

STUDY REGARDING DEPRESSION AMONG MEDICAL STUDENTS OF NISHTAR  
MEDICAL COLLEGE, MULTANDr. Humaira Siddique\*<sup>1</sup>, Dr. Uzma Aziz<sup>2</sup> and Dr. Sulma Bibi<sup>3</sup><sup>1,3</sup>Nishtar Medical College Multan.<sup>2</sup>Independent Medical College Faisalabad.

\*Corresponding Author: Dr. Humaira Siddique

Nishtar Medical College Multan.

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## ABSTRACT

**Background:** Depression is psychological disorder that affects the person's mood, physical functions and social interactions. Medical students remain under stress that often exerts a negative effect on the academic performances, physical health and psychological well-being of students. **Objective:** To assess the exposure to different stressors and the prevalence of depression among medical students at different levels of education, taking gender differences into account. **Methodology: Study Design:** Cross-sectional study. **Setting:** Nishtar Medical College Multan, **Duration:** April 2017 to June 2017. 100 students of either sex of Nishtar Medical College were included in the study. A predesigned, pretested questionnaire and counting sampling technique was used to collect the data. Hamilton depression scale was used to assess depression. The data was entered and analyzed by using SPSS version 16. **Results:** This study included 200 undergraduate medical students to assess prevalence of depression. Mean age was  $20 \pm 2$  years with age range of 17-26 years. 45 students were mildly depressed, 26 moderately and 30 were severely depressed, whereas, 99 students were normal. **Conclusion:** High prevalence of depression was found in medical in undergraduate level. Students it poses additional challenges for student's support service delivery.

**KEYWORD:** Depression, Medical students, Undergraduate.

## INTRODUCTION

Medical education is perceived as being stressful. It is characterized by many psychological changes in students. Medical students encounter multiple anxieties in transformation from insecure student to young knowledgeable physician. There is a growing concern about stress in medical training. Studies have observed that medical students experience a high incidence of personal distress during their undergraduate course. High levels of stress may have a negative effect on mastery of the academic curriculum. Stress, health and emotional problems increase during the period of undergraduate medical education. This can lead to mental distress and has a negative impact on cognitive functioning and learning.<sup>[1]</sup> Medical education is perceived as being stressful. It has been observed that medical students experience a high incidence of personal distress during their undergraduate course. High level of stress may have a negative effect on mastery of the academic curriculum. Stress, health and emotional problems increase during the period of undergraduate medical education.<sup>[3]</sup> This can lead to mental distress and has a negative impact on cognitive functioning and learning.<sup>[4,5]</sup> The objectives of the study was to determine

the prevalence of depression among medical students of Nishtar Medical College, Multan.

## METHODOLOGY

This was a cross sectional study that was used to measure the prevalence of depression, stress and related factors among the Medical students of 1<sup>st</sup> year to final year.

**Setting:** Nishtar Medical College, Multan.**Duration of Study:** From April 2017 to June 2017.**Study Population:** Medical students of Nishtar Medical College, Multan.**Sample Size:** Study was conducted on 200 Medical students half of them were females and other half were male. The study technique used was stratified sampling, in which 40 students from each class were selected randomly.**Inclusion Criteria:** All the medical students of Nishtar Medical College, Multan, willing to give data.

**Exclusion Criteria:** Unwilling students were excluded.

**Data Collection:** Hamilton scale of depression was used to assess prevalence of depression among medical Students.<sup>[1]</sup> Depression was labeled as “no depression” (<10 score), “Mild depression” (10-13 score), “Moderate depression” (14-17 score) and “severe depression” (17 and above score). Predesigned questionnaire containing variables like age, sex and various questions regarding depression was used to collect the data regarding prevalence of depression among medical students the data was entered and analyzed by using SPSS version 16.

## RESULTS

Data was collected from 200 students giving a response rate of 100% out of them 100 were male and 100 were females. There were 49.5% students who were non-depressed. (Table I).

**Table I: Overall level of depression among medical students.**

Level of depression (score)	Frequency	Percent
Non-depressed (<10)	99	49.5%
Mildly depressed (10-13)	45	22.5%
Moderately depressed (14-17)	26	13 %
Severely depressed (> 17 )	30	15%
Total	200	100%

**Table II: Depression according to sex.**

Depression Level	Sex		Total No (%)
	Female No (%)	Male No (%)	
Non-depressed	49 (49.4%)	50 (50.6%)	99 (49.5%)
Mildly depressed	15 (15%)	30 (30%)	45 (22.5%)
Moderately depressed	24 (24%)	2 (2%)	26 (13%)
Severely depressed	12 (12%)	18 (18%)	30 (15%)
Total	100 (100%)	100 (100%)	200 (100%)

**Table III: Depression according to clas.**

	Level of Depression				Total
	Non-depressed	Mildly Depressed	Moderately Depressed	Severely depressed	
1 <sup>st</sup> year	16 (40%)	10(25%)	8 (20%)	6 (15%)	40(100%)
2 <sup>nd</sup> year	12 (30%)	6 (15%)	6 (15%)	16 (40%)	40(100%)
3 <sup>rd</sup> year	26 (65%)	14 (35%)	0 (0%)	0(0%)	40(100%)
4 <sup>th</sup> year	30 (75%)	2 (5%)	6 (15%)	2 (05%)	40(100%)
5 <sup>th</sup> year	15 (37.5%)	14 (35%)	6 (15%)	6 (15%)	40(100%)
Total	99(49.5%)	45 (22.5%)	26(13%)	30(15%)	200(100%)

## DISCUSSION

Medicine has always been regarded as popular choice in tertiary education.<sup>[9-15]</sup> A descriptive self-administered questionnaire based study got a response rate of 100% which provided an adequate sample size to fulfill the objective of this study. The result of this study indicated higher prevalence of stress in our undergraduate students. The level of stress or depression varied between stages of education. This increased level of stress indicated a decrease of psychological health in our students which may impairs student's behavior, diminishes learning, and ultimately affect patient care. Overall prevalence of stress in this study was 53% which is consistent with the results of studies done at private university of Pakistan where the prevalence rate was 60%,<sup>[12]</sup> at Saudi Arabia 63%,<sup>[16]</sup> at Thai 64%,<sup>[11]</sup> and at Egypt 57.9%.<sup>[12]</sup> The prevalence of depression was higher among female medical students 56% as compared to male 50%. The study results were coherent with the results conducted at Saudi Arabia where prevalence of depression was more in females as compared to males.<sup>[16]</sup> The difference in the depression rate might be

due to more leisure time activities, better interaction with faculty, proper guidance and advisory services. The negative effects of long and tiring medical education on the psychological status of students have been shown in several studies. A study from UK showed that one third of psychiatrically ill students did not graduate from the college.<sup>[17]</sup> The changes appear to be significant during the first year. Therefore with early identification and with effective psychological services, possible future illness may be prevented. Besides educational demands, social and friendship-related factors are reasons for psychological disturbance in our students. Our data suggest that first and second year students who have the higher level of stress should be supported well by student support system as they may be able to cope up with the stress properly in later years and at higher level of education. It is also important to target prevention strategies at the students who have mild or moderate level of psychological stress in order to prevent the development of more serious conditions.

That study found that depression was significantly associated with pressure prior to exam. The long hours as well as difficulty in lectures and tutorials among medical students would be due to information overload.<sup>[16]</sup> Findings of our study were not consistent with the findings at Nepal 20.9%,<sup>[13]</sup> at and Nishtar Medical College, 43.89%.<sup>[12]</sup> The difference in the depression rate may be due to the fact that said study reported that emotional disorders in medical students were caused by uncertainties about their lecturer's expectations which led to uncertainties about their academic performances.

In a study,<sup>[17]</sup> depression was most common among the 1st year and the 2nd year medical students as compared to other years. Students should be taught on self-learning and critical thinking, skills, enable them to deal more effectively with the changes in their professional lifetime. This study did not show any association of stress with academic grades and being regular to courses. But stress is found to be significantly associated with physical problems. It is difficult to understand and could not be answered from this study, whether stress is causing physical problems or vice versa.

## CONCLUSION

Our study showed high prevalence of mild to severe depression among medical students. This study presents empirical evidence regarding the psychological health of students in our medical. This suggests that when students are taken into colleges, special care has to be taken to find out obvious psychiatric problems or just psychological distress in them. The major finding is that psychological distress in students is more common than population based estimate; therefore, it may require addressing mental health problems along with common health strategies for our students. Student Mentorship Programs is suggested for most medical faculties, which offers consultation to students who may need assistance by academic staff.

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