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PHARMACEUTICAL SCIENCES**<http://doi.org/10.5281/zenodo.3589965>Available online at: <http://www.iajps.com>**Research Article****STRESS IN MEDICAL STUDENTS AND BARRIERS THAT  
PREVENT THEM FROM SEEKING PSYCHOLOGICAL HELP**Tayyaba Ismail<sup>1</sup>, Madiha Sarwar<sup>1</sup>, Hafiz Anzal Farooqi<sup>2</sup>, Sumbal Mushtaq<sup>1</sup><sup>1</sup> Rawalpindi Medical College, Rawalpindi<sup>2</sup> Medical Officer, Holy Family Hospital, Rawalpindi**Abstract:**

**Background and Objective:** Stress has been well documented in students in general and in medical students in particular all over the world and its incidence has been rising over time. Medical students have a better access to mental health care facilities than their non-medical counterparts; but they are usually reluctant to seek help. We carried out this study to assess the level of stress among the medical students of Rawalpindi Medical College and also to determine the factors that prevent students from seeking psychiatric help.

**Methods and Material:** This descriptive cross-sectional study was conducted at Rawalpindi Medical College. 250 students in the study using stratified random sampling based on year of study and gender. We collected our data using a structured questionnaire that included students' demographics, Kessler's scale to measure level of stress (scores 0-19 were labelled as no stress, 20-24 mild stress, 26-29 moderate stress, and 30 and above severe stress) and questions on factors that prevent students from seeking psychological help (i.e. stigma, confidentiality issues, self-treatment, fear of side effects, concern about time, expense and future medical career). All the data was entered and analyzed in SPSS version 22.

**Results:** Out of the 250 students included in the study, 130 (52%) had no stress, 62 (24.8%) had mild stress, 32 (12.8%) had moderate stress and 26 (10.4%) had severe stress. Only 27 (10.8%) students said that they seek psychological help when stressed. The factors that prevented students from seeking help were self stigma (in 39.2% students), fear of social stigma (26.8% students) confidentiality issue (19.2% students), the belief that they could treat themselves (62.4%), concern about time and expense (33.6%), fear of side effects of psychotherapy (38.4%), concern about future medical career (36.4%).

**Conclusion:** Stress among the students of RMC is very high. Majority of the students do not prefer to seek help, and self-treatment, fear of stigma and fear of side effects are the common reasons preventing them from seeking psychological help.

**Key Words:** Stress, psychological help, Kessler's scale.

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**INTRODUCTION:**

Stress takes its toll when “demands exceed the personal and social resources than the individual is able to mobilize”. Human race has experienced a continuous rise in the level of stress over the past few decades and medical literature claims that 3 out of 4 Americans report experiencing at least **one stress symptom** in the last month and **34 percent** report fatigue due to stress. <sup>(1)</sup> An insight into the stressed population reveals that students are amongst the high risk population when it comes to stress and further dissection discloses that medical students are most vulnerable to it. This has been proved by a number of studies done across the globe. A study conducted in damam, Saudia Arabia revealed that 48.6% of the medical students were stressed while frequency was 38.7% in non-medical students. <sup>(2)</sup> Stress levels at Institute of Medical Sciences & SUM Hospital, S ‘O’ A University, Bhubaneswar, India, and College of Medicine, King Saud University, Saudi Arabia according to the researches conducted were found to be 53% & 63% respectively. <sup>(3,4)</sup> In a study carried out by Allama Iqbal Medical College, Lahore, 71.67% medical students were found to be moderately stressed while 20.83% were severely stressed, while another study conducted at Lahore medical and dental college, Lahore, found that 43% medical had moderate and 28% had severe stress <sup>(5,6)</sup>.

Various factors have been linked to stress in medical students, the most significant of which are examination stress, vast syllabus, hostel environment and less time and facilities for entertainment. <sup>(7)</sup> These factors, if not coped up properly might lead to devastating consequences like deteriorated academic performance, substance abuse and suicidal ideation. <sup>(8)</sup>

These consequences can be avoided by adopting good coping strategies and seeking psychological help when needed. However, seeking psychological help is not considered a preferred act in our society. When explored in this context, it was found that, lack of confidentiality and stigma are the major barriers towards psychological help seeking among medical students. A Malaysian study reports that 11.1% of the medical students like to seek psychiatric help. <sup>(9-11)</sup>

The alarming statistics of stress in medical students and its devastating consequences, coupled with the barriers towards psychological help seeking make it the need of the hour to address this issue. The current study thereby aims at assessing the level of stress in medical students of Rawalpindi Medical College which is one of the leading medical colleges of the country and produces about 350 graduates per year. It

will also identify the barriers towards psychological help seeking. The information generated thereby can prove to be of profound help in devising strategies for overcoming the barriers to seeking psychological help and also streamlining high-quality coping strategies for the immense stress that medical students face during their stay in a medical college.

**METHODS AND MATERIALS:**

This descriptive cross sectional was carried out in Rawalpindi Medical University. With the help of WHO Sample Size Calculator sample size was calculated as (Confidence level 95%, absolute precision 3%, anticipated population proportion 7.6% <sup>(12)</sup> Sample size =  $n = \frac{218}{0.076}$ ), but for ease of analysis we included 250 students in our study. Study participants were sampled using stratified random sampling based on year of study and gender.

**Data collection and Analysis:**

All participants were explained the purpose of the study and informed consent was obtained. A specifically designed questionnaire including questions on the students' demographics, Kessler's Psychological Distress Scale k-10 <sup>(13,14)</sup>, and questions about behaviour and barriers towards seeking professional psychological help was administered. The questionnaire is attached as Annexure 1. Data was analyzed in Statistical Package of Social Sciences, SPSS (version 22). For All the categorical variables like gender, year of study, boarding status and other demographics, level of stress, and barriers frequencies along with percentages were calculated. For continuous variables like scores on Kessler's scale mean along with standard deviation were calculated. Appropriate statistical tests were applied to determine any significant relation between stress and demographic variables and between stress and barriers towards seeking psychological help.

**RESULTS:**

Among the 250 students included in the study, 75 (30%) were males and 175 (70%) were females. Equal no. of students were included from all classes i.e. 50 (20%) students from each class. 79 (31.7%) students were boarders while 170 (68.3%) were non boarders. The education status of the mothers of participants was: 17 (6.8%) had no formal education, 35 (14.1%) were educated till matriculation and 197 (79.1%) were educated above matriculation level. 116 (46.8%) students had attended psychiatry wards while 132 (53.2%) had not attended psychiatry wards. 27 (10.8%) of the participants had a positive personal or family history of psychiatric illness while 222 (89.2%)

did not. 116 (46.4%) participants had a doctor in their immediate family while 134 (53.6%) did not.

The stress score on Kessler's scale attained by the participants had a mean value of 20.67 (SD  $\pm$  6.787). The score had a max value of 49 and a min value of 10 (range = 39). Students' stress scores were categorized according to Kessler's scale and it was found that 130 (52%) students had no stress, 62 (24.8%) ad mild stress, 32(12.8%) had moderate stress and 26 (10.4%) participants had severe stress. Overall more females (77.5%) were stressed as compared to males (22.5%). This difference was significant with chi statistic = 6.181, p-vale = 0.013.

Out of the total students (N=250), only 27 (10.8%) students said that would be willing to seek

Table 1 enlists the barriers towards seeking psychological help, perceived by medical students

BARRIERS	Overall Students N=250	Stressed N=120
Self stigma	98(39.2%)	47(39.2%)
Social stigma	67(26.8%)	36(30%)
Confidentiality	48(19.3%)	27(22.7%)
Self help	156(62.4%)	76(63.3%)
Time and expense	84(33.9%)	51(42.5%)
Fear of side effects	96(38.4%)	40(33.3%)
Implications for future career	91(36.7%)	45(38.1%)

More stressed students (42.5%) sited time and expense as a barrier as compared to non-stressed students (25.8%). This difference was statistically significant, chi statistic = 7.729, p-value = 0.005. As the severity of stress increased, more students sited time and expense as a barrier. (25.8% non-stressed, 41.9% mildly stressed, 31.3% moderately stressed and 57.7% severely stressed). Chi statistic for this difference in stress severity is 12.225, and p-value is 0.007; indicating that the difference is significant. As the severity of stress increased, more students sited confidentiality as a barrier (16.2% non-stressed, 16.1% mildly stressed, 21.9% moderately stressed and 40% severely stressed). Chi statistic for this difference in stress severity is 8.248, and p-value is 0.041; indicating that the difference is significant.

## DISCUSSION: STRESS

Stress is a broad term, which in medicine is used to refer to a range of physical and psychological states. Psychology aptly distinguishes between eustress and distress; the former providing the necessary physical and mental stimulation to cope up with a challenging environment while the later defines a state where an

psychological help, if needed while 222 (88.2%) said that they would not. Among the stressed students (N=120) only 18 (i.e. 15% ) students said that they were willing to seek psychological help while 102 (85%) said that they would not. More stressed students were willing to seek psychological help as compared to non-stressed students (15% stressed compared to 7% non-stressed students). This difference was found to be statistically significant; chi statistic 4.140, p-value 0.042.

Among those willing to seek help, educational status of their mothers was as follows: 18.5% had no formal education, 11.1% were educated till matriculation and 70.4 % beyond matriculation. This difference was significant with chi statistic 6.494 and p-value 0.039.

individual is unable to cope. Several psychological tests and scales have been developed to quantify an individual's level of stress. We applied Kessler 10 scale on our study participants. This test measures stress by questioning the participant about his psychological health over a 1 month period.

Using the K-10 on medical students we found that approximately half (48%) students were stressed; 24.8% having mild, 12.8% moderate and 10.4% severe stress. These figures are disturbing and are comparable with similar researches conducted worldwide. A study conducted in an Indian medical school found that 47% of their students were stressed; 10.8% students had severe and 2.3% students had extreme stress.<sup>(3)</sup> Similarly, a study conducted in Riyadh found that 64% students were stressed and 25.2% had severe stress.<sup>(4)</sup> The slightly lower level of stress in our participants may be due to the fact that we conducted our study during the mid of the academic year; whereas the other two afore mentioned studies were conducted shortly before the students' exams. Examinations have always contributed to students' stress.

## STRESS AND GENDER

As expected, we found a significant association between stress and gender ( $p$  value=0.013) with stressed females being more stressed than males. This was similar to the studies at Riyadh ( $p$  value<0.0001)<sup>(4)</sup> and India ( $p$  value<0.0001)<sup>(3)</sup>, where proportion of females having stress was more than males. This could be attributed to hormonal differences between males and females, & genetic predisposition of females

### STRESS AND ATTITUDE

Only 15% of stressed students in our study said that they would be willing to seek professional help. In a study conducted in Malaysia, 28.6% participants were willing to seek help from psychiatrists and counsellors.<sup>(11)</sup> We found a significant association between stress and willingness to seek help ( $p$  value=0.042). This explains the toll of stress on the mental health of the student, aggravated and worsened by the inability to cope with it, resulting in a need to reach out to psychiatric services.

### Attitude and mother education level

Interestingly, we found that participants whose mothers were educated were more willing to seek help as compared to those whose mothers were not educated. This association was statistically significant ( $p$  value= 0.039%). This highlights the importance of education and the role it plays in the upbringing of children.

### Stress and barriers

The most frequently occurring barriers to psychiatric help seeking was wanting to **work out mental health issues on one's own(63.3%)**( replaced "self help" with this phrase), next to time and expense(42.5%) and self stigma(39.2%), whereas a south indian study reported confidentiality(61.2%), fear of unwanted intervention (56.4%), and stigma(45.8%) as the top 3 barriers<sup>(9)</sup>. Another study which aimed at reviewing the literature on perceived barriers to psychiatric help seeking, reported stigma as the most common barrier, next to confidentiality.<sup>(10)</sup>

An interesting finding in our study was that significant relation was found between level of stress and 2 of the barriers, namely time & expense ( $p$  value=0.007), and confidentiality( $p$  value=0.014). We found that as level of stress increased more students reported confidentiality (16.2% non-stressed, 21.9% moderately stressed and 40% severely stressed) and time & expense as a barrier 25.8% non-stressed, 41.9% mildly stressed, 31.3% moderately stressed and 57.7% severely stressed)

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## ANNEXURE : QUESTIONNAIRE

**Gender:** M  F

**Year:**

**Have you had your psychiatric ward yet:** Yes  No

**Are you a:** Boarder  non boarder

**Education of mother:**

A. Illiterate

B. Matriculation

C. More than Matriculation

**Is any member of your immediate family a doctor?** Yes  No

**Do you have any personal or family history of psychiatric illness?** Yes  No

These questions concern how you have been feeling over the past 30 days. Tick a box below each question that best represents how you have been.

### KEY:

A little of the time = a total of 4-5 days in the past 30 days

Some of the time = a total of 9-10 days in the past 30 days

Most of the time = a total of 15-20 days in the past 30 days

All of the time = all 30 days of the past 30 days

### 1. During the last 30 days, about how often did you feel tired out for no good reason?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

### 2. During the last 30 days, about how often did you feel nervous?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

### 3. During the last 30 days, about how often did you feel so nervous that nothing could calm you down?

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**4. During the last 30 days, about how often did you feel hopeless?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**5. During the last 30 days, about how often did you feel restless or fidgety?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**6. During the last 30 days, about how often did you feel so restless you could not sit still?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**7. During the last 30 days, about how often did you feel depressed?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**8. During the last 30 days, about how often did you feel that everything was an effort?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**9. During the last 30 days, about how often did you feel so sad that nothing could cheer you up?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**10. During the last 30 days, about how often did you feel worthless?**

1. None of the time
2. A little of the time
3. Some of the time
4. Most of the time
5. All of the time

**BARRIERS TOWARD S SEEKING PSYCHOLOGICAL HELP:**

11. when u feel stressed, do you seek psychological help?

Yes

No

12. Having been mentally ill carries with it a burden of shame.

Yes

No

13. I would feel uneasy going to a psychiatrist because of what some people might think.

Yes

No

14. I would not like to seek psychiatric help because I feel that they wouldn't keep my personal information confidential.

Yes No 

15. A person should work out his own problems; getting psychological counseling would be a last resort.

Yes No 

16. considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.

Yes No 

17. Although there are clinics for people with mental troubles, I fear the side effects of their treatment.

Yes No 

18. as there is a possibility that my psychiatrist could be my future Colleague/supervisor, seeking psychological care from him might have negative implications for my future career.

Yes No