

Study on stress among first-year medical students of Kurnool Medical College, Kurnool

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Abstract

Background: Stress is an inevitable part of medical education, and lack of adequate stress-coping skills may affect the students variedly.

Objective: To study the magnitude and causes of stress among first-year medical students of Kurnool Medical College, Kurnool, Andhra Pradesh, India.

Materials and Methods: A descriptive, cross-sectional study was carried out from May 1, 2015, to June 30, 2015, in Kurnool Medical College and respective hostels, Kurnool. Among 200 students of first-year MBBS, 133 were willing to participate and gave consent. A predesigned, semistructured questionnaire consisting of 28 questions was given to assess their stress levels.

Result: Analysis shows that 78.19% of the respondents experienced stress. Girls (52.88%) perceived greater stress when compared with boys (47.12%); however, the difference did not reach statistical significance. Stress levels more common in the students aged ≤ 18 years. Poor performance at the examination, large content to be learnt, and lack of time to revise were the major causes of stress among the students.

Conclusion: A substantial proportion of students were found to be stressed, with academic stressors being the major cause of stress among the subjects. An intervention was planned in two sessions, and students were educated on how to handle stress by audiovisual aids, personal interviews, and group discussions.

KEY WORDS: Stress, medical students, academic activities


Introduction

Stress is defined as “a highly subjective phenomenon and it is a nonspecific response of body to any demand for change.” A stressor is defined as the personal or environmental event that causes stress. Stress is an inevitable part of medical education and can affect students at any stage of their study. Sleepless nights, depression,^[1] suicidal ideation,^[2]

addictions to dependence-producing drugs for coping up with stress, and poor performance at examinations in spite of doing hard work are some of the ill effects of stress. Thus, we made a humble attempt to assess the levels of stress among first-year medical students of Kurnool Medical College, Kurnool, Andhra Pradesh, India, and appropriate intervention was done based on results obtained.

Objective

1. To study the magnitude of stress perceived by the first-year MBBS students of Kurnool Medical College, Kurnool.
2. To measure distribution and magnitude of the stress levels in the first-year MBBS students of Kurnool Medical College, Kurnool.
3. To identify the causes leading to increased stress among students.
4. To provide appropriate suggestions based on analysis to make distress to eustress.

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Materials and Methods

This study was an institution-based, cross-sectional study. Among 200 first-year MBBS students of Kurnool Medical College, Kurnool, 133 were willing to participate and gave consent. The study was done from May 1, 2015, to June 30, 2015. Ethical clearance from the ethical committee of Kurnool Medical College, Kurnool, was taken. Consent from the students who were willing to participate in the study was taken, and the permission to carry out this study was taken from the respective departments. Statistical analysis was done using Epi Info 7 statistical software and Excel; χ^2 -test was used to test the significance.

Study Procedure

A predesigned, semistructured questionnaire with 28 questions was prepared. The questionnaire consisted of three parts. The first part comprised demographic information of students such as age, sex, and residence. The second part of the questionnaire included questions about the causative factors of stress. The third part consisted of questions related to activities done to relieve stress. The students of first-year MBBS were invited to take part in the survey after taking informed consent. Students of both sex participated in the study. Before the distribution of questionnaire, they were sensitized to the type of questions being asked; students were assured about confidentiality of their details, and clarification was given regarding doubts about questions. On the basis of the analysis, an intervention was planned; intervention was done after 3 weeks in two sessions—the first session was done with audiovisual aids in the form of PowerPoint presentation that lasted for about 1½ h; 3 weeks later, the second session was done in the form of personal interviews and group discussions at their respective hostels.

Result

Among the 133 respondents, 68 (51.13%) were male and 65 (48.87%) female students. A total of 104 (78.19%) respondents revealed some ill effects of stress. Among 104 students who presented stress, 49 (47.1%) were male and 55 (52.9%) female students.

Figure 1 shows that 31 (29.8%) students were aged 18 years and 73 (71.2%) younger than 18 years.

Table 1 shows that stress was more among female (84.6%) than male students (72%), which was statistically significant.

Table 2 shows that among 104 students who revealed stress, poor performance in examinations was the cause in 91 (87.50%) of them, difficulty in understanding the subject in 71 (68.27%), lack of recognition to work done in 46 (44.23%), large content to be learnt in 103 (99.03%), and lack of time to revise in 99 (95.19%).

Table 3 shows that competition with fellow students was a more common cause of stress in female (62.66%) than male students (37.34%), and it was significant. Conflicts were also

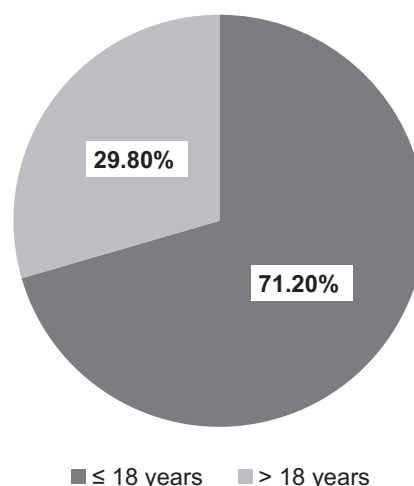


Figure 1: Age-wise distribution.

Table 1: Gender-wise distribution

Variable	Stress		P
	Yes	No	
Gender			0.079
Males, N (%)	49 (72)	19 (28)	
Females, N (%)	55 (84.6)	10 (15.4)	

Table 2: Factors contributing stress

Cause	N (%)
Poor performance in examinations	91 (87.50)
Difficulty in understanding the subject	71 (68.27)
Lack of recognition to work done	46 (44.23)
Lack of time to revise	99 (95.19)
Large content to be learnt	103 (99.03)

N = 104.

Table 3: Distribution according to gender and factors causing stress

Variable causing stress	Male, N (%)	Female, N (%)	P
Competition with fellow students	31 (37.34)	52 (62.66)	0.00004
Conflicts	1 (12.5)	7 (87.5)	0.02
Lack of recognition to work done	19 (46.34)	32 (53.66)	0.01

more common in female (87.5%) than male students (12.5%), and it was significant. Lack of recognition to work done was also a more common cause of stress in female (53.66%) than male students (46.34%), which was also statistically significant. This shows female students presented more stress when compared with male students.

Table 4: Activities practiced by students to relieve stress

Activities done to relieve stress	Number	Percentage
Listening to music	46	33.08
Playing games	16	12.03
Spending time with friends	14	10.53
Sleeping	14	9.77
Internet browsing	12	9.02
Watching movies	10	6.77
Yoga and meditation	1	0.75
None	21	15.79
Total	133	100

Table 4 shows that 133 students were practicing some of stress-relieving activities such as listening to music (12.03%), playing games (12.03%), spending time with friends (10.53%), sleeping (9.77%), Internet browsing (9.02%), watching movies (6.77%), and yoga and meditation (0.75%).

Discussion

This study confirmed the general impression that stress is common among medical students with a prevalence of 78.19% (104) among our study group. The findings of this study are by and large similar to other studies; existing literature confirms that stress is common among medical students.^[3-5]

The gender-wise distribution of stress is insignificant in our study with $p = 0.0732$.

By taking age into consideration, the subjects of age 18 years and younger perceived stress greater than when compared with those aged older than 18 years.

The major cause of stress in the study is found out to be academic related,^[6,8,11] which included large content to be learnt, lack of time to revise the subject^[12], difficulty in understanding the subject, poor performance at the examination, and lack of recognition of work done by students. Other nonsignificant academic factors include poor relationship with professors, poor participation in class discussion, and lack of interest in learning.

Poor performance in the examinations was accreted mainly owing to lack of time for revision and large content to be learnt.

As the study was carried out in a government medical college where meritorious students get admission, there would naturally be a competition among students; but, only a few can cope up with such competition in the presence of the abovementioned academic stressors.

As depicted in the literature,^[9] our study found out the gender variability of certain stress-causing factors such as competition with fellow students, conflicts, and lack of recognition. It showed that female subjects perceived more stress in the presence of competition and showed greater inter- and intrapersonal conflicts. The study showed that female students felt that there was lack of recognition for their work done greater than male students.

There was no significant difference in the stress perceived by day scholars and residents.

Our study also included the type and measure of stress-coping skills adopted by the students^[10]; listening to music (46%) was the common strategy employed by the students to relieve stress. About 21% of them were not involved in any activity to cope up with stress, 16% involved in playing sports and games, and 14% spend time with others to overcome their stress.

Conclusion

The study revealed that academic problems were greater sources of stress in the first-year medical students when compared with nonacademic problems.

It also pointed out the gender-related differences with some stressors, indicating a necessity of different kind of approach to each gender during intervention.

Student distress may influence professional development and adversely impact academic performance contributing to academic dishonesty and substance abuse.

Addressing these issues by the institution using professional help would go a long way in ameliorating their stress levels and in making their learning a pleasant affair.

Suggestions

Mentoring the students to help them revive academically was advised. To tackle the academic-related stressors, students were educated on the importance of regular study hours and on the necessity of developing effective time managing skills to learn and revise the subject and to present it properly in the examinations.

Role of healthy student-teacher relationship was explained, which could foster the courage among students and help them tackle the stress.

Students were taught about the importance of self-motivation to stay positive. They were advised to cultivate hobbies, spend time with friends and family and were encouraged to discuss their problems with elders or friends.

Benefits of daily 30-min physical activity and regular meditation were explained to the students.

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