



CODEN [USA]: IAJPBB

ISSN: 2349-7750

**INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.1302774>Available online at: <http://www.iajps.com>

Research Article

**PREVALANCE OF STRESS, DEPRESSION AND OTHER
ASSOCIATED FACTORS IN THE MEDICAL STUDENTS: A
CROSS SECTIONAL STUDY**¹Dr. Sunnaan Amanat and ² Dr. Hannaan Amanat¹Holy Family Hospital Rawalpindi, Pakistan²Jinnah Hospital Lahore, Pakistan**ABSTRACT:**

OBJECTIVE: To realize factors behind the rising study related anxiety in female medical students. To evaluate its intensity and frequency of different symptoms.

STUDY DESIGN: A systematic cross-sectional study

METHODS: The study conducted in Nishtar Hospital Multan in January 2018. A questionnaire was made and given to the female students of MBBS from all classes. The students present at the time of handing over the questionnaire were informed and an accord was taken from them. Data collection carried out and examined at the end of study.

RESULTS: In this study total of (93) female students took participation and among them 70.50% were found having anxiety in their studies. The anxiety was more commonly found in final year student that and after them 1st and 2nd year students having comprising (75%) maximum out of the total number were found a modest intensity of anxiety roundabout (40.20%) and (38.40) respectively. Rising rate was minimum among the students of 4th year as it was 62%.

CONCLUSION: It was suggested that the present educational structure may have a stressful effect on student's minds and the rate of anxiety is gradually increasing amongst the medical students.

KEY WORDS: Anxiety, Medical Students, Study Related.

Corresponding author:

Dr. Sunnaan Amanat,
Holy Family Hospital, Rawalpindi,
Pakistan

QR code



Please cite this article in press Sunnaan Amanat and Hannaan Amanat., *Prevalance of Stress, Depression and Other Associated Factors in the Medical Students: A Cross Sectional Study*, Indo Am. J. P. Sci, 2018; 05(06).

INTRODUCTION:

Pakistan have shown a higher prevalence of anxiety and depression among medical students. Despite knowledge about anxiety, stress and other health hazards, the health professionals are often not aware of the factors that contribute to their own general and mental. Several factors have been identified that contribute burnout and lack of job satisfaction in the field of medicine. This study was conducted to see the prevalence of study related anxiety in our set up and the commonest symptoms which these students come across in their daily life due to this anxiety. Anxiety is nervous disorder marked by excessive uneasiness it causes fear, distress and upsetting. The persons facing anxiety response to an apparent danger that could be real or imaginary and the root cause could be based on feelings and beliefs. Anxiety disorder directly effects our feelings and behavior and can express symptoms [1].

In our society a group of people can feel a general state of anxiety disorder in their routine life before facing difficult and competitive situations, interviews and social meetings etc. No doubt these feelings are considered normal as one is concerned to his tasks and responsibilities. Stress and anxiety is taken as a serious problem when it spoils routine and normal healthy habits by indulging into sleep disorders and practical malfunctions. In general sense anxiety and stress occur when a response is uncommon with what might be common and normally expected in an ongoing condition [2]. Anxiety in its mild status is unclear and unsettling but the severe and intense anxiety can be debilitating and seriously rising the tension, depression and anxiety in the mass population round about eleven to nineteen percent for any one-year duration. In working force group \$13 billion are spent regarding medical care as per year and approximately \$45 billion in lost productivity. A sound mind has a sound body and mental health is directly involved with the physical health and performance at job [3]. Disorders related to anxiety, depression and stress leads to absenteeism and state of misconfident. Medical students may have poor performance and bad results due to anxiety, stress and depression disorders as these subsidize disturbance in their academic performance and lead them towards nervousness. Studies Work load, lengthy durations of course, evaluations exams and assessments are major factors for increasing stress among medical students. Medical students took it as the exam of nerves more, instead the exam of knowledge. Excessive fear illogical thinking stress, nervousness, unease resultant from assessment and tests make for exam anxiety and a person's feels it difficult to sustains it to normal. When the students

get into a more practical training and the change of status from pre-clinical to clinical training causes a huge increase in their anxiety and it is critical stage as well [4].

METHODS:

First professional level (including first and second year to fifth year) was under consideration in this study at Nishtar Hospital Multan in January 2018. The main concerns of the study were to realize factors behind the rising study related anxiety in female medical students. To evaluate its intensity and frequency of different symptoms. There are near about 550 students at Nishtar Hospital Multan from first to fifth year. in our study the students were randomly selected from all classes it was ensured that the students had completely filled the forms and are willing to participate in this study. They were assured for keeping their identities secret. A managed questionnaire was given to them. Questions were based upon the stress and anxiety related to studies. In each questions student were to rate their anxiety in four categories in numbers. This study was conducted in normal session routine far away from examinations. Students were informed not to write down their particulars on the given questionnaire. Students from fourth years MBBS directed this survey under the supervision of their senior professors from the department of preventive medicine Nishtar Hospital Multan. All the data was carefully accumulated and accomplished and examined statistically.

RESULTS AND DISCUSSION:

Total (95) Students from first year to final year were involved in the study after completion of questionnaire all the participants involved in this study were female students. It was found that (72%) students which include (68) students were having anxiety in their studies and (23%) (21 students) were found free from study related anxiety and (5%) indicated symptoms of depression. Outcomes indicate that (75%) anxiety in first professional level (first and second year) which was decreased to (68%) and (63%) in (third and fourth year) we found it much adverse that (83%) students from (final term) were found having anxiety. In the same way (3%) students from (first and second year) were found having depression and (6%) were having depression in (final year) this depicts a great variation. (22%) students were found free showing stability roundabout (23%) up to (third year) and the students from (fourth year) feel more relaxed as (11%) were found having no signs of disturbance or effects of studies on their personal lives.

Table – I: Overall prevalence of anxiety and depression among medial students

Factor	Overall Percentage	First/Second Year	Third Year	Fourth Year	Fifth Year
No Effect	23	21	22	33	11
Anxiety	72	75	68	63	83
Depression	5	1	9	3	6

Table – II: Prevalence of anxiety and depression among students from 1st year to 5th year

Intensity Prevalence	First/Second Year	Third Year	Fourth Year	Fifth Year
Mid	37	37	53	35
Moderate	34	41	31	41
Severe	29	20	15	23

Table – III: Prevalence of different anxiety symptoms among students

S No	Questions	Intensity	Number	Percentage
1	Do you have recurrent fearful thoughts about studies which you want to avoid but cannot do so?	0-No Effect	15	16.13
		1-Mild Anxiety	27	29.03
		2-Moderate Anxiety	34	36.56
		3-Severe Anxiety	16	17.20
		4-Depression	1	1.08
2	Are you constantly tensed, worried or on the edge about your studies?	0-No Effect	10	10.75
		1-Mild Anxiety	29	31.18
		2-Moderate Anxiety	38	40.86
		3-Severe Anxiety	13	13.98
		4-Depression	3	3.23
3	Do you have fear of losing control or going crazy when you cannot understand something written in your books?	0-No Effect	34	36.56
		1-Mild Anxiety	25	26.88
		2-Moderate Anxiety	20	21.51
		3-Severe Anxiety	12	12.90
		4-Depression	2	2.15
4	Have you felt change in the social activities after medical studies start?	0-No Effect	35	37.63
		1-Mild Anxiety	31	33.33
		2-Moderate Anxiety	17	18.28
		3-Severe Anxiety	9	9.68
		4-Depression	1	1.08
5	Do you feel like danger in the examination?	0-No Effect	23	24.73
		1-Mild Anxiety	28	30.11
		2-Moderate Anxiety	19	20.43
		3-Severe Anxiety	14	15.05
		4-Depression	9	9.68
6	Do you experience heat pounding panic in examinations?	0-No Effect	23	24.73
		1-Mild Anxiety	23	24.73
		2-Moderate Anxiety	24	25.81

		3-Severe Anxiety	19	20.43
		4-Depression	4	4.30
7	Do you feel feeling in the stomach on the announcement of exams?	0-No Effect	26	27.96
		1-Mild Anxiety	25	26.88
		2-Moderate Anxiety	28	30.11
		3-Severe Anxiety	11	11.83
		4-Depression	3	3.23
8	Do worrying thoughts about failing capture you?	0-No Effect	7	7.53
		1-Mild Anxiety	32	34.41
		2-Moderate Anxiety	26	27.96
		3-Severe Anxiety	17	18.28
		4-Depression	11	11.83
9	Do you think that you are in a war during medical college studies?	0-No Effect	17	18.28
		1-Mild Anxiety	22	23.66
		2-Moderate Anxiety	23	24.73
		3-Severe Anxiety	24	25.81
		4-Depression	7	7.53
10	Do you think that your time is being wasted during normal activities?	0-No Effect	20	21.51
		1-Mild Anxiety	34	36.56
		2-Moderate Anxiety	23	24.73
		3-Severe Anxiety	9	9.68
		4-Depression	7	7.53

Circulation of intensity of stress and anxiety slight, modest or intense among students who represented the status of their anxiety and stress from first year to final year. The students who suffered from anxiety in initial (first and second) years maximum out of the whole faced slight and modest degree of stress and anxiety comprising (37%) and (34%) respectively and this state remain same up to third year but when these students reached in the final year maximum of the students (54%) have minor or slight anxiety and only(15%) indicated the state of intense anxiety.in final year again maximum of the students (42%) indicated average intense anxiety followed by slight intense anxiety among (35%) students overall in classes maximum students (42%) were found having slight anxiety followed by modest rate in (38%) and only (20%) were found intense anxiety in their studies. Rising rate of anxiety is above all in final year students which is roundabout (36%) [5].

Maximum number of students have modest rate of anxiety which comprises (34%) students and the mild anxiety comprises of (27%) students as indicated by different symptoms of anxiety. approximately (39%) students indicated average intensity of constant stress

in their studies. In the same way it was found (23%) students with slight anxiety and (24) students with average anxiety which overall were comprising half of the total strength showed nervous feelings related to their exams. In the same way half of the students (28 students) have average intense anxiety of butterfly feelings in their stomach due to anxiety. It was noted that (35%) comprising (32%) students have slight and (27%) comprising (26%) students were fearing being unsuccessful in exams. (18%) comprising (17%) students were found calm and peaceful and having no anxiety. Remaining students about (80%) were having slight to intense feelings causing anxiety [6].

Tertiary education has caused a lot of stress for the undergraduate students as it has caused depression and negative effects on psychological and bodily health it has caused malfunctioning in the development for both the body and the mind which further leads to anxiety and stress causing poor academic performances in studies and malfunctioning in behaving by transforming bad attitude in their later life. The students of medical represent a highly educate personalities and they face

many of difficult cases and challenges during their training and being developed from the student into a young doctor [7]. They face many emotional as well as psychological aspects so it requires to counter anxiety, stress, and depression associated among medical students. There should be a counselling session and rehabilitation session as to save them from anxiety and stress disorders leading to cognitive malfunctions and effects on learning, it is also observed that medical students found it almost difficult to seek a proper guidance for their mental health problems and considering their mental state as on weak point [8]. There must be seminars and session to highlight this situation as to spread awareness among students as well others including medical faculty and senior staffs, organizations and concerning ministries. On the first step students must be encouraged to seek guidance and counselling privileges. It is appreciating that various students have represented their selves to indicate the stress disorders that medical students experience in their studies and helped coping methods for reducing anxiety. Factors affecting the cognitive skills and developing anxiety disorders must be detected and cured in appropriate time [9].

Stress and anxiety is common in all over the world. In advanced countries roundabout (47%) population suffers from anxiety and stress disorders and among them (35%) get proper treatment through medical care. According to an approximation (50 Million) people are suffering from various types of major anxiety and stress disorders in all over the world. In rural areas (40%) people indicated various symptoms of anxiety. It is estimated that in few fears anxiety will be the strong root cause for maximum mental and psychological disabilities in the world [10]. Study related anxiety cannot be underestimated as the competition among the mind and contents of the course emphasize on big efforts which can cause deep effects on mental capabilities. The students are more likely to be the victim of stress and anxiety as being learner and having limited experience. In case of medical students the chances become wider for being victim of stress as compared to the students of other fields. Not all the students but a large number of medical students experience anxiety [11].

Distress is not illogical but being affected is illogical and definitely it spoils performance of the students. It is reported that (35%) of medical professionals have been victim of stress and anxiety a team investigated on medical student's psychological distress of US and Canada and they find a rising rate of stress and depression among them consistently in

the high rate as compared to the general public and peer group [12].

Students from all over the world shows a prominent figure as shown in statistics (41%) from Malaysia, (57%) from Singapore and University of Mississippi USA (23%) were found having various stress and anxiety and emotional disorders [13].

In the same way in Pakistan it is reported that more than half of the students of medical institutions are victim of symptoms of stress and anxiety disorders like insomnia, anorexia, nausea due to lengthy and tough academic routine and extra hard working. These facts and figures promote our finding in the study in which rising rate of anxiety and stress is about (72%). Furthermore, medical students are comparatively more prone to emotional and psychological disturbances as compared to other fields' students. Female students are more helpless in competing stress as compared to male students as psychological distress rate is higher in female students. Several other studies also verify the comparative big figure of female student victims to stress and anxiety as compared to male students [14]. It is interestingly found that (34%) of Pakistani female physicians were found stressed and among them (32%) were house officers. The participants of our study were female students and among them (72%) were having various kind of slight to intense anxiety and about (5%) were found in studies related depression.

An Indian students team reported that in initial years (first and second) (59%) and (65%) the symptoms were significantly higher as compared to later years (third, fourth) (34%) and (37%) [15].

In the same way a team of students from turkey detected that the rate of anxiety and depression was higher in students in initial years (first and second) and the anxiety rate is higher in the new comers as compared to the older students who had come up with some exams and had been successfully gone through it i.e. (3rd and 4th) year students. It can be the result of new environment and place [16]. In contrary we find that the students of fourth year were found having slight rate of anxiety and stress while the students from (fifth year) and the initial (first and second year) were having the highest rate of anxiety and stress related to studies. There could be more pressure due to first exposure during first professional because students are facing completely different environment, curriculum, strategies, methodologies and society. In last year the fear of upcoming challenge, clinical attachments workload and lengthy courses have psychological pressure

hence promoting rise to stress and anxiety in studies. We find in our studies that the students of (fourth year) students were having slight anxiety and less than all in comparison [17].

Studies show that there is weak focus on the study related anxiety and stress as there is minor data available related to the reported anxiety and stress related to studies, dropout cases, academic performance professional developments and resultantly there is lack of policies and counter measures and a well-defined set up to cope up study related stress and anxiety related to medical students it was observed that students living in university hostels were apparently more depressed than those of living at home. The students with the incidents in their historical backgrounds were found more stressed and anxious. Students in the first two years of medical school were more stressed and anxious and the students with good and healthy social circle were found less anxious and stressed [17].

A student team in Karachi detected commonly found anxiety symptoms among medical students were sleeping disorders, anorexia, panic attacks, insomnia, and heart pounding panics, physical symptoms like butterflies in stomach and feelings of upheaval around their environment during exam session.

A large number of students also spoiled their social relation due to stress and anxiety and the limited number of colleagues and sharing nothing with friends also increased their depression. Overall poor health status, exam pressure and conflicts with class mates the personality trait of inwardness were associated with the presence of stress and anxiety. Many students reported that they phobic while public addressing. A study suggested that in the initial stage at medical school mental health of medical students get worse and remains poor throughout training and students may harmfully influence their academic career and may lead to occurrence of smoking habits and use of tranquilizing medicines and other negative effects on their health.

Curriculum and course at medical school must ensure every graduate knowledgeable skillful and professional [16]. Relying on these one may have a good time at medical school and it would be a time of wellbeing despite its difficulties and challenges. But inappropriately studied from various parts of the world and in our country presents a picture that medical students are facing high rate of anxiety, stress and depression as compared to the other students.

CONCLUSION:

It was suggested that the present educational structure may have a stressful effect on student's minds and the rate of anxiety is gradually increasing amongst the medical students. Pakistan have shown a higher prevalence of anxiety and depression among medical students Despite knowledge about anxiety, stress and other health hazards, the health professionals are often not aware of the factors that contribute to their own general and mental health. Several factors have been identified that contribute burnout and lack of job satisfaction in the field of medicine. This study was conducted to see the prevalence of study related anxiety in our set up and the commonest symptoms which these students come across in their daily life due to this anxiety.

REFERENCES:

1. Kulsoom, B. and N.A. Afsar, Stress, anxiety, and depression among medical students in a multiethnic setting. *Neuropsychiatric disease and treatment*, 2015. 11: p. 1713.
2. Yoo, Y.-G., et al., The effects of mind subtraction meditation on depression, social anxiety, aggression, and salivary cortisol levels of elementary school children in South Korea. *Journal of pediatric nursing*, 2016. 31(3): p. e185-e197.
3. Sharma, N., et al., Rising concern of nomophobia amongst Indian medical students. *International Journal of Research in Medical Sciences*, 2017. 3(3): p. 705-707.
4. Ibrahim, M.B. and M.H. Abdelreheem, Prevalence of anxiety and depression among medical and pharmaceutical students in Alexandria University. *Alexandria Journal of Medicine*, 2015. 51(2): p. 167-173.
5. Azad, M.C., et al., Sleep disturbances among medical students: a global perspective. *Journal of Clinical Sleep Medicine*, 2015. 11(01): p. 69-74.
6. Wahed, W.Y.A. and S.K. Hassan, Prevalence and associated factors of stress, anxiety and depression among medical Fayoum University students. *Alexandria Journal of Medicine*, 2017. 53(1): p. 77-84.
7. Shi, M., et al., The mediating role of resilience in the relationship between big five personality and anxiety among Chinese medical students: a cross-sectional study. *PLoS One*, 2015. 10(3): p. e0119916.
8. Eva, E.O., et al., Prevalence of stress among medical students: a comparative study between public and private medical schools in Bangladesh. *BMC research notes*, 2015. 8(1): p. 327.

9. Kozina, Z.L., et al., Psychophysiological characteristics of female basketball players with hearing problems as the basis for the technical tactic training methodic in world level teams. 2016.
10. Qamar, K., N.S. Khan, and M. Bashir Kiani, Factors associated with stress among medical students. *J Pak Med Assoc*, 2015. 65(7): p. 753-755.
11. Moutinho, I.L.D., et al., Depression, stress and anxiety in medical students: a cross-sectional comparison between students from different semesters. *Revista da Associação Médica Brasileira*, 2017. 63(1): p. 21-28.
12. Cuttilan, A.N., A.A. Sayampanathan, and R.C.-M. Ho, Mental health issues amongst medical students in Asia: a systematic review [2000–2015]. *Annals of translational medicine*, 2016. 4(4).
13. Choueiry, N., et al., Insomnia and relationship with anxiety in university students: A cross-sectional designed study. *PloS one*, 2016. 11(2): p. e0149643.
14. Younes, F., et al., Internet addiction and relationships with insomnia, anxiety, depression, stress and self-esteem in university students: a cross-sectional designed study. *PloS one*, 2016. 11(9): p. e0161126.
15. Deb, S., E. Strodl, and J. Sun, Academic stress, parental pressure, anxiety and mental health among Indian high school students. *International Journal of Psychology and Behavioral Sciences*, 2015. 5(1): p. 26-34.
16. Fares, J., et al., Extracurricular activities associated with stress and burnout in preclinical medical students. *Journal of epidemiology and global health*, 2016. 6(3): p. 177-185.
17. Sood, M., et al., Poor correlation of stress levels and menstrual patterns among medical students. *Journal of Asian Behavioural Studies*, 2017. 2(5): p. 73-78.