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Research Article

STRESS, ANXIETY AND DEPRESSION AMONG MEDICAL STUDENTS OF NATIONAL RIBAT UNIVERSITY*¹ Dr. Mosab Abdelhameed, ¹ Dr. Abdelaziz Mohamedsharif,² Dr. Mohamed Mohamed, ² Dr. Mursi Abd elhamid¹ National Ribat University, Khartoum, Sudan² University of Medical Sciences and Technology, Khartoum, Sudan**Article Received:** January 2020 **Accepted:** February 2020 **Published:** March 2020**Abstract:**

A mental illness is a condition that impacts a person's thinking, feeling or mood and may affect his or her ability to relate to others and function on a daily basis. Each person will have different experiences, even people with the same diagnosis.

Psychiatry is now a highly visible activity - care in the community, compulsion, suicide, drug and alcohol abuse mean that few people are not touched by it. Indeed, one in four of us will consult a psychiatrist in our life time. This book explains what psychiatry is, and what it is not. It starts with the identification of the major mental illnesses and why they are no longer considered just variations of 'normality'. It charts the rise of the Asylum and its demise with the developments of care in the community, and the flourishing of psychoanalysis and its later transformation into more accessible psychotherapies.

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INTRODUCTION:

More than any other branch of medicine psychiatry has been attacked and criticised. There is a long catalogue of abuses - from mundane neglect and bizarre treatments through to political abuse by totalitarian regimes. Modern psychiatry too brings with it new controversies such as the medicalization of normal life, the power of the drug companies and the use of psychiatry as an agent of social control. The book does not shy away from outlining these issues but provides the reader with a clear understanding of what psychiatry is capable of, and what it is not capable of, so that they can draw their own conclusions⁽¹⁾

Anxiety is an unpleasant state of inner turmoil, often accompanied by nervous behaviour, such as pacing back and forth, somatic complaints and rumination. It is the subjectively unpleasant feelings of dread over anticipated events, such as the feeling of imminent death. Anxiety is not the same as fear, which is a response to a real or perceived immediate threat; whereas anxiety is the expectation of future threat. Anxiety is a feeling of fear, worry, and uneasiness, usually generalized and unfocused as an overreaction to a situation that is only subjectively seen as menacing. It is often accompanied by muscular tension, restlessness, fatigue and problems in concentration. Anxiety can be appropriate, but when it is too much and continues too long, the individual may suffer from an anxiety disorder.

Health care is a stressful profession. With the honour it entails, it also brings along a lot of hard work, sleepless nights, desire to be perfect and a will to be the best. Medical students pass through numerous stressful experiences ranging from excessive study load to frequent contact with death in an endeavour to become a high-performing doctor. Hence, the students pass through a complex and multifaceted process throughout the academic years of medical school, which are not only contingent on the academic environment but also on the student's ability to react appropriately to various situations during learning and patient-care training⁽¹²⁾

Anxiety is a normal human emotion that everyone experiences at times. Many people feel anxious, or nervous, when faced with a problem at work, before taking a test, or making an important decision. Anxiety disorders, however, are different. They can cause such distress that it interferes with a person's ability to lead a normal life.

Medical education aims to produce future doctors who are equipped with adequate knowledge, competency, in order to care for their patients, contribute to the development of the art of

medicine, and to promote public health. Prospective medical professionals undergo highly selective procedures by the medical schools which aim to recruit brilliant and empathic students who are committed to these aims and willing to dedicate four years to establish them.⁽¹⁻¹⁾

Medical education is perceived as stressful. High levels of stress have been documented in medical students in various studies. Amongst medical students, stress has been reported to be due to academic demands, exams, inability to cope, helplessness, increased psychological pressure, mental tension and too much work load. The transition from pre-clinical to clinical training has been identified as a crucial stage of medical school regarding student stress. All this can result in decreased life satisfaction among students. Stress during medical school can lead to problems later in professional life compromising patient care. Several studies have reported high rates of psychological morbidity amongst medical students using various instruments. Such findings are most likely related to academic, financial and social demands that college environments place on students at a time when they are also involved in issues related to life style and careers. Retrieving knowledge about psychiatric morbidity is important as it can help in implementing preventive mental health programmes⁽¹⁻²⁾

Problem Statement:

This study aimed to identify the prevalence of psychological distress among preclinical medical students and to explore the possible causes of stress by identifying the main stressor factors. The selection of the preclinical students is determined to identify the problem at an early stage in order to help the students to cope with their future stress in clinical years as the studies showed that the stress levels as persistent throughout the years of medical education as well as in physicians under training. Many factors are thought to contribute to this decline in student's mental health including academic pressure workload, financial concerns, sleep deprivation, positive family history exposure to patients' suffering and deaths, some have suggested that psychological distress among students may adversely influence their academic performance that contribute to academic dishonesty and play a role in alcohol and substance abuse .

Justification:

Health care is a stressful profession. With the honour it entails, it also brings along a lot of hard work, sleepless nights, desire to be perfect and a will to be the best. Medical students pass through numerous stressful experiences ranging from excessive study load to frequent contact with death in an endeavour to become a high-performing

doctor. Hence, the students pass through a complex and multifaceted process throughout the academic years of medical school, which are not only contingent on the academic environment but also on the student's ability to react appropriately to various situations during learning and patient-care training. Stress during education can lead to mental distress and have negative impact on cognitive functioning and learning and hence there is a need to quantify the anxiety and its associated factors among medical students for their counseling and rehabilitation.

Objectives:

1.2.1 General objective:

This study aims to assess the prevalence of anxiety among medical students at National Ribat University.

1.2.2 Specific objectives:

- 1-To measure anxiety prevalence among medical students
- 2-To identify association of anxiety with personal characteristics and academic performance
- 3- To assess the relation of anxiety to substance abuse and family history relation

LITERATURE REVIEW:

In many medical schools, the environment itself is an all prevailing pressure situation providing an authoritarian and rigid system, one that encourages competition rather than cooperation between learners. Medical students attending the first year of Allam Iqbal Medical College Lahore, One hundred and twenty questionnaires were completed, returned and were thus included in the study from the total of 250 the study was conducted to determine the relationship of stress and academic performance in first year medical students and to identify sources of stress. 20.8 % of the subjects had severe stress, 71.6% had moderate stress and 7.6% had low stress. Gender distribution of stress showed that females had more Preponderance to severe stress (30.0 – 11.7% respectively) than males. 87.3% of males had moderate stress and 65.0% of females had moderate stress. 10% of males were suffering from low stress as compared to 5.0% of females 97.5 % of student passed in send up examination Spearman's correlation coefficient among students' academic performances, sources of stress and levels of stress were carried out to assess the association. There was moderate negative (-0.583) and significant ($p < 0.001$) correlation between academic performance and of stress sources, i.e. higher the stress sources lower will be the academic performance. Similarly, there is moderate negative and significant correlation between academic performance and

levels of stress, i.e. higher the level of stress lower will be the academic performance.

The in-depth interviews were conducted and themes were identified as daily stressors, accommodation issues, extensive memorization, stressful events, lack of facilities and expectations from faculty.

A study was conducted at Saudi Arabia in a set of medical students; the prevalence of stress was the high indicated a high significant association.

The association between the academic grades of the students and the rate of stress was not significant the main sources of stress stated by the students were coping with their studies followed by home environment However, 36.9% of the students did not mention any source of stress.

Other cross-sectional study was made in preclinical medical students of University Putra Malaysia to determine the prevalence and risk factors of psychological distress; A total of 237 students were enrolled in the study.

The response rate was 100%. The mean age of the respondents was 21.87 years with a standard deviation of 0.89 years. Univariate analysis of the risk factors of stress, using simple logistic regression, shows that females have lower risk compared to males.

Absence of financial support is a risk factor for stress. Medical school can impose significant psychological stress on medical students (4-9), mainly through time pressure, large amount of new information, excessive working hours and the knowledge that at the end of their training they will be directly responsible for the health and welfare of others and their post matriculation There is a need to investigate the effect of desire and expectations from medicine on anxiety and depression levels of medical students and this study primarily aims to explore this aspect in medical students in their first two years of medical school in Turkey.

In terms of anxiety, there were significant differences according to family income, reasons for being a doctor and expectations from medicine ($p < 0.05$). shows the effect of different variables on anxiety levels of medical students.

In Karachi a study suggests that there are certain risk factors other than academic stressors which predispose a medical student to psychological morbidity such as anxiety so a study was done in 142 students of Medical College

After adjusting for the other variable in the model, students who were using substance abuse were

more likely to be depressed and anxious compared to those who did not use substance abuse

Most of the students were from middle socio-economic class. Students having family history of depression and anxiety were 2.35 (0.91, 6.04) times more likely to be depressed than those who did not have history of depression and anxiety.

Assumed that those reaching university are to some degree positively selected for mental health. To find the prevalence of psychiatric maladjustment among Am Shams University students based on direct clinical observation.

During a nine-month period, 1,050 students at Am Shams University, Cairo, attended the Student Health.

Centre. Students were referred for psychiatric assessment through several sources: The sex distribution of cases showed slightly more than four times as many males as females. Female patients represent about percent of the total university female students, while males represented about 3 per cent. The most frequent diagnosis was that of anxiety neurosis, which accounted for 36 percent of the total psychiatric cases. The incidence of anxiety in males was 37 percent and in females 32 per cent. The general impression in most cases was that anxiety had been reactive to either maturational or environmental stresses rather than endogenous. Major anxiety crises of acute panic reaction were encountered in two exceptionally bright students before their written examination. The most troublesome anxiety cases associated with hypochondria were encountered in a minority of students whose homes and families were in distant provinces, especially students from the New Valley and Upper Egypt. Their symptoms were noticed to be alleviated during midyear holidays. Their anxiety could be considered here as a sort of separation anxiety.

A cross-sectional study was conducted in March, 2011 conducted among undergraduate students of Adama University; Eastern Ethiopia. Four hundred and thirteen students were participated in the study. Simple random sampling technique was applied to select the study participants. Self-Reporting Questionnaire-20 (SRQ-20) was used to assess the mental distress.

Different factors associated with mental distress were identified. A higher level of mental distress was reported among students who have had conflicts with their fellow students on different personal and social issues (OR 95%CI=2.26 (1.10 - 4.85)).

Reported family history of mental illness was significantly associated with mental distress (OR with 95% CI=2.30 (1.10 - 4.81)) and those who had

history of Khat chewing were more likely mentally distressed (OR=2.23; 95% CI=1.14-4.35). Being in second years of education was found to be a protective factor (AOR=0.41, 95% CI = 0.18 - 0.91).

The likelihood of mental distress was higher among ever Khat chewers. This built on what was reported by Damen and his colleagues where Khat chewing was found to be significant predictor of mental distress [33]. This issue is interwoven due to the fact that substance use is related to different facets of health problems. Moreover, because this study is a cross-sectional, it is difficult to conspicuously identify in which direction the causality is prevailing and it is beneficial to consider interventions addressing both. Though, it is not simple to give sound explanation, one important finding in this research is that, frequent conflicts due to different reasons was associated with higher level of mental distress. Earlier study also reported this phenomenon [33]. This might be resulted from the fact that university life where students live together in a group and small to big conflicts might result in a stressful situation.

This shows different addictive objects that lead to anxiety. A cross-sectional study was carried out at Nishtar Medical College, Multan in 2008. The questionnaire was administered to 815 medical students who had spent more than 6 months in college and had no self-reported physical illness. They were present at the time of distribution of the questionnaires and consented. Prevalence of anxiety and depression was assessed using a structured validated questionnaire, the Aga Khan University Anxiety and Depression Scale with a cut-off score of 19.

It was seen that marital status, monthly household income, locality and nationality did not have any effect on prevalence of anxiety and depression. Prevalence of anxiety and depression was significantly higher in 1st year MBBS students and lower in 4th year MBBS.

METHODOLOGY:

Study design: A descriptive cross-sectional study institutional based

Study area:

The study was conducted in Faculty of Medicine – **National Ribat University**. The faculty was founded in 2000, situated in Khartoum in the Nile street.

Study population:

Inclusion criteria: all medical students from 1st year to 6th year

- 1st year 150 students.
- 2ⁿ year 130 students.

- 3rd year 100 students.
- 4th year 200 students
- 5th year 301 students

Study unit: Medical students at **National Ribat University**

Sampling:

Sample frame: proportional probability sampling

Sample size: using the formula:

$$n = \frac{Nz^2pq^2}{Nd^2 + z^2pq}$$

where n= sample size

N= population size = 1200 Approximately

z = 1.96

p = prevalence from literature = .69

q = 1-p

d = .05

$$N = 200.5 \cong 235$$

Sample size of each batch (ni) = Ni/N*n

i= number of batch (1,2,3,4,5,6)

Ni= number of each Batch

N=total population

n=sample size

Sample selection:

A stratified convenient selection all classes from 1st year to 6th year were selected and male to female ratio was calculated from the total population of the students at faculty of medicine

Data collection methods:

By using a Questionnaire; a standardised self-administered questionnaire contains 30 questions the first 5 questions were about socio-demographic data;

Variables: academic level, gender, residency, personal monthly income and order between siblings.

Data analysis: By using SPSS version 21 data will be cleaned

Ethical concern: was obtained from authorities Department of Community medicine, academic secretary office. Verbal and written consent were taken from participants.

Limitation:

This cross-sectional study was based on self-reported information provided by students. Therefore, there is some potential for reporting bias which may have occurred because of the respondents' interpretation of the questions or desire to report their emotions in a certain way or simply because of inaccuracies of responses, also regarding to refusal of the students to contribute

with filling the questionnaire a total of 270 out of 285 were filled and missing data was found within the questionnaire.

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