

Original Research Article

A Comparative study on depression and its factors among First year and Final year

M.B.B.S students of S.B.K.S.M.I. & R.C, Piparia

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Abstract

Introduction: Mental health has been holed up behind a blind of disgrace and segregation for a really long time. Not only do 56 million Indians (4.5% of India's populace) experience the ill effects of depression as of now, another 38 million Indians experience the ill effects of nervousness issue and anxiety disorders. **Objective:** 1. To find prevalence of depression among medical students of S.B.K.S.M.I & R.C. 2. To find out risk factors associated with depression among study population. 3. Compare those risk factors among a first year and final year students of S.B.K.S.M.I & R.C. **Methods:** This Cross sectional study was conducted among First year and Final year students of S.B.K.S.M.I. & R.C. piparia, Total 150 students in first year batch and 98 students in final year MBBS batch, All students (112 from first year & 63 from final year) present on the day of data collection were included in study. After obtaining the permission from ethical committee to conduct study and after taking permission from the higher authority for data collection at medical college, we started data collection. Data was collected in two questionnaires. Questionnaire one on personal Data and factors associated with mental health and second questionnaire on Zung Depression Scale to assess the level of depression symptoms. **Results:** Out of 112 first year students, 48 were female participants and 64 were male participants while Out of 63 final year students, 21 were female participants and 42 were male participants. Out of total 112 first year MBBS students 84 (75%), 26 (23.21%), 2, (1.78%) and 0 (0%) were having Normal Range (25-49), Mildly Depressed (50-59), Moderately Depressed (60-69) & Severely Depressed (70 & above) Zung Depression scale score respectively. Out of total 63 final year MBBS students 44 (69.84%), 17 (26.98%), 2 (3.12%) & 0 (0%) were having Normal Range (25-49), Mildly Depressed (50-59), Moderately Depressed (60-69) & Severely Depressed (70 & above) Zung Depression scale score respectively. Yates' χ^2 was used as a test of significant to find out association. We found that there is no statistical significance on prevalence of depression between first year and final year student. (p = 0.978) **Discussion:** Symptoms suggestive of depression were found in 24.99% (Mild 23.21%) (Moderate 1.78%) of first year Medical students and 30.1 (26.98% & Moderate 3.12%) of final year Medical students which do not corresponds with prevalence rates found in other developing countries. Prevalence found in this study is somewhat lower than other comparative studies conducted in developing and developed world.

Keywords: Depression, Mental Health, Medical Students, Academic stress, Anxiety

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Introduction

Mental health has been holed up behind a blind of disgrace and segregation for a really long time. The magnitude, suffering and burden in terms of disability and costs for individuals, families and societies are staggering[1]. Not only do 56 million Indians (4.5% of India's populace) experience the ill effects of depression as of now, another 38 million Indians experience the ill effects of nervousness issue and anxiety disorders. Thus, according to the latest World Health Organization report on depression, almost 7.5% of Indians suffer from major or minor mental disorders that require expert intervention[2]. The report on National Mental Health Survey of India

20015 – 16 state that the overall weighted prevalence for any mental morbidity was 13.7% lifetime and 10.6% current mental morbidity. The lowest lifetime prevalence of 8.1% in Assam and the highest lifetime prevalence of 19.9% in Manipur have been reported, though they share common background[3]. The WHO report states that 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[2]. Depression is a mental disorder characterized by loss of interest and pleasure decreased energy, feelings of guilt or low self-worth, disturbed sleep and/or appetite, and poor concentration[4]. Medical undergraduates and post graduates are known to be the survivors of gigantic mental pressure[5]. Possible stressors can be tedious learning environment i.e lengthy academic syllabus, language problems (especially in first), more frequency of examination, homesickness, high parental expectations, lack of time for recreation & may not able to adjust with food in mess and some new factors could be responsible for stress i.e. addiction to smartphones, internet, social media, etc.

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Medical students experience various mental changes during transformation from youthful uncertain understudies to a proficient doctor. The individual and social penance they need to make so as to keep up a decent scholarly outcome in a highly competitive environment puts them under a great deal of pressure. Past studies have indicated fairly high levels of distress, such as symptoms of depression among medical students[6-8]. Depression among medical students can adversely affect their academic performance. Worldwide, it has been demonstrated that 25–90% of medical students are stressed, that is an important determinant of depression (9)(10) leading to a higher prevalence of depression among medical students than general population. (11)(12)

Aim & Objective

In reference of above situation, the present is being conducted with the main aim of finding out prevalence of depression and factors associated with it among first year and final year students of S.B.K.S.M.I. & R.C.

- To find prevalence of depression among medical students of S.B.K.S.M.I. & R.C.
- To find out risk factors associated with depression among study population
- Compare those risk factors among a first year and final year students of S.B.K.S.M.I. & R.C.

Methods

Study Design:- Cross sectional study

Study Population:- First year and Final year students of S.B.K.S.M.I. & R.C. piparia

Sample size:- There are total 150 students in first year batch and 98 students in final year MBBS batch. All students (112 from first year & 63 from final year) All students (112 from first year & 63 from final year) attending the class on the day of data collection. They all were include.

Inclusion Criteria:- Participation was volunteer and Those who are willing to participate & give consent to participate were included in the study.

Exclusion criteria:- Students who were not willing to participate or not agree to give consent to participate were excluded.

Methods

After obtaining the permission from ethical committee to conduct study and after taking permission from the higher authority for data collection at medical college, we started data collection.

We had gave information about the objective of the study and clarify about the general directions and instructions to the included students. At that point of data collection, they were given the surveys form which contained individual information, scale of Zung Depression Inventory and stress prompting factors.

Data was collected in two questionnaires. Questionnaire one on personal Data and factors associated with mental health and second questionnaire on Zung Depression Scale to assess the level of depression symptoms.

Questionnaire one on personal Data and factors associated with mental health for medical students

i.e batch, age, gender, religion, hobby-how much time he/she is able to spend to fulfill it, Academic stress, Home sickness - home country, state, native place, Relationships problems, Hectic lifestyle, Future concerns.

Zung Depression Scale: The Zung Self-Rating Depression Scale is a 20-item self-report questionnaire that is widely used as a screening tool, covering affective, psychological and somatic symptoms associated with depression. The questionnaire takes about 10 minutes to complete, and items are framed in terms of positive and negative statements. It can be effectively used in a variety of settings, including primary care, psychiatric, drug trials and various research situations. (13) This Zung depression inventory is seen to have satisfactory psychometric properties with Cronbach's alpha of 0.79.10. Each question is scored on a scale of 1-4.

The scores range from 25-80.

- 25-49 Normal Range
- 50-59 Mild Depression
- 60-69 Moderate Depression
- 70 and above Severe Depression

Results

Compilation and Analysis of collected data was done using Microsoft office Excel 2007 and Epi info statistical software. Total 112 students from first year and 63 students from final year were participated in the study.

Table 1: Gender wise distribution of participants among First and Final Year students

Gender	First Year	Final Year	Total
Male	64(57.14%)	42(66.67%)	112(100%)
Female	48(42.86%)	21(33.33%)	63(100%)
Total	112(100%)	63(100%)	175(100%)

Out of 112 first year students, 48 were female participants and 64 were male participants. Out of 63 final year students, 21 were female participants and 42 were male participants.

Table 2: No. of students having academic stress among first and final year MBBS students

Year of Study	Academic stress		Total
	Yes	No	
First Year	39(34.82%)	73(65.18%)	112(100%)
Final Year	17(26.98%)	46(73.02%)	63(100%)
Total	56	119	175

$\chi^2 = 1.14$, $df = 1$, $p = 0.286$.

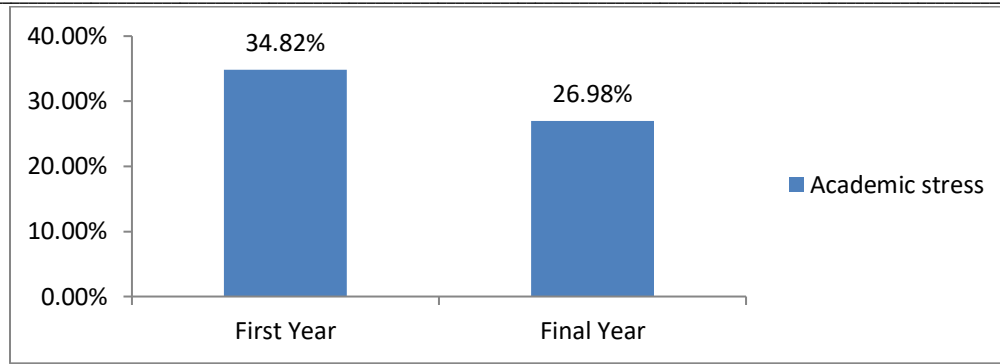


Fig 1:Prevalence of academic stress

Out of 112 first year students, 39 were feeling academic stress while Out of 63 final year students, 17 were feeling academic stress. Data suggest first year students were feeling much academic stress compare to final year students that might be due to final year students may adept the environment over the period.

Table 3:No. of students feeling home sickness among first and final year MBBS students

Year of Study	home sickness		
	Yes	No	Total
First Year	36(32.14%)	76(67.86%)	112(100%)
Final Year	9(14.29%)	54(85.71)	63(100%)
Total	45	130	175

$\chi^2 = 6.73, df = 1, p = 0.001.$

Out of 63 final year students, only 9 were feeling home sickness while Out of 112 first year students, 36 were feeling home sickness. The chi square test was used as test of significance which was found statistically significant as P=0.001.

Table 4:No. of students having Relationship issue among first and final year MBBS students

Year of Study	Relationship issue		
	Yes	No	Total
First Year	24 (21.43%)	88 (78.57%)	112(100%)
Final Year	27 (42.86%)	36 (57.14%)	63(100%)
Total	51	124	175

$\chi^2 = 8.96, df = 1, p = 0.0023.$

Out of 63 final year students, 27 (42.86%) were having relationship issues while Out of 112 first year students, only 24 (21.43%) were having relationship issues. The association was found statistically significant (P=0023)

Table 5: No. of students feeling Hectic Life among first and final year MBBS students

Year of Study	Feeling Hectic life		Total
	Yes	No	
First Year	47 (41.96)	65 (58.04%)	112(100%)
Final Year	14 (22.22%)	49 (77.78%)	63(100%)
Total	61	114	175

$\chi^2 = , df = 1, p = 0.008.$

Out of 63 final year students, only 14 (22.22%) were feeling their life is hectic while Out of 112 first year students, 47 (41.96) were feeling their life is hectic. The association was found statistically significant (P=008)

Table 6:Zung depression scale score among first year and final year MBBS students

Zung Depression scale score	Study Year		
	First Year	Final Year	Total
Normal Range (25-49)	84(75%)	44(69.84%)	128(73.14%)
Mildly Depressed (50-59)	26(23.21%)	17(26.98)	43(24.57%)
Moderately Depressed (60-69)	2(1.78%)	2(3.12%)	4(2.29%)
Severely Depressed (70 & above)	0(0%)	0(0%)	0(0%)
Total	112(100%)	63(100%)	175(100%)

Yates' $\chi^2 = 0.194, df = 3, Yates' p = 0.978.$

Out of total 112 first year MBBS students 84 (75%), 26 (23.21%), 2, (1.78%) and 0 (0%) were having Normal Range (25-49), Mildly Depressed (50-59), Moderately Depressed (60-69) & Severely

Depressed (70 & above) Zung Depression scale score respectively. Out of total 63 final year MBBS students 44 (69.84%), 17 (26.98), 2 (3.12%) & 0 (0%) were having Normal Range (25-49), Mildly

Depressed (50-59), Moderately Depressed (60-69) & Severely Depressed (70 & above) Zung Depression scale score respectively. Yates' χ^2 was used as a test of significant to find out association. We found that there is no statistical significance on prevalence of depression between first year and final year student. ($p = 0.978$)

Discussion

Symptoms suggestive of depression were found in 24.99% (Mild 23.21%) (Moderate 1.78%) of first year Medical understudies and 30.1 (26.98% and Moderate 3.12%) of final year Medical understudies which don't relates with pervasiveness rates found in studies conducted at other developing nations[14]. This percentage is low as compared to the findings of 60%-70% prevalence of anxiety and depression in medical students of Pakistan.[15, 16] Studies from western world report indicated prevalence rates of depression in the range of 14–24%. [17,18]. Depression was present in 39.9% of students of a public sector medical college in Mumbai[19] , India, which is higher than our findings. The reason might be the difference of instrument used to assess depression and also possibly because of the fact of difference between culture factors and environmental factors

Conclusion

The study outcome revealed a clear picture of comparative the prevalence of depression among first year and Final year medical students which is marginally high among final year medical students. Academic stress, Home sickness, Hectic lifestyle & relationship issues are major predictor in First year as well as Final Year medical students so Medical authority should make some strategies (i.e upheld by student counseling units in the first year of tutoring itself as they might have the option to adapt with stress in the later years) to relieve stress among medical students. By recognizing the symptoms of depression and the mental pressure at the initial beginning phase hopefully the psychological morbidity among medical students can be forestalled.

Benefits of study:This study will provide estimate of burden of Depression and major determinants of the high prevalence of depression among medical students, which will help in better understanding of development of depression. This data can be helpful for Medical authority to make some strategies to relieve stress and lower incidence of depression among medical students. This Study will assess the risk factors among the non-depressive Group also, out of those who will have higher percentage of these risk factors, they are more prone to develop depression and other mental disorder in future. so preventive step can be taken in well advance.

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