

# Perceived Stress and Coping Strategies among Medical Undergraduates in Pakistan

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## ABSTRACT

**Background:** Stress is very common and alarming problem among medical students now days. There are so many outcomes related to chronic stress like certain negative mental and physical health consequences can occur due to long standing stress. **Objective:** This study explores possible outcomes of the condition of stress among the medical students and their coping strategies. **Study Design:** Cross sectional study. **Settings:** All five years of medical students of Jinnah Medical and Dental College, Karachi Pakistan. **Duration:** This study duration was 1<sup>st</sup> January'21 to 31<sup>st</sup> December'21. **Methods:** This study constitutes total of 264 students whom actively get engaged in the study. As well this purposeful sample covered senior students who had already fulfilled various clinical rotations in tertiary care hospital. Among the participants semi structured interviews were conducted, in which many structured questionnaire was utilized. **Results:** The study revealed that about 264 out of 300 students 300 (88%) was filled in the questionnaire. Out of 264 students, 150 were females and 114 were males. Ninety-four percent of the male share physiological and emotional stress. The entire senior under graduate students belongs form fourth and a final year of Jinnah Medical and Dental College feels more stress which exceeds approximately 95% and 98% respectively. Mood swings, poor concentration and loss of temper perceived as common symptoms. Powerful stress during the academics and exams. Coping mechanisms include sports, music or hanging out with friends. **Conclusion:** It has been observed by the study that although student life is very much exciting and fruitful but it can also be very much affected by environmental conditions and several others challenges by others, because of its transitional duration. Apart from it there are so many challenges which the students can face practically. So, there is need to consider not only the education and knowledge of medical students as well as their professional training but there is need to evaluate and enhance their quality of life during the whole tenure (in between and after medical school years for their upbringings in professional life and career growth. It has been concluded that Medical students are those pupils whom always trying and still struggling for the achievement of their goals by certain healthy and justified fruitful and healthy stress coping strategies. In this regard the substantial need for the implementation of stress management programs in order to stimulates the students' coping capabilities.

**Keywords:** Coping strategies, Medical students, Cross sectional.

## INTRODUCTION

The term stress can be defined as any type of change that leads to any emotional, physical, or psychological strain. In general it is our body return to of all the things that requires more attention or some

action. It is a state in which the demands become more than the capacity of an individual to respond. It often exerts a negative impact on individuals' physical and psychological health.<sup>1,2</sup> Medical students across the world are expected to learn a lot of knowledge to occupy

themselves in multiple tasks in order to construct great efforts with limited time and energy.<sup>3</sup> The medical institution is a place that given lots of psychological distress and various academic challenges faces by them and make the students susceptible to various stresses and depression.<sup>4</sup> The valuable amount of the knowledge exerts the least possible ways for recreation and relaxation to do some things or taking action, also sometimes it causes drastic sleep deprivation.<sup>5,6</sup> The huge amount of stress or chronic stress can affect mental response and growth as well as physical health and also increases the risk of premature mortality.<sup>7</sup> Medical students are more vulnerable to become ill than others. Bad health may have an impact on learning capacity and academic performance along with some goal achievements.<sup>8</sup> Stress also exerts influence on social relationships of the students, thus affecting their mental health. Medical students utilize multiple extracurricular activities, different physical sports modalities as well as different methods for coping with stress and anxiety.<sup>9,10</sup>

Students takes advantages of various coping strategies to control the levels of stress.<sup>7</sup> The stress can continue in the transition period from level of student till the time of interne, where they can acquire the additional responsibilities of their patients' care and support.<sup>11</sup> Coping skills are flexible tools that we proactively administer to escape burn out. These various tools can be our thoughts, emotions and actions and are based on our personal pattern. There are different theories like Coping theory which has been classified into focus-oriented theories and approach-oriented theories. Focus oriented theory identifies the peoples' internal ability to estimate and adapt stressful situation. Approach oriented theories deals with how concrete are the coping devices.<sup>12</sup> Stresses and coping strategies diverges among the two genders where women adapts much emotion focused approach and more capture to centered the negative avoidant coping strategies than men.<sup>13,14</sup>

In consideration with the importance of this valuable topic, the need is to construct the best possible understanding of different causes and sources of stress among the medical students. Although lots of different studies have been conducted in this regard but the literature is still insufficient. There are very few studies focusing on the coping mechanisms. The study identifies various modes of different perceptions of stress faces medical students as well as all useful coping strategies they may attempted to coup with the entire problem.

## METHODS

The cross-sectional study was conducted from January 01, 2021 to December 31, 2021, among the all-undergraduate medical students of all five years of MBBS at Jinnah Medical and Dental College, Karachi. A total of

264 students (females= 150, males= 114) participated in the study. The study includes all those senior students who had already done the various clinical rotations. Semi structured interviews were conducted with the participants, in which a structured questionnaire was administered. In this study the study sample was collected from different persons with taken in to account with sex, year of study, residence as well as the level of financial assistance from institution. Data was entered and analyzed with SPSS version 24.

## RESULTS

### The Socio Demographic Characteristics of all the Participants:

The table 1 revealed all the socio demographic characteristics of the participants being involved in the study.

**Table 1: Sociodemographic characteristics of participants (N = 264)**

	Characteristics	Frequency	Percentage %
<b>Gender</b>	Male	138	52.3%
	Female	126	47.7%
<b>Age in Years</b>	17 - 25 Years	264	100%
<b>Marital Status</b>	Single	250	94.6%
	Married	14	5.3%
<b>Financial Obligations</b>	None	50	18.9%
	Parents or family	190	71.9%
	Loans	24	9.09%

### The notable various symptoms of stress:

The table 2 showed the most common symptoms which affects the medical students.

**Table 2: The different symptoms of stress quoted by students**

Symptoms	Percentage of Students
<b>Low moods</b>	80%
<b>Inability to concentrate</b>	66%
<b>Short temper</b>	71%
<b>Change in sleep patterns</b>	55%
<b>Loneliness</b>	61%
<b>Fatigue</b>	58%
<b>Difficulty in making decisions</b>	49%
<b>Difficulty in communicating with people</b>	50%

### Coping strategies used by the students:

Participants were asked to elaborate on how they handle these symptoms. The majority reported participating in a

lifestyle change like consumption of quality time with different modalities like with time with friends, playing games, listening music and different creative activities. Along with these offering prayers, meditations and changing eating habits were also mentioned. Various coping strategies are listed in table 3.

**Table 3: Coping strategies in male (N=100) and female (N=164) respondents**

Coping Strategies	Male %	Females %
Spending time with friends	66.7%	64.3%
Sleep	55.8%	36.5%
Music	60.9%	55.6%
Sports	55.8%	36.5%
Isolation	47.8%	38.1%
Prayers	29.7%	45.2%

## DISCUSSION

This study found that students used positive coping strategies (spending time with friends, sleep, music) more than negative strategies (smoking, other addictions). A previous study in Nepal showed similar findings.<sup>15</sup> Redwhaan *et al* also observed the same.<sup>16</sup> This is in contrast to previous studies in United Kingdom that reported the use of alcohol, tobacco and drugs as common coping strategies in medical students.<sup>17, 18</sup> In this study, male students used positive coping strategies more than females. Sreeramareddy *et al* experienced the same findings.<sup>15</sup> The symptoms of stress, low moods, inability to concentrate were more as compared to fatigue, headaches and stomachaches. It was mostly due to exams and academics followed by social relationships. It has been observed that great majority of females accounted with many problems as compared to their male colleagues. Similar results were observed by Ronald and Steenberger *et al*.<sup>19, 20</sup> Majority of the medical students were clearly fulfilled with all their coping mechanisms and new strategies. They like to spend their quality time by engaging themselves with their friends followed by some fruitful activities like listening music, sleep, sports, isolation and reading other books. Among all of them the variable notably study and sleep was the common preference of females while their male counterparts were interested to hang out with their friends, play sports or isolate themselves. Muzafar *et al* reported the same findings.<sup>21</sup> A study concludes that the females are more prone to per challenging acquire multiple higher risks of stress and emotional challenges as compared to males.<sup>24, 25, 26</sup>

This study revealed that there was a strong connection between the stressful conditions and coping strategies, which identifies the new ways which may help students

to cope with stressful situations that might affect their perception of stress. Therefore, teaching students to understand, perceive and implement desirable coping strategies may reduce stress.

## CONCLUSION

Student life is full of excitements and thrill but it can also be very much pressurized and stressful as it is a transitional state. It also involves many challenges at a practical level. It is recommended not only to focus for the medical students' education as well as their professional training but also improve their quality of life during and after medical school years. It has been recommended for all Medical students that they must give some new opportunities for reinforcement's implementation of leisure time activities. Apart of that a strongest suggestion is to implement different stress management programs in all medical colleges. Workshops can also be conducted on stress and effective coping strategies through the academic years. The presence of counsellors among the faculty may help students overcome stressful conditions. Functional student advisors, peer education and counselling would be an ideal solution for this problem. Teaching faculty should be more interactive and convivial. There is ultimate immediate need to do regular surveys to observe and monitor the levels of health among the pupils of new generation, especially all those students, who try for their wellbeing to improve and spark the future.

## LIMITATIONS

The main limitations of this study were that the sample size is small and a larger sample size can provide further avenues for determining the significant correlation.

## SUGGESTIONS / RECOMMENDATIONS

The main strength of this study is that it revealed a strong connection between the stressful conditions and coping strategies, which identifies the new ways which may help students to cope with stressful situations that might affect their perception of stress.

## CONFLICT OF INTEREST / DISCLOSURE

The study declares no conflict of interest by any Author.

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