



STRESS LEVEL AMONG FIRST YEAR UNDERGRADUATE MEDICAL STUDENTS

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ABSTRACT

Background: At any one point or other, every individual is stressed in their normal life. Stress affects emotionally, physically, psychologically and also change in social behaviour. A student can be stressed due to various reasons such as the academic, financial problem, interpersonal, health problem or loss of family members, relatives or close friends etc. Medical students face a stress more in the academic environment along more than the non-academic issues. Stress in academic situation can lead to positive as well as negative consequences. **Aim:** To assess the different level of stress among the first year medical students. **Objectives:** To assess the most common stressor group affecting the students. **Material And Methods:** The study was conducted among first year medical students of both gender. This study is based on MSSQ (Medical Students Stress Questionnaire). Students were explained in detail and a written informed consent was obtained. This study comprises of 40 questions which are grouped into six stressor groups. The study analysis was done in Microsoft Excel and SPSS software version 19. **Result:** Academic, group discussion activities and social related stress are in high level among the students. Even though some stress is required to strengthen us, the syllabus of this medical course increases every year. The students should know the different measures like yoga, meditation to relieve from stress.

KEYWORDS: Stress, Medical Students, Academic Performance, MSSQ.

INTRODUCTION

Hans Hugo Bruno Selye also known as the “father of stress”, who coined the term “stress”. He defined the term as non-specific response of the body to any demand for change.^[1] Stress was defined as a physical, mental, or a condition or feeling experienced when a person perceives that demands exceed the personal and social resources the individual is able to mobilize. Stress is faced by every individual in one way or the other.

Sudden transition from school to medical college, from small books to huge books adds stress. Medical college students have to face a lot of exams like theory, practical and viva, throughout the first year, for which marks have been given as internal assessment.

Pass grade is needed to qualify for the next academic year. Perceiving the stressors varies among every medical student. The stress factors in medical students can be academic, emotional or social and physical.^[1] The good stress which is favouring the individual, is treated as motivational and develops one's self – esteem, whereas the unfavourable stress leads to negative thoughts, anxiety, depression etc. When students start considering their education as a challenge, stress can bring a sense of competence and increase the self

confidence and capacity to learn. In addition to the impairment of academic achievements, stress also hampers the social life of student. It can give rise to anxiety, depression, interpersonal conflict, insomnia, and also addiction to alcohol and drug abuse.^[2] Depression if untreated may lead to untoward effect like suicide.^[3]

The objective of the present study is to assess the stress level and to identify different stressor groups among the first year medical students by using MSSQ (Medical Students Stress Questionnaire).

MATERIAL AND METHODS

The study was conducted among first year medical students in the Department of Physiology of Sree Balaji Medical College and Hospital, Chromepet, Chennai. This study is based on the questionnaire method. MSSQ (Medical Students Stress Questionnaire) was used. Students were explained the purpose of the study and a written informed consent was taken from each student.

MSSQ is used to identify the stress level of the medical students of both genders, in which totally 239 students participated. This comprises of 40 questions which are grouped into six stressor groups i.e. Academic Related Stressors (ARS), Drive and Desire Related Stressors

(DRS), Teaching and Learning Related Stressors (TLRS), Social Related Stressors (SRS), Intrapersonal and Interpersonal Related Stressors (IRS), Group Activities Related Stressors (GARS). The questions first part is framed with general information, and followed by study related questions.

Questionnaires were distributed to the students and they were instructed to respond to each item by encircling any one number from 0 to 4. The questions are categories as (i.e.0 – no stress, 1 - mild score denoting that it does not cause much stress, 2- moderate score indicates that it reasonably causes stress however it can be managed well, 3- high score indicates that it causes a lot of stress. The categories 4 indicates that it severely causes stress, so proper care and management is needed. The students with chronic disease, or psychiatric disease, self – reported physical illness, were excluded from the study. Data was entered in the Microsoft excel and analyzed using SPSS version 19.

RESULTS

Table 1: Gender Difference Among The Students.

Gender	Frequency	Percentage (%)
MALE	77	32.21
FEMALE	162	67.78
TOTAL	239	100.0

Table 2: Students Residing Area.

Residing	Frequency	Percentage (%)
Hostellers	121	50.62
Dayscholar	118	49.37
Total	239	100.0

Table 3: Age Group of The Students In This Study.

Age group	Percentage (%)
17	36
18	116
19	61
20	24
21	2

Domain I: Academic Related Stressor (Ars).

Scorings	Percentage (%)
NO STRESS	24.78
MILD STRESS	25.33
MODERATE STRESS	25.14
HIGH STRESS	14.36
SEVERE STRESS	10.39
TOTAL	100.00

Domain II: Interpersonal & Intrapersonal Related Stressor (Irs).

Scorings	Percentage (%)
No stress	44.96
Mild stress	23.27
Moderate stress	15.52
High stress	9.91
Severe stress	5.82
Total	100.00

Domain Iii: Teaching And Learning Related Stressor (Tlrs).

Scorings	Percentage (%)
No stress	39.60
Mild stress	30.27
Moderate stress	17.73
High stress	6.97
Severe stress	5.43
Total	100.0

Domain Iv: Social Related Stressor (Srs).

Scorings	Percentage (%)
No stress	29.86
Mild stress	29.43
Moderate stress	20.36
High stress	11.43
Severe stress	8.9
Total	100.0

Domain V: Drive & Desire Related Stressor (Drs).

Scorings	PERCENTAGE (%)
No stress	78.6
Mild stress	10.7
Moderate stress	6.1
High stress	2.3
Severe stress	2.3
Total	100.0

Domain Vi: Group Activities Related Stressor (Gars).

Scorings	Percentage (%)
No stress	27.5
Mild stress	29.2
Moderate stress	25.9
High stress	9.5
Severe stress	8
Total	100.0

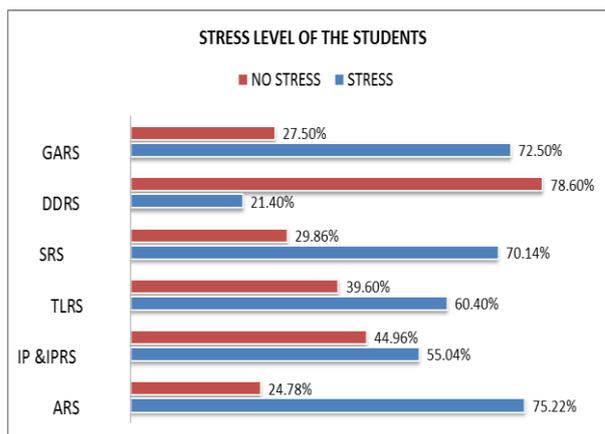


Fig 1: Stress And No Stress Among Students In Different Stressor Group.

DISCUSSION

The study survey had a rate of response from the first year medical students of 95.6% (i.e, among 250 students – 239 had participated).

In medical students the achievement in academics plays an important role, as they approach it as a competition and challenges to become a good doctor with all the medical skills and knowledge.

The students stress levels are differentiated into six stressor groups. In this study, only 24.78% are not affected by stress related to academic, remaining 75.22% are affected to different levels of stress. This kind of stress not only affects the academic performances but also the health (body and mind). The medical course causes a major stress in each individual during the course time, coping with a new course with lot of syllabus, stress begins with fear of lagging of portion to study for exam. The alarming facts suggested a situation of increase psychological pressure on medical students. Studies have revealed a high prevalence of stress in medical students ranging from 30% – 50%. The other problems were also reported to cause stress, but it wasn't as high as academic problems. Different author's studies had reported that examinations are common source of stress in medical students.^[4] There are different forms of developing one's stress level, fear of completing the syllabus before the exam, lack of revision time and also assessment and grading systems, high-self expectation to do well in studies develops anxiety. Studies done in medical school have reported that major stressors are academic related.^[5,6] It was not surprising that academic problems were a leading cause of personal problems in this study, because academic achievement has always been the top priority as reported in phattharayuttawat et al study.

Intrapersonal stressors related one's own self, including less motivation to study and self-conflict. Interpersonal stressors are the stress caused by means of verbal, physical and emotional abuse by other persons (friends, family, and conflict with surrounding personnel, teachers, colleagues, and staffs). In our study, 55.04% among this first year medical students were stressed. Not all the students are capable of solving their interpersonal conflicts. More over less than 10% of the students have high and severe stress. Similar to our study, Muhamad et al also reported that half of studied students (50%) had IRS.

Teaching and learning related stressors are 60.4% in our students. This kind of stress develops among the students who lack motivation and feedback from the teachers. Not all the individual has a self motivation spirit to improve by themselves, for those individual this may develop into stress. Teaching and learning process activities is needed throughout the course. If this goes unfriendly, stress level probably increases. Many expect proper support and objective for learning. In Habeeb et al study more than half of studied students (52%) had moderate form of TLRS.

Social related stressors like lack of spending time with their friends and family members, and also community

activities, is being a common social stress among the medical students. In this study, about 29.43% in mild stress, 20.36% in moderate stress, 11.43% in high and 8.9% in severe stress.

Drive and desire related stressors of the students in this study are about 21.4%, because most of the students joined the medical course on their own interest. There was no external force like parental wish to make their son or daughter to study medicine. Only 2.3% feels as a severe stress, either due to the reason of not being one's choice to study this course or wrongly choosing the course, being demotivated after knowing the reality of the course. G.M. Koochaki et al study came to a conclusion that some students were joined this medical field with motivation, and experience shared by others, and students with unwillingness, lack of interest had joined this curriculum may be the possible reason for stress.

Group activities related stressors creates stress on 29.2% of students in milder level. And 25.9% were affected moderately. Overall 72.5% of them had a problem in group activities. As medical course has a lot of motivational and interactive session for learning either in group form as well as individual questioning during the exam time. Students should know one's own abilities, to overcome the stress and hesitation in participating in group activities. Low self-esteem was also a major stressor as reported in Pearlin et al study. Unless the students are not exposed to the group discussions, group presentations, interactions skills, stress cannot be overcome by the students.

CONCLUSION

The result of this study says that the academics, group discussion activities and social related problems are the major stress causing factor among the first year medical students. The medical students are the future doctors who have to struggle hard to achieve their goals in this competitive world. This first year medical life brings lots of stress overall to them, which may lead to time constraints for self, family, friends and other entertainment etc.

As the year goes by each students need serious attention, so that the stress and stressor group doesn't spoil them. Beyond the motivations from people of same field, parents, relatives and friends, self motivation is very much necessary to overcome their stress. Every individual have to spend a few minutes a day for relaxation by doing activities like extra curriculum, meditation, yoga, exercise etc. If stress level is in mild to moderate state, it can be handled with certain measures, when it reaches beyond the limits (severe) there is possibilities of morbidity and mortality. Therefore, emotional support from parents, friends and relatives, counselling service from the faculties to those students is mandatory.

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