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Research Article

**PREVALENCE OF STRESS AND ITS CAUSES AMONG  
MEDICAL STUDENTS**<sup>1</sup>Dr. Gul Muhammad, <sup>2</sup>Dr. Azka Naseer, <sup>3</sup>Dr. Amrita Rizwan<sup>1</sup>Senior lecturer Shahida Islam medical and dental college, Lodhran<sup>2</sup>W.M.O at THQ 90 S/B Sargodha<sup>3</sup>Demonstrator at Khawaja Safdar medical college, Sialkot.**Abstract:**

**Objective:** Determining the prevalence of stress among medical students and determining the relationship between anxiety, Academic year, Grades, Physical issues and consistency. **Methodology:** 500 medical students were enrolled in this study from July 2017 to June 2018. They were attending 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and the final years of medical studies. They were requested to finish stress inventory. **Setting and type:** It is a cross sectional type of study done in the University of Lahore, college of medicine. **Results:** In the wake of getting 80% response rate, up to 400 responses from the students were recorded. 60% subjects were found with a wide range of stress while serious stress was seen in 23% of the cases. A critical relationship was found between study years and levels of stress. The relationship between levels of stress and academic performance and grades was not found factually considerable as dissemination of stress prevalence was not impressively disparate over each of 04 academic grades. Fundamental reason of stress was their studies (63.30%). In 3.6% cases the reason was personal issues or domestic environment. Of the patients enrolled 38.9% of cases didn't show any other main reason of stress. **Conclusion:** During first three preliminary years of medical studies, severe mental stress was seen in students. It might be the reason for challenge to students, failure of support service delivery to alleviate mental issue and provide them with common health ways to cope with such issues.

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**INTRODUCTION:**

Stress is the part and parcel of medical studies. It brings various psychological and social changes among the medical students specially undergraduates. There are emerging patterns of stress in medical students. It seems in different studies that students encounter individual stress amid the course of their medical studies. To secure mastery in scholarly syllabus, negative impacts of stress can prevent it. Different factors like personal or family issues, stress, physical issues etc are faced within the period of medical studies. Eventually, they can influence learning and cognitive capacities of understudies, Keeping in view the strict modules of examinations, the pressure is always expanding inferable from unwanted rivalry among the students instead of collaboration and coordination among them. As indicated by an examination, it has been noticed that pressure rises when a student gets admission in Medical institution and subsequently stays poor in his preparation as well. Stress may proceed unabated from school life undergraduate level and then subsequently to the specialist or post graduate level. As per reviews done, 4 British universities recorded stress to be in 34.10% students. Level of Stress was recorded to be 55% in Malaysian Medical School. Stress rate was noted to be 65.30% in Thai Medical School. In medical schools, stress may trigger later complexities throughout everyday life and students have once in a while looked for medical guidance. According to the Swedish research depressive signs seen as in 14.10% medical students and 3.1% of students made endeavors of suicide.

Accordingly it is of foremost importance for the teaching staff to pay due attention to such cases before the irreversible damage to the personality of the student has been done. Generally such confusions won't just influence their health but academic achievement as well.

A web based examination has neglected to harvest any organic or pharmaceutical product if there should be an occurrence of predominance of stress among Medical students in Pakistan

**Objective of study**

1. To assess the frequency of the self perceived stress among the undergraduate students of medical college.
2. To determine the connection between feelings of anxiety also examine factor: (i) Academic year  
(ii) Academic grade (iii) personal or family issues (iv) Physical issues.

**METHODOLOGY:**

A number of measures were taken to relieve the medical students from stress and depressive symptomatology. For assessment various tools were used i.e. General health questionnaire and Beck's Depression inventory.

Colleagues and Kessler introduced Kessler10 Psychological Distress (K10) which is commonly used to assess present disturbance in population based epidemiologic studies. It is mostly used in surveys to find out the Distress level and the severity of psychological symptoms. It is frequently used for the assessment of Clinical outcome by World mental health survey and World Health Organization.

There are 10 questions in Kessler10 form with 05 level response scale. The range of core is 2-5.

A patient having Score less than 20 indicates he has no mental illness. And the score from 20 to 24 shows he is suffering from mild disorder.

Score range from 25 to 29 points out moderate disorder. Severe disorders indicated when the range of 30 to 50.

Before the one of exam Kessler10 forms distributed among the undergraduate medical students of 05 years session at college of medicine. Participants obtained all questionnaires. Some extra questions were about the academic achievements, medical health issues in past three weeks, stress source and the number of days with no academic activities.

The research professionals properly guided the participants about the form and the instruments. Students who participated, responded without any time limitations. Also ensured the solitude of the students.

The final result of study was accomplished by research ethical committee.

Microsoft office was used to record data. SPSS (ver 21.0) software used to accomplish the analysis of the data of examination. The Calculation of frequency of an event variable with confidence period 85% was executed to pursue and quantify a connection between study variables and categorical outcome. Along with odds ratio, Chi-square were used. For the comparison, mean values of study factors with respect to stress. T-test of students was utilized for independent samples. The result of P-value less than 0.05 was considered to be important. By taking into 03 different level of stress i.e. mild, moderate and severe, the final variable stress was categorized.

**RESULTS:**

From 700 students, 535 (76%) response rates was obtained. The mean age of the study was 22.8±1.3 years. All types of the stress frequency were noted as 59%, while 20.1% severe stress rate was observed (Table 1). In table 2 there is study variable

distribution. 73.3% stress rate was noted in 1<sup>st</sup> year which is higher as compare to other academic years. 68.8% in 2<sup>nd</sup> year, 46.30%, 31.50%, 47% were measured for 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year respectively.

**Table 1: Level of stress among Students**

Not stressed	41%
Mild	22%
Moderate	17%
Severe	20%

**Table 2: Distribution of factor of study sample**

Variables	Data
<b>Academic year</b>	<b>n=535</b>
1 <sup>st</sup> year	129
2 <sup>nd</sup> year	114
3 <sup>rd</sup> year	156
4 <sup>th</sup> year	77
5 <sup>th</sup> year	59
<b>Academic grading</b>	<b>n=451</b>
Outstanding	226
Good	115
Satisfactory	79
Unsatisfactory	31
<b>Regular to academic course</b>	<b>n=496</b>
Yes	451
No	45
<b>Physical issue</b>	<b>n=470</b>
Severe	29
Mild to moderate	164
No	277

**Table3: Co-relation between stress and the academic years.**

Academic year	Stress rate	
	No	Yes
1 <sup>st</sup> year	28 (21.7%)	101 (78.29%)
2 <sup>nd</sup> year	38 (33.33)	76 (66.66%)
3 <sup>rd</sup> year	75 (48.07%)	81 (51.92%)
4 <sup>th</sup> year	50 (64.93%)	27 (35.06%)
5 <sup>th</sup> year	30 (50.84%)	29 (49.15%)
<b>Academic grading</b>		
Outstanding	95 (42.03%)	131 (57.96%)
Good	56 (48.69%)	59 (51.30%)
Satisfactory	33 (41.77%)	46 (58.22%)
Unsatisfactory	12 (38.70%)	19 (61.29%)
<b>Regular to academic course</b>		
Yes	201 (44.56%)	250 (55.43%)
No	18 (40%)	27 (60%)
<b>Physical issues</b>		
Severe	12 (41.37%)	17 (58.64%)
Mild to moderate	70 (42.68%)	94 (57.31%)
No	106 (38.26%)	277 (61.73%)

It is noted that, with the increasing of academic years, the level of stress was reduced. The relation between the level of stress and the academic grades is not so important as the prevalence of stress is similar across all study grades. No considerable co-relation was determined between the regularity and the stress levels of study subject. The stress level seems almost same in students either regular or irregular to academic course. Frequency of physical health issues are interlinked to the level of stress. The main reason of stress was their studies 62.1%. The influence of Home environment was noted to be 3.1% while 34.8% of cases showed the uncertain causes.

### DISCUSSION:

76% response rate was recorded in our study. This study indicates that high value of prevalence of stress or depression was found at different stages of academic life. Higher the stress levels not only distort the psychological health but afflict their ideas diminishing their cognitive abilities and their grades. In this study 59% of stress prevalence is found which coincide to the Thai research i.e. 61.4%. It was higher than British research that is 31.2%. This study shows an interesting relationship that decreasing the ratio of stress prevalence with the increasing study years. These results coincide with results of our study that indicates that the stress level is more affected by the grades than the academic years. It has confirmed by other researchers that mental health of students declines after getting admission in medical institutes. It is important to mention here the uniqueness results of our study that shows that the students might have changed behavior and developed a coping mechanism due to our student's support delivery system. Another point is our education here is free of cost and a small stipend is as well granted to the students during the studies. While students of foreign countries may have increased stress level owing to burdensome studies. This is not same in case of colleges as Ministry of education render help the students. Medical studies and its adverse effects have been highlighted by many researchers [02]. A British study has reported that one third students of medicine do not graduate from medical college due to psychological issues. The problems that originate in early stages can be prevented by effective service delivery system of psychological and counselling services. Additionally, lack of social life and pressure of academics can be other reasons. Earlier diagnosis of anxiety and stress and other issues can pose risk of any future complications [01].

This comprehensive study of ours, presents a pragmatic proof of declining psychological health of our medical college students. During the first three years of academics, serious stress and psychological distress was seen in the students. A proper student support service and counselling service must be initiated so that this preventable serious condition can be avoided.

A same of study was conducted in India, and it shows that in initial years (1<sup>st</sup> and 2<sup>nd</sup> years) (59%) and (65%) the symptoms anxiety were significantly higher as compared to later years (3<sup>rd</sup>, 4<sup>th</sup>) (34%) and (37%) [15]. The students from the other parts of the world shows a prominent figure in statistics (41%) from Malaysia, and University of Mississippi USA (23%) and 57% from Singapore were recorded to be having various stress, emotional disorders and anxiety [13]. Anxiety and depression is common in all across the world. In developed countries, an almost (47%) population suffers from depression and anxiety disorders and of them (35%) manage to get proper treatment through medical care. According to an estimate, (50 Million) people are, now, suffering from different types of anxiety and stress disorders in the world. In rural population, (40%) people point out to various symptoms of anxiety. According to an estimate, in a few coming years, anxiety will be the strong root cause for maximum psychological disabilities in the world [10]. The factors that affect the cognitive skills and developing anxiety and depression disorders must be detected, diagnosed and cured in appropriate time [9]. Another important factor is study related anxiety that cannot be underestimated as the sense of undue competition among the students and contents of the academic course emphasize on making big efforts which consequently cause hazardous effects on mental capabilities. These students are more likely to become the victim of stress and anxiety as having limited experience and exposure to this stressful environment. In case of student of medical school, the chances become more wider for being a victim of stress as compared to the students of other departments and fields. Not all, but a good number of the students experience anxiety and depression [11].

### CONCLUSION:

It is concluded from the results of our study that our educational structure has stressful effect on the student's mental and as well as physical health and the mental health is rapidly deteriorating. Proper measures must be taken by the government as well as local administration of the institutions, so that such problems can be prevented from causing chronic ailments.

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