

Impact of Psychosocial Well Being of Final Year MBBS Students of King Edward Medical University Lahore on Their Academic Performance-A Cross Sectional Survey

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Impact of Psychosocial Well Being on Students on their performance

ABSTRACT

Objective: To evaluate level of stress, anxiety and depression among Final year MBBS students of King Edward Medical University, Lahore and its impact on their academic performance.

Study Design: Cross Sectional study.

Place and Duration of Study: This study was conducted at the Department of Anatomy, King Edward Medical University, Lahore from 11th January, 2017 to 12th March, 2017.

Materials and Methods: A total of 100 questionnaire were distributed randomly among final year MBBS students of King Edward Medical University, Lahore who were enrolled in MBBS program during that time of study. Consent forms were filled by all students. Questionnaire comprised of demographic variables, DASS (Depression, Anxiety and Stress Score) 21 Score and last professional examination marks in percentages. Mean scores were calculated. Relationship of DASS 21 scores with different categories of students and gender were also calculated.

Results: A total of 81 final year MBBS students filled the form. Among those, 70.4% were females and 29.6% were males. The DASS Stress score calculated to be 9.2 ± 4.7 . DASS Anxiety Score calculated to be 7.19 ± 4.54 . DASS Depressions score calculated to be 8.96 ± 4.1 . Majority of the high achievers were having high anxiety and stress score. As compared to males, females were having high stress and depression scores.

Conclusion: High achievers and females are experiencing more depression and anxiety as compared to low achievers and males, respectively.

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

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INTRODUCTION

Mental health disturbances like stress, anxiety and depression among medical university students is a growing concern worldwide. Prevalence of depression and anxiety among medical students has been estimated to be 43-60% in Pakistan, which is quite alarming.¹ These psychological problems are not properly addressed at all, though medical students show poor psychological health than their peers in general population.²

Sources of these mental health problems can be may fold. Substantially increased scholastic load with high

expectations from academic performance is major source of distress.³ While unstructured learning environment, lack of time for recreation, long on-duty assignments and exposure to human sufferings also play their role in mental health disturbances among medical university students.⁴

Impaired psychological health ultimately affects medical graduates in a number of ways. Several factors play their own role as well. Gender, year of study and stage of training independently affects psychological health.[1] Some studies exhibit more depression among females while others showed more depression among males. Preclinical era is associated with more depression than clinical area.

Most important effect of impaired psychological health is on academic performance.³ Good academic performance in preclinical area is directly related to uplift of professional competence in the clinical years. This leads to production of good quality, competent healthcare professionals. This gives psychological health of the medical graduates the utmost importance. Teachers and medical educators need to be aware of causes, symptoms and consequences of student distress and medical school must develop and evaluate programs to support these students and promote student

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well being.³ As very scarce data available on this important topic, this prompted us to carry out this study in this well reputed and top public sector institution of country.

The aim of our study is to evaluate psychological well being of Final year MBBS students of KEMU by assessing level of Depression, Anxiety and stress using a well established DASS (Depression, Anxiety and Depression scale)²¹ and its possible relationship with their academic performance.

MATERIALS AND METHODS

This descriptive cross-sectional study was conducted at King Edward Medical University, Lahore from 11th January, 2017 to 12th March, 2017. The Students of, both genders, enrolled in final professional MBBS class who consented to participate in study were included. A total of 100 questionnaires were distributed randomly among participants. A total of 81 filled questionnaires were received.

Questionnaire had three components; First component comprised of demographic variables, Second component included last professional examination scores in percentages and the third component contained DASS 21 (Depression, Anxiety, Stress Score) scale.

The DASS-21 is a short-form of the DASS-42. The DASS-21 has high reliability as well as convergent validity consistent with other measures of anxiety and depression.^[5]

DASS-21 has three self-report scales designed to evaluate depression, anxiety and stress levels. DASS-21 has 21 questions in total. Questions of depression, anxiety and stress are randomly distributed within DASS-21. Question numbers 3, 5, 10, 13, 16, 17 and 21 are for depression. Question numbers 2, 4, 7, 9, 15, 19, 20 are for anxiety. Question numbers 1, 6, 8, 11, 12, 14 and 18 are for stress. (Fig: 1) Each question is answered

on 4 point lickert scale as score 0 is given to ‘did not apply to me at all’, score 1 is given to ‘applied to me to some degree, or some of the time’, score 2 is given to ‘applied to me to a considerable degree or a good part of time’, score 3 is given to ‘applied to me very much or most of the time’. Total score is calculated separately for each category and is further categorized as ‘normal, mild, moderate, severe, extremely severe’ as shown in table 1.

All data was entered in SPSS 22. Students were categorized into three group. Student who secured $\geq 70\%$ in last professional exam were labelled as ‘high achievers’. Students who scored 50-70% were labelled as ‘medium achievers’ while students securing $< 50\%$ marks were labelled as ‘low achievers’.

Mean scores of depression, anxiety and stress were calculated. Difference of these score among each category of students and among gender were also calculated. Chi square test was applied to determine its significance. p value $\leq .05$ was considered significant.

RESULTS

A total of 81 final year MBBS students filled the form. Out of 81 students 24 (29.6%) were males and 57 (70.4%) were females. Depressions score was 8.96 ± 4.1 , (Fig:2) Anxiety Score 7.19 ± 4.54 (Fig:3) and Stress score 9.2 ± 4.7 .

Table No.1: Categorization of DASS-21 from scores

Subscale	Depression	Anxiety	Stress
Normal	0-4	0-3	0-7
Mild	5-6	4-5	8-9
Moderate	7-10	6-7	10-12
Severe	11-13	8-9	13-16
Extremely severe	14+	10+	17+

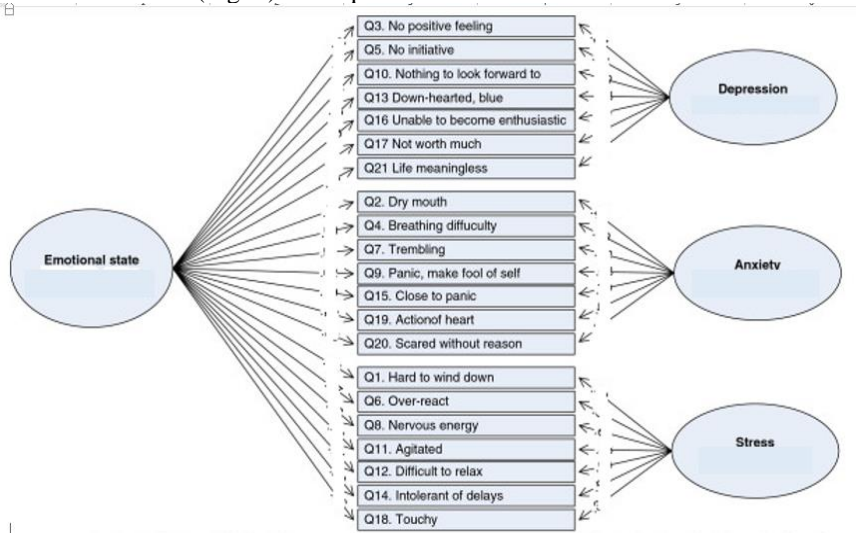


Figure No.1: DASS 21 Score and its division among Depression, Anxiety and Stress questions

DASS-21 among different categories of last professional examination scores were also calculated. Normal stress score were found among majority of the high achievers (14 (35%)) while 14 (36.8%) medium achievers and 2 (66.7%) low achievers had normal stress scores. (p value 0.89). A total of 13 (32.5%) high achievers experienced extremely severe stress, which is quite alarming. Though, to our surprise, 12 (31.6%) medium achievers and 2 (66.7%) low achievers also experienced severe stress. (p value 0.07). Depression scale score showed 10 (25%) high achievers facing extremely severe depression. While 10 (26.3%) medium achievers and 1(33.3%) low achiever were facing no depression at all.

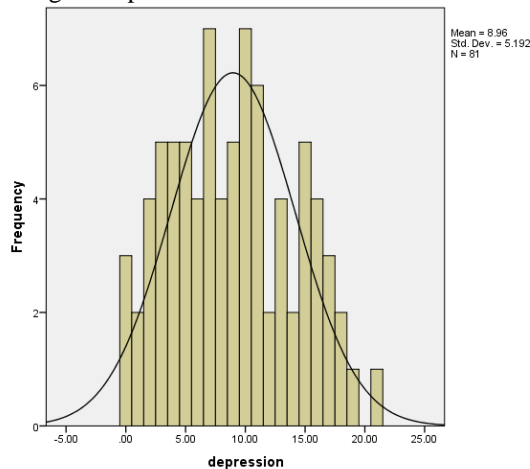


Figure No.2: Histogram showing mean depression Score among final year students

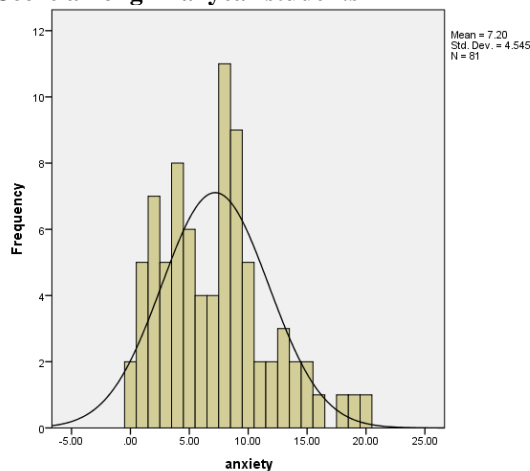


Figure No.3: Histogram showing mean anxiety Score among final year students

DASS-21 was compared between males and females as well. Majority of the males (13 (54.2%)) & females (20 (35.1%)) experienced no stress at all. (p value 0.18). Many of the males (8 (33.3%)) also facing no anxiety at all but 16 (28.1%) females were experiencing extremely severe anxiety levels. (p value 0.66). Similarly, majority of the males (9 (37.5%)) were having normal

depression score while 15(26.3%) females had extremely severe depression scores. (p value 0.19).

DISCUSSION

Depression among medical university students is a global phenomenon and it remains an important concern despite significant changes. In our study, mild and moderate depression was found among 40% students while severe and extremely severe depression was seen in 30% of the population. A total of 27% student experienced mild and moderate anxiety while 49% facing severe to extremely severe anxiety. Our figures are higher from western data but are comparable with Eastern data. A 2000 population data from USA showed major depression among 12% and mild/moderate depression among 9.2% of the participants.⁶ A total of 13% students found to have depression in Sweden.⁷ In Europe, near 30% of medical students experiencing depression or anxiety, while Brazilian studies show mood disorders at rate of 20 to 50% among medical students.⁸⁻¹⁰ Western countries depression rates are higher than Eastern countries. As studies from India, Iran and Pakistan showed depression rate among medical students ranging to 29.1%, 52.6% and 35.1% respectively.¹¹⁻¹³

Although some degree of stress is a normal part of medical training and can be a motivator for some persons, not all students find stress constructive.¹⁴ For many individuals, stress arouses feelings of fear, incompetence, uselessness, anger, and guilt and can be associated with both psychological and physical morbidity.^{7,15,16}

Student psychological well-being may affect professional growth and causes a negative impression on academic performance leading to poor academic performance.¹⁷ Literature also shows that this psychological stress may adversely affect quality of patient care and professionalism.^{18,19}

Studies showed relationship of gender with both depression and stress. Among general population, prevalence of depression and anxiety is high among females but results among medical students are not consistent.²⁰ Still, a systemic review showed that majority of the studies are showing the difference in depression and stress between genders as shown in our study.²¹

This study has got quite few limitations. This was a small cross sectional study with a small sample size. Further research is required to identify factors leading to development of negative emotion states in medical students, and the factors that may prevent or ameliorate these.

CONCLUSION

Medical students are facing high level of stress, depression and anxiety. High achievers and female gender is associated with more higher levels of depression and anxiety.

Author's Contribution:

Concept & Design of Study: Hamna Khan
 Drafting: Qamar Ashfaq Ahmad
 Data Analysis: Qamar Ashfaq Ahmad
 Revisiting Critically: Mah Jabeen Muneera
 Final Approval of version: Hamna Khan

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