ORIGINAL ARTICLE

Psychosocial well Being of Undergraduate Medical Students of King Edward Medical University Lahore Using DASS 21 Scoring System-A Cross Sectional Survey

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ABSTRACT

Aim: To evaluate level of stress, anxiety and depression among undergraduate medical students of King Edward Medical University, Lahore.

Methods: A total of 650 proformas were distributed randomly among undergraduate students of King Edward Medical University, Lahore who were enrolled in five years MBBS program during that period of study. About 505 students filled theirproformas correctly. Consent forms were filled by all students. Our data consists of demographic variables and DASS 21 evaluation system. DASS 21 consists of total 21 questions. Seven of them were meant for anxiety, seven for stress and seven for depression. It was a cross sectional study.

Results: A total of 505 MBBS students filled the form. Among those 64.4% were females and 35.6% were males. According to DASS stress, 36.6% were categorized as normal, 17.4% as mild, 23.6% as moderate, 16.6% as severe and 5.7% as extremely severe. According to DASS anxiety 21.4% were categorized as normal. 6.3% were suffering from mild stress; 22.4%, 19.0% and 30.9% were suffering from moderate, severe and extremely severe anxiety respectively. According to DASS depression scale 30.5% students were normal, 13.1%, 26.1%, 13.7% and 16.6% were categorized as suffering from mild, moderate, severe and extremely severe depression respectively. Females werefound to be suffering from slightly more stress as compared to males, whereas the gender difference for anxiety and depression was not significant.

Keywords: Psychosocial well being, MBBS students, King Edward Medical University, DASS 21

INTRODUCTION

Medical education throughout the worldis considered as being quite hard and demanding. Studies on psychological problems such as stress, depression and anxiety among medical students showed that these problems are not considered properly at all[1]. Over burden of information, heavy workload, poor learning environments, career planning and extremely difficult MBBS curriculumcauses a student unable to relax and it leads to lack of sleep, impaired wisdom, reduced concentration, loss of confidence, various emotional problemsalong with anxiety and depression and reduce their performance as future doctors[2,3,4]. Some studies have suggested that psychological distress among students may have negative influence on their academic performance[5]. It is seen that academically less successful medical students have higher levels of depressivesymptoms[6]. Several studies have also reportedpoor sleep quality among medical students. Severalstudies have also documented the prevalence stress among medical

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students in Pakistani medical schools[7]. The aim of our study is to evaluate psychological well being of undergraduate medical students of KEMU.

METHODS

This descriptive cross-sectional study was conducted at King Edward Medical University, Lahore from 11th January, 2017 to 12th March, 2017. A total of 650 proformas were distributed among MBBS students of all five years of King Edward Medical University. All those students were included in the study who at that time were enrolled in the five years MBBS program and were willing to participate. All those students were excluded from the study who were not willing to participate. Out of 650 students only 505 students filled proformas properly. Students of both genders were included in the study. An informed consent was taken from every student who participated in the study. Each proforma contained demographic variables and DASS 21 scoring scale. The DASS 21 scale contained 21 items and was a set of three self report scales designed to measure the emotional states of depression, anxiety and stress. Question numbers 3,5,10,13,16,17 and 21 were for depression. Question numbers 2,4,7,9,15,19 and 20 were for anxiety. Question numbers 1,6,8,11,12,14 and 18 were for stress. According to DASS 21 scoring system

depression score (0-4), anxiety score (0-3) and stress score (0-7) were considered normal. Score of (5-6), (4-5) and (8-9) were considered mild for depression, anxiety and stress respectively. A score (7-10) was considered moderate for depression while a score of (6-7) was considered moderate for anxiety and a score of (10-12) was considered moderate for stress. Depression score of (11-13), anxiety score of (8-9) and stress score of (13-16) were considered severe for their respective classes. Depression score of 14+ anxiety score of 10+ and stress score of 17+ were considered extremely severe for their respective classes. All data was entered in SPSS 22.

RESULTS

A total of 505 MBBS students filled the form. Out of 505 students 325 (64.4%) were females and 180 (35.6%) were males. The DASS score calculated is as under:

Dass Scale	Dass Stress	Dass Anxiety	Dass Depression
Normal	185(36.6%)	108(21.4%)	154(30.5%)
Mild	88(17.4%)	32(6.3%)	66(13.1%)
Moderate	119(23.6%)	113(22.4%)	132(26.1%)
Severe	84(16.6%)	96(19.0%)	69(13.7%)
Extremely severe	29(5.7%)	156(30.9%)	84(16.6%)

Academic Year		Stress	Anxiety	Depression
1st year	normal	23	12	26
	mild	23	6	17
	moderate	24	27	20
	severe	20	15	12
	extremely severe	4	34	19
2nd year	normal	47	28	40
	mild	22	4	13
	moderate	36	22	34
	severe	18	24	25
	extremely severe	11	56	22
3rd year	normal	39	18	34
	mild	16	8	12
	moderate	22	24	33
	severe	20	20	11
	extremely severe	8	35	15
4th year	normal	43	25	35
	mild	18	4	15
	moderate	22	17	22
	severe	6	14	9
	extremely severe	2	16	10
Final year	normal	33	19	19
	mild	9	8	9
	moderate	15	14	23
	severe	20	20	12
	extremely severe	4	20	18

Thus MBBS students of KEMU of all five years are suffering from stress, anxiety and depression.

We used independent t test for calculating association of depression, anxiety and stress with gender. It is found that mean stress among males was 2.2111 and mean stress among females was 2.4646 (p=0.031). The mean depression among males was 2.5722 and mean depression among females was 2.8154 (p=0.070). The mean anxiety among males was 3.2611 and among females was 3.3477 (p=0.535). It means only DASS stress values among both genders were significant. Stress among females was more common than males.

We also analyzed a co-relation between DASS scores of undergraduate medical students and their academic year. It was shown as under for all five years:

DISCUSSION

Our study was carried out at King Edward Medical University, Lahore. We assessed stress, anxiety and depression levels among MBBS students of KEMU, Lahore.We used DASS 21 scoring system for assessing levels of depression, stress and anxiety among MBBS students of KEMU. Previous such types of researches also took place in different medical colleges. Some authors used DASS 21 while others used other scales. A variety of scales to assess depression, anxiety, and overall mentalwell being were used in the previous articles. The most frequently used tools to evaluate depression were the Beck Depression Inventory (BDI) and the Center for Epidemiological Studies Depression Scale (CES-D), followed by the depression subscale of the Hopkins Symptom Checklist (HSCL), the depression subscale of the SCL-90,64 and the Zung Self-Rating Depression Scale (SDS). The most frequently used tools to assess anxiety were the anxiety subscale of the SCL-90, the Symptom Checklist Anxiety Scale, the State-Trait Anxiety Inventory (STAI), the anxiety subscale of the HSCL and the tensionanxiety subscale of Profile of Mood States (POMS)[5]. The MSSQ is a validated instrument used to identify sources of stress[8]. According to our study the prevalence of depression, anxiety and stress is 69.5,

78.6 and 63.4 respectively. According to one previous study carried out at Alfaisal University, Saudi Arabia; prevalence of depression, anxiety, and stress was 43%, 63%, and 41%, respectively before exams which reduced to some extent that is to 30%, 47%, and 30%, respectively[9]. In another study conducted at Ziauddin Medical University, using Aga Khan University Anxiety and Depression Scale (AKUADS), it was found out that 113(60%) students had anxiety and depression [6].According to one study conducted at Hawassa University College of Medicine and Health Sciences, gender was not found linked with mental distress[10]. But according to our study stress among females is more common as compared to males. According to one study conducted at Shiraz University of Medical Sciences. Shiraz, Iran it was seen that depression, anxiety, and stress scores were not statistically significant in terms of gender among medical students. This study also used DASS 21 scoring system. In our study only stress score was found significant in terms of gender difference[11]. But according to one study conducted at University of Turku, gender described the stress level moderately. Female students were found to be suffering from slightly more stress as compared to males[12]. According to our study, MBBS students of all five years in KEMU are suffering from stress anxiety and depression.

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