

## The study for sources of stress and management among medical students

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### ABSTRACT

**Background:** In recent years there has been a growing appreciation of the issues of quality of life and stresses involved medical training as this may affect their learning and academic performance. This study was carried out to assess the prevalence of sources and severity of stress and coping strategies among medical students.

**Methods:** A questionnaire-based study was carried out among the undergraduate medical students of Himalayan Institute of medical sciences, Jolly grant, Dehradun from July July 2015 to January 2016. The questionnaire consisted of questions on the basis of Academic, Intrapersonal, Interpersonal, Social Related Stressors and also various methods adopted by them to overcome stress.

**Results:** Out of 150 students only 136 (90%) responded. All the participants were of first and second professional MBBS course. Overall 56% Students felt studies are contributing to stress followed by 26% due to college, 18% due to friends and 9% due to family pressure. Due to academic stress performance anxiety for upcoming examinations was felt by 59% of the students. Among the personal stressor 58% experienced health related issues and their effect on level of fitness. Stress relievers like 67% of the total students preferred watching movies, while their preference for listening to music was observed in 38% to relieve stress.

**Conclusions:** It was concluded that students have a high level of academic stress followed by the social and personal stress. Since the stressors cannot be permanently eliminated, authors have to necessarily devise efficient methods for managing them.

**Keywords:** Medical, Performance, Relievers, Stress, Students

### INTRODUCTION

Medical students experience more stress than the students in any other disciplines.<sup>1</sup> They undergo tremendous pressure during their course due to intense syllabus, vast amount of knowledge and requirement of skills with efforts. Such excessive demands of profession get reflected by anxiety, lack of sleep, interpersonal conflicts and depression among students.<sup>2-4</sup> More over expectations of family members, competition and the uncertainty involved about the future is background of overstress.<sup>5</sup>

Few local factors are like staying in the hostel, hard challenging studies, new friends, teachers, and the teen tender age are challenging issues in their course. Social issues and financial strains have been also identified as the sources of stress among medical students. The majority of stressful incidences in traditional curricula are related to medical training rather than to personal problems.<sup>6</sup>

Stress in academic situation can have both positive and negative consequences. Stress can inhibit and suppress learning, which is associated with impairment of students' academic performance. It was also found to decrease

attention; hamper decision making and reduce student's abilities to establish good relationships with patients resulting in feeling of inadequacy and dissatisfaction with clinical practice in the future.<sup>7</sup>

Furthermore, it was linked to drug abuse, use of alcohol and suicide among the medical students.<sup>8</sup> These alarming facts confirmed the negative association of stress with mental, emotional and physical morbidity. Chronic exposure to stressful condition exerts negative effects on emotional, mental and physical well-being of the students which also affect the patients' lives and community's health. Numerous studies have revealed that persistence stressful condition associated with mental and physical health problems in medical students at various stages of their training.

Therefore, early detection and intervention may prevent and minimize the ill effects of stress on the students in the future.<sup>9</sup> Hence, the present study was designed to assess the sources, severity of stress and coping strategies adopted by medical students in undergraduate medical curriculum.

## METHODS

The present study was carried out on 150 Students The study was conducted to determine the various sources of stress and methods of stress management adopted by medical students in the department of forensic medicine in collaboration with department of pharmacology from July 2015 to January 2016. Prior approval was being obtained from the Institutional Ethics Committee. Students were briefed about the purpose and objective of the study. Informed written consent was obtained from all participating students. They were also being informed that

the information given by them is confidential and for the research evaluation purpose only. A carefully drafted stressor questionnaire was given to all the students and they were also instructed to return after completing it. The questions were created so as to gather information regarding their background, personal stressors, day to day stress causing factors and stressful situations like examinations. Students were also asked to tell the most effective method adopted by them to relieve stress.

The severity of each stressor was rated using a Likert scale (0-4). The questions were rated under 4 categories i.e. 0-never, 1-sometimes, 2-frequently, 4-always to indicate the intensity of stress.

## Statistical method

Descriptive statistics was used to analyse the data. Frequency was expressed in percentage and in pie chart form bar charts.

## RESULTS

The analysis was done on 150 medical students. Out of 150 students only 136 (90%). responded 75 students are from students of 2<sup>nd</sup> professional MBBS and 75 students from first year. All the students were in 18-20 years of age. Of all the students participating in the study only 15% of the students had an experience in living the hostel while remaining 85% were not familiar with it.

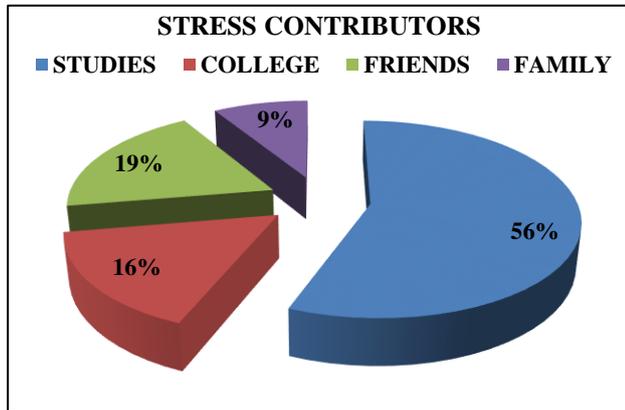
Among all the participating students 70% of the student always felt homesick (Table 1).

Students (56%) felt studies are contributing to stress, 16% due to college, 19% friends and 9% due to family pressure.

**Table 1: Percentage of Students response regarding stress and its management (n= 136).**

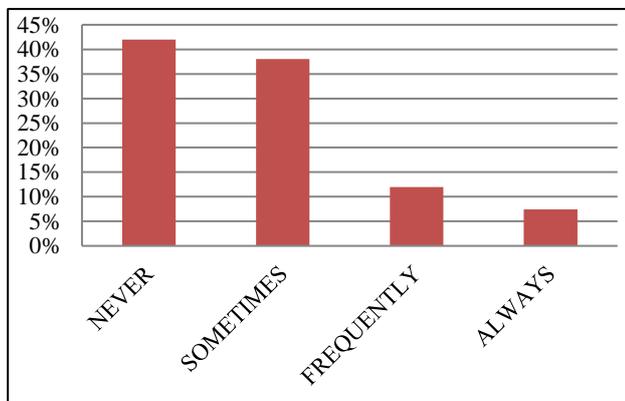
Questions	Never	Sometimes	Frequently	Always
Personal:				
Do you feel lonely or homesick	2	13	15	70
Do you feel Stressed because of your room partner?	75	10	10	5
Performance in exams				
Do you suffer from performance anxiety during theory exam?	10	20	11	59
Do you suffer from performance anxiety during viva?	12	10	13	65
Are you satisfied with the quality of food provided by the mess?	36	33	16	58
Does your stress affect your sleep pattern and health?	20	15	7	58
Do you consume alcohol?	63	23	7	5
Do you consume drugs/smoke?	80	10	5	5
Have you ever been thought of suicide at any point in your medical life?	82	12.5	3.6	3.4
How often do you feel the need for a counsellor?	50	38	12	0

Due to academic stress like performance anxiety for upcoming examinations, 59% of the students always, 11% frequent, 20% sometimes, 10% never experienced stress (Table 1). Among the personal stressor 58% always experienced health related issues and effect on level of fitness. Social factors like food provided in the mess, inadequate hostel facilities adding to stress according to 58% of students (Table 1).



**Figure 1: Percentage of stress contributors in medical students' career.**

To relieve stress 5% always and 7% frequent indulged in taking alcohol to relieve their stress, thinking of suicidal tendencies were noted in 3.4% always, 3.6% frequent as the students couldn't cope up with the stress (Table 1).



**Figure 2: Percentage of students felt the need of counselling due to stress.**

**Table 2: Percentage of students adopts stress relieving methods.**

Activities	1	2	3	4
Music	38	20	15	27
Movies	67	12	8	3
Sports	55	15	-	30
Yoga	20	-	-	80
Spiritual activity	25	30	0	45
Others	----	-	-	-

On the scale of 1 to 4 where 1 being most effective and 4 being least effective

There are many stress relievers like 67% of the total students preferred watching movies, while their preference for listening to music was 38%. Involvement in sport activity was seen in 55% of total participants. A small proportion of students (20%) preferred doing yoga. Among all the students 25% were preferring spiritual activities as the most effective methods followed by them to relieve the stress (Table 2).

There were 7-12% of the students needed frequent counselling (Figure 2).

**DISCUSSION**

Medical students undergo tremendous stress during their course, may it be hostel life, economic reasons, heavy course, vast amount of knowledge and skills with efforts required. Of all the students participating in the present study only 15% of the students had an experience of living in the hostel while remaining 85% were not familiar with it.

In the present study the quality of food provided by the mess, facilities provided in the hostel and emotional stress were identified as the major stressors among the medical students Sreeramareddy found that staying in hostel, high parental expectations, vastness of syllabus, lack of time were the largest contributors towards stress.<sup>10</sup> The independent living for the first time was found out to be an important factor for stress origin.<sup>11</sup> The families where both parents were working, the students were used to stay on their own and were able to cope with the hostel environment more effectively than those who had a parent always to take care.

Supre AN also observed that stress was significantly greater in 2<sup>nd</sup> and 3<sup>rd</sup> year MBBS students in comparison to 1<sup>st</sup> year students. Physical factors were identified as the major stressors among second and third year medical students and emotional stress factors were significantly more common in 1<sup>st</sup> year medical students. Family and friends were identified as a social support to a greater extent by 2<sup>nd</sup> year medical students than 1<sup>st</sup> year students.<sup>11</sup>

Students (56%) felt studies are contributing to stress, 26% students stressed due to college life and according to 18% of students colleagues were also contributing to stress in their life and 9% worried due to family pressure (Table 1). Saipanish reported that 61.4% of students in a Thai Medical School had come across some degree of stress as calculated by the Thai Stress Test.<sup>12</sup> Therefore academics emerge as the largest contributor towards stress followed by social and personal problems.

In the present study due to academic stress or performance anxiety for upcoming examinations was experienced in 59% of the students always, 11% frequent.

Stress was also found to decrease attention span of the students, reduce concentration, hamper decision making and reduce student's abilities to establish good relationships with patients resulting in feeling of inadequacy and dissatisfaction with clinical practice in the future (Table 1).

Medical students experience the wide range of stressors which may result in very serious outcomes, high expectations of perfection, interpersonal problems or even suicide.<sup>13</sup> Academic and psychosocial concerns were the most common sources of stress. It has been found to be associated with anxiety and depression, interpersonal conflicts, sleep problems, lower academic and clinical performance. Furthermore, it was linked to medical student suicide, drug abuse and use of alcohol. In the current study 5-10% students were taking alcohol to relieve their stress, 3-5% of the students have suicidal tendencies as they can't cope up with the stress. (Table 1) These alarming facts confirmed the negative association of stress with mental, emotional and physical morbidity. These invariably affect the patients' lives and community's health. Reported results by both developed countries and developing like Canada and the US and Nepal is really surprising; burn out syndrome is seen in nearly 50% of medical students.<sup>14-16</sup> Student use different strategies to adapt with stress. For overcoming of high level of stress, students might adopt risky habits like drinking or drug abuse reported in studies by Babalola in Nigeria, Damiral in Turkey and HullSK in Ohio, USA.<sup>17-19</sup>

Studies reported an association of prolonged psychological distress with lowered medical students' self-esteem, anxiety and depression, sleeping disorders, increased alcohol and drug consumption.<sup>20-23</sup>

Therefore, early detection and intervention may prevent and minimize the ill effects of stress on the students in the future. Students can be taught to manage stress and cope with it by perceiving it not as a stressor but as positive or challenging. There are many stress relievers like 67% of the total students preferred watching movies, while (62%) favoured listening to music to relieve stress. 55% of total participants have chosen sport activity as a stress relieving buster (Table 2).

A small proportion of students were seen indulged in physical activities 20% of the total students preferred doing yoga. The commonest stress relievers were movies, music followed by yoga.

Many students felt the need for counsellor at various stages during the course. 38% sometimes, 7-12% of the students need frequent counselling. Hence it is suggested that for a better management of stress, a counsellor should be made available for the students.

## CONCLUSION

From the present study, it was concluded that students have a high level of academic stress followed by the social and personal stress. Since the stressors cannot be permanently eliminated, we have to necessarily devise efficient methods for managing them so as to not be adversely impacted in the long term. Hence, so as to make a student an efficient stress manager, factors affecting the growth of the person must be taken into concern. Family support can be an effective means for helping medical student coping up with the stressors in their life. A comprehensive program needs to be initiated for the strong mental and emotional built up of medical students with significant involvement of their family.

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