



STRESSORS AMONG UNDERGRADUATE MEDICAL STUDENTS- A CROSS SECTIONAL STUDY

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ABSTRACT

BACKGROUND: Stress is the nonspecific response of the individual to the demand of the environment. It reflects a negative effect on academic performance, physical and mental health of students. Due to very minimal studies on stress among medical students of south India, this study was chosen.

AIM: To identify the commonest source of stress among I-MBBS students. Materials and methods: The cross sectional study was conducted among 100 I-MBBS students of Thoothukudi Medical College. Ethical committee clearance was obtained. Stress was assessed using Medical Student Stressor Questionnaire (MSSQ-40).

RESULT: Out of 100 students 62 were female and 38 were male. The most common stress reported by the participants was academic related followed by group activities related stress. No difference in stress based on gender.

CONCLUSION: In our study, academic related stress was the commonest stressor. Students should be advised to participate in stress relieving activities.

KEYWORDS : stressor, medical students, stress

INTRODUCTION

Stress is the nonspecific response of the individual to the demand of the environment. Medical students undergo tremendous stress during their course¹. Medical field is a highly stressful field when compared to other professional courses. So students of this field are more prone to stress than their peer age groups doing other courses. Personal and environmental events that cause stress are known as stressors². In medical field the most common precipitating factors of stress are vast syllabus, peer competition for academic performance, continuous evaluation and long duration of training³. Stress affects both physical and mental health of an individual. This leads to sleep deprivation, reduced concentration, lack of confidence in handling patients, loss of self-esteem, anxiety, depression, interpersonal conflict, substance abuse, suicidal attempts etc. Some degree of stress is helpful for individuals in meeting the new challenges, but persistently high and unrelieved stress can lead to psychological, physical and behavioural ill health.

During the first year, the students read anatomy, physiology and biochemistry for which final assessment exam will be conducted at the end of the year. They will also be made to write series of internal assessment the marks of which are necessary for them to appear in the final exam. This creates a stressful situation for them particularly in the first year, as they enter college from high school. Also they need to meet students from different social, cultural and educational background. They are forced to adapt to the new environment of the institution creating enormous stress among them. Very minimal studies were conducted regarding stress in undergraduates in our state. So this study was chosen.

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Aim:

To identify the commonest source of stress among I-MBBS students
To find the difference in stress on the basis of gender

MATERIALS AND METHODS:

This cross-sectional study was conducted among 100 medical undergraduate students of Thoothukudi Government Medical College during the month of September, 2016. Institutional ethical committee clearance was obtained before conducting the study. The students were asked to fill up the Medical students stress questionnaire (MSSQ-40). They were assured of confidentiality of information.

There were 6 domains of stress as follows:

1. Academic related stress (ARS): understanding lectures, examination, learning context, competition, falling behind in schedule, huge syllabus etc.
2. Intrapersonal and interpersonal related skills (IRS): verbal/physical abuse, task given by seniors, conflicts with peers & teachers, health problems etc.
3. Teaching related stress (TLRS): vast ill defined study material, to maintain high attendance in class, lack of guidance, teaching skills, feedback from teachers etc.
4. Social related stress (SRS): interruption by peers, love affairs related, lack of time for friends and families.
5. Desire related stress (DRS): parental wish, unwillingness
6. Group activities related stress (GARS): peer pressure, performance in projects, seminars and college functions.

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Mean domain score of 0.00 to 1.00 – indicate mild stress

1. 01 to 2.00 – moderate stress,
2. 10 to 3.00 – high stresses and
3. 01 to 4.00 – severe stresses.

Mild and moderate stress is manageable at individual level while high stress causes a lot of stress affecting emotions and daily activities, and severe stress disturbs emotions compromising daily activities.⁴

Data Analysis:

All data were entered in Excel sheet. Data analysis was done using SPSS software 22 using descriptive statistics.

RESULTS:

In the present study, among 100 students male students were 38% and female students were 62%. The mean age of the students was 18.81. 86% of them were from English medium and 14% were from Tamil medium (regional language). 86% were hostellers, 11% were day scholars. 73% came to this field by their own interest, 16% by their parental compulsion and 11% by random choice.

TABLE 1: LEVEL OF STRESS AMONG THE PARTICIPANTS FOR ALL DOMAINS OF STRESS

DOMAIN	MILD	MODEARTE	HIGH	SEVERE	MEAN
ARS	9%	76%	15%	0	1.508+0.40
IRS	92%	8%	0	0	0.45+0.43
TLRS	81%	19%	0	0	0.70+0.43

SRS	58%	39%	3%	0	1.07+0.43
DRS	62%	36%	2%	0	0.90+0.71
GARS	51%	42%	7%	0	1.17+0.54

ARS- Academic related stress; **IRS-** Interpersonal/intrapersonal related stress; **TLRS-**Teaching related stress; **SRS-** Social related stress; **DRS-** Desire related stress; **GARS -**Group activities related stress.

TABLE 2: STRESS ON THE BASIS OF GENDER

GENDER/DOMAIN	ARS	IRS	TLRS	SRS	DRS	GARS
MALES	1.505	0.44	0.70	1.08	0.89	1.16
FEMALES	1.50	0.45	0.70	1.07	0.90	1.17

DISCUSSION:

In the present study the most common stressor was found to be academic related stress followed in descending sequence by group activities related stress, social related stress. 76% of the students have moderate ARS. A study by Mehta et al also found that academic related stress was the commonest source of stress among undergraduates⁵. Another study by Subita.P.Patil et al also showed that academic related stress was the commonest.⁶

Our study showed no difference in stress on the basis of gender and the medium which they learnt in high schools. A study done by **Supe et al** observed that 73% medical students perceive stress and there was no difference in the stress on the basis of gender, stay in hostel, stressors, mode of travel and time spent in travel every day, place of school and junior college education indicating that academic achievement is more important than other factors in inducing, stress in medical students. He also concluded that stress is medical students is common and process oriented, with academics being perceived as the major factor.

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A study on 478 medical students in a private college of south Karnataka using the WHO SRQ 20 Questionnaire, observed 32.2% prevalence of mental distress. The highest level of stress was seen among girls⁷. Studies of researchers like **Hammer et al**⁸ and **Devine et al**⁹ have reported age, gender as factors influencing severity of stress.

In most of medical students the performance in college and university level examination is the major stressor. The formative and summative examination forms integral part of evaluation of students. Examinations are necessary to motivate the students to study and achieve the desired goal of medical education. The vast syllabus, voluminous textbooks, pattern and frequency of examinations leads to stress among medical students. Examinations may precipitate stress in the students who consider it as burden, while it is useful who consider as a tool in taking corrective steps in learning. Studies of other academicians have also reported examinations as common source of stress in medical students^{10,11}

The quality of parental care and high expectance from parents are also contributory factors to stress. Many first year students are away from the protective umbrella of parents for very first time therefore there is feeling of homesickness in the hostels.

CONCLUSION:

The medical students always try to struggle hard to achieve their goals and this may lead to time constraints for self, family, friends and entertainment. From our study it can be concluded that being a medical student is stressful. Our study highlights the need for interventions in to cope up stress in medical education. Student counselling and informal mentorship is need of hour. Stress management workshops, soft skills development techniques at the entry of medical career would be helpful. Relaxation techniques like meditation, yoga and involvement in physical activities like outdoor sports can be recommended as stress busters.

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