

Sources of stress among first-year medical students

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ABSTRACT

Background: The extremely demanding environment of medical education puts medical students under tremendous pressure. During the initial years of training, causes of stress are mainly related to academic and emotional factors, while in later years patient care and physical factors are more remarkable. **Objectives:** The current study was conducted with an aim to find out the major sources of stress among 1st year medical students. **Materials and Methods:** This questionnaire-based cross-sectional study was conducted among 1st year students of Sher-i-Kashmir Institute of Medical Sciences Medical College, Srinagar for a period of 3 months. Medical student stressor questionnaire which has good psychometric properties was used to evaluate the major stressors. The questionnaire has 40 items representing the six stressor domains, each based on a common underlying theme. **Results:** Academic related stressors were identified as a source of stress by nearly two-thirds of the students (63.95%) followed by teaching and learning related stressors (43.02%) and inter/intra-personal related stressors (32.55%). **Conclusion:** Our study found a high prevalence of stress among 1st year medical students and academic related stressors were identified as the major contributors of overall stress.


KEY WORDS: Medical Students; Stressor; Academic; Medical Student Stressor Questionnaire

INTRODUCTION

The extremely demanding environment of medical education puts medical students under tremendous pressure.^[1] Stress, a common and process-oriented obstacle in medical education, often exerts a negative effect on the academic performance, physical health, and psychological well-being of the students.^[2] In addition, students also face social, emotional, physical, and family problems which may further affect their learning ability and academic performance.^[3,4] During the initial years of training, causes of stress are mainly related to academic and emotional factors, while in later years patient care and physical factors are more remarkable.^[5] It is believed

that the optimal level of stress can enhance learning while an excess of stress can lead to health problems. Any level of stress, if left unattended, can cause various physical and psychological problems (sleeping disorders, burnout, and a dropout).^[6]

Multiple studies have found significantly high stress levels among medical students and the high stress has been reported from different countries.^[7-11] This indicates to a certain extent that high stress among medical students is a universal phenomenon that transcends sociocultural factors, economic status, course patterns, and alike. Studies done in India have also shown significant psychological morbidity due to stress in medical students.^[12-17] A study conducted in our institution in the same student population (using the DASS 21 questionnaire) reported not only a high prevalence of stress but also high prevalence of anxiety and depression as well.^[18] Thus, identifying the major sources of stress has become the need of the hour. Hence, the current study was conducted with an aim to find out the major sources of stress among 1st year medical students.

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MATERIALS AND METHODS

The present cross-sectional study was conducted among students of Sher-i-Kashmir Institute of Medical Sciences Medical College, Srinagar from January 2017 to March 2017. The inclusion criteria were participants being 1st year students willing to participate in the study. Those unwilling to participate were excluded from the study. Those with a prior history of psychiatric illness, current psychotropic drug use, and physical handicap or with any chronic illness were also excluded from the study. Approval from the Institutional Ethics Committee was taken. The main objectives of the study were fully explained to the participants and confidentiality was maintained by coding the questionnaires. A self-administered questionnaire listing sources of stress (academic, psychosocial, and environmental stressors) were administered to them. Out of the 100 students that participated in the study, 86 returned the filled questionnaire.

Medical student stressor questionnaire (MSSQ) which has good psychometric properties was used to evaluate stressors. The questionnaire has 40 items representing the six stressor domains, each based on a common underlying theme:

- Academic related stressors (ARS)
- Intrapersonal and interpersonal related stressors (IRS)
- Teaching and learning related stressors (TLRS)
- Social related stressors (SRS)
- Drive and desire related stressors (DRS)
- Group activities related stressors (GARS).

Each question describes a situation or activity and the students are asked to grade the level of stress they will experience if they are engaged in that particular activity in Likert's scale (0 – no stress to 4 – very severe stress).^[19] Data were collected and grouped using computer software MS Excel. Frequency tables were constructed and presented as percentages to identify the sources of stress.

RESULTS

The study consisted of 86 participants (43 males and 43 females). Students whose mean domain score was >1 (reported scores reflecting moderate, high, and severe stress) were considered to be under stress. The overall prevalence of stress according to the MSSQ was estimated to be 67.44%. The prevalence of moderate, high, and severe stress among the participants was 34.88%, 26.74%, and 5.81%, respectively [Table 1].

ARS were identified as a source of stress by nearly two-thirds of the students (63.95%), followed by TLRS (43.02%), IRS (32.55%), DRS (25.58%), SRS (19.76%), and GARS (15.11%), [Table 2].

DISCUSSION

The overall prevalence of stress according to the MSSQ was estimated to be 67.44%.^[18] High levels of stress among

Table 1: Distribution of stress as per the MSSQ

Severity of stress	No. of participants (%)
Moderate	30 (34.88)
High	23 (26.74)
Severe	5 (5.81)

MSSQ: Medical student stressor questionnaire

Table 2: Distribution of different stressors in causing stress

Stressors	No. of participants (%)
ARS	55 (63.95)
IRS	28 (32.55)
TLRS	37 (43.02)
SRS	17 (19.76)
DRS	22 (25.58)
GARS	13 (15.11)

ARS: Academic related stressor, IRS: Inter- and intra-personal related stressor, TLRS: Teaching and learning related stressor, SRS: Social related stressor, DRS: Drive and desire related stressors, GARS: Group activity related stressor

medical students have been reported by studies conducted all over the world spanning across continents.^[7-11] Similar levels of stress have been reported among medical students by some previously conducted studies conducted in our subcontinent.^[9,17,20] The results of our study revealed that academic problems were a much greater source of stress in 1st-year medical students compared to other problems. Academic-related stressors were identified as a source of stress by the majority of the students (63.95%) followed by TLRS (43.02%) and IRS (32.55%). The findings of our study are in accordance with a study conducted in South India which found academic stressors to be the major contributors to overall stress followed by IRS.^[20] Our results are in concurrence with reports by other investigators from India and abroad that academic stressors have a major effect on build-up of overall stress.^[9,21,22,12,23]

Inability to identify the psychological problems among medical students may lead to increased morbidity with undesired effects throughout their careers and lives.^[24] Hence, identification of stressors and introduction of measures to reduce stress are extremely important as early detection will not only help in reducing the stress but also will also have a positive effect on the overall development of students. There is a need for the introduction of stress reduction programs and recreational activities in the medical curriculum. In addition, some changes have to be made in the teaching and assessment system to make it a little less stressful. Awareness has to be created among students about positive coping techniques through teachers, student advisors, and psychologists to help them cope with the demanding nature of medical education in a better way. Some limitations of this study are the use of self-administered questionnaires for data collection (subjective to bias) and cross-sectional nature of the study.

CONCLUSION

Our study found a high prevalence of stress among 1st year medical students and academic related stressors were identified as the major contributors of overall stress.

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