

ORIGINAL ARTICLE

Use of Anxiolytics during Professional Examinations among Medical and Allied Students of Azra Naheed Medical College, LahoreMUHAMMAD ZAHID¹, MUHAMMAD ZAHID LATIF², MUHAMMAD ATIF QURESHI³¹Professor/HOD Pharmacology Deptt. Azra Naheed Medical College/Superior University Lahore²Professor/HOD Med. Education Deptt. Azra Naheed Medical College/Superior University Lahore³Professor of Medicine Azra Naheed Medical College/Superior University Lahore

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ABSTRACT

Background: Anxiety is a common problem in our society. It assumes a special challenge when incidence of anxiety is high in medical students as compared to general population. This study was aimed to evaluate factors causing anxiety and the use of anxiolytics by medical & allied students prior to or during professional examinations.

Methods: A cross sectional study was conducted from May 2022 to September 2022 in Azra Naheed Medical College among 3rd year MBBS & Allied health sciences students. A predesigned questionnaires were distributed among students through google forms recruiting 144 male/female students. A questionnaire was comprising of questions related to the use of anxiolytics, their reasons and how to cope up anxiety in future. The data of the students was finally entered for analysis.

Results: Out of 144 students, 79(55%) were female respondents whereas 65(45%) were males. When asked about the use of anxiolytics, 124(86%) students responded that they never used anxiolytics, only 5(3%) students admitted that they are in the habit of using anxiolytics. 109(74%) students found to be on anxiolytics to overcome stress. 12(8%) students experienced increase in the concentration in their studies after using anxiolytics. 19(14%) students experienced undesired effects. Only 9(6%) male students committed that anxiolytics helped in scoring good grade during examinations due to increase in concentration. Majority of the students i.e., 94(65%) agreed/strongly agreed to discourage the use of anxiolytics. In future, the students committed to adopt different methods instead of using anxiolytics to cope up stressful conditions.

Conclusion: It is concluded that psychological screening of the students should be done at the time of induction in medical colleges. During their study, counselling system should be established which may be helpful for reduction of stress and anxiety.

Key words: Anxiety, Social apprehension, Cognitive behavioral therapy

INTRODUCTION

Anxiety is a normal response when someone indulge in a challenge or nerve-racking situations but it lasts only for a certain period of time¹. Dejected attitude, decreased energy, feeling of guilt, loss of attention, disturbance in sleep & appetite are consequently leading to physical symptoms like palpitations, panic attacks and tremors². Anxiety disorders usually adapt a progressive, chronic and recurrent course³. General anxiety disorder presents with performance and social apprehensions accompanied by phobias and major depressive disorders if left untreated⁴. Genetics and environmental stressors are two main sources of anxiety disorder. Genetics alone is enough to precipitate the anxiety disorders when combined with external stimuli⁵. People with social and family issues, suffering from chronic diseases and illiteracy are more prone to suffer from anxiety disorders⁶.

According to large population-based surveys, up to 33.7% of the population are affected by an anxiety disorder during their lifetime⁷. Although prevalence assessments are lower in males than females, yet the impediment & morbidities associated with anxiety disorders have been increasing in males⁸. Anxiety disorders are often associated with other psychological illnesses like depression leading to negative impact on people's daily life, quality of life and wellbeing⁹. First degree relatives of anxiety patients are four to six times more vulnerable to develop anxiety disorders when compared with general population¹⁰.

It has been observed that incidence of anxiety disorders is fairly high in medical students as compared to general population which not only affect their health but also their academic carrier¹¹. Suicidal ideation, exhaustion and medical college dropouts are the consequences of stress among medical students¹². Furthermore anxious medical students can't be enthusiastic and empathic to deal sick people. According to a study, every 1 in 3 medical students face anxiety disorders globally¹³. Stressful learning environment of institutions, heavy workloads, lack of time, competition among colleagues, poor communication issues with

faculty and financial burdens are observed some of the factors leading to anxiety in medical students¹⁴. In under developed countries like Pakistan anxiety remains undiagnosed leading to a delay in seeking mental health care assistance¹⁵.

Though benzodiazepines provide a rapid and effective anxiolytic effect in anxious patients, yet they are used as adjuvant because of their potential for dependence & impairment of cognitive as well as psychomotor functions¹⁶.

This study is aimed to evaluate factors causing anxiety and the use of anxiolytics by 3rd year MBBS & Allied Health sciences students prior to or during professional examinations at Azra Naheed Medical College, Lahore.

METHODOLOGY

It is an observational cross sectional study and was conducted at Pharmacology Department Azra Naheed Medical College, Lahore for the period of four months from May 2022-September 2022 after approval of ethical committee. The students of 3rd year MBBS & Allied Health sciences from Azra Naheed Medical College Lahore were selected for the study with their informed consents. Predesigned questionnaires were distributed among the students through google forms. Those students who submitted incomplete questionnaires were excluded. The students were also be informed about the objectives of the study and their participations were absolutely voluntary, confidential and anonymous. The students were allowed to respond in their own time and privacy. The first part of the questionnaire included bio-data of the students i.e. gender, age and year of admission, and second part was comprising of the questions regarding the use of anxiolytics and their reasons prior to or during examinations, whether anxiolytics were helpful during examinations playing some vital roles in passing or securing good grades or experiences of students about adverse effects. In the end the students were asked whether the anxiolytics should be discouraged among students. If yes, what methods you will adapt in future to cope up anxiety.

The cut of scores (yes or no, always, never, seldom) were mentioned with each question & students ought to answer them as prescribed. Total number of students who responded by filling the Google forms comprised of 229. The sample size was calculated

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by Raosoft sample size calculator which came out as 144 with margin of error 5%, confidence level 95% and response distribution 50% respectively. The simple randomized sampling technique was applied. The students were allowed to check their scores from the principle investigator and if needed might consult the psychiatrists for therapy in full confidence. The data of the students was finally entered for analysis by using SPSS version 22. Independent sample t-test was used for comparison. All of the questions were multiple choice types, so p-values was only be quoted where required.

RESULTS

Out of 144 students, 79(55%) were female respondents whereas 65(45%) were males. Majority of the students 105(73%) got admission during the years 2018-2019. (Pie chart 1,2,3)

Chart 1

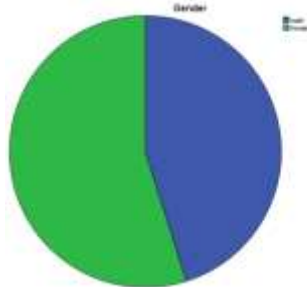


Chart 2

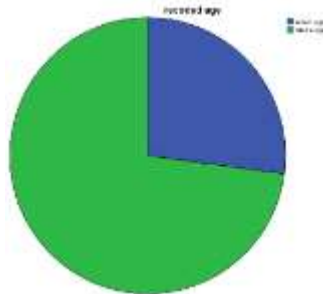
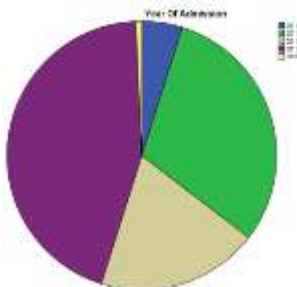


Chart 3



124(86%) students (52% females & 34% males) responded that they never used anxiolytics ever before except exams, only 5(3%) students admitted they were in the habit of using anxiolytics either during or prior to examinations. 15(9%) students committed that they seldom used anxiolytics. When compared, our p-value is less than 0.05, so both variables have statistically significant relationship (p=0.002) Table 1(a). While ruling out the reasons for anxiolytics consumption by medical students, 109(74%) students (females 40%, males 34%) found to be on anxiolytics to overcome stress. 12(8%) students both males & females experienced increase in the concentration in their studies after using anxiolytics. Only 2(1%) students came out as regular users while 21(14%) male/female students spoke of psychological effects by anxiolytics. Table 1(b).

Contrary to above questions, only 16(11%) both male & female students commented to get benefits in their studies by using anxiolytics in exams. In view of 51(35%) students (13% males & 22% females), anxiolytics did not have any role. But majority of the students 77(54%) both males & females did not comment at all about the beneficial effects of anxiolytics. When compared these two variables, our P value is statistically significant i.e., 0.007 (P<0.05). Table 2(a). 19(14%) male & female students experienced undesired effects. On the other hand, 91(63%) out of which 39% females & 24% males students did not complain of any undesired effects while 34(33%) male/ female students could not rationalize the side effects (Table 2-b)

About the association of anxiolytics in passing or securing good grades, only 9(6%) male students commented that anxiolytics helped in scoring good grade during examinations due to increase in concentration whereas 103(71%) i.e 45% female & 26% male students declined the above statement while 32(33%) both male & female students could not find this relationship (P value=0.000). Table 3(a). While asking about whether the anxiolytics should be discouraged to cope up stress, majority of the students i.e., 94(65%) out of which 38% females & 27% males agreed/strongly agreed to discourage the use of anxiolytics, only 22(15%) both male & female students were still in favor of using anxiolytics while 28(20%) students did not give any opinion over it. Table 3(b)

When asked about the percentage involvement of students in taking anxiolytics, 83(58%) both male & female students estimated that up to 30% of the students were using anxiolytics, while 41(30%) male & female students uttered the involvement of 30 to 60% of the students and 6(4%) students declared very alarming situation by giving the statement that 100% students were using anxiolytics (Table 4-a)

When asked, how to overcome the examination induced stress, the students commit to adopt different methods instead of using anxiolytics i.e., 34(24%) both male & female students prefer to start group study to overcome stress. 32(22%) students are in favour of getting support from their families in case of stressful conditions, where 20(24%) students are going to start meditation to overcome stress/anxiety in future. Unfortunately, 10(7%) students still want to continue taking anxiolytics to alleviate anxiety, whereas 48(34%) students are of the opinion to take help of other means like playing games, watching films, using internets, joining gyms/clubs etc. to circumvent stressful situations. Table 4(b)

Table 1:

1(a)	variable	category	2 nd variable	always	never	seldom	P- value	
	Gender	Male	Have you ever taken anxiolytics prior to or during exams?	5 (3%)	49 (34%)	11 (7%)	.002	
		Female		0 (0%)	75 (52%)	4 (2%)		
	Total			5(3%)	124(86%)	15(9%)		
1(b)			Reasons for using anxiolytics.	Over Come stress	Increase Concentration	Placebo effect	Regular User	P- value
	Gender	Male		50 (34%)	5 (3%)	8 (5%)	2 (1%)	.402
		Female		59 (40%)	7 (5%)	13 (9%)	0 (0%)	
	Total			109(74%)	12(8%)	21(14%)	2(1%)	

Table 2:

2(a)	Gender	Male	Are anxiolytics helpful in anyway during exams?	Yes	No	No Comment	P- value
		Female		13 (9%)	19 (13%)	33 (23%)	
Total	3 (2%)	32 (22%)	44 (31%)				
	16(11%)	51(35%)	77(54%)				
2(b)	Gender	Male	Did you experience any adverse effect after taking anxiolytics?	Yes	No	May be	P- value
		Female		11 (8%)	35 (24%)	19 (13%)	
Total	8 (6%)	56 (39%)	15 (10%)				
	19(14%)	91(63%)	34(33%)				

Table 3

3(a)	Gender	Male	Do you think anxiolytics have played a vital role in passing or securing good grades in examination	Yes	No	May be	P- value	
		Female		9 (6%)	38 (26%)	18 (13%)		.000
Total	0 (0%)	65 (45%)	14 (10%)					
	9(6%)	103(71%)	32(33%)					
3(b)	Gender	Male	Do you think anxiolytics should be discouraged among young students to cope up with stress?	Agree	Strongly Agree	Disagree	Cannot Comment	P- value
		Female		19 (13%)	22 (15%)	10 (7%)	14 (10%)	
Total	20 (14%)	33 (23%)	12 (8%)	14 (10%)				
	39(27%)	55(38%)	22(15%)	28(20%)				

Table 4:

4(a)	Gender	Male	According to you what percentages who are taking anxiolytics in exams have 3?	0-30%	30-60%	61-90%	100%	P- value	
		Female		40 (28%)	17 (12%)	5 (4%)	3 (2%)		.778
Total	43 (30%)	24 (18%)	9 (6%)	3 (2%)					
	83(58%)	41(30%)	14(10%)	6(4%)					
4(b)	Gender	Male	What method would you prefer to cope up with anxiety in future?	Keep taking anxiolytics	Mediation	Group Study	Family support	others recreation s	P value
		Female		9 (6%)	9 (6%)	16 (11%)	10 (7%)	21 (15%)	
Total	1 (1%)	11 (7%)	18 (13%)	22 (15%)	27 (19%)				
	10(7%)	20(24%)	34(24%)	32(22%)	48(34%)				

DISCUSSION

Anxiety is a reaction to actual or imaginary threats. Depression, special fears, panic disorders and post traumatic stresses are collectively known as generalized anxiety disorders¹⁷.Anxiety usually presents with disturbed sleep, restlessness, loss of concentration, muscle tension and fatigue ¹⁸. Around the globe,the incidence of anxiety is higher among general population as compared to other chronic diseases¹⁹.

Prevalence of anxiety among medical students ranging between 7.7%-65%. According to studies conducted by Travis Tian-CiQuek et al¹³, females are more affected than males which is contrary to our study where male students were more prone to anxiety disorders.Despite lot of modalities & health education, stress/anxiety disorders among medical students are a global concern. Concluding our study, anxiety disturbs cognitive, emotional and rational thinking of students that ultimately affect their academic & daily life pattern. These consequences of anxiety are also described by Garakani et al²⁰. Like our study, large volume of studies proved the incidence of anxiety more among medical students. Najma et al²¹ highlighted the reasons for the use of anxiolytics that medical students face more psychological burdens & stresses during their stay at medical college.These stressful conditions and the use of anxiolytics are also elaborated by our students thus supporting our study. Another study is also in accordance with our study in which Fernanda Brenneisen Mayer et al described the precipitating factors of anxiety like examination pressure, fear of failure, exposure to parents and perceived mistreatment which ultimately can lead to poor academic performance, dropouts and drugs abuse²².

Besides pharmacological agents to treat anxiety, other pillars of management are counselling, use of self-help manuals, recreations and anxiety opposing exercises. The target is to

decrease severity as well as frequency of symptoms, ultimately helping in improving one's quality of life.These remedial approaches are in accordance with our study when asked the students how to cope with anxiety in future²⁰.

In our study,24% of the students are of the opinion to take help of meditation and 34% are determined to go for other means like yoga, gym, etc to alleviate anxiety which is again in accordance with a study conducted by Nibedita Dalpati et al²³who described yoga and meditation could assist students in maintaining physical and mental wellbeing during stressful conditions. Conventionally anxiety is treated with a combination of pharmacological agents and cognitive behavioral therapy²⁴. The pharmacotherapy is not only to decrease intensity as well as frequency of symptoms, yet also helps in improving one's quality of life while cognitive behavioral therapy facilitates to treat anxiety by alleviating the anxiety stimulating factors and decreasing intrinsic fears²⁵.

CONCLUSIONS & RECOMMENDATIONS

Medical profession itself and institutional environment lead to anxiety among medical students which will add to their poor academic performance as well as affect their physical health.

From the above discussion we recommend that psychological screening of the students should be done at the time of induction in medical colleges. This will provide base line mental status of the students. During their study, counselling system should be established which may be helpful for screening and reduction of stress and anxiety for which a fully equipped student psychotherapy unit must be present in the college premises.

Conclusively policies should be made to address anxiety among medical students like student counseling sessions, incentives & initiatives for empowerment and encouragement.

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Conflict of interest: Nil

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