Pattern of Anxiety and Associated Factors among Students of Different Medical Colleges in Pakistan

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ABSTRACT:

OBJECTIVES: To estimate the prevalence of anxiety, depression and their associated risk factors among students of Medical colleges in Pakistan.

METHODS: A cross sectional study was done on the students of a public and private sector, who had spent more than one year in medical college and had no physical or mental illness other than anxiety and depression. A self administered questionnaire was given out to 500 students who were selected through systematic randomization. Primary outcome was generalized anxiety among students which decreased as more experience was gained in medical colleges.

RESULTS: A high prevalence of anxiety was found among students of second year and final year. However symptoms of anxiety ebb away as more experience is gained. The differences among the students of each educational level (year) were statistically significant for visible nervousness (p=0.014), trouble sleeping (p=0.009), tachycardia (p=0.008), disturbed sleep (0.017) and weight loss/gain (p=0.002). However, the differences for memory loss, lack of confidence on results, control over anxiety and use of anti-depressants was not statistically significant.

CONCLUSION: This study suggests that symptoms of anxiety do exist in students but as they gain more experience and familiarity with the routines and schedules this

apprehension and anxiety greatly reduces. Trainings to cope with stress can help in improving the situation.

INTRODUCTION:

Exam anxiety is a set of responses that includes excessive worry, depression, nervousness and irrelevant thinking to a class of stimuli from an individual's experience of assessment/test and outcome[1]. It is experienced by many students while undertaking any exam[2].

It is widely believed that stress and medical school go hand in hand. Numerous studies have documented the stress that medical students experience[3]. Exam anxiety symptoms can be broadly categorized as emotional (feelings of fear, disappointment, anger, depression or helplessness, interference with normal life, joylessness, weight loss and gain, uncontrolled anxiety, forgetting what revised), behavioral (drug abuse, lack of confidence to pass exam , great effort for simple things, take anti depressants) and physiological (nausea, headaches, light headedness, sweating, and other disruptions in bodily functions, Visible nervousness, rapid heartbeat, disturbed sleep)[4,5].

Exam Anxiety has been a major problem for students irrespective of their age and field of education. It has remained a neglected topic in Pakistan as very few studies have been done on this. Exam Anxiety in medical students is a serious issue as they have to provide healthcare facilities to public in future and anything which precludes their performances may have drastic effects on patients.

Previous Research studies done on medical students depict that the most contributing factors in exam anxiety are extensive course loads ,lack of physical exercise and long duration of exam. Most of the students have no knowledge of exam-taking and anxiety-reduction techniques and majority of those who knew these strategies did not implement them. Among the general factors which contribute to stress among medical students, most common are inability to cope, helplessness, increased psychological pressure, mental tension and too much workload. Low moods, inability to concentrate, loss of temper are most common symptoms. Some researches show that the most important and severe causes of stress were staying in hostel, high parental expectations, vastness of syllabus, lack of time and facilities for entertainment.

In this study we have classified the determinants of exam anxiety into "Physiological" "Emotional" and "Behavioral" categories in this study. The purpose of this study is to find prevalence and risk factors which cause exam anxiety and symptoms associated with it. Another goal of study was to find the difference of prevalence of exam anxiety between students of second, third and fourth and fifth year.

METHODS:

This study utilized a cross-sectional survey design and was conducted by administering a questionnaire to 500 students. A semi-structured ipsative questionnaire was distributed to the students of 2nd, 3rd, 4th and final year by hand. Systematic random sampling was done. The students with class roll numbers in the sequence of 9 i.e. roll no 9,19,29,39 and so on were selected from each class. Due to practical limitations (unavailability of students because of electives and rotations) few students of next roll number were also included study. The medical colleges included in study were King Edward Medical University, Rawalpindi Medical College, Quaid-e-Azam Medical College Bahawalpur, Punjab Medical College Faisalabad, Aga Khan University-Medical College Karachi and Muhammad Medical College Mirpur Khas. The first year students were excluded as they had not appeared in any professional exam. The survey was self-administered as the respondents took the questionnaires to their homes and returned them after filling. Privacy was assured. Confidence interval was kept 95 and p value 0.05. Data were coded and analyzed using SPSS software version 17. Five hundred self-administered questionnaires were distributed among medical students, out of which 393 were received back and the response rate was 78.6%.

RESULTS:

While observing different symptoms of exam anxiety; weight loss and gain, inability to control anxiety, memory loss, lack of confidence to pass exam, great effort for simple things, taking anti depressants, visible nervousness, rapid heartbeat and disturbed sleep were the most frequently reported by medical students. Visible nervousness, disturbed sleep patterns, tachycardia, and weight loss showed a declining trend proportional to the experience of taking the exams was gained by students over the years.

When asked about symptoms of nervousness, 17% of the students reported that their nervousness was quite visible to others. Out of these 17%, 35% of the students were from 2nd year, 24% from 3rd year, 13% form 3rd year and 28% from final year. Similarly where sleep pattern was concerned, 33% of the students said they had trouble sleeping while 36% reported a disturbed sleeping pattern. The distribution of responses for different years can be observed in the pie charts.

Regarding tachycardia, 36% of the students said they have rapid heartbeats at certain times. Out of these 36%, majority (34%) belonged to second year. Where lack of confidence in results was concerned, 25% of the students said that they did not have confidence on their performance. Disaggregated by year of study, no major difference was observed across the four years as all had almost similar ratio of students who had lack of confidence (pie chart).

Use of antidepressants was found to be 24%, highest being among third year students (31%) and lowest among fourth year (19%).

The differences among the students of each educational level were statistically significant for visible nervousness (p=0.014), trouble sleeping (p=0.009), tachycardia (p=0.008),

disturbed sleep (0.017) and weight loss/gain (p=0.002). However, the differences for memory loss, lack of confidence on results, control over anxiety and use of anti-depressants was not statistically significant.

DISCUSSION:

Exam anxiety is the emotional reaction that some students face before exams. The fear is not irrational, but excessive fear interferes with performance. Many researchers suggest that a little worry is good for students because it keeps them task oriented; however excessive worry on the other hand can be very debilitating and interferes with the results if not managed appropriately[6]. Exam Anxiety has been a major problem for students irrespective of their age and field of education.

Stress was found to be more in Second and final MBBS students. This may be due to greater fear of not attaining their goal of being a doctor. The other reason may be that first and second year exam were taken together at the end of second year, so the students had greater burden on them and in final year there is excessive load of both para-clinical and clinical subjects as compared to only clinical subjects.[7]

Medical Schools and colleges are recognized as a stressful environment that often exerts a negative effect on the academic performance, physical health, and psychological well being of the students. Medical education is perceived as being stressful, although it is doubtful whether it differs in that respect from other higher education. High rates of psychological morbidity among medical students, such as anxiety and depressive symptoms, have been reported in several studies from different western countries[8,9,10], as well as from other parts of the world[11,12].

This study shows that there is stress and anxiety among students at all levels but, as they gain more experience in medical college, their apprehension and concern diminishes. Since the students are repeatedly subjected to exams and tough routines they learn to cope with this stress. Final year is the toughest of all the years because of hectic schedules and tough examinations that the students have to keep up with. However, majority felt confident of themselves and were able to deal comparatively better with the symptoms of stress, anxiety and nervousness. Trainings to cope with stress and anxiety in the form of workshops and regular short sessions for each year once a month or so can help the students adapt more with the tough academic and work environment that is the hallmark of medical profession.

CONCLUSION:

This study suggests that symptoms of anxiety do exist in students but as they gain more experience and familiarity with the routines and schedules this apprehension and anxiety greatly reduces. Inexperience and hectic routines in first year and final year respectively are the main predisposing factors of anxiety. Thus, the situation can be improved by imparting trainings to cope with stress and anxiety.

FIGURES:

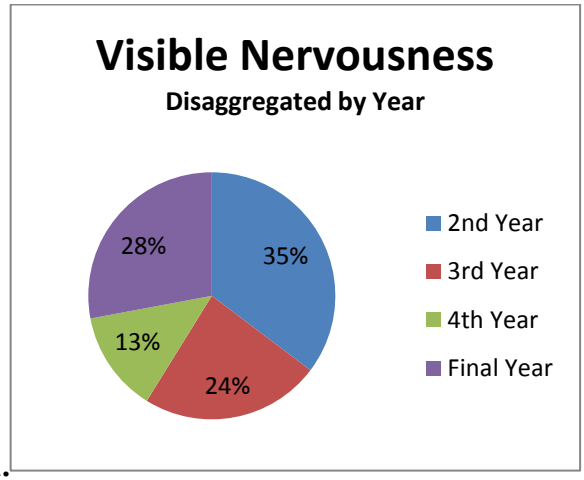


Figure 1.

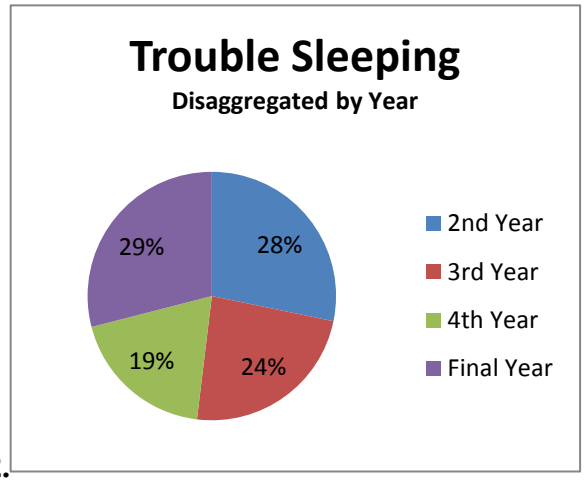


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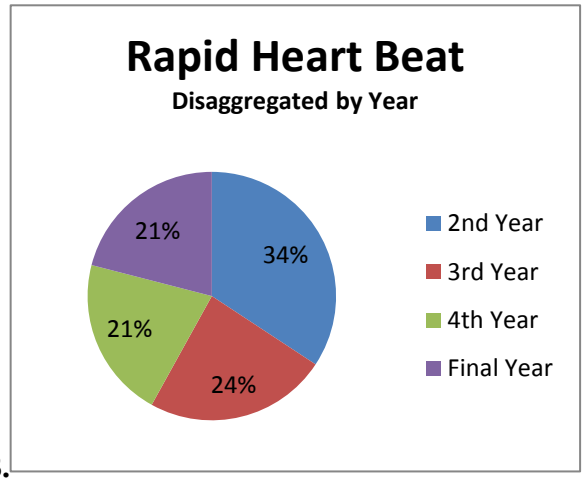


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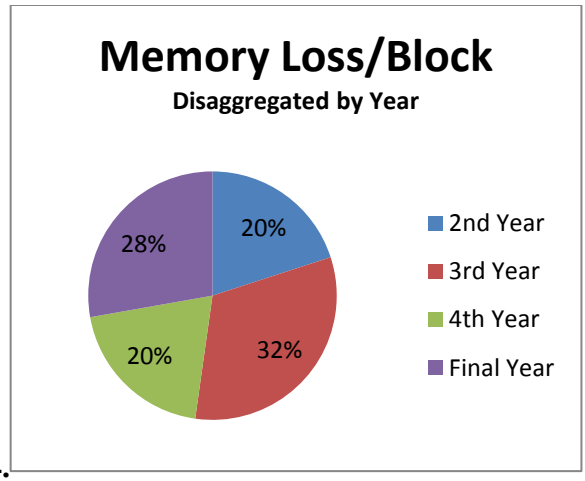


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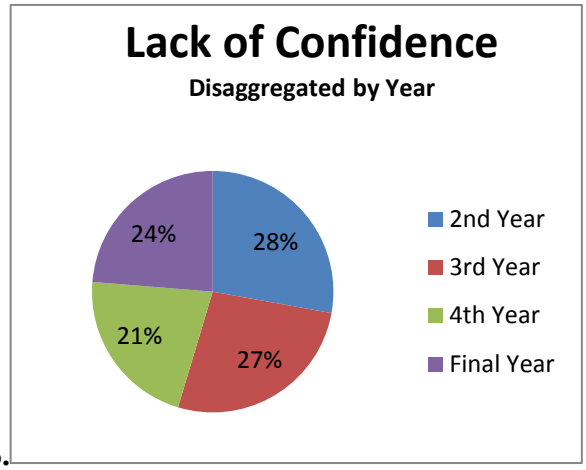


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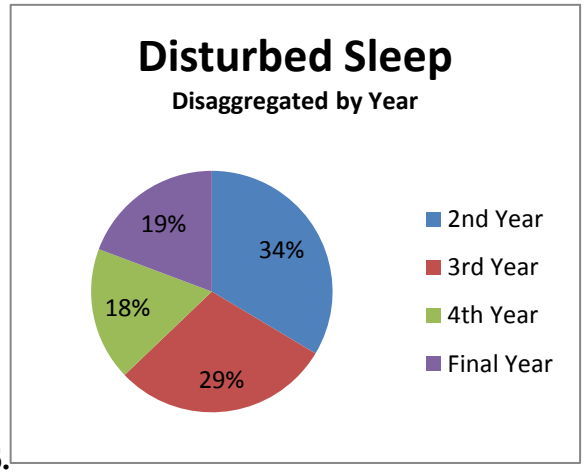


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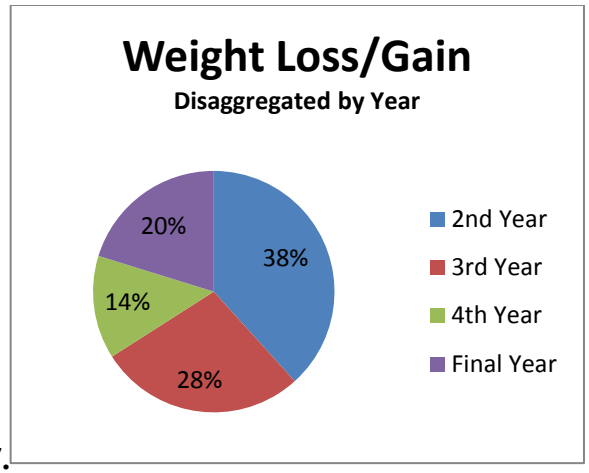


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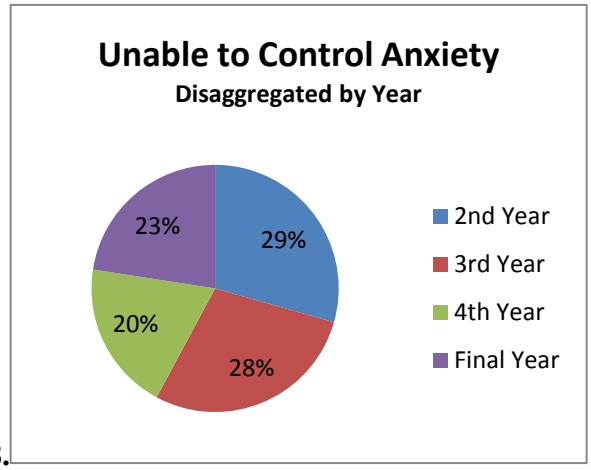


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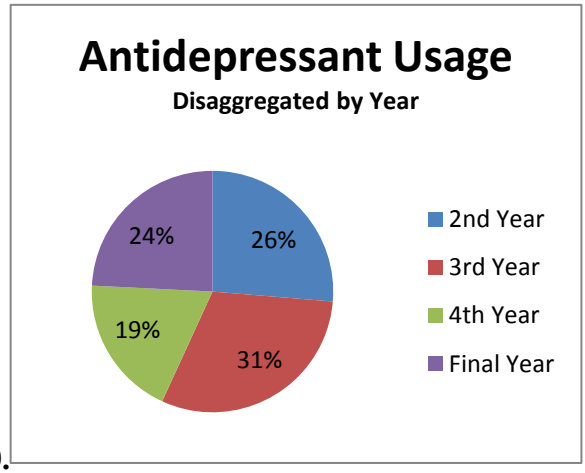


Figure 9.

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