Original Research Article

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Study of stressors among undergraduate medical students of a teaching medical institution

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ABSTRACT

Background: Stress is a response by which we perceive and cope with environmental threats and challenges. Personal and environmental events that cause stress are known as stressors. Medical students undergo tremendous stress throughout their education. The same stressors may be perceived differently by different medical students, depending on their cultural background, personal traits, experience and coping skills. Inability to cope with the stress may affect their physical and mental well-being. The objectives of the study were to find out stressors among the medical students and study their socio-demographic variables.

Methods: A cross-sectional study was conducted amongst 205 undergraduate medical students of III and VII semester posted in the department during August 2016 to January 2017 with a pre- designed, pre-tested, semi-structured questionnaire which consisted of 2 parts: socio-demographic details and MSSQ-20 (medical student stressor questionnaire) after taking their informed consent and Institutional Ethical Committee approval.

Results: Out of 205 students, 120 were males and 85 females with a mean age of 20.31±1.74 years. MSSQ-20 analysis revealed that academics, social related, group activities, were the major stressors in the descending order of occurrence. Some of the ways of relieving stress were listening to music, sharing with friends, physical activities etc.

Conclusions: Although academic domain was the major stressor, its levels were only moderate due to the student friendly atmosphere at college.

Keywords: Stressors, Teaching medical institute, Medical student stressor questionnaire

INTRODUCTION

Stress is a response by which we perceive and cope with environmental threats and challenges. Personal and environmental events that cause stress are known as stressors. Some variance in stress responses and consequences may be attributable to characteristics of the stressor, and some events are nearly universal in evoking a state of stress. Linn & Zeppa stated that some stress in medical training is needed for learning. The overall impact of a stressor will depend on its characteristics and the characteristics of those who have been affected. The

same stressors may be perceived differently by different medical students, depending on their cultural background, personal traits, experience and coping skills. Medical students undergo tremendous stress throughout their education. Inability to cope with the stress may affect their physical and mental well-being. Considerable degree of psychological morbidity has been reported among medical students ranging from stress, interpersonal problems and suicidal ideation to psychiatric disorders and they tend to have greater psychological distress than the general population. Hence, the present study was carried out with an objective to find out stressors & their level among the

medical students and also to study their sociodemographic variables.

METHODS

This cross sectional study was conducted amongst 205 undergraduate medical students of III & VII semester during the period of August 2016 to January 2017, posted in the department after taking their informed consent. Institutional Ethics committee approval was taken. A predesigned, pre tested, semi-structured questionnaire was used, consisting of following two parts:

Part 1: Socio demographic characteristics like age, sex, socio-economic status etc.

Part 2: Medical Student Stressor Questionnaire (MSSQ 20) to screen stress.

The responses were marked on a Likert scale ranging from causing no stress at all as 0to causing severe stress as 4.

The questions in the MSSQ were addressed to 6 domains of stress which were as follows.¹

Domain 1

Academic related stress (ARS): understanding lectures, examination, learning context, competition, falling behind in schedule, huge syllabus etc.

Domain 2

Skills related to intrapersonal & interpersonal development (IRS): verbal/physical abuse, task given by seniors, conflicts with peers & teachers, health problems etc.

Domain 3

Teaching related stress (TLRS): inadequate study material, to maintain high attendance in class, lack of guidance, teaching skills, feedback from teachers etc.

Domain 4

Social related stress (SRS): interruption by peers, love affairs related, lack of time for friends and families.

Domain 5

Desire related stress (DRS): parental wish, unwillingness.

Domain 6

Group activities related stress (GARS): peer pressure, performance in projects, seminars and college functions. Mean 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.

Data analysis

All responses were tabulated by the investigator using Microsoft-Excel 2007 software. Statistical tools used were proportions, percentage and other appropriate statistical tests of significance.

RESULTS

In the present study, male students were 120 (59%) as compared to the female students 85 (41%). The mean age of the participants was 20.31±1.74 years. As depicted in Table 1 that more than half of the students resided in hostel (54%). Majority (84%) were from the nuclear families, belonged to upper socio-economic class (80%), had at least one parent who was a graduate (69%), slept for about 6 to 8 hours in a day (73%) and had no history of chronic illness in the family (66%).

It was seen from Table 2 that on analyzing their personal history we found that majority of them (90%) had regular bowel habits, more than half (65%) consumed fruits at least 3 times a day, almost half (45%) consumed junk food more than thrice a week. Around one third of them (37%) skipped meals and very few observed fasting (12%).

As seen in Figure 1 that it was seen that majority of the students self-rated themselves to be having a good personality (47%) followed by an average personality (25%).

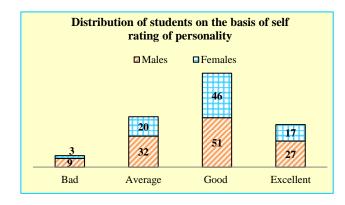


Figure 1: Distribution of students on the basis of selfrating of personality.

It was evident from Table 3 that academic related stressor domain followed by group activity related, teaching and learning related, social related, intrapersonal and interpersonal related and lastly drive and desire related stressors among the participants in a descending order of

occurrence. All the domain stressors were of a moderate level. It was found that almost 3 hrs 20 min per week was spent by the participants on relieving stress. Some of the

commonest stress relievers as informed by the participants were listening to music, sharing with friends, surfing internet, physical activities.

Table 1: Distribution of participants according to the socio-demographic variables.

Distribution of socio-demographic variables		Frequency	Percentage (%)
Residence	Hostelites	111	54
	Localities	94	46
Family size	≤5 members	172	84
	>6 members	33	16
At least one parent is a graduate	Yes	141	69
	No	64	31
Socio economic status (B.G. Prasad)	Class I	163	80
	Class II to Class V	42	20
H/o chronic illness: family	Yes	69	34
	No	136	66
Sleep (hours in a day)	<6	13	6
	6-8	150	73
	>8	42	21

Table 2: Distribution participants according to their personal history.

Distribution of participants acc to personal history		Frequency	Percentage (%)
Bowel habits	Regular	184	90
	Irregular	21	10
Fruits consumption	>3 times/week	134	65
	<3 times/week	71	35
Junk food consumption	>3 times/week	92	45
	<3 times/week	113	55
Skipping of meals	Yes	75	37
	No	130	63
Fasting	Yes	24	12
	No	181	88

Table 3: Level of stress among the participants for all domains of stress.

Domain	Levels of s	Levels of stress				
	Mild	Moderate	High	Severe	Mean score	
ARS	40	90	56	19	1.61±0.88	
IRS	128	44	26	7	1.19±0.94	
TLRS	110	61	28	6	1.33±0.89	
SRS	114	72	17	2	1.22±0.83	
DRS	147	32	22	4	1.13±0.95	
GARS	88	71	41	5	1.41±0.91	

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.

DISCUSSION

In the present study, we observed that academics followed by group activities & teaching and learning related to be the major stressors faced by students. Similarly study done by Iqbal et al found that the top three stressors in descending order of occurrence was academics related, intrapersonal and interpersonal related.⁶ Another study done by Mehta et al also found

that it was academics related, intrapersonal and interpersonal related and group activities related.⁷

A study done by Shelke et al also found that moderate type of stress caused due to all 6 stressors was commonly seen in both genders of MBBS students which were in concordance with the current study. He also observed statistically significant difference between males and females with respect to academic related, teaching related and drives and desire related stressors.

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.⁵ He also concluded that stress is medical students is common and process oriented, with academics being perceived as the major factor. The vast syllabus to excel in academics was persistent in all the studies.

CONCLUSION

This cross sectional study showed academic domain as the major stressor, its levels were only moderate due to the student friendly atmosphere at the college. Around three fourth of the students had a family size less than five and at least one parent was graduate and belonged to upper socio-economic class. Half of the students were hostellers and most of them had adequate sleep and regular bowel habits.

Recommendations

It was recommended to carry out in depth study of stressors and their contributing factors among all semesters and other medical colleges. Coping strategy sessions for stress management should be routinely held for medical students.

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Ethical approval: The study was approved by the

Institutional Ethics Committee

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