

Research Article**Stress and Stressors in Medical Education and Evaluation of Different Modalities to Overcome It.****Trushna Shah^{1*}, Geetanjali Purohit², R. M. Shah³, G. V. Shah⁴**¹Assistant Professor, Department of Biochemistry, SBKS MI & RC, Sumandeep Vidyapeeth, Piparia, Vadodara, Gujarat, India²Assistant Professor, Department of Physiology, SBKS MI & RC, Sumandeep Vidyapeeth, Piparia, Vadodara, Gujarat, India³Professor and HOD, Department of Biochemistry, SBKS MI & RC, Sumandeep Vidyapeeth, Piparia, Vadodara, Gujarat, India⁴Dean, SBKS MI & RC, Sumandeep Vidyapeeth, Pipariya, Vadodara, Gujarat, India***Corresponding author**

Ms. Trushna Shah

Email: trushna11684@yahoo.co.in

Abstract: Medical education has several new, challenging and potentially threatening situational demands for the students throughout the world. Stress in medical students has been recognized for a long time, many studies have to explore the causes, consequences and solution. Our aim is to determine stress and stressor, which one is the best modality among all and where we are lacking and how we can improve for future on the basis of student's feedback. This study was cross sectional self-structured questionnaire based conducted in first year medical students of Sumandeep Vidyapeeth, Department of Biochemistry, SBKS MIRC. One hundred and fifty 1st year MBBS students enrolled in the study group. The self-structured questionnaire included the different stressors and the evaluation of the stress management modalities used by Sumandeep Vidyapeeth. Out of 150 students who received questionnaires 140 completed and returned them (response rate = 93.3%). Nearly 110 students (78.2%) Strongly agree that stress is present. More than 50% students said academic factors were greater perceived cause of stress in medical students. Nonacademic factors also contribute in the medical students. In our study stress was prevalent in most of the first year medical students. Academic problems were greater sources of stress in first year medical students compared to non-academic problems. The study provided scope for adopting different modalities to reduce students' stress via counseling, mentorship programme and using different modalities etc.**Keywords:** Medical Student, Stress, stressor, Mentorship, Yoga

INTRODUCTION

Stress in individuals is defined as anything that disrupts the normal person's physical or mental wellbeing. Stress and its psychological manifestations are inherent in human life and are a major source of concern in the modern day society. It arises due to the inability of an individual to meet the demands made on him. A mild form of stress may manifest as a bad mood while an extreme one may lead to an act of violence, burnout or suicide. A stressor is any stimulus which evokes a stress response. Stressors may be real or imagined, and internal or external. The overall impact of a stressor will depend on its features and the characteristics of those who have been affected [1].

Medical education though appreciated in the society is highly stressful and very demanding because large burden of information leaves a minimal opportunity to relax and recreate, only the cream of population in the

society is eligible for medical education [2]. Medical student's life is subjected to different types of stress factors like the pressure of academics with an obligation of success, uncertain future and difficulties. Medical undergraduates face social, emotional, physical and family problems which may affect their learning ability and academic performance [3].

MBBS course in India is demanding as far as student efforts are concerned. It has been observed that medical college environments in India are extremely stressful and has led to suicide and suicidal attempts by the students. Fear of failure, vast amount of content that has to be mastered, inability to cope with the high expectations of parents and peers are found to be the most commonly observed sources of stress. Studies have proved that compared to the general population, medical students are the most distressed students [4].

Sumandeep Vidyapeeth was using different modalities for stress management like orientation, mentorship programme, and stress management workshops, Morning Prayer, yoga sessions, personality development classes, extracurricular activities and many more. This study aimed to determine the prevalence and the factors associated with stress and evaluation of coping strategies in Sumandeep Vidyapeeth. Our aim is to determine, which one is the best modality among all and where we are lacking and how we can improve for future on the basis of students feedback.

MATERIALS AND METHODS

This study was cross sectional self-structured questionnaire based study. Study was conducted in first year medical students of Sumandeep Vidyapeeth, Department of Biochemistry, and SBKS MIRC. One hundred and fifty 1st year MBBS students enrolled, were form the study group. Student’s feedback was taken by self-structured questionnaire. The questionnaires were including the different stressors and the evaluation of the stress management modalities used by Sumandeep Vidyapeeth. We were taking the

views of students for scope for further improvement in future. Study was conducted after the ethical clearance and consent will be taken by all students.

Statistical analysis

Data was compiled in excel sheet, analyzed for percentage and proportion.

RESULTS

As shown in Table 1 and 2 that about 92.8% students have stress because of academic where students agree that vast syllabus (92.8%), language(70%), tough topics(57.1%) ,duration of first year(61.7%), difficulty in memorizing topics(61.7%), health condition(51.4%) were stress increasing factors while non-academic stress factors were mainly related to accommodation where staying alone In hostel, adjustment with new place in initial days, Staying with roommates, Fear of ragging ,making friends is difficult, responsibility increased. Out of 150 students who received questionnaires 140 Students completed and returned them (response rate = 93.3%). Of all respondent, 90 were female (64.28%), 50 were males (35.7%).

Table 1: Stress associated Academic factors in medical students

Sl. No.	Questions	Strongly Agree (n=140)	Agree (n=140)	Neither agree or disagree (n=140)	Disagree (n=140)	Strongly Disagree (n=140)
1.	Presence of Stress	110 (78.5%)	20 (14.2%)	05 (3.5%)	03 (2.1%)	02 (1.4%)
2.	Content of syllabus is more	130 (92.8%)	10 (7.1%)	-	-	-
3.	Language problem	30 (21.4%)	98 (70%)	12 (8.5%)	-	-
4.	Topics are very tough and cover very fast	50 (35.7%)	80 (57.1%)	05 (3.5%)	05 (3.5%)	00
5.	Duration of first year is very short	86 (61.7%)	30 (21.4%)	20 (14.2%)	04 (2.8%)	00
6.	Workload is more , Less time of learning, Difficulty in covering portion daily	82 (58.5%)	52 (37.1%)	02 (1.4%)	04 (2.8%)	00
7.	Memorizing topic becomes difficult	42 (30%)	86 (61.7%)	05 (3.5%)	07 (5%)	00
8.	Health condition	52 (37.1%)	72 (51.4%)	07 (5%)	09 (6.4%)	00
9.	Fear of repeater batch or odd batch	79 (56.4%)	39 (27.8%)	10 (7.1%)	09 (6.4%)	03 (2.1%)

Table 2: Stress associated Nonacademic factors in medical students (Non academic problems)

Sl. No.	Questions	Strongly Agree (n=140)	Agree (n=140)	Neither agree or disagree (n=140)	Disagree (n=140)	Strongly Disagree (n=140)
1.	Accommodation (Hostel related problems)	50 (35.7%)	30 (21.4%)	20 (14.2%)	30 (21.4%)	10 (7.1%)
2.	Staying with room mates	42 (30%)	32 (22.8%)	40 (28.5%)	20 (14.2%)	06 (4.2%)
3.	Fear of ragging	78 (55.7%)	42 (30%)	15 (10.7%)	03 (2.1%)	02 (1.4%)
4.	Making friends is difficult	15 (10.7%)	17 (12.1%)	30 (21.4%)	42 (30%)	36 (25.7%)
5.	Responsibility increased	98 (70%)	32 (22.8%)	07 (5%)	03 (2.1%)	00

DISCUSSION

Stress is defined as an imbalance between environmental conditions necessary for survival and the ability of individuals to adapt to those conditions. Stress in medical students has been recognized for a long time, many studies have to explore the causes, consequences and solution.

There are three issues considered the most important for the development of stress in medical students. First is the fact that they have to mug up a lot of new information in a short time. Second is when they have exams (evaluation period), and the last one is that they have little or no time to review what they learn [5].

More than Fifty percent (50%) students strongly agree that they have stress because of tremendous amount of information and less time to complete the syllabus also problem in memorizing the topics becomes difficult. They also have a limited amount of time to memorize all the information studied, financial problem, lack of sleep, communication gap with teachers, and difficulty in understanding of subjects [5, 6].

More than 60% students agree that stress is also because of physical and mental health condition [7]. Medical students experience insomnia, fatigue and nausea, moreover, metabolism is disturbed by diarrhea or with constipation. Skin diseases are common during the examination period, which include acne, dermatitis or psoriasis. Last symptoms are provoked by long working hours and tension of completing in good terms the courses [8]. Our study also showed that language is also one of the stress barrier in medical students which is also correlate with one study [9].

Our study showed that Academic reasons and emotional factors were greater during the first year while reasons related to patient care and physical factors were more important in subsequent years. Long working hours, lack of peer support, competitive

environment, an imbalance between professional and personal lives, lack of recreational activities, staying away from home, financial problems, residency queries, an uncertain future, emergency situations, speedy decisions, life and death issues, cultural and minority issues, mismatch between capability and expectation are some reasons of stress [10, 11].

In order to improve the coping strategies corrective steps should be taken at the beginning of the medical under graduation. They should be exposed to various stress busters at early stage and should be trained properly in order to avoid stress burnout.

In our institute various methods have been adopted for stress management. These include primary preventive measures such as psycho educational lectures, seminars on stress management, Morning Prayer, yoga sessions and therapeutic techniques like crisis intervention and counseling, mentorship programme [12].

Students should be encouraged to participate in sports and extracurricular activity and to enrich their hobby. Seniors should be counseled against ragging. They should be encouraged to flourish healthy interactions with colleagues. These include improving orientation, better counseling, more support groups, other methods suggested for reducing student stress are the use of small groups of teaching and support and counseling service. Good teaching practice cannot be overestimated as a key to prevent and minimize distress among students [13, 14]. Also habit to make strong communication with friends and family members, talking to the friends was the most common stress relieving factor also take part in social activities [6].

There should be functional parent counseling cell because parents should be counseled in order to avoid their over expectations about their kids. In medical school, to score and remain at the top of the class is difficult as compared to scoring in secondary school.

In our Sumandeep Vidyapeeth mentorship programme running effectively where mentor a teacher guide, a student's both academically and non-academically work to relieve all kind of stress and provide support to the students [15]. Students should be inspired to take a help of such facility as and when needed. Entertainment facility should be established in college like regular debating club, movie club, sports club, and music and art gallery.

Different stress management techniques such as meditation, member of support group help in better adaptation of coping skills. It will help to improved knowledge of stress, and to enhance ability to resolve conflicts also such hypnosis, imagery and muscle relaxation, affiliation with peers and opportunities for emotional expression and intensified relationships with faculty [16]. Also teach medical students to monitor their own health by improving eating habit, sleep hygiene, stress regulation and mood regulation etc. [17].

Limitation of our study is that it occurs in private medical college so not generalized for all medical students and small study group where only first year medical students involved in this study in future we would like to do study in all years of medical students.

CONCLUSION

The present study reports the prevalence of stress and stressor in first year medical students. It revealed that academic problems were greater sources of stress in first year medical students compared to non-academic problems. The study provided scope for adopting different modalities to reduce student's stress via counseling, mentorship programme etc. It is time to make medical education interesting, restore enthusiasm in the students and to project a more realistic, humane image of the profession. This would decrease the amount of stress and its consequences.

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