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Research Article

**FACTORS CAUSING GENERALIZED ANXIETY DISORDER IN  
MEDICAL STUDENTS ACCORDING TO ICD-10 CRITERIA**<sup>1</sup>Dr. Sana Zeekash, <sup>2</sup>Dr Ahsan Ali, <sup>3</sup>Dr Faryal Asif<sup>1</sup>Mayo Hospital Lahore<sup>2</sup>MO Bhu Kot Naou Bahar Nankana Sahb<sup>3</sup>Women Medical Officer BHU 104SB, Sargodha**Abstract:**

*GAD is characterized by excessive uncontrollable worry about daily routine affecting routine functions of individuals.*

*Objectives:* To identify various factors causing GAD in medical students.

*Design:* Cross Sectional study.

*Place:* KEMU Lahore.

*Study period:* 4 months .

*Subject and methods:* A cross sectional study based on 100 students was conducted. Selection was made on laid down criteria after taking due consent. Interviews were conducted through a pretested questionnaire. Data was collected, compiled and analyzed through SPSS version 16. After collecting data, frequencies and percentages of various factors were calculated using SPSS and results were supplemented with bar charts and pie charts made with the help of same software.

*Results:* Out of 100 students who were included in our study 11% were below 20 years and 89% were above 20 years, 35% were males and 65% were female students. Out of these subjects 8% fulfilled ICD-10 criteria and were diagnosed to be suffering from GAD. Among the symptoms associated with GAD tachycardia, sweating, nausea, abdominal pain, insomnia, continuous irritability and exaggerated response to minor surprises were more prevalent and the others were found to be less common. The major factors causing GAD were long examination tenure prevalent in 76%, fear of failure present in 79%, work load more prominent in 82%, long study hours responsible for causing anxiety in 64% of students and home sickness also seems to play a major role in causing anxiety as reported by 58% of students (hostelite). Among the other minor factors contributing to anxiety as indicated by their percentages are competition for getting position (44%), previous academic achievements (45%), health status (18%), parental interference (16%), worry about financial status (6%), emotional factors (9%), while 49% of the subjects think that participation in extracurricular activities plays a role in relieving anxiety.

*Conclusion:* The most prevalent factors causing anxiety and GAD in medical students according to this study are work load, long examination tenure, fear of failure, long study hours, homesickness. The other factors include previous academic achievements, competition for getting position, health status, parental influence, worry about financial status, emotional factors and lack of extracurricular activities.

**Key Words:** GAD, Medical students, ICD-10 criteria

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**INTRODUCTION:**

Generalized anxiety disorder is a disorder characterized by excessive uncontrollable worry and anxiety about daily routine. Disorder will also affect the routine functions of individuals [1]

ICD-10 criteria demands that a history six months of prominent features should be there and the individual should have at least four symptoms out of the following and at least one from each category. Autonomic symptoms include tachycardia (increased heart rate), trembling, sweating and dry mouth. Chest and abdominal symptoms include dyspnea (difficulty in breathing), feeling of choking, chest discomfort, nausea and abdominal pain. Symptoms involving brain and mind include dizziness, lightheadedness, depersonalisation, fear of becoming crazy, losing control and fear of death. General symptoms include chills, hot flushes, tingling and numbness. Symptoms of tension include muscle aches, pain, inability to stay calm, feeling on the edge and dysphagia (difficulty in swallowing). Other non-specific symptoms include exaggerated response to minor surprises, difficulty in concentration, continuous irritability and insomnia (difficulty in sleeping) [2].

According to the previous studies, students reported excessive work load, long tenure of exams, lack of exercise as major factors causing exam anxiety in medical students [3]. The studies showed that the anxiety inducing factors in medical students were academic achievements, competition among the students and examination system. The physical factors which played role were hostel and canteen facilities, distraction due to noise in the classroom and library. The emotional factors were emotional discomfort of students and jealousy and other issues leading to fight. Influence of parents, socioeconomic status and social life at college also played a part [4]. Another study manifested a strong co-relation between anxiety causing factors and medical students such as peer pressure and competition, long study hours, little time for co-curricular activities and stress of mastering knowledge [5]. Results of another study showed that anxiety causing factors in medical students were failure in examination and tests, academic overload and in male students suspension from college, financial problems and problems related to love and affairs [6]. The worry of future, the capabilities and potentials of students were also important factors [7]. Work pressure, pressure in terms of exam preparation and acquiring professional knowledge, skills and attitude and lack of support from the college authorities also played a part in causing anxiety [8]. Poor performance in sessional

examination was also found to be an important factor [9]. While another study divided the factors into different categories like anxiety or stress due to homesickness and anxiety due to medical studies themselves. Making new friends, settling down at a new place and difficulty with foreign language in overseas students were also noticed as factors causing anxiety in medical student [10].

Anxiety in medical students is not considered as seriously as it should be so there is a dire need to conduct a research to find out the factors causing GAD in medical students so that proper measures can be taken to reduce the ratio of students suffering from GAD. MBBS being one of the toughest courses in the world demands that medical students should be fully equipped to accept and face hurdles in their way and to cope with the stress which is the heart and soul of medical studies.

**MATERIALS AND METHODS:**

A cross sectional study was conducted in King Edward Medical University Lahore to find out the factors causing Generalized Anxiety Disorder in medical students according to ICD-10 criteria. Study population comprising of hundred students was taken. They were willing to participate. Prior consent was obtained from all selected study subjects. Study duration was 4 months. Study population was medical students of King Edward Medical University Lahore. Study selection criteria was cooperative medical students of King Edward Medical University. Questionnaires were filled through convenient sampling technique. Data was collected by all batch members and analysis was done by SPSS version 16.

**RESULTS:**

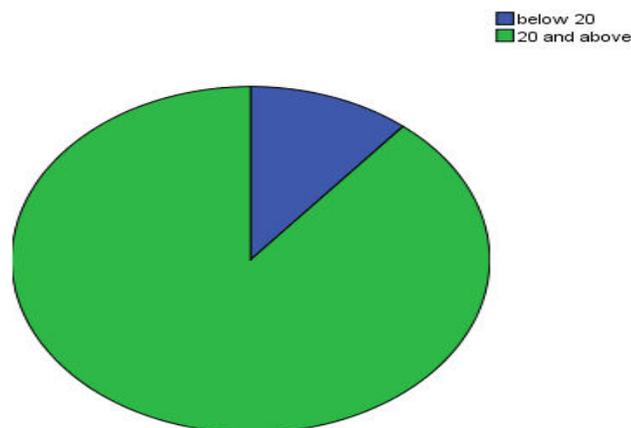
Among the 100 subjects who were included in the study, there were males (n=35) and females (n=65), below 20 years (n=11) and above 20 years (n=89), 1<sup>st</sup> year students (n=2), 2<sup>nd</sup> year students (n=22), 3<sup>rd</sup> year students (n=26), 4<sup>th</sup> year students (n=44) and final year students (n=5). According to the study, the major factors causing GAD in medical students were long examination tenure prevalent in 76%, fear of failure present in 79%, work load more prominent in 82%, long study hours responsible for causing anxiety in 64% of students and home sickness also seems to play a major role in causing anxiety as reported by 58% of students (hostelite). Among the other minor factors contributing to anxiety as indicated by their percentages are competition for getting position (44%), previous academic achievements (45%), health status (18%), parental interference

(16%), worry about financial status (6%), emotional factors(9%), while 49% of the subjects think that

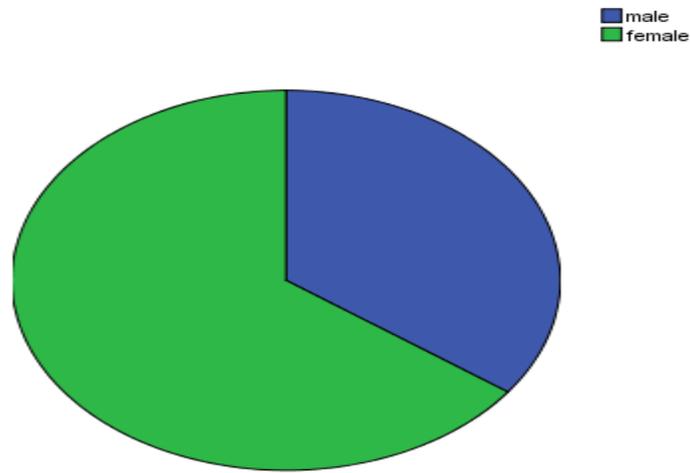
participation in extracurricular activities plays a role in relieving anxiety.

FACTORS CAUSING ANXIETY IN MEDICAL STUDENTS	FREQUENCY	PERCENTAGE
Work load	82	82%
Long examination tenure	76	76%
Fear of failure in exams	75	75%
Long study hours	64	64%
Homesickness	58	58%
Competition for getting position	44	44%
Previous academic achievements	45	45%
State of health	18	18%
Parental insistence on getting good marks	16	16%
Emotional disturbances	9	9%
Financial status	6	6%

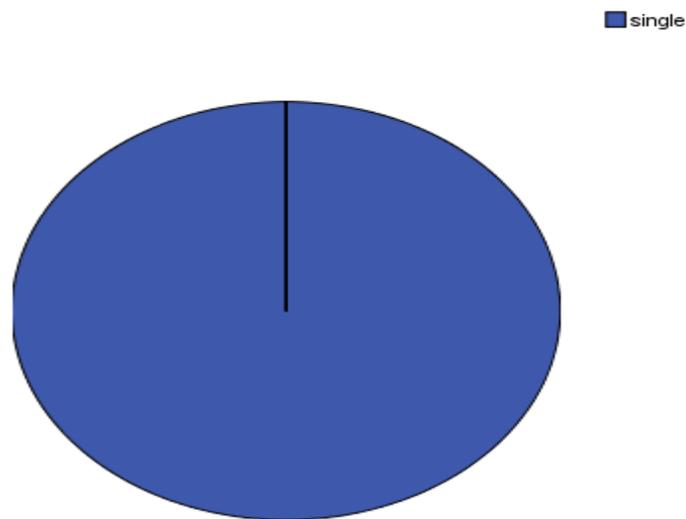
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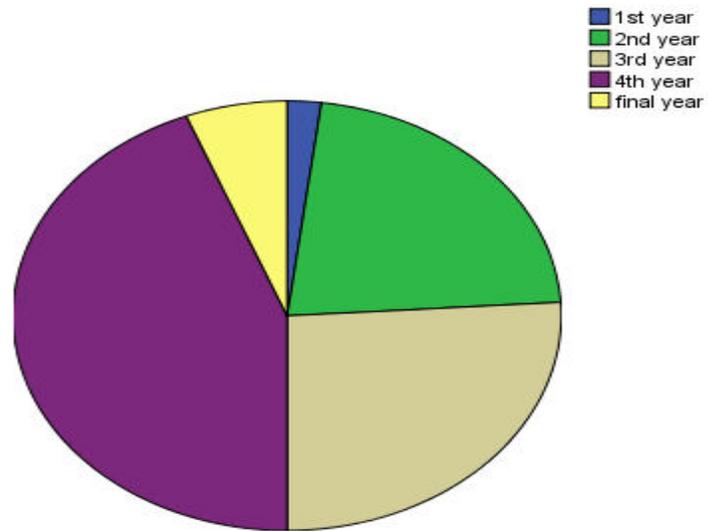
**sex**



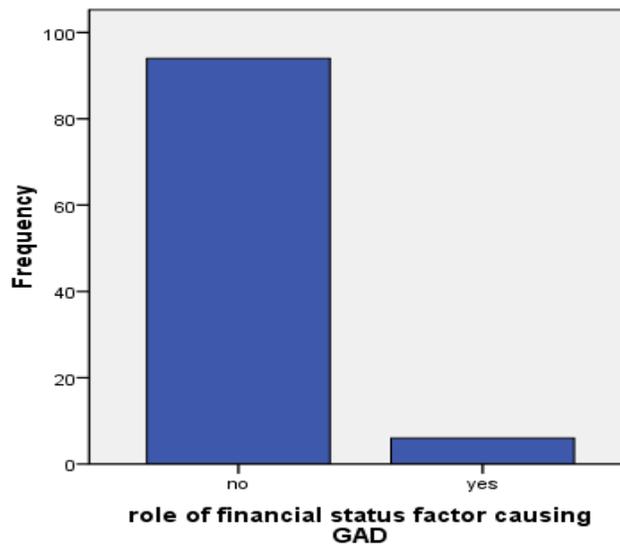
**maritalstatus**

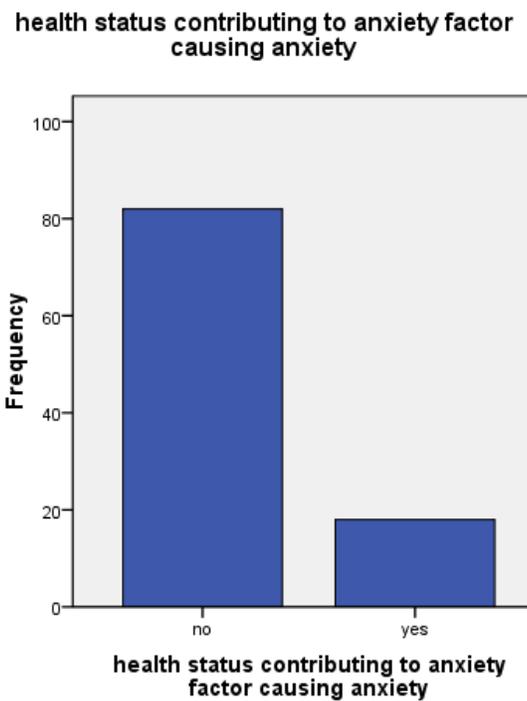
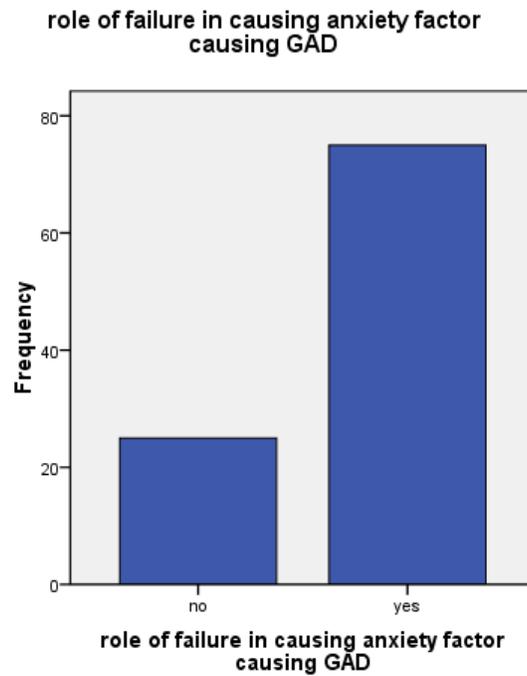


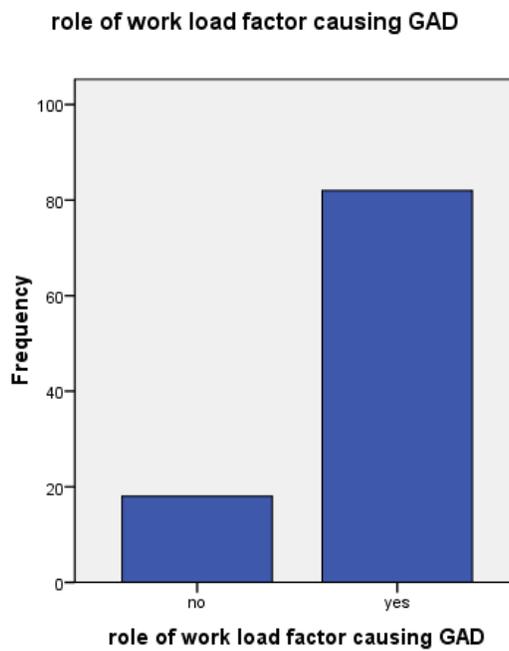
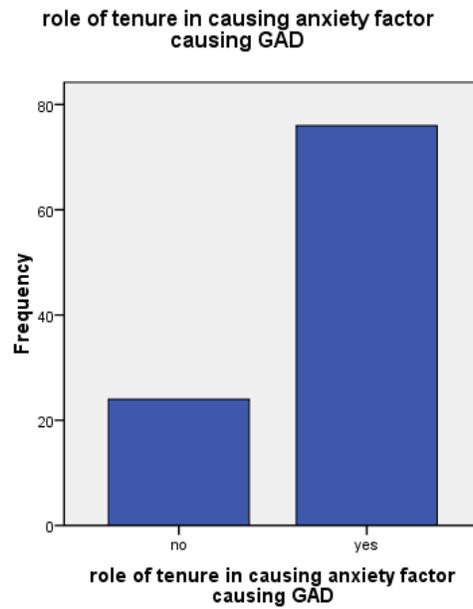
**education**



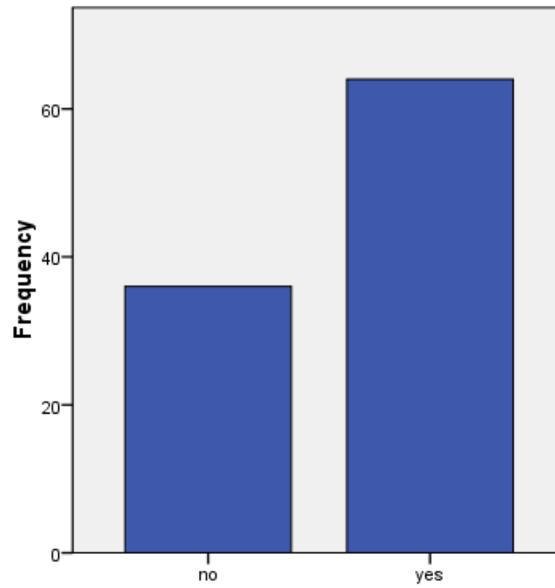
**role of financial status factor causing GAD**





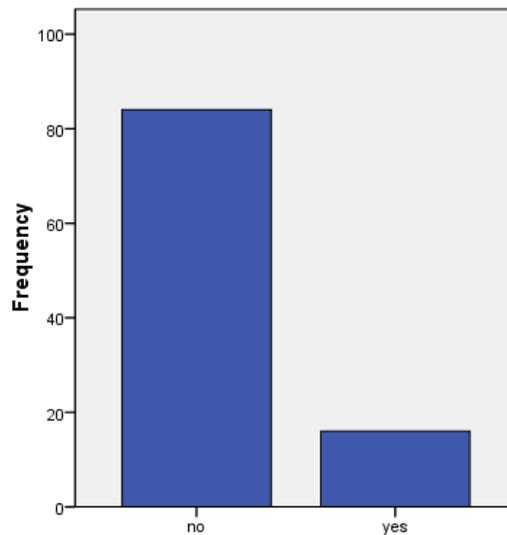


**long study hours factor causing GAD**



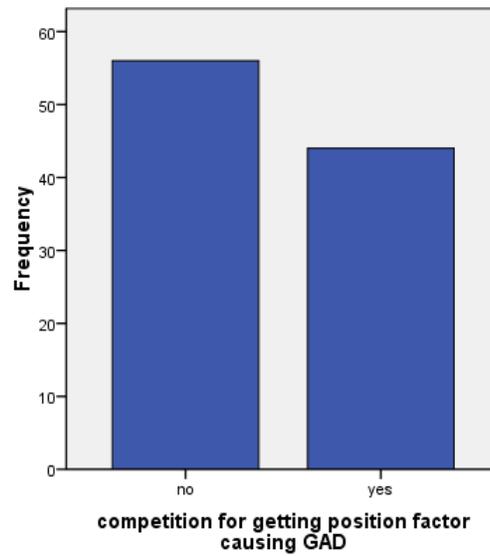
**long study hours factor causing GAD**

**parental influence factor causing GAD**

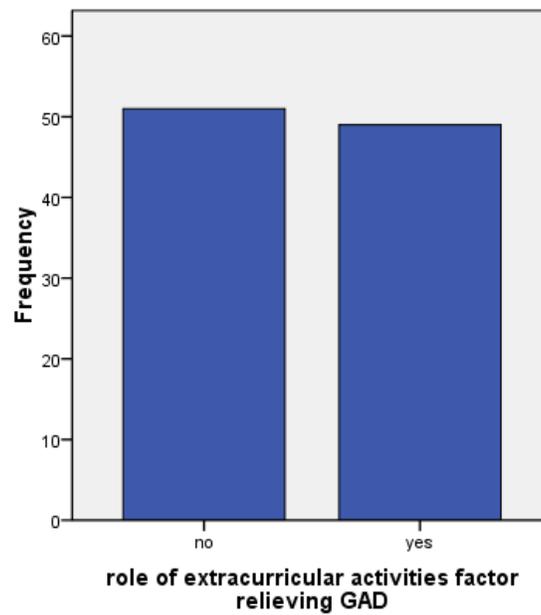


**parental influence factor causing GAD**

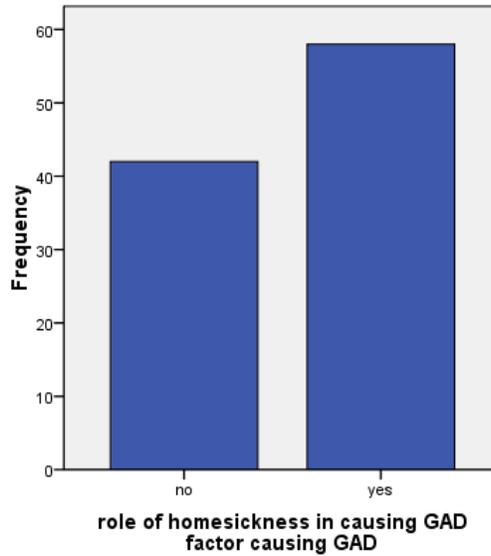
**competition for getting position factor causing GAD**



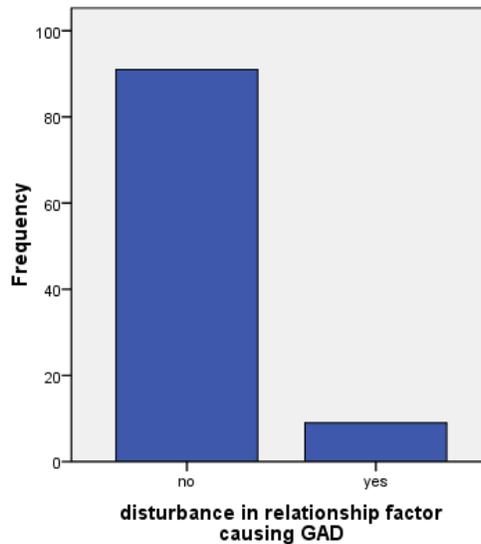
**role of extracurricular activities factor relieving GAD**



**role of homesickness in causing GAD factor causing GAD**



**disturbance in relationship factor causing GAD**



**DISCUSSION:**

GAD is characterized by excessive uncontrollable worry and anxiety about daily routine. Disorder also affects routine functions of the individuals. This research topic was selected because anxiety in medical students is a serious issue which reduces

their efficiency and competency. This issue is not considered as seriously as it should be so there was a dire need to conduct a research on this. Medical studies demand strong nerve. By this research we tried to find out the factors which are causing GAD so that proper measures can be taken to help the

students in every possible way. The factors causing GAD in medical students are quite variable and differ from student to student. Our study showed that the following factors are more commonly responsible for causing GAD in medical students:

In our study the major factors causing GAD in medical students were found to be work load (82%), long examination tenure prevalent in 76%, fear of failure present in 79%, long study hours in 64% of students and home sickness also seems to play a major role as reported by 58% of students (hostelites). While in another study conducted at Seth G.S medical college Mumbai showed that previous academic achievements and physical and emotional factors are mainly responsible for causing stress in medical students<sup>11</sup>. In our study the most important factors were workload (82%) and fear of failure (79%) while another study conducted in Dow medical college Karachi showed that extensive course loads, lack of physical activity, long duration of exams and improper nutrition were the main factors responsible for causing anxiety in medical students<sup>3</sup>. In our study health status was not found to be a major factor causing anxiety in medical students while the study at Duke university Durham showed that students who were more satisfied with life and had a better health status had few symptoms of depression and anxiety<sup>12</sup>. While assigned workload, performance pressure, and self-efficacy beliefs constituted the most stress-provoking factors according to a study conducted in Greek dental students<sup>13</sup>. According to our study academic factors are mainly causing GAD while a study conducted in Selcuk University Konya Turkey external pressures, expectations from medical education and desire to become a doctor were main factors affecting anxiety levels in medical students<sup>14</sup>. The results of our study indicated that fear of failure, work load and long examination tenure were mainly anxiety provoking factors in medical students and a study conducted in Hanyang University College of Medicine, Seoul, Korea also showed that increased burden of information to be learned by medical students is causing anxiety [15].

### CONCLUSION:

The most prevalent factors causing anxiety and GAD in medical students according to this study are work load, long examination tenure, fear of failure, long study hours, homesickness. The other factors include previous academic achievements, competition for getting position, health status, parental influence, worry

about financial status, emotional factors and lack of extracurricular activities.

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