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Research Article

ANXIETY LEVEL AMONG M.B.B.S STUDENTS DURING EXAMS

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Abstract:

***Objectives:** 1. To determine exam related anxiety among M.B.B.S students*

2. To determine various factors contributing to exam anxiety among them.

***Study design:** A cross sectional descriptive epidemiological study*

***Place:** Study was carried out at Islam Medical College, Sialkot.*

***Duration:** From 10th April 2016 –15th May 2016*

***Subjects and Methodology:** A total of 245 MBBS students were enrolled in the study. Out of which 137 were females and 108 were males. A self-administered questionnaire was used which was filled by interviewing each student. Survey questionnaire was consist of questions regarding life style, study style, psychological and social problems.*

***Results:** The response rate was 81.66%. There were 55.91% females and 44.08% males students. The mean baseline anxiety was 33.91 ±8.2. Among different factors contributing to exam anxiety, excessive course load 84.45%, lack of time to revise before exam 80.81%, disturbed sleep 68.57%, parental expectations 67.75% and irrational thoughts 58.36% were the most important factors reported by the students.*

***Conclusion:** Out of 137 females, 69.34% were having severe anxiety and out of 108 males 40.74% were having severe anxiety. From this we conclude that females suffer from higher level of anxiety than males during exams.*

***Key words:** Anxiety, Examination, MBBS students.*

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INTRODUCTION:

Anxiety is defined as an abnormal and overwhelming sense of apprehension and fear often marked by physiological signs (as sweating, tension, and increased pulse) by doubt concerning the reality and nature of the threat and by self-doubt about one's capacity to cope with it[1].

Anxiety has become a common problem throughout the globe. The role of anxiety is exponentially increasing among medical students. There are myriad of complex reasons that have given birth to anxiety among medical students. The main reasons are excessive burden of studies, thorough syllabus and obsession for getting positions. Besides, securing low marks despite the investing maximum time and efforts and fear of insecurity of future have exaggerated the stress related symptoms. Moreover, owing to extensive course work and repeated tests, medical students are almost out of the realism of social and extracurricular activities. Arguably, research papers have also categorically proved that unabated competition among colleagues has also worsened the anxiety. These causes deeply and badly influenced the life of medical students. Such nerve wracking issues shatter both body and mind. Physically, anxiety exhausts the whole body. The victims experience generalized body ache, headache and fatigue.

In medical students different scales and self evaluation questionnaires have been used to assess their anxiety and stress level. Spielberg state trait anxiety inventory (STAI) self evaluation questionnaire invalidated scale for assessment of exam stress among medical students. In most of the earlier studies, common reasons causing exam anxiety were highlighted. A cross sectional study was conducted in 2014 at the Maharishi Markendeswar Medical college, India which showed that there was severe pre examination anxiety (89.09%) among medical students and the most frequently reported factors causing exam related anxiety were excessive course load 91.81% ,lack of time to revise before exam 87.27% ,lack of systemic studies 80.90% ,parental expectation 80% and lack of physical activity and extracurricular activities 78.18%.[2]

Another enquiry conducted in Frontier medical and dental college,Abbottabad (Pakistan) in 2012 revealed the mean level of anxiety on VAS 47 ± 21 and for male students 51 ± 19.4 and for female students 63 ± 27.6 ($p<0.05$).Among different factors contributing to exam anxiety, inadequate rest 89% ,irrational thoughts 67.50% and excessive course load 60% were the most important factors reported by the

students. The overall prevalence of anxiety in 1st year class was 73.46 % (female=86.48%, males=65.57%) and in 2nd year 54.90 % (females=72.50%, males=43.54%) [3].

LITERATURE REVIEW:

A study conducted by International Journal of Psychological studies in which the prevalence level of test anxiety is higher in Pakistan 64% , Malaysia 52% , Germany 29.9% where as in Taiwan it is lower that is 7% and India 6%.[4]

A cross-sectional study was done on professional 1st, 2nd and 3rd year students of college of medicine Qasim university Saudi Arabia. Overall the prevalence of anxiety and stress in male and females were 66.6% and 44.4% respectively. In the 1st year the prevalence in female were 89.7% and in male were 60%. No suicidal ideation was reported either by male and female.[5]

A survey carried out on students of Ziauddin Medical University , Pakistan. There were 252 students in 4th year MBBS to 1st year MBBS. Among them 68% were females and 32% were males. Prevalence of anxiety and stress in students of 4th,3rd,2nd and 1st year was 49%,47%,73% and 66% respectively. It was significantly higher in 1st and 2nd year as compared to 3rd and 4th year.[6]

A total number of 302 undergraduate medical students of C.U. Shah medical college , Surendranagar were included in the study to assess anxiety and stress,74 students of 2nd semester , 65 students of 4th semester , 78 students of 6th semester and 85 students of 8th semester took part. Among them the mild anxiety level in 2nd , 4th , 6th and 8th semester was 12.16% , 16.92% , 23.7% and 23.17% ,moderate anxiety level was 5.4% , 24.61% , 32.05% and 14.63% and severe anxiety level was 2.70% , 4.61% , 2.56% and 2.43% respectively .[7]

Out of 450 students from Dow Medical College and Sindh Medical College , Karachi. The mean level of anxiety on the west side test anxiety scale was 2.55% for male students and 3.07% for female students. Mean level of anxiety in students of final year , 4th year , 3rd year and 2nd year were 3.34% , 2.97% , 2.92% and 2.86% respectively. Mean anxiety for the students of Dow Medical College was 2.89% and for the students of Sindh Medical College it was 2.92%.[8]

OBJECTIVES:

The objectives of this study were to:

1. Determine the anxiety level among MBBS students during exam.

2. Determine the factors contributing to exam anxiety among themthe

Operational Definition

Scale used:

Anxiety scale has score from 11 to 55.

11 – 20

21-30

Above 30

Material and Methodology

SETTING:

This study was carried out at ISLAM MEDICAL COLLEGE, SIALKOT.

DURATION OF STUDY:

From 10th April 2016 - 15th May 2016

SAMPLE SIZE:

300 MBBS students (2nd year, 3rd year, 4th year and final year)

SAMPLING TECHNIQUE:

Sample was collected by non probability convenience sampling technique.

SAMPLE SELECTION:

(a) Inclusion criteria:

Both genders

(b) Exclusion criteria:

Students who were not willing to participate in this study.

STUDY DESIGN:

It was a cross sectional descriptive epidemiological study.

DATA COLLECTION:

Data was collected through pre designed questionnaire. It included questions regarding life style, study style, psychological and social problems.

The questionnaires were handed over to sampled students which were collected after two days.

DATADATA ANALYSIS:

Data was entered in MS Excel spreadsheet. The analysis was done by SPSS version /16 and descriptive statistics including frequency, mean and standard deviation were used to analyze the data.

RESULTS:

Total 300 questionnaires were distributed among medical students, out of which 245 were returned after completion. The response rate of survey questionnaires was 81.67%. There were 137(55.91%) females and 108(44.08%) male respondents. The mean level of baseline anxiety among the medical students was 33.91 ± 8.2 . Prevalence of severe anxiety (56.32%), mild anxiety (36.7%) and no anxiety (6.9%) is shown in Table 1.

By analysis of data the prevalence of severe anxiety was more in female students than in male students. Gender distribution of exam anxiety is shown Table 2.

Different causative factors were assessed. Academic factors(70.27%) were higher than psychological(53.29%) and life style factor(50.40%). Excessive work load(84.45%), lack of time to revise before exam(80.81%), lack of systematic studies(72.65%), parental expectation(67.75%) and Disturbed sleep(68.57%) were the most frequently reported factors causing exam related anxiety among medical students(Table 3)

Table 1: Prevalence of Exam Anxiety

Total Students n=245			
Grading	No Anxiety	Mild Anxiety	Severe Anxiety
Exam Anxiety	17 (6.9%)	90 (36.7%)	138 (56.32%)

Table 2: Gender distribution of exam anxiety

Gender	No Anxiety	Mild Anxiety	Severe Anxiety	Total
Males	11(11.18%)	53(49.07%)	44 (40.74%)	108(44.08%)
Females	6(4.37%)	36(26.27%)	95(69.34%)	137(55.91%)
Total	17	89	139	245

Table 3: Results of Questionnaire regarding Factors contributing to exam Anxiety

Factors contributing to exam Anxiety	Total (n=245)	Percentage
1.Academic		
1.Excessive course Load	207	84.45%
2.Lack of time to revise	198	80.81%
3.Lack of systemic studies	178	72.65%
4.Fear of failure	162	66.12%
5.Lack of Knowledge regarding relevant content	146	59.59%
6.Duration of exam	142	57.95%
Total	1033/1470	70.27%
2.Psychosocial		
1.Parental Expectations	166	67.75%
2.Fear of loosing grades	156	63.67%
3.Fear of going blank	146	59.59%
4.Irrational thoughts	143	58.36%
5.Not Studying Adequately	134	54.69%
6.Peer pressure	132	53.87
7.Smoking	30	15.10%
Total	914/1715	53.29%
3.Life Style		
1.Disturbed Sleep	168	68.57%
2.Dietary Habits	141	57.55%
3.Health problems	105	42.85%
5.Lack of physical activity	80	32.65%
Total	494/980	50.40%

DISCUSSION:

This study confirmed the general impressions that there is considerable amount of anxiety in medical students. This is similar to other studies elsewhere which have reported such findings.[8] The females are more likely to fall prey to this anxiety is also a well known observation and an overwhelming majority of researchers have gathered enough evidence to prove this.[9,10] Various reasons have been postulated in order to justify the female predominance in this context. Some of these include female tendency to over-report medical and psychological symptoms, excessive stress due to self expectation and feeling of lack of competence and their exaggerated concerns about the volume and complexity of the material they had to cover.[9]

Bit of anxiety is a sign of one's concern towards examination and in this way it is beneficial for the

student. However when it crosses certain limits and culminates into lack of sleep and lack of concentration, then the damages begin.

Medical students undergo various changes like psychological, hormonal, immunological and behavioral during the exams time. The extents to which these changes take place in different students depend upon gender, physical activity, spiritual strength etc.[11]

This study confirmed that there was significant severe level of exam anxiety among 138 out of 245 MBBS students of Islam medical college, Sialkot .The overall prevalence of severe anxiety was 56.32%,mild anxiety 36.7% and no anxiety was 6.9% in our study but in a study conducted at the Maharishi Markendeshwar Medical College, india in 2014, severe anxiety was 89.09% and mild to moderate was 10.90%.By this

comparison we have found that was a noticeable difference in our results that overall prevalence of examination related anxiety was much less. It was probably because of the fact that over the years, the student-teacher relationships have improved and the teachers have become more sympathetic towards the shortcomings of their students.

We have studied various stressors of exams anxiety in medical students and various reasons have been highlighted. It was revealed that academic factors were strongly correlated with anxiety followed by psychosocial and lifestyle factors.

The major academic factor contributing to exam anxiety in our study was excessive course load as reported by 84.45% students. This finding is in agreement with the previous literature that has also suggested that students' perception of extensive course load as the leading cause of exam anxiety in medical students.[12] This study also showed that 80.81% students were stressed due to lack of time to revise before exam and 72.65% students due to lack of systematic studies. Other academic factors contributing to exam anxiety were fear of failure (66.12%), lack of knowledge regarding relevant content (59.59%) and duration of exam (57.95%).

Major psychosocial stressor reported by students in our study was parental expectations (67.75%). Results of our study are in line with previous findings that have also suggested high parental expectation as a major emotional stress.[16]. Lack of parental presence and homesickness was also leading to exam related anxiety among students. Similar findings have also been reported among medical students in earlier literature.[17]. Other psychosocial factors contributing to exam anxiety in our study were fear of losing grades(63.67%), fear of going blank (59.59%), irrational thoughts(58.87%), not studying adequately (54.69%) and peer pressure(53.87%). Life style related factors contributing to exam anxiety were lack of physical activity and extracurricular activities, studying all night before exams, distractions, disturbed sleep, dietary factors and health problems. Disturbed sleep and studying all night before exam were the major lifestyle stressors reported by 68.57% students. 57.55% students were having disturbed dietary habits. Students also reported that lack of physical activities(32.65%) and health problems(42.85%) were causing exam anxiety

CONCLUSION:

Majority of medical students experience some level of anxiety during exams. This study concludes that

females suffer from higher level of anxiety than males. It also highlights that academic along with psychosocial and lifestyle factors are contributing to exam anxiety.

Recommendations:

1. Regular monitoring of students should be undertaken to find the stressed students at the earliest and those who get persistently low marks should be carefully isolated and properly guided.
2. Teachers, parents and college administration should work together to reduce the level of anxiety and enhance their coping strategy that promote a healthy lifestyle. After all, success of student is the success of the institution and also of the medical profession itself.
3. Students should be taught about the time management skills. With better time management skills, students would not end up cramming for examination and thereby decrease test anxiety and improve their academic performance.
4. Early intervention counseling and stress reduction techniques must be launched and implemented as comprehensively as possible.
5. Physical activities, sports should also be introduced to the students as scientists have found that regular participation in aerobic exercise has been shown to decrease overall level of tension, elevate and stabilize mood, improve sleep, and improve self-esteem.
6. Other measures like prayers and self-motivation, sleep and relaxation, TV and music, calling friends and revising more can also be used by students to reduce exam anxiety.

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