

Stress, Depression and Anxiety among Medical Students of Imam Mohammed Ibn Saud Islamic University, KSA

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Abstract:

Background: Exposure of Physicians to some stress factors during the occupational environmental work could induce some psychological problems. The first postgraduate years are particularly susceptible to these problems. In Arab countries, epidemiological data about psychological morbidity among medical undergraduate students are scarce. The Objective of the present study was to assess anxiety and depression levels among the third-year imam medical college students. **Methods:** A cross sectional study was done on the medical students of the 3rd year at Imam University; College of Medicine in Riyadh city on 2013. The sample consisted of 50 male medical students. The Higher Education Stress Inventory (HESI) was used in data collection. **Results:** Our results showed that 24% of the students were with minimal depression, 18% of students was with mild depression, 8% of student was with moderate depression, 2% of student was with moderately severe depression and none (0%) of student was reported with severe depression. **Conclusion:** The study indicated that medical students are extra sensitive to deal with the environmental occupational atmosphere which stress factors could prevail, so, depression and anxiety are common among medical students. Large, prospective, multicenter, multi-method studies are needed to identify personal and curricula features that influence stress, depression, anxiety and coping strategies among medical students. The study findings highlighted the need of psychiatric counseling and preventive mental health services to be an integral part of the routine clinical facilities caring for medical students.

Keywords: Stress, depression, anxiety, Saudi Arabia, medical student, Imam University.

INTRODUCTION

Depression and anxiety levels in the community are considered as specific indicators for mental status of a person. Various studies have indicated that stress during the work regime could negatively induce effects on medical students. The American Psychological Association characterizes anxiety and stress^[1,2] by feelings of tension, worried thoughts, and physical changes. Anxiety is more related to autonomic arousal, skeletal muscle tension, and situational aspects, whereas stress is more related to irritability, impatience, and difficulty in relaxing^[3]. Among medical students, academic stressors include the demands of the learning and training, the large volume of material to be learned and academic performance and evaluation (examination and continuous assessment) might adversely affect the student's physical and mental health. It has been reported that medical students consequently suffer from depression, anxiety, and stress^[4]. **Yusoff et al.** have previously reported that healthy students develop depression and stress after commencing their medical education. Academically less

successful students reported somewhat higher levels of depressive ideation and symptomatology^[5]. The potential negative effects of emotional distress on medical students include impairment of functioning in classroom performance and clinical practice, stress-induced disorders and deteriorating performance. Students in extreme stress or depression need serious attention, otherwise inability to cope successfully with the enormous stress of education may lead to a cascade of consequences at both personal and professional levels^[6]. The subject has been studied in many countries; however, another similar studies was done in Ziauddin Medical University, by **Inam S et al.**^[7], in a study in Riyadh, Saudi Arabia by **Al-Samghan AS et al.**^[1] and in another study in Riyadh, Saudi Arabia by **Bibi Kulsoom and Nasir Ali Afsar**^[6].

OBJECTIVE

This study was designed to assess anxiety and depression levels among third year imam medical college students in Riyadh city on 2013.

METHODOLOGY

A cross sectional study was done on the 3rd year imam university college of medicine students in Riyadh city on 2013. The sample consisted of 50 male medical students. PHQ-9 Quick Depression Assessment [8,9] was used in data collection. The questionnaire was given to students, present in the class.

QUESTIONNAIRE AND ASSESSMENT

Initial diagnosis

1. Patient completes PHQ-9 Quick Depression Assessment.

2. If there are at least 4 √ s in the shaded section (including Questions #1 and #2), consider a depressive disorder. Add score to determine severity.

Consider Major Depressive Disorder: If there are at least 5 √ s in the shaded section (one of which corresponds to Question #1 or #2)

Consider Other Depressive Disorder: If there are 2-4 √ s in the shaded section (one of which corresponds to Question #1 or #2)

Since the questionnaire relies on patient self-report, all responses should be verified by the clinician, and a definitive diagnosis is made on clinical grounds taking into account how well the patient understood the questionnaire, as well as other relevant information from the patient.

Diagnoses of Major Depressive Disorder or Other Depressive Disorder also require impairment of social, occupational, or other important areas of functioning (Question #10) and ruling out normal bereavement, a history of a Manic Episode (Bipolar Disorder), and a physical disorder, medication, or other drug as the biological cause of the depressive symptoms.

Steps followed to monitor severity over time for newly diagnosed patients or patients in current treatment of depression:

1. Patients may complete questionnaires at baseline and at regular intervals (e.g, every 2 weeks) at home and bring them in at their next appointment for scoring or they may complete the questionnaire during each scheduled appointment.

2. Add up √ s by column. For every √: Several days = 1 More than half the days = 2 Nearly every day = 3

3. Add together column scores to get a TOTAL score.

4. Refer to the accompanying PHQ-9 Scoring Box to interpret the TOTAL score.

5. Results may be included in patient files to assist you in setting up a treatment goal, determining degree of response, as well as guiding treatment intervention.

Scoring: Add up all checked boxes on PHQ-9. For every √ Not at all = 0; Several days = 1; More than half the days = 2; Nearly every day = 3.

Interpretation of Total Score

Total Score Depression Severity: 1-4 Minimal depression, 5-9 Mild depression, 10-14 Moderate depression, 15-19 Moderately severe depression, 20-27 Severe depression

The study was done after approval of ethical board of Imam Muhammad Bin Saud university.

RESULT

Our results showed that 24% of the students was with minimal depression, 18% of students was with mild depression, 8% of student was with moderate depression, 2% of student was with moderately severe depression and none (0%) of student was reported with severe depression.

Table (1): Levels of depression among studied students, faculty of medicine, Imam University, 2013

Level of depression	Frequency	Percent
Free from depression	24	48.0
Minimal depression	12	24.0
Mild	9	18.0
Moderate	4	8.0
Moderately severe	1	2.0
Total	50	100.0

DISCUSSION

The main results of this study suggested that among medical students at Imam Mohammed Ibn Saud Islamic University, there is a low “baseline” level of depression, anxiety, and stress. Almost 50% of the total students were free from

depression and 24% had the minimal degree of depression. This results disagree with those obtained from medical students at Alfaisal University, there was a high level of depression, anxiety, and stress ^[6]. Another study was done in Ziauddin Medical University, Karachi, found that; the prevalence of anxiety and depression was 60% among the students ^[7]. The prevalence of anxiety and depression in students of the 4th year, 3rd year, 2nd year and 1st year was 49%, 47%, 73% and 66% respectively. It was significantly higher in 1st year and 2nd year, as compared to 3rd and 4th year ($p < 0.05$). These results are much higher compared to our findings. A study done in Washington University School of Medicine, U.S.A^[10], found a relatively similar result to ours. The prevalence of depression, stress and anxiety among the first two years of medical school was 12%. Also a high prevalence of anxiety and depression (43.89%) was found amongst medical students of Nishtar Medical College, Multan ^[11]. Prevalence of anxiety and depression among students of first, second, third, fourth and final years was 45.86%, 52.58%, 47.14%, 28.75% and 45.10% respectively.

CONCLUSION AND RECOMMENDATIONS

The study remarked that Depression and anxiety were observed among medical students. Large, prospective, multicenter, multi-method studies are needed to identify personal and curricula features that induce stress, depression, anxiety and introduce coping strategies among medical students. The study findings highlighted the need of psychiatric counseling and preventive behavioral health services to be an integral part of the routine clinical facilities caring for medical students.

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