

# Prevalence of Examination Anxiety among Females Medical Students of Private Medical College in Lahore

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## ABSTRACT

**Background:** Education of medical is being stressful which create many psychological changes in students. Levels of stress can lead to disturbances in both physical and mental health. Recently there is a growing concern about stress during undergraduate medical training. The current research has been undertaken to assess the level and potential causes of exam stress among female

**Aim:** To exploring the prevalence of examination anxiety among females medical students of private medical college in Lahore.

**Methods:** It was a cross sectional descriptive quantitative study. The participants enrolled after taking consents from all students' those studying in central park medical college Lahore, pre- designed questionnaire was used to collect the data. The multiple rounds of data collection were done. The data was analyzed by SPSS 20. Statistical test like Independent t- test and chi- square test was applied to obtain the required results.

**Results:** The results showed that the mean age student was 22.14±2.44 years with range from 17-28 years and 165 (55%) were females while 135(45%) were males. 291(97%) were unmarried while only 9(3%) were married medical students. The mean anxiety level on VAS (Visual Analogue Scale) was evaluated as 62.21±23.01 Results distributed at three levels of anxiety among male and female students. A total of 34(11.3%) of students showed little anxiety level during exams while 20(14.8%) male students showed, 141(47%) showed moderate anxiety, and 125(41.7%) showed maximum anxiety levels.

**Conclusion:** This study indicates that level of exam anxiety based on a Visual Analogue Scale in female students of a medical college and also highlights factors such as loss during the exams and takes great effort to memorize simple things during exams which contribute to Exam Anxiety.

**Keywords:** Visual Analogue Scale, Exam Anxiety, Anxiety

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## INTRODUCTION

It is internationally recognized that depression and anxiety are raising problem that reflect the mental health of a population. Medical education is considered stressful as since it is create many psychological and social changes among students. Previous researches conducted in many countries have shown that medical students are more likely to experience anxiety and depression during their studies<sup>1,2</sup>. It is estimated that between 15 and 25% of medical students experience some type of psychiatric discomfort while training in a medical college.<sup>3</sup> It has been reported that patients have experienced stress due to academic demands, examinations, inability to manage them feelings of helplessness, increased mental pressure, psychological tensions and excessive workload<sup>4</sup>. In the medical field, students need to store large amounts of courses, due to shortage of time to review the course and exams is considered the main indicator of stress<sup>5-7</sup>.

Mostly students do not receive personal satisfaction without reviewing many subjects due to the additional burden on the course material. This leads to the emotions

of a sharp demic. Therefore, some students struggle with applications, depending on their ability to meet the requirements of the medical curriculum<sup>8</sup>.

The transition from preclinical to clinical training period was considered as a fundamental phase of medical college in terms of student s 'stress.<sup>9</sup> Stress in medical college can lead to problem later in professional life and many compromise in patient care.<sup>10</sup> The general observation is that anxiety and depression occur during primary medical education, and this increase is more prevalent in women.<sup>11</sup> It is important to know the psychiatric morbidity among medical students, as it involves the development and implementation of programs which decrease mental health problems.

A depressive disorder is a disease that affects the body, mood and thoughts. It influences the way a person eats and sleeps, how they feel about themselves and how they think about things<sup>1</sup>. Without treatment, the symptoms may last for weeks, months or years. However, proper treatment can help most people who suffer from depression<sup>12</sup>.

Medical colleges are considered a stressful environment that often has a negative impact on performance, physical health and mental well-being of the students. Medical education is considered stressful although it is doubtful in this respect but differs from other

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institutions of higher education<sup>13</sup>. Several studies from different Western countries have reported high rates of mental morbidity among medical students, such as anxiety and depressive symptoms and other parts of the world<sup>14</sup>. A wide range of different measures have been used to address the phenomena.

The objective of this study was to determine the prevalence of anxiety and depression among female medical students and to observe the possible associations between anxiety and depression and (a) of gender (b) academic year.

**MATERIAL AND METHODS**

It was cross-sectional descriptive survey at Central Park Medical College Lahore after approval from the Departmental Ethical Committee. The approval for this study was granted by both the University of Lahore and Central Park Medical College Lahore. All students of 4 batches at CPMC were included in the study. An informed consensus was obtained from all participants after confirming their confidentiality. To confirm the acceptance of the questionnaire, the questionnaire was applied in 300 students of our medical college. The language of the questionnaire was understood by the participants.

**Statistical Analysis:** Data was analyzed by using SPSS version 21.0. Frequencies, percentages were given for qualitative variables. Statistical test like Independent t- test and chi- square test was applied to obtain the required results. Level of significance was taken as ≤5%.

**RESULTS**

In this study the mean age student was 22.14± 2.44 years with range from 17-28 years (Table-1). There were 165(55%) female and male was 135(45%). (Graph-1). The average anxiety level on VAS was evaluated as 62.21 ± 23.01. Results distributed at three levels of anxiety among male and female students. A total of 11.3% of students showed little anxiety level during exams while 14.8% male students showed, 47% showed moderate anxiety, and 41.7% showed maximum anxiety levels. The level of anxiety among female student is significantly high. Distribution of responses to memory related questions

among males and females. Significantly more females reported memory loss during exams compared with males (p=0.002). Significantly more females mentioned that they had to put extra effort to memorize during exams than males (p=0.003).

Table 1 Demographic Information of students of CPMC (n=300)

Variables	N (%)
Age (Mean ± S.D)	22.14 ± 2.444
Age Range	17-28 years
Sex	
Male	135(45%)
Female	165(55%)
Marital Status	
Married	9(3%)
Unmarried	291(97%)

Graph-1

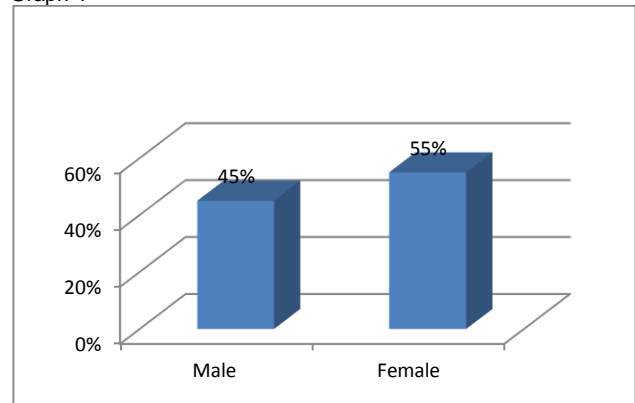


Table 2: Level of exam anxiety among students based on visual analogue scale with respect to gender.

Anxiety Level	Male	Female	Total
Mild anxiety (0- 35)	20(14.8%)	14(8.5%)	34 (11.3%)
Moderate anxiety (36-65)	63(46.7%)	78(47.3%)	141(47.0%)
Maximum anxiety (66-100)	52(38.5%)	73(44.2%)	125(41.7%)
Total	135	165	300

P value 0.200

Table 3: Students response about the memory related factors causing exam anxiety

Factors	Male		Female		p-value
	Yes (%)	No (%)	Yes (%)	No (%)	
Face problem of memory loss during the exams	60 (44.44)	75 (55.56)	96 (58.18)	69 (41.8)	0.002
It takes great effort to memorize simple things during exams	64 (47.07)	66 (46.93)	90 (54.58)	80 (48.48)	0.003

**DISCUSSION**

A quantitative, descriptive and cross-sectional study was conducted with data collected at a specific time from medical students of Central Park Medical College, Lahore. Demographic characteristics such as age, gender, ethnicity, socioeconomic status, religious beliefs and basic academic background.

**Demographic Characteristics:** The current study analyzed the state of the anxiety test among medical students at Central Park Medical College in Pakistan. The results were the following.

The female students are more anxious than the men. Inam in 2003 stated that 61.5% (n=24/36) female MBBS students had anxiety during the first year, while in the second year 77.4% of the girls (n=24/38) showed anxiety before the exams, while 50% of the students (n= 9/21) of the 3rd and 61.9% of the 4th females feared their exams as compared to males with little fear. , The same was observed in the current study, since the level of anxiety was high, where 55% of the study participants were afraid of the exams<sup>14</sup>. The same results were observed in the Simran research, where 58.18% (n=64/110) were women<sup>15</sup>.

More than half of the study participants (55.00%) were females, which were correlated with the results of other studies, including Abend R 2014, Hashmat 2008, Inam SNB<sup>14-16</sup>. On the other hand, the results obtained by Trifoni in 2011 confirmed the conclusion of the researchers mentioned above, since 65.1% (71/109) were females participants<sup>17</sup>. Although there was no clear difference between men and women in Zhang's findings, 64 of those (33/64) were females<sup>18</sup>. However, controversies existed in Parkerson GR since they did not find gender differences in their research studies<sup>19</sup>.

The prevalence of anxiety was high among women in the Simran research in 2015. There were 1.56% (n=1/64) of female samples with a slight degree of anxiety, while 16 of 64 girls (25%) moderately feared the exam, while 73.43% (n=47/64) of most of them undergo severe pre-exam anxiety<sup>15</sup>. On the other hand, 52.17% of the male participants in the study (n=24/46) had a moderate level of anxiety, none of them had a mild level of anxiety (n=0/46) and 47.82% had a severe anxiety condition before the exam, 41% of the CPMC students showed maximum anxiety in their exams and the level of anxiety was low / slight in 11.33% of the students. In the current study, the gender difference in 73 (44.2%) female students feels maximum anxiety, while 52(38.5%) male students feel severe anxiety and only 14 (8.5%) female student's show mild anxiety.

Simran from India conducted a survey to check the degree of anxiety among medical students in 2015. Women with anxious anxiety were found during the examination period, since 73.43% of the girls were affected by severe anxiety, while 47.82% of the male students had severe anxiety at the same time. However, boys show moderate level of anxiety (52.17%) compared to girls during and before examination days, since only 25% of girls have a moderate level of anxiety. While none of the male volunteers showed slight anxiety about the exams and only one girl in the Simran study felt a slight degree of fear of the exam<sup>15</sup>.

Fifty two percent students of current study face the problem of memory loss during the period of exams p-value 0.0004, whereas 50% of these participants of study need to make a lot of effort to memorize simple material for exams with the p-value of 0.0001. The results of this study correlates with the results of Simran study<sup>15</sup> Majority of Simran study participants 77.27% were unable to recall or review their material for exam preparation. Whereas in current study 44.44% (n=60) male students have memory loss during exam as compared to females where 58.18% (n=96) presented problem of memory loss during exam<sup>15</sup>.

## CONCLUSION

Exam-related anxiety does exist and deteriorate the overall results of students to a considerable degree. Exam fear is common among medical students. Exam anxiety is considered a major problem in medical students because it affects mental well-being. Counseling services and stress management programs should be initiated and implemented as fully as possible. After all, the success of a student is the success of the institution and the medical profession.

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