International Journal of Advances in Medicine
Varghese A et al. Int J Adv Med. 2016 Aug;3(3):744-747
http://www.ijmedicine.com
pISSN 2349-3925 | eISSN 2349-3933
DOI: http://dx.doi.org/10.18203/2349-3933.ijam20162528

Research Article

Emotional status of final year MBBS Students in a private medical college in central Kerala, India

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Received: 13 June 2016
Accepted: 02 July 2016

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ABSTRACT

Background: Medical education is highly stressful for students. They repeatedly experience different stressors which make them vulnerable for psychological problems.This study was undertaken to determine the prevalence of stress, anxiety and depression among the Final year MBBS students.
Methods: A questionnaire based study was conducted among 157 Final year MBBS students. The DASS 42 scale described by Lovibond and Lovibond was used. DASS baseline scores were collected during relaxed state when there is no exam and in a stressful condition, one week before the sessional exam.
Results: DASS questionnaire collected from 157 students showed that anxiety score was higher in tensed state while the stress and depression scores were higher in relaxed state. Stress, anxiety and depression scores of females are more than males in relaxed state.
Conclusions: There is increased prevalence of depression, anxiety and stress among the medical students. The severity is more among the females. Early screening and intervention are advisable because it will help the students in reducing their stress, anxiety and depression which are in their initial phase and can be managed easily with few sessions of counselling.

Keywords: Anxiety, Depression, DASS score, Questionnaire, Stress

INTRODUCTION

Medical course is vast and highly stressful.[1-4] Compared to other educational courses, medical education is evidenced by high prevalence of stress.[5] Studies have revealed that the incidence of stress and stress related illnesses such as anxiety and depression among medical profession are increasing day by day. Stress has deleterious effects on person's physical and mental wellbeing. Generally 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 of anxiety and stress in medical schools.[6] Several other factors such as curriculum, traumatic events related to patients and ethical dilemmas also make them vulnerable to depression.[7] Gender and lack of family support are also risk factors.[8]

The potential consequences of stress, anxiety and depression in the long run are substance abuse, suicidal tendencies, inter-personal relationship difficulties.[9,10] A study by Salt et al reported that medical students showed an increase in depression from 13% at the beginning of medical school, to 24.5% by the end of second year.[11] Stress was found to be significantly more in second and third MBBS students rather than first MBBS levels.[12] The present study is a pilot study to determine the prevalence of stress and related depression and anxiety among the medical students.

Aim of the study

- To determine the prevalence of depression, anxiety and stress among the final year medical students in relaxed and stressful state by administering a self-reported rating scale (DASS-42).
- To find the batch wise and sex wise variations in DASS score in both states.

METHODS

157 Final year medical students (3rd MBBS part I and part II) of both sex studying at MOSC Medical College, Kolenchery, Kerala were recruited for present study. The study was approved by Institutional Ethics Committee. The recruited students were informed about the purpose of the study and explained about the general instructions. A written consent was taken and complete confidentiality was assured. The students having any major mental illness and on treatment were excluded.

A questionnaire - depression anxiety stress scale 42 (DASS 42) was given to each participant. The DASS 42 scale described by Lovibond and Lovibond is a survey that measures the level of depression, anxiety and stress levels in an individual.[13] DASS baseline scores were collected during relaxed state when there is no exam and in a stressful condition, one week before the second sessional exam.

The DASS 42 has 14 items for each of the three scales. The depression scale assess dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest/ involvement, anhedonia and inertia. The anxiety scale assesses autonomic arousal, skeletal muscle effects, situational anxiety and subjective experience of anxious affect. The stress scale is sensitive to levels of chronic nonspecific arousal. It assesses difficulty relaxing, nervous arousal and being easily upset/agitated, irritable/over-reactive and impatient. Respondents are asked to use 4 point severity/frequency scales to rate the extent to which they have experienced each state over the past week. DASS score was calculated by summing the scores for the relevant items. It was then evaluated as per the severity-rating index of DASS scoring.

Table 1: DASS score severity- rating index.

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely severe	28+	20+	34+

RESULTS

Data were analysed by frequency distribution table in Microsoft Office Excel.

Table 2: Sexwise distribution of students in batch I and batch II.

Batch	Male	Female	Total
I (3rd MBBS part I)	16	56	72
II (3rd MBBS part II)	16	69	85
Total	32	125	157

Table 3: Stress, depression and anxiety scores of 157 students in relaxed and stressed states (%).

		Relaxed state (%)	Tensed state (%)
Stress score	Normal	65.6	66.9
	Mild	12.1	13.4
	Moderate	15.3	13.3
	Severe	4.5	4.5
	Extremely severe	2.5	1.9
Depression score	Normal	56.7	59.3
	Mild	17.2	17.8
	Moderate	14	14
	Severe	7.6	5.7
	Extremely severe	4.5	3.2
Anxiety score	Normal	59.9	52.9
	Mild	15.3	10.5
	Moderate	14.6	15.3
	Severe	5.7	12.1
	Extremely severe	4.5	9.2

Table 4: Batch wise stress, depression and anxiety scores (%) in relaxed state and tensed states.

		Batch I		Batch II	
		Relaxed (%)	Tensed (%)	Relaxed (%)	Tensed (%)
Stress score	Normal	68.1	69.4	63.5	64.7
	Mild	9.7	11.1	14.1	15.3
	Moderate	19.4	13.9	11.8	12.9
	Severe	1.4	2.8	7.1	5.9
	Extremely severe	1.4	2.8	3.5	1.2
Depression score	Normal	56.9	62.5	56.5	56.4
	Mild	20.8	12.4	14.1	22.4
	Moderate	11.1	16.7	16.5	11.7
	Severe	5.6	4.2	9.4	7.1
	Extremely severe	5.6	4.2	3.5	2.4
Anxiety score	Normal	55.6	50	63.5	55.3
	Mild	18.1	11.1	12.9	11.8
	Moderate	18.1	15.3	11.8	15.3
	Severe	5.5	11.1	5.9	12.9
	Extremely severe	2.7	12.5	5.9	4.7

Table 5: Sexwise distribution of stress, depression and anxiety scores for 157 students (%).

		Male (%)		Female (%)	
		Relaxed	Tensed	Relaxed	Tensed
Stress score	Normal	75	71.9	63.2	65.6
	Mild	9.4	12.5	12.8	13.6
	Moderate	12.5	12.5	16	13.6
	Severe	3.1	3.1	4.8	4.8
	Extremely severe	0	0	3.2	2.4
Depression score	Normal	65.6	65.6	54.4	57.6
	Mild	18.8	21.9	16.8	16.8
	Moderate	6.2	6.3	16	16
	Severe	6.3	3.1	8	6.4
	Extremely severe	3.1	3.1	4.8	3.2
Anxiety score	Normal	65.6	43.8	58.4	55.2
	Mild	9.4	18.8	16.8	9.6
	Moderate	21.9	15.6	12.8	15.2
	Severe	0	15.5	7.2	11.2
	Extremely severe	3.1	6.3	4.8	8.8

DISCUSSION

DASS questionnaire collected from 157 final year MBBS students-(72 students of 3rd MBBS part I and 85 students of 3rd MBBS part II) showed that anxiety score was higher in tensed state while the stress and depression scores were higher in relaxed state. This shows that final year students are more stressed and depressed. They are also anxious about their coming sessional exams. Depression score and stress score of Batch II is more than Batch I in both relaxed and tensed states. Therefore the university exam going batch is more stressed and depressed. But the anxiety score of batch II is less than batch I in both relaxed and tensed states. Stress, anxiety and depression scores of females are more than males in relaxed state. Similar results were seen in previous studies.[14,15] The cause of increased anxiety in females may be due to enthusiasm for academic excellence, competitiveness or may be due to lack of physical exercise. But the anxiety score of males are more than females just before the exams.

CONCLUSION

There is increased prevalence of depression, anxiety and stress among the medical students. The severity is more among the females. Factors contributing to high level of depression, anxiety and stress in current set up of medical college may be due to high expectations of parents, peer pressure and tedious medical curriculum. Early screening

and intervention are advisable because it will help the students in reducing their stress, anxiety and depression which are in their initial phase and can be managed easily with few sessions of counselling which will boost up their morale and thereby improve their academic performance.

Medical students are the future doctors who are caregivers for physical and mental wellbeing of the patients. To ensure the patient safety and well-being, it is very essential to focus on the mental health of the future doctors. Medical schools have to encourage students to spend more time on their social lives and provide them with coping tools to overcome stress throughout their course of study.

Limitations

As it is a questionnaire based study, reporting bias can't be eliminated. The sample size was small and unequal. Further studies taking large and proportionate sample size would minimize bias.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the institutional ethics committee

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Cite this article as: Varghese A, Joseph E, Sunil NP, Celine TM, Raj R. Emotional status of final year MBBS Students in a private medical college in central Kerala, India. Int J Adv Med 2016;3:744-7.