



## Frequency of Stress among Medical Students

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### ABSTRACT:

Stress arises once an individual is unable to handle a situation. Continuous stress may lead to certain complications.

**Objective:** To see the frequency of stress among medical students.

**Material and Methods:** This cross-sectional study included 182 medical students of fourth year and final year from different medical colleges of Pakistan. A pre-designed questionnaire was served to the students. Different questions about stress, its reasons and handling techniques were asked. Data were analyzed with SPSS V.23.

**Results:** 135 (88.2%) out of 182 medical students including 69 females (45.09%) and 66 males (43.13%) reported that they faced different kinds of stress i.e. continuous or random stress during their academic and clinical rotations. Different kinds of handling techniques were isolation, handing out with friends, focusing on studies etc.

**Conclusion:** Most of the medical students face stress during their academics and clinical rotations. This stress may be for a smaller time or longer time depending on the nature of stress and ability of the student to cope with the stress.

**Keywords:** Depression, Anxiety, Stress, Medical Education

### INTRODUCTION:

According to the studies, stress is usually defined as the condition in which an individual is not able to tackle difficult and challenging situations. Stress is a common condition and can be found at any age especially teenagers or young adults who are coping with their studies, careers, and growth. It is also increasing with the passage of time. The reason might be the increasing population, low incomes, illnesses or limitations in the social or working life<sup>1</sup>.

According to some studies held in Pakistan<sup>2</sup>, Great Britain<sup>3</sup> and Malaysia<sup>3</sup>, the ratio of stress levels among the medical students was above 70%, 31.2%, and 41.9% respectively. In the medical field, students face a lot of challenges, especially during their educational and clinical trainings. According to some studies, this stress might be increasing due to the peer pressure they face during

their studies<sup>4</sup>. Other factors that may lead to the stress are hostel life, limited opportunities for relaxation or fear of the future. In Pakistan, people usually live in combined families and are habitual of living social life so living in the hostels where they are away from their families and also they don't get the proper meals. Different kind of recreations and leisure are important for a healthy life. A medical student also misses this kind of things due to the vast and most demanding studies and clinical rotations<sup>5</sup>.

If an individual takes stress for a longer period of time, it may result in certain complications such as poor mental health, cardiac issues, increased blood pressure, increased musculoskeletal problems and most dangerous of all is suicidal thoughts. Due to this stress, a medical student is neither able to concentrate of his studies nor he performs well in his clinical rotations resulting in failure to achieve to better knowledge which hampers his approach to become a better health professional which ultimately leads to inappropriate treatment of patients, therefore a failed system<sup>6,7,8</sup>.

This study was conducted in order to see the frequency of stress among the medical students, identify different factors that may lead to the stress and the methods or techniques which medical students use in order to relieve the stress or anxiety. This study will help us in making policies and systems that will help students study in a stress-free environment and enable them to cope the different kind of stresses they will face during their clinical rotations and health practice.

### MATERIAL AND METHODS:

It was a cross-sectional study and was conducted in fourth and final year medical students from different medical colleges of Pakistan. Total of 182 medical students was included. Students who were living in the hostels were included. Married or day scholar students were excluded from this study. Purpose of this study was explained to them, consent was taken and a questionnaire was given. Data was collected from different students, entered and analyzed in SPSS Ver. 20. Categorical i.e. quantitative variables were expressed as numbers



and percentages and quantitative variables were presented as mean and standard deviations.

### RESULTS:

A questionnaire was served to 182 medical students, only 153 students returned the proforma i.e. response rate was recorded to be 84.06%. Among 153 students there were 80 (52.3%) female students and 73 (47.7%) male students. Mean age of the students was  $24.46 \pm 1.219$  years. Mean age of the female students was  $24.35 \pm 1.284$  years and mean age of the male students was  $24.58 \pm 1.142$  years. Eighteen students (11.8%) including 11 females (7.18%) and 7 males (4.57%) reported that they never experienced stress during their studies or clinical rotations. One hundred and thirty-five students (88.2%) including 69 females (45.09%) and 66 males (43.13%) reported that they are facing stress or they have faced the stress earlier in their career. Eighty-one students (52.94%) face persistent or constant stress and 54 students (35.29%) face occasional or random stress. Different types of stress and their coping techniques are given in table I and II. Symptoms noticed during the stress were low energy, lack of sleep, despair or hopelessness and in some cases suicidal thoughts.

Conditions	Male	Female	Total	%
Hopes of the family	9	13	22	16.30
Hostel	8	12	20	14.81
Absence of different recreations	4	11	15	11.11
Examinations	7	10	17	12.59
Doubts about the future	15	8	23	17.04
Class Attendance	8	5	13	9.63
Daily assignments	6	3	9	6.67
Health	3	2	5	3.70
Unprofessional teaching methods	6	05	11	8.15
<b>Total</b>	<b>66</b>	<b>69</b>	<b>135</b>	<b>100%</b>

**Table-I: Distribution of students taking the stress**

Handling Techniques	Male	Female	Total	%
Attend Counselling sessions	5	7	12	8.89
Focus more	21	17	38	28.15

Handling Techniques	Male	Female	Total	%
on studies				
Hanging out with friends	10	8	18	13.33
Isolation from the friends and class fellows	8	13	21	15.56
Listening to the music	7	9	16	11.85
Sleeping for a longer time	6	12	18	13.33
Smoking and tobacco usage	9	3	12	8.89
<b>Total</b>	<b>66</b>	<b>69</b>	<b>135</b>	<b>100</b>

**Table-II: Various handling techniques in order to cope the stress**

### DISCUSSION:

Stress has multifaceted factors and it is very difficult to look into a single cause of stress. In our study, different medical students described different types of stress and different techniques of handling the stress. In our study more females reported stress than male students. This is in accordance with the study by Wentz<sup>9</sup> and Misra<sup>10</sup>. It was noticed that most of the students were facing continuous and constant stress during their studies and clinical rotations. It brings out attention to the reasons that why is it happening i.e. two most common factors are doubts about the future and hopes of the family. Due to recent changes in residency structure of Pakistan especially Punjab, there is an uncertainty among the students regarding the future. Moreover salaries of the doctors in Pakistan are low so most of the medical students also have this fear of low income and low quality of life<sup>11</sup>. In Pakistan, where we have a strong family background, hopes of the family as also very high<sup>12</sup>. Other main reasons were hostel life, absence of different recreations, examinations, and assignments. Another factor noticed was poor teaching methodology. This factor also imposed stress on different students<sup>13</sup>. Reason might be that many students who are unable to understand their daily lectures due to poor teaching technique, will ultimately score low in their assignments and examination leading to inadequate professional training, hence leading to more stress. According to other studies, academic pressures i.e. assignments, presentations, clinical rotations and final examinations enforce the anxiety and stress on the students.



Different techniques were used by the students in order to relieve the stress. Most frequent technique among the male students were focusing on the studies, hanging out with the friends and smoking and among females were isolation from the friends and class fellows, sleeping for a longer time and focusing on studies. These findings endorse our culture where females don't hang out too much and just isolate themselves for a limited time. Smoking or tobacco usage has a very low proportion among the females.

#### LIMITATIONS:

We conducted this study in a smaller number of medical students. Few questions were also not

asked i.e. the status of family income, relationships with opposite gender students and upcoming martial challenges.

#### CONCLUSION:

Most of the medical students face stress during their academics and clinical rotations. This stress may be for a smaller time or longer time depending on the nature of stress and ability of the student to cope with the stress. There is a need to implement health and stress counseling sessions for the medical students which will enable them to become a better health professional leading to increased patient care and ultimately a healthy system.

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