergraduates. Out of 300 students, 248 students participated in the study. Purposive sampling technique was used for selecting the study subjects. Data of this study was entered in MS excel and analyzed using SPSS version 19. Ethical clearance is obtained from institutional ethical committee.

Results:

In this study the estimated prevalence of depression among medical students was 39%. This prevalence was found be higher in first year students (46%) compared to third year (31%). Significant association was found for both first and third year students between depression and academic stress along with lifestyle pattern.

Conclusion: The present review provided that the Prevalence of depression among medical students is high and is associated with the presence of academic stress and lifestyle pattern. Depression could be a hidden problem in Indian medical students and has a significant impact on the overall academic performance. Mechanisms to identify the factors and help students with mental health problems should be recommended.

Keywords: Stressors, Stigma, Academic stress, lifestyle pattern

Introduction

Depression is a common illness worldwide, with an estimated 3.8% of the population affected. Approximately 280 million people in the word have depression. Depression is different from usual mood fluctuations and short-lived emotional responses to challenges in

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everyday life. Especially when recurrent and with moderate or severe intensity, depression may become a serious health condition. It can cause the affected person to suffer greatly and function poorly at work, at school and in the family.[1]

Worldwide, it has been demonstrated through a meta-analysis that one third of medical students are suffering from depression[2] and also likely that the overall prevalence of depressive symptoms among medical students is higher than that reported in the general population.[3] 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 good academic results in a highly competitive environment which puts them under lot of stress.[4]

People with depression are 1.52 times more likely to die than the general population, probably due to their untreated mental or physical health problems. Depression is a major public health problem in India, contributing to significant morbidity, disability as well as mortality, along with significant socioeconomic losses.[1]

At its worst, depression is closely interlinked to suicide. Recognizing depression at an early stage is precarious for reducing suicidal deaths and deliberate self- harm across the spectrum. They also tend to under-perform in education and work, thereby remain increasingly deprived of economic and social opportunities, with a decreased quality of life.[1] In recent years, depression has been recognized as a major issue among medical students. So the present study was conducted to assess the prevalence and factors associated with depression among the undergraduate students of a medical college in India.

Aims and Objectives:

1. To estimate the prevalence of depression among medical students
2. To find out the association between depression and related stressors

Methodology:

This Cross-Sectional study was conducted in a private medical college in Hyderabad, Rangareddy district, Telangana state, India, for a period of 3 months from August to October 2018. Out of 300 students, 248 students participated in the study. Purposive sampling technique was used for selecting the study subjects. Informed verbal consent was obtained from the study participants prior to the conduct of study. Out of 248 medical students, 130 belonged to first year and 118 belonged to third year. Data was collected by a predesigned pretested questionnaire which was distributed separately to first and third year students during an appropriate lecture period and collected at the end of each session. Zung depression scale was used to assess the depression. It is a 20 itemed self-rated questionnaire which assess the level of depression symptoms.[5] It has already been used in primary care and community settings and as a screening tool for depression.[6] Data entry was done in MicroSoft excel 2010 and analyzed using SPSS version 19. Statistical association was done using chi-square test wherever necessary, $p<0.05$ considered as statistically significant.

Results

A total of 248 students participated in the study. Majority of them were females 74.6%. A large proportion of students belong to Hindu religion(94.7%). (Table 1)

In this study, future concerns, academic stress, hectic life style, relationship with peer group and regret taking medicine were emphasized more in third year M.B.B.S students whereas home sickness was observed more in first year students. In first year M.B.B.S students, 21.5% had major life event and 3.1% suffering from chronic illness. In third year M.B.B.S students, 16.1% had major life event and 7.62% suffering from chronic illness.

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(Table 2)

The overall prevalence of depression among medical students was 39%. The prevalence of depression is significantly higher in first year students(46%) compared to third year(31%). It is also observed that depression is more prevalent in female students(69%) than male students(31%). (Table 3)

The presence of depression among study participants was associated with their academic stress and hectic life style and it was statistically significant($p<0.05$). The

association between gender and depression was not statistically significant($p>0.05$) as the female students outnumber the male students in this study. (Table 4)

Table 1: Gender and Religion wise distribution of study subjects

Gender	**1st year M.B.B.S**	**3rd year M.B.B.S**	**Total**
Male	28(21.54%)	35(29.7%)	63(25.4%)
Female	102(78.46%)	83(70.3%)	185(74.6%)
Total	130	118	248

Table 2: Frequency distribution of various stressors

	1st year M.B.B.S	**3rd year M.B.B.S**
Homesickness		
Yes	27(21.2%)	22(18.5%)
No	103(78.8%)	96(81.5%)
Future concerns		
Yes	91(70%)	87(73.7%)
No	39(30%)	31(26.3%)
Relationship with peer group		
Satisfactory	115(88.4%)	114(96.6%)
Not satisfactory	15(11.6%)	4(3.4%)
Academic stress		
Yes	88(67.6%)	84(71.2%)
No	42(32.4%)	34(28.8%)
Regret taking medicine		
Yes	9(7%)	24(20%)
No	121(93%)	94(80%)
Hectic life style		
Yes	61(47.4%)	64(54.6%)
No	69(52.6%)	54(45.4%)
Major life event		
Yes	28(21.5%)	19(16.1%)
No	102(78.5%)	99(83.9%)
Chronic illness		
Yes	4(3.1%)	9(7.62%)
No	126(96.9%)	109(92.38%)

Table 3: Frequency distribution of depression among study subjects

Year of study	**Depression**		**Total**
	Male	**Female**	
1st year	**18(30%)**	**42(70%)**	**60(46%)**
3rd year	**12(32%)**	**25(68%)**	**37(31%)**
Total	**30(31%)**	**67(69%)**	**97(39%)**

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Table 4: Association between depression and related stressors

Variable	Category	Depression		χ^2, p value
		Present	Absent	
Academic stress	Present	82	90	17.28, <0.05
	Absent	15	61	
Hectic life style	Present	73	54	36.87, <0.05
	Absent	24	97	
Gender	Male	30	33	2.56, >0.05
	Female	67	118	

Discussion

In the present study majority of study participants were female students i.e. 74.6%. This is in contrast to a study done by Singh A et al[7] and Sharma A et al[8] where majority of study participants were male students.

In this study home sickness was observed to be more in first year M.B.B.S students whereas future concerns, academic stress and hectic life style were noticed to be more in 3rd year M.B.B.S students. This similarity was found in a study done by Basnet B et al.[9] The percentage of students who regret taking medicine, with chronic illness and major life event is similar to study conducted by Ngasa et al.[10]

In this study the prevalence of depression in first year M.B.B.S students is more than third year M.B.B.S students, similar findings were observed in a study done by Singh A et al[7] and Basnet B et al.[9]

In the present study the overall prevalence of depression in M.B.B.S students is 39%, this is similar to a study done by Shams-Eldin AA et al[11], whereas study done by Sharma A et al[8] and Shabbir MH et al[12], is 31% and 48.9% respectively.

In this study academic stress (χ^2=17.28, p=<0.05) and hectic life style (χ^2=36.87, p=<0.05) had significant association with depression, which was similar to the findings in a study done by Sidana S et al.[13]

Strengths and limitations of the study:

Strengths: The present study helped in assessing the mental status of medical students

Limitations: As the study has been conducted in a single medical college, the findings of the study cannot be generalized

Conclusion

The overall prevalence of depression in the present study is 39%, which is more among the female participants comparatively. The presence of depression among study participants was associated with their academic stress and hectic life style and it was found to be statistically significant($p<0.05$)

Recommendations

- Early identification by screening for symptoms of psychological problems.
- Counselling by clinical psychologists at regular intervals.
- Encouraging the students to be involved in extracurricular activities.

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