

Prevalence of depression among students at Sheikh Zayed Medical College, Rahim Yar Khan

Zafar H¹, Tanveer², Sajida Zafar³, Khuram Munir⁴

Abstract:

Background: Anxiety and depression affects the performance of an individual very badly. The medical students are subjected to many stresses during their education at medical schools.

Objective: This study was conducted to assess the frequency of depression among medical students at various levels of their MBBS course.

Subjects and Methods: This cross-sectional, descriptive study was conducted at Sheikh Zayed Medical College,

Rahim Yar Khan. A sample of three hundred (300) students (150 males and 150 females) was chosen by stratified systemic random sampling technique. The age ranged from 18 to 24 years. Agha Khan University Anxiety and Depression Scale was used to assess the depression among students. The students having score >20 were labeled as having depression. A specially designed questionnaire was used to collect data which was analyzed on SPSS version 16.0.

Results: Out of 300 participants 84 (19%) fulfilled the depression criteria while 216 (81%) scored below 20. Frequency of depression gradually decreased from 1st Year MBBS class (30%) through 2nd Year MBBS (26%) to 3rd Year (16%). The frequency of depression increased through 4th Year (25%) to Final Year MBBS (36%).

Conclusion: A high prevalence of depression was witnessed among medical students. The rise in depression scores might be due to emotional disturbance initially on entering the course that then decreased up to third year. The increase afterwards might be due to ward duties and stress of clinical work. During final year, academic burden and anticipation of future responsibilities may be the most stressful.

Keywords: Depression, Anxiety, Students, Medical College.

Introduction:

Depression has been known as a major health problem occupying the fourth position among the global frequency of diseases^{1,2}. Depression is the illness involving body, mood and thought. It affects the person's eating and sleeping habits, his feelings about himself and the things around him³. Anxiety is regarded as vague, unpleasant and debilitating emotion that is manifested in anticipation of some misfortune⁴. According to World Health Organization (WHO) criteria, depression is a common mental disorder presenting with depressed mood, loss of interest, disturbed sleep and appetite, low self worth or feeling of guilt, low energy and poor concentration⁵.

In Pakistan, the prevalence of depression is higher because of continuing social adversities^{2,6}. The exact prevalence of anxiety and depression in Pakistan is not known⁷. In Pakistan, Lahore had the highest percentage of depression (53.40%) as compared with Quetta (43.90%) and Karachi (14-35%)^{2,8}. Tribal areas of Paki-

stan showed that 60% of women and 45% of men were suffering from depression⁹.

The frequency of anxiety and depression among medical students varies from 19.30% in a medical college in Lahore¹⁰ to 70% in Agha Khan University and Jinnah Medical College, Karachi¹¹. Two studies at Zia-ud-Din Medical University, Karachi showed 23% and 60% depression rate among its students^{12, 13}. The University of Zimbabwe evidenced in its students a depression rate of 64.5%¹⁴, while a study conducted in Sydney hostels showed a depression rate of only 20%¹⁵.

Aims and Objectives:

The present study was conducted:

1. To assess the frequency of depression among MBBS students at Sheikh Zayed Medical College, Rahim Yar Khan.
2. To differentiate the intensity of stress at various stages of the MBBS course.

Subjects and Methods:

This study was conducted at Sheikh Zayed Medical College, Rahim Yar Khan. It was a questionnaire based cross-sectional study. A sample of three hundred students with equal sex distribution from first to final year MBBS class was taken. Systematic stratified random sampling technique was used for taking samples. A writ-

1. Zafar H Tanveer
2. Sajida Zafar
3. Khuram Munir

ten consent was taken before including the students in the study. A pre-tested questionnaire of the Agha Khan University Anxiety and Depression Scale (AKUADS) was used to assess depression. A score less than or equal to 19 was taken as normal. A score more than 19 was taken as cut off point to label depression. The questionnaire included 25 signs and symptoms of anxiety and depression and was self-judged by the interviewee. Students returned the questionnaire after filling it. The data was entered in SPSS version 16.0. Descriptive statistics were used to analyze the data without applying statistical tests of significance.

Results: Table - I

CHARACTERISTICS	PERCENTAGE
Year wise selection of study subjects	
1 st Year	22%
2 nd Year	21%
3 rd Year	20%
4 th Year	19%
Final Year	18%
Depression Distribution	
Participants with Depression	26%
Participants without Depression	74%
Sex wise Distribution of Depression	
Males with Depression	29%
Females with Depression	24%

shows that out of 300 participants, half (n = 150) were males and half (n = 150) were females. There was almost equal representation from 1st Year MBBS class to final year MBBS. After analyzing the data, it was apparent that 26% percent of the participants were having the symptoms of depression and 74% percent were without these symptoms. Symptoms of depression were slightly more prevalent among male students (30%) as compared with their female counter parts (26%).

TABLE I: Characteristics of the Participants.

TABLE II: participants with and without depression at Different levels of MBBS course.

Class	Participants with Depression	Participants without Depression
1 st Year MBBS	30%	70%
2 nd Year MBBS	26%	74%
3 rd Year MBBS	16%	84%
4 th Year MBBS	25%	75%
Final Year MBBS	36%	64%

Table - II shows the percentages of participants with and without symptoms of depression at different levels of MBBS course. The percentage of depressed participants decreased gradually from 1st Year MBBS class (30%) through 2nd year MBBS (26%) to 3rd year MBBS (16%). It then increased steadily through 4th year MBBS (25%) to final year MBBS (36%).

Discussion:

Depression and anxiety are regarded as major public health problems and stand fourth in overall ranking among the global burden of diseases². They serve as good indicators to assess the mental health and learning capability of the students¹³. The emotional status of students during medical school training may affect their overall performance and may lead to a series of consequences at both personal and professional levels¹³.

Stress during preparation for examinations and acquiring professional knowledge, attitudes and skills have been reported as the most stressful aspects of medical schooling¹⁶. An interesting phenomenon of this study was that the level of stress gradually decreased during initial 3 years and this could be due to adjustments and coping mechanisms adopted by the students¹⁷. The rise of depression in fourth and final year may possibly be due to clinical rotation of wards and patient dealing.

High incidence of anxiety and depression in medical students may be due to specific stressors in medical schools in addition to normal stressors of everyday life^{19,20,21}. The sources of distress from admission process to graduation include ethical dilemmas and dissection of cadavers^{23,24}.

Some studies reported a very low incidence of depression in medical students^{23,24}. In present study 26% of depression is comparable to other studies as far as the overall level of depression in medical students is concerned^{10,12,15}.

Our results disagree with a study showing raised level of depression in 3rd year MBBS²¹. Maximum level of depression in final year MBBS could be due to hospital duties, close contact with critically ill patient's death, higher number of study hours, fatigue and job stress²³.

Some studies in western countries reported higher level of stress in female students as compared to males²⁴. The possible reason put forward by various studies was tendency of women to over report medical and psychological symptoms. We however, found a low incidence of depression in our female students (24%) as compared with the male students (29%).

Conclusion:

High incidence of depression has been observed in medical students. The raised depression percentage may be due to emotional distress initially on entering the MBBS course that decreased with passage of time upto third year. The increase in depression afterwards may be due to burden of clinical work and ward duties. Precipitating

factors may be increasing academic burden, feeling and anticipation of future responsibilities and uncertainty of job circumstances in this part of the world

Reference:

- Muhammad Gadit AA, Mugford G. Prevalence of Depression among Households in Three Capital Cities of Pakistan. Need to revise the mental health policy. PLoS ONE 2(2): e209
- Henning P, Zimmermann T, Sattel H. Medically Unexplained Physical Symptoms, Anxiety, and Depression: A Meta-Analytic Review. Psychosomatic Medicine. 2003; 65: 528-533
- Husain N, Chaudhry IB, Afridi MA, Tomenson B and Creed F. Life stress and depression in a tribal area of Pakistan. BJ PSYCH. 2007; 190: 36-41
- Luni FK, Jawad A, Shahid N, Baig SSM. Prevalence of Depression and Anxiety in rural region of Pakistan. Biogenic Amines. 2008; 22(1-2): Supple 31-38
- Khan H, Kalia S, Itrat A, et al. Prevalence and demographics of anxiety disorders: a snapshot from a community health centre in Pakistan. Annals of General Psychiatry. 2007; 6:30
- Rab F, Mamdou R, and Nasir S. Rates of depression and anxiety among female medical students in Pakistan. EMHJ. 2008. Vol. 14, No.1.
- Khan MS, Mahmood S, Badshah A, Ali SU and Jamal Y. Prevalence of Depression, Anxiety and their associated factors among medical students in Karachi, Pakistan. J Pak Med Assoc. Dec 2006; 56 (12): 583-86
- Khuwaja AK, Kadir MM. Gender differences and clustering pattern of behavioral risk factors for chronic non-communicable diseases: community-based study from a developing country. Chronic Illness. September 2010; 6: 163-170
- Inam SNB, Saqib A, Alam E. Prevalence of Anxiety and Depression among Medical Students of Private University. J Pak Med Assoc. 2003; 53:44
- Rosal MC, Ockene IS, Ockene JK, Barrett SV, Ma Y, and Hebert JR. A longitudinal study of students' depression at one medical school. Journal of the Association of American Medical Colleges. 1997.72.6. Available at: <http://works.bepress.com/ockenej/109>
- Snowdon J, Mackintosh S. Depression and dementia in three Sydney hotels. Australasian Journal on Ageing. 2008 Dec; 8(4) 24-28
- Vaz RF, Mbajjorgu EF, Acuda SW. A preliminary study of stress levels among first year medical students at the University of Zimbabwe. Cent Afr J Med. Sep 1998; 44(9): 214-9
- Radcliffe C and Lester H. Perceived stress during undergraduate medical training: a qualitative study. Med Educ. Jan 2003; 37(1): 32-8
- Abdulghani HM. Stress and depression among medical students: A cross sectional study at a medical college, in Saudi Arabia. Pak J Med Sci. Jan-Mar 2008; 24(1): 12-17
- Yiu V. Supporting the well-being of medical students. CMAJ. Mar 2005; 172(7): 889-890
- Supe AN. A study of stress in medical students at Seth G.S. Medical College. J Postgrad Med. 1998; 44:1-6
- Firth J. Levels and sources of stress in medical students. BMJ. 1986; 292:1177-1180
- Miller GD, Miller EC, Peck OC. Medical student needs assessment and student affairs programming. J Med. Educ. 1981; 56: 518-20
- Helmert KF, Danoff D, Steinert Y, Young SN. Stress and depressed mood in medical students, law students and graduate students at McGill University. Acad Med. 1997; 72(8): 708-14
- Goldin SB, Wahi MM, Farooq OS, et al. Student Quality of life Declines during Third Year Surgical Clerkship. Journal of Surgical Research. Nov. 2007; 143(1): 151-157
- Verbuegge LM. Gender and health: an update on hypothesis and evidence. J Health Soc Behav. Sep 1985; 26(3)156-82
- Enns MW, Cox BJ, Sareen J, Freeman P. Adaptive and maladaptive perfectionism in medical students: a longitudinal investigation. Med Educ. Nov 2001; 35 (11): 1034-42
- Amaral GFD, Gomide LMDP, Batista MDP, et al. Depressive symptoms in medical students of Universidade Federal de Goias: a prevalence study. Rev Psiquiatr RS. 2008; 30(2): 124-130
- Toews MD, Lockyer JM, Dobson DJ, Simpson E, Brownell AK, Brenneis F et al. Analysis of stress levels among medical students residents and graduate students at four Canadian schools of medicine. Acad Med. Nov. 1997; 72(11): 997-1002