PSYCHOLOGICAL DISTRESS AMONG FIRST YEAR STUDENTS IN A MEDICAL COLLEGE IN J AND K, INDIA

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ABSTRACT

BACKGROUND

Environment of medical school has rightly been recognised as stressful with the initial year being the most distressing. This study was therefore carried out to determine the prevalence of depression, anxiety and stress among first year medical students at SKIMS Medical College, J and K, India.

MATERIALS AND METHODS

A cross-sectional, questionnaire-based survey was carried out among the first year medical students of SKIMS Medical College using the Depression Anxiety Stress Scale-21 (DASS-21).

RESULTS

The overall response rate was 86% (86 out of 100). Depression, anxiety and stress have been reported in 65.1%, 77.9% and 52.3% of participants respectively. Single psychological illness was present in 20.1%, while 22.0% had two and 41.8% had three coexistent psychological illnesses. No significant association was found between gender difference (Male/Female), religion (Muslim/ Non-Muslim) and habitat (Urban/ Rural) and the psychological distress in the form of depression, anxiety or stress. Significant association of present residence (Home/ Hostel) with respect to depression and anxiety was found, but the association with stress was non-significant.

CONCLUSION

The high level of psychological distress emphasises the fact that there is an urgent need for introduction of specific measures that will help in reducing depression, anxiety and stress among medical students. There is also a need for further research to be carried out on a large sample in different medical colleges of the state.

KEYWORDS

Depression, Anxiety, Stress, DASS-21.

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BACKGROUND

Environment of medical school has rightly been recognised as a stressful one having negative effects on the academic performance, physical and psychological well being of the students.^[1] During the initial year causes of stress are mainly related to academic and emotional factors, while in later years patient care and physical factors are more remarkable. Usually, the excessive working hours, competitive academic environment, lack of recreational activities, lack of peer support, staying away from home and financial problems are the common reasons for the development of anxiety and stress in medical schools.^[2]

The assessment of stress during various phases of medical education has revealed that first and second years are the most stressful. Although, a majority of the students seemed to cope well with the stress, a subgroup with dysfunctional and inadequate strategies was identified to be at risk for negative development.^[3]

Studies among medical students have found out that stress is associated with anxiety and depression.^[4,5] Moreover, stress has also been linked to suicide among medical students.^[6]

Inability to identify the psychological problems among medical students may lead to increased morbidity with undesired effects throughout their careers and lives.^[7] On the other hand, knowledge about contributing factors of emotional status of recently admitted MBBS student can help in taking necessary actions to prevent or treat any psychiatric morbidity like depression, anxiety and stress. Thus, helping in production of competent physicians who can face challenges of this new profession.^[8]

Psychological morbidity in course of medical education has attracted increasing attention in recent years. But such studies on medical students, especially freshmen who are exposed to the transitional nature of college life are lacking from our state. This study was, therefore, carried out to determine the prevalence of depression, anxiety and stress among first year medical students at SKIMS Medical College, Srinagar (J and K, India).

MATERIALS AND METHODS

The present cross-sectional study was conducted on first year students of SKIMS Medical College, Srinagar (J and K) from January 2017 to March 2017. Participation was voluntary, and confidentiality was assured. At the time when the study was being conducted, the students were having no major exams.

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Two self-administered questionnaires were used to collect data. The first was a questionnaire for identifying socio-demographic characters and the second was the short version of the Standardised Depression Anxiety Stress Scale (DASS) - 21 item questionnaire, it is a set of three self-report scales designed to identify the presence and measure severity of the negative emotional states of depression, anxiety and stress. Each subscale has seven items. Respondents are asked to use 4-point severity/ frequency scales to rate the extent to which they had experienced each state over the past one week. Each item is scored from 0 (Did not apply to me at all over the last week) to 3 (applied to me very much or most of the time over the past one week). Because the DASS-21 is a short form version of the DASS (the Long Form has 42 items), the final score of each item groups (Depression, Anxiety and Stress) must be multiplied by two ($\times 2$) to obtain the final score.^[9]

For data analysis, IBM-SPSS (Statistical Package of Social Sciences) version 11 was used. Chi-square test and Fisher's exact test were used as a test of significance. $P \leq 0.05$ was considered statistically significant.

RESULTS

Out of the 100 students that participated in the study, 86 returned the filled questionnaire. Their mean age was 17.96 ± 0.78 years with a range of 17 - 20 years. Half of participants (50%) were males and half were females (50%).

Studied Variable	No. of Students	%
Gender		
Male	43	50
Female	43	50
Total	86	100
Habitat		
Rural	41	47.67
Urban	45	52.23
Total	86	100
Religion		
Muslims	68	79.06
Non-Muslim	18	20.93
Total	86	100
Present Address		
Home	29	33.72
Hostel	57	66.27
Total	86	100

Table 1. Socio-Demographic Characteristics of Studied Group of Students

Variables	Depression			Anxiety			Stress		
	Frequency (%)	χ^2 Value	P	Frequency (%)	χ^2 Value	P	Frequency (%)	χ^2 Value	P
Gender									
Male	30 (69.76%)	2.066	0.724	38 (88.37%)	2.242	0.69	26 (60.40%)	5.221	0.265
Female	26 (60.45%)			36 (74.41%)			19 (44.18%)		
Habitat									
Rural	28 (68.29%)	1.27	0.867	36 (87.80%)	5.858	0.21	24 (58.53%)	1.422	0.84
Urban	28 (62.22%)			31 (75.60%)			21 (51.21%)		
Present Residence									
Home	16 (55.17%)	11.9	0.018*	19 (65.51%)	9.514	0.05*	13 (44.82%)	8.39	0.78
Hostel	40 (70.17%)			48 (84.21%)			32 (56.14%)		
Religion									
Muslim	45 (66.16%)	2.522	0.641	52 (76.47%)	3.581	0.47	35 (51.47%)	5.676	0.225
Non-Muslim	11 (61.11%)			15 (83.33%)			10 (55.55%)		

Table 3. Association of Socio-Demographic Variables with Depression, Anxiety and Stress

* $p \leq 0.05$ = Significant.

Depression, anxiety and stress were reported in 65.1%, 77.9% and 52.3% of participants respectively. Symptoms of mild severity were mainly prevalent in anxiety and stress subscales, but for depression symptoms of moderate severity were predominant (Table 2).

Severity	Depression	Anxiety	Stress
	No. of Students (%)	No. of Students (%)	No. of Students (%)
Mild	14 (16.28)	23 (26.74)	16 (18.60)
Moderate	21 (24.42)	13 (15.12)	12 (13.95)
Severe	10 (11.63)	10 (11.63)	13 (15.12)
Extremely Severe	11 (12.79)	21 (24.42)	4 (4.65)
Total	56 (65.12)	67 (77.91)	45 (52.32)

Table 2. Depression, Anxiety and Stress among Studied Group of First Year Medical Students

Only 15.1% of participants were found to be normal. 20.9% suffered from single psychological illness, while two and three coexistent psychological illnesses were found in 22.0% and 41.8% of participants, respectively (Fig. 1).

Figure 1

Table 3 shows the association of socio-demographic variables like gender (Male/ Female), habitat (Rural/ Urban), present residence (Home/ Hostel) and religion (Muslim/Non-Muslim) with the psychological distress in the form of depression, anxiety and stress.

Prevalence of psychological morbidity was found to be higher in males as compared to females. Percentage of male and female suffering from depression was 69.76% and 60.45%; anxiety was 88.37% and 74.41% and stress was 60.40% and 44.18% respectively. No significant association was found between gender difference, religion and habitat, and the psychological distress in the form of depression, anxiety or stress. Significant association of present residence with respect to depression and anxiety was found, but the association with stress was non-significant.

DISCUSSION

Medical education is very stressful and demanding. Overwhelming load of information leaves little opportunity for the students to relax and recreate.^[10] Studies have proved that compared to the general population, medical students are the most distressed students.^[11] Medical education has been perceived as stressful globally and different studies have reported high prevalence of stress among medical students.^[1,12,13] Medical students face stressors specific to medical education in addition to normal stressors of everyday life, which could explain this high prevalence of psychological illnesses among them.^[14] Studies have also attributed high level of Anxiety and Depression in first year students to the new study environment.^[15]

Our study has revealed a high level of psychological distress among first year medical students. Anxiety was found to be the most prevalent form of distress with a prevalence of 77.9% followed by depression (65.1%) and stress (52.3%). Similar values of stress and anxiety have been reported by other studies conducted in the Indian subcontinent, but the prevalence of depression in them was lower.^[16,17]

High prevalence of depression has also been reported in general Kashmiri population.^[18] This may be due to the fact that people living in conflict are at a higher risk of developing psychological distress.^[19] Double and triple co-existent illnesses were reported in 22.0% and 41.8% of participants, respectively. This percentage, although high, is lower than in other studies who reported prevalence of two co-existent illnesses to be 60% - 70%.^[20,21] But as these studies used a different scale for assessment of psychological distress, comparison of their results with our study has to be done cautiously.

No significant association was found with gender difference (Male/Female) and psychological distress, though the prevalence of depression, anxiety and stress were found to be higher in males as compared to females. Our study is in contrast with most studies, which report higher levels of distress in females.^[22,23] Our study is in accordance with a study conducted in Bangladesh,^[24] which reported higher levels stress in males. No significant association was found between any of the DASS subscale (Depression, Anxiety and Stress) and variables like habitat and religion.

It was observed that students living in the hostel had higher prevalence of depression and anxiety compared to those living at home and the association was significant. No significant association was found between stress subscale and present residence (living in home or hostel). Similarly in a study, Pakistani female medical students living in college hostel were found to be significantly more depressed and had

the tendency to report anxiety more than those living at home.^[25]

Our study was not free from limitations. The sample size was small, and data was collected from a single medical college in the state. There is need for further research to be carried out on a large sample in different medical colleges of the state.

CONCLUSION

The high level of psychological distress emphasises the fact that there is an urgent need for introduction of specific measures that will help in reducing depression, anxiety and stress among medical students. Certain preventive measures that can help in reducing distress are promotion of a healthy lifestyle, introduction of stress reduction programs and recreational activities in the curriculum and by encouraging positive coping styles. It is high time to bring certain changes in the extremely stressful examination system. Counselling services should be made available to students. Assessment of mental health of medical students should be done at entry level with regular follow-up of those having mental illnesses. Early detection and intervention will not only reduce the level of distress among students, but will also have a positive effect on their personal, social and professional development.

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