

A CROSS-SECTIONAL STUDY OF ANXIETY AND DEPRESSION AMONG MEDICAL AND NON-MEDICAL STUDENTS

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ABSTRACT

BACKGROUND: Anxiety and depression are two of the most common mental health concerns in our society. These are often experienced as a complex set of emotional and functional challenges. This study was conducted to explore the levels of anxiety and depression among medical and non-medical female students.

METHODS: This cross-sectional study was conducted in Women Medical College and Comsats University Abbottabad from May 22, 2014 to August 31, 2014. 30 medical and 30 non-medical female students were studied. A structured questionnaire based on Beck anxiety and depression scale, consisting of 21 items was used. The parameters studied in students were Educational courses and stressors-anxiety and depression. Data was analyzed using SPSS.V-20 and Microsoft excel 2007. Chi square test was applied while frequencies and percentages were also calculated.

RESULTS: 56.6% of medical students had anxiety as compared to 76.6% of non-medical students, while 43.3% of medical students and 50% of non-medical students had depression. Result was non significant ($p > 0.05$).

CONCLUSION: Though anxiety and depression was found among majority of non-medical students, as compared to medical students; however this may be due to the fact that this study was conducted at a time when study pressure on students was not that much due to no exams or tests.

KEY WORDS: Anxiety, depression, Beck anxiety Inventory, Beck depression inventory.

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INTRODUCTION

Mental health is essential for person's well-being, healthy family and interpersonal relationship and the ability to live a full and productive life. Mental health and physical health are linked and are associated with the prevalence, progression and outcome of some chronic diseases including diabetes mellitus, heart diseases and cancer. Stress keeps us alert, motivated and ready to avoid danger but too much stress can lead to emotional problems such as anxiety and depression¹. Anxiety and depression are two of the most common mental health concerns in our society. These are

often experienced as a complex set of emotional and functional challenges.

Anxiety and depression are not the same but they often occur together. It is not uncommon for people with anxiety to become depressed. They come from a common source, namely "Serotonin imbalance" but there is also a mental side to both anxiety and depression. When our body makes us feel a certain way, we will treat situation in such a way that they will make us more depressed or anxious. So anxiety leads to depression and depression leads to anxiety. It is beneficial to learn about both conditions².

Depression is a common disorder

affecting over 350 million people worldwide. It adversely affects a person's family, work or school college life, sleeping, eating habits and general health. Women are 70% more likely than men to experience depression in their life time. Women tend to experience sadness and guilt, men often feel restlessness and angry. Women and adults between the ages of 45 and 64 are most likely to meet the criteria for major depressive disorder. Over 3% of youth ages 13-18 have also experienced a debilitating depression episode³. Every third Pakistani is expected to be suffering from anxiety and depression⁴.

Anxiety may be a normal reaction to stress and it can serve as a prompt to deal with difficult situations. However when anxiety becomes excessive it may fall under the category of anxiety disorders. It is characterized by emotional, physical and behavioral symptoms that create an unpleasant feeling that is typically described as uneasiness, fear or worry. Besides this individual may feel fatigue, muscle tension, muscle aches, difficulty swallowing, trembling, twitching, irritability and hot flushes. In some conditions anxiety and depression are aggravated by working long hours or overtime. It can interfere with our daily life and make it difficult to cope with everyday activity feelings and thoughts. In 2011 the American College Health association found that about 30% of college students reported feelings so depressed that it was difficult to function at some time⁵.

Academic stressors for example high work load, concern about academic performance, sleeplessness, reduced time for social activities, physical exercise, frequent rotation into new environment, and competitiveness amongst students, can lead to depression and anxiety⁶. For students some educational courses that can lead to academic stressors for example medical education is perceived as stressful. Stress has been reported due to academic demand, exams, inability to cope with increased psychological helplessness⁷. The transition from preclinical to clinical training has been identified as a crucial stage of medical school regarding students stress, all this can result in decreased life satisfaction among students⁸.

Stress leading to anxiety and depression during medical school can lead to problems later in professional life compromising patient care. Several studies have been reported for high rates of psychological morbidity amongst medical students than non medical students. Findings are related to academic, financial and social demand that college environment place on students at a time when they are also involved in issues related to lifestyle and career⁹.

Previous studies in Pakistan have shown a higher prevalence of anxiety and depression in medical students. A cross sectional study was carried out at Nishtar Medical College in Multan in 2008. Results showed high levels of anxiety and depression among medical students¹⁰.

Another study was done at Ziauddin Medical University in 2003. It was found that medical students experience more anxiety and depression than other educational courses¹¹.

A study was conducted at Al-Qaseem University Saudi Arabia in July 2007 in which it was found that the prevalence of anxiety and depression in female medical students was higher than males¹².

MATERIAL & METHODS

It was a cross sectional comparative study in which a sample of 60 students (30 medical and 30 non medical) was randomly selected from Comsats University and Women Medical College Abbottabad from 22nd May 2014 to 31st August 2014. Beck anxiety and depression inventory was used as a data collection tool. Only unmarried female students aged 18-25 were selected. Students were assured that the information provided by them will be confidential and only used for the purpose of research. The data was entered and analyzed using Microsoft excel. Chi square test of significance was applied on the results.

RESULTS

Results showed that 56.6% of medical students had anxiety as compared to 76.6% of that of non-medical students; Overall the prevalence of anxiety was higher in non-medical students as compared to medical students. Our result was not significant at $\alpha=0.05$.

DISCUSSION

Anxiety and depression can be taken as reliable indicators for assessment of mental illness in a community. It may affect overall performance of students and can lead to a cascade of consequences at both personal and professional levels.

Most of the previous researches showed that medical students had high levels of anxiety and depression as compared to non-medical students. A study in Alexandria university revealed that the prevalence of anxiety and depression among students of Medicine was found high-

er than that in Faculty of Pharmacy¹³. Furthermore, it was noticed that the prevalence of symptoms was higher among females.

Several theories explained that medical students pass through continuous assessment throughout their academic years. Studying medicine is competitive. Several academic stressors were reported in many previous researches. Non-medical students pass through less number of exams and much easier than those of the medical students. Other stated that medical students are liable to be critical of themselves. Moreover medical students tend to be more socially iso-

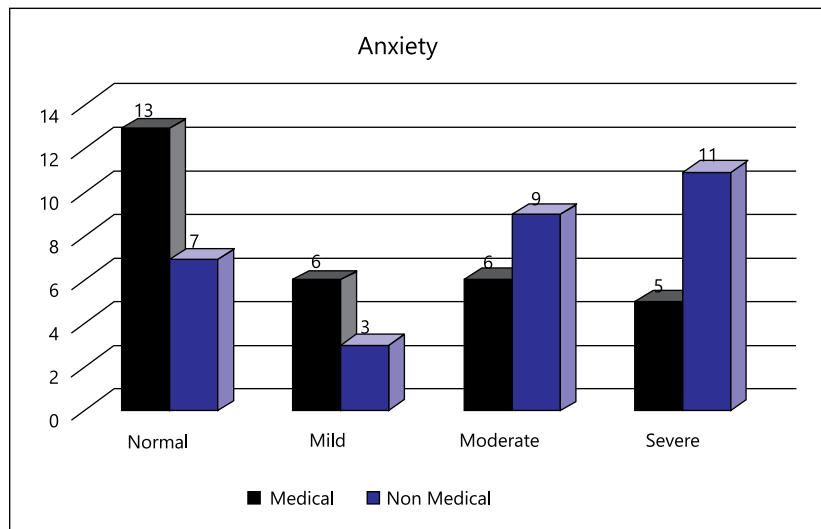


Fig: 01

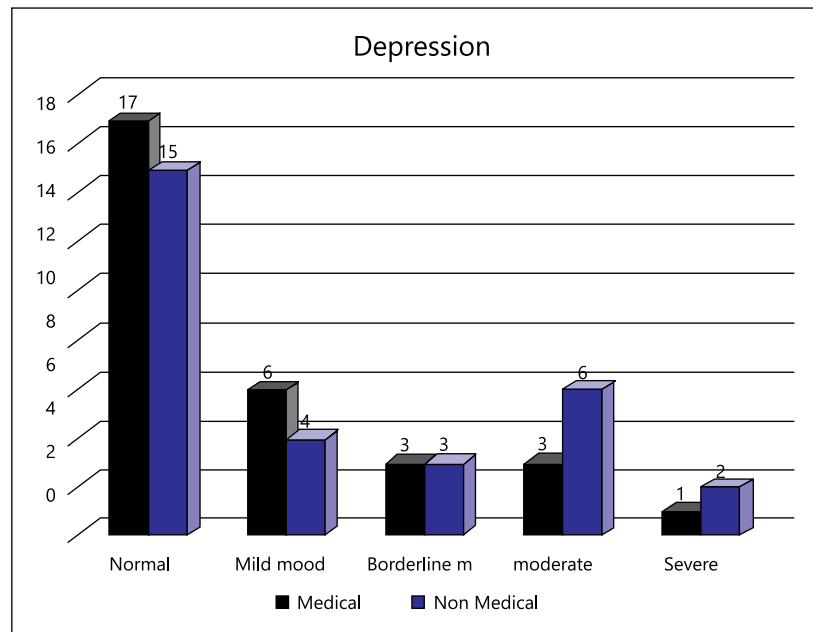


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lated then other students of different faculties. Medical students may be influenced by all these factors more than non-medical students¹³.

However, according to this research the result showed that the level of anxiety and depression is higher in non-medical students than medical students. Level of anxiety was found high in 76.6% of non-medical students as compared to 56.6% of medical students. After applying chi square we found out that our result was not significant at $\alpha = 0.05$ and the difference noted might be by chance.

Among 30 medical students 13 had no anxiety, 6 had mild, 6 moderate and 5 had severe anxiety. However on the other hand amongst non-medical students 7 had no anxiety, 3 mild, 9 moderate, 11 had severe anxiety. (Figure 1)

The level of depression was also elevated in non-medical students and came out to be 50% compared to that of medical students which was 43.3%. This showed that the level of anxiety and depression was comparatively higher in non-medical students that show that educational course is not the main factor leading to depression. Out of 30 medical students 17 had no depression, 6 had mild, 3 borderline, 3 moderate, and 1 had severe depression. On the other hand out of 30 non-medical students 15 had no depression, 4 mild, 3 borderline, 6 moderate, and 2 had severe depression (Figure 2).

BSC students were having their final exams while the study was conducted, which may be one of the major reason for such elevated level of anxiety and depression. High prevalence of depression in non-medical students may be due to other factors like stress due to self-expectations, competition, increased workload and other social factors. Medical students who showed depression and anxiety may be attributed to the inclusion of final year subjects in 3rd prof for the 1st time.

The generalization of the study results is limited because of the limited

size of sample which was recruited from only one private medical college and one private non-medical institute. Other limitations may include, conduction of study purely on female students.

Anxiety and depression can lead to negative outcomes including college dropouts, impaired ability to work efficiently, deterioration in relationship, burnout, and increased suicidal tendency and compound existing problems of health care provision. There is need for greater attention to the psychological well-being of students. However, students on their part should address and maintain their mental health and well-being making it a lifelong focus. There should be a system to identify the prevalence of stressors and to specify the relevant contributing factors in educational institutions. There should be a psychologist for counseling of students going through different stressors in every educational setup. Follow up studies for monitoring prevalence of anxiety and depression will help in instituting intervention strategies.

CONCLUSION

The final conclusion of this study is that medical students do not experience significant level of anxiety as of nonmedical students; however this may be due to the fact that this research was conducted in midyear when study pressure on students was not that much. Some students experienced some level of anxiety as compared to their colleagues, which highlights the need of psychiatric counseling and support services for such students and more leisure activities in their curriculum, promoting better interaction between students and faculty and have advisory service for victims of anxiety.

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CONFLICT OF INTEREST

Authors declared no conflict of interest

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NIL

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.