

Assessment of Stress & Stress Management Techniques Practiced By II MBBS Students in a Medical College in Andhra Pradesh – A Questionnaire Based Study

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Abstract: Medical students are commonly associated with psychological stress. This may be due to their heavy workload, hectic schedule, examinations, & so on. If psychological stress continues for a long period, it can result in a number of maladies. Students should practice certain techniques to prevent or manage psychological stress. This study was done to assess stress & stress management techniques practiced by II MBBS students. **Aim:** to assess stress & stress management techniques practiced by II MBBS students in government medical college, Ananthapur, Andhra Pradesh.

Materials & Methods: A questionnaire containing 11 multiple choice questions was prepared to identify various reasons for stress, stress management techniques practiced by students. Stress was graded by using Hamilton's Anxiety scale. At the end of questionnaire, 20 common symptoms associated with stress were mentioned. Students were asked to mark any symptoms they experienced from this list or to write down any other symptom they experienced.

Results: 67% students surmised that they are stressed. 18% of students had HAM-A score 10-13 while 3% had a score 14-17 (mild anxiety), 2% had a score of 18-24 (moderate anxiety). 18% students practice yoga, 20% practice meditation & 26% practice exercise.

Conclusion: Medical students are commonly prone to stress. Decent stress management techniques should be practiced to avert stress.

Keywords: Psychological Stress, Stress Management, Students

I. Introduction

Stress within limits is considered normal because it requires rest & peace of mind so that the brain will get recharged. So some amount of stress is desired. Yet it can be detrimental if it crosses its boundary & can lead to a number of maladies. Medical students are commonly associated with psychological stress because of their huge syllabus & also to get relief after lot of struggle in getting the seat. There are students who can combat stress easily. However, these days, it is very common to find students in stressful conditions even for simple things. So it is very important for medical students to practice stress management techniques. These techniques should be safe, decent & harmless to the body. There are students who indulge in bad habits like smoking, alcohol, drugs, etc in a view to combat stress which is very much inappropriate. These habits can lead to even more dangerous situations. Stress can be easily prevented or managed by techniques like Yoga, Meditation, Counseling, exercise, swimming, cycling, recreations like playing Games, watching movies, peaceful talk with friends and family, etc... Unfortunately, these days such activities are being skipped by medical students and instead, inappropriate methods are being used to combat stress. This study was done to identify stressors & stress management techniques followed by II MBBS students.

II. Materials & Methods

Institutional ethical committee approval was obtained. The study was clearly explained to II MBBS students in government medical college, Ananthapur, Andhra Pradesh. 100 students gave their consent to participate in the study. A questionnaire containing 11 multiple choice questions was distributed to 100 II MBBS students. This questionnaire was pretested on 10 students who are not included in this study. Students were told to mention only their Age & Sex without mentioning their name or any other identity detail on the questionnaire. This questionnaire contained questions regarding experience of common Stressful situations & stress management techniques. At the end of questionnaire, a list of 10 common symptoms associated with stress was mentioned. Students were asked to mark any symptoms they may have experienced from this list or to write down any other symptom they experienced (which is not in the list). Hamilton anxiety scale (HAM-A) questionnaire was also included for grading the stress. All the filled questionnaires were taken after 30 min. The details of questionnaire is given below—

1)	Do you feel that you are stressed too much? Yes No
2)	What do you think is the main reason for your stress? Academic reasons Personal reasons Both None
3)	If academics are main cause of your stress. What do you think is the most important Academic factor that is responsible for your stress? Huge syllabus & time management Strict Attitude of staff Pressure from Parents to get good marks ------(any other please mention)
4)	If personal problems are main cause of your stress. Mention the main reason for your stress. Adjustment with friends/ problem with friends Financial problems Health problems Any other--
5)	Which of the following stress Management techniques do you follow? (can select multiple) Yoga Meditation Exercise -----(any other please mention)
6)	Did you participate in Yoga Day organized in our college? Yes No
7)	Do you have Habit of using any of the following to fight with stress? Smoking Alcohol Anti depressant drugs Anti Anxiety drugs ------(Any others please mention)
8)	Do you have habit of using any of these to stay awake during examinations? Tea, Coffee Psychoactive drugs (like amphetamine, Ephedrine, Modafinil etc.) Cigarette ------(any others please mention)
9)	Do you share your problems with any one? Yes, with family/ Relatives Yes, with Friends No -----(any other please mention)
10)	What change do you want in this college to make it a stress- free campus? Mandatory Yoga/Exercise classes Frequent academic counseling Accessibility to staff ------(Any others please mention)
11)	Which of the following symptoms do you experience during stress? 1)Loss of appetite 2) sadness/ continuous negative thoughts 3) Muscle Aches 4) Gastro – oesophageal refluxes(sour burps into throat) 5) Nausea 6)vomiting 7)Insomnia 8) Acidity 9)dry mouth 10) continuous Headache 11)------(any others please mention)

Statistics: descriptive statistics was used to analyze data. Results are expressed in percentages. Graphs are used to illustrate results.

III. Results

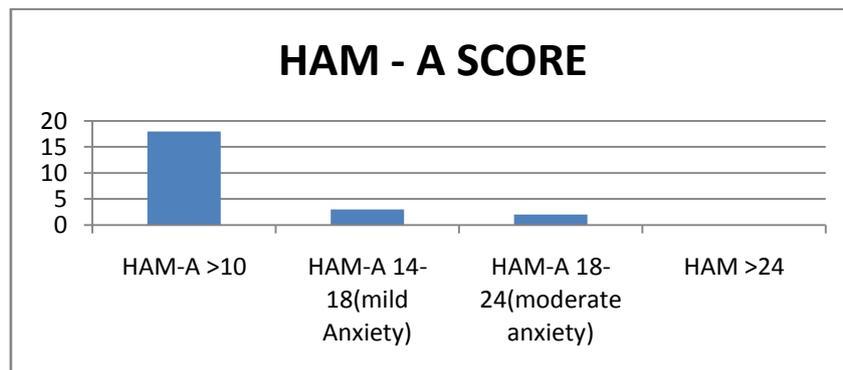
67% students felt that they are stressed. However when stress was graded according to Hamilton's anxiety scale (HAM-A), 18% of students had HAM-A score 10-13 while 3% had a score 14-17 (mild anxiety),

2% had a score of 18-24 (moderate anxiety). The reason for stress was academics in majority. Huge syllabus & time management was the most common reason quoted by students. Exercise was most commonly practiced stress management technique followed by yoga. Watching movies is common recreation habit followed by outdoor games. Most students felt that organizing yoga classes in campus & frequent academic counseling would help them to handle stress in a better way. However, it was seen that only few students Participated in yoga day conducted in the college. The results are tabulated below—

1)	Do you feel that you are stressed too much? Yes No	67% 33%
2)	What do you think is the main reason for your stress? Academic reasons Personal reasons Both None	38% 7% 22%
3)	If academics are main cause of your stress. What do you think is the most important Academic factor that is responsible for your stress? Huge syllabus & time management Strict Attitude of staff Pressure from Parents to get good marks Others-(lack of concentration, guidance)	51% 5% 4% 8%
4)	If personal problems are main cause of your stress. Mention the main reason for your stress. Adjustment with friends/ problem with friends Financial problems Health problems	11% 6% 13%
5)	Which of the following stress Management techniques do you follow? (can select multiple) Yoga Meditation Exerciseothers(sleeping, praying)	18% 20% 26% 9%
6)	Which of the following recreational habits do you have? Playing outdoor games (cricket, football, etc.) Get Together meetings (with old friends, seniors,etc.) Watching movies Music others(indoor games, chit chat with friends & family, dance, sports playing with pets)	32% 11% 56% 10% 10%
7)	Do you have Habit of using any of the following to fight with stress? Smoking Alcohol Anti depressant drugs Anti Anxiety drugs others (use of alternative medicines for coping stress, avoiding people)	0% 1% 1% 4% 2%
8)	Do you have habit of using any of these to stay awake during examinations? Tea, Coffee Psychoactive drugs (like amphetamine, Ephedrine, Modafinil etc.) Cigarette others(playing with mobile, drinking plenty water, chewing gum,)	38% 20% 0 0 5%
9)	Do you share your problems with any one? Yes, with family/ Relatives Yes, with Friends Both None	29% 31% 17% 18%
10)	What change do you want in this college to make it a stress- free campus? Mandatory Yoga Frequent academic counseling	22% 20%

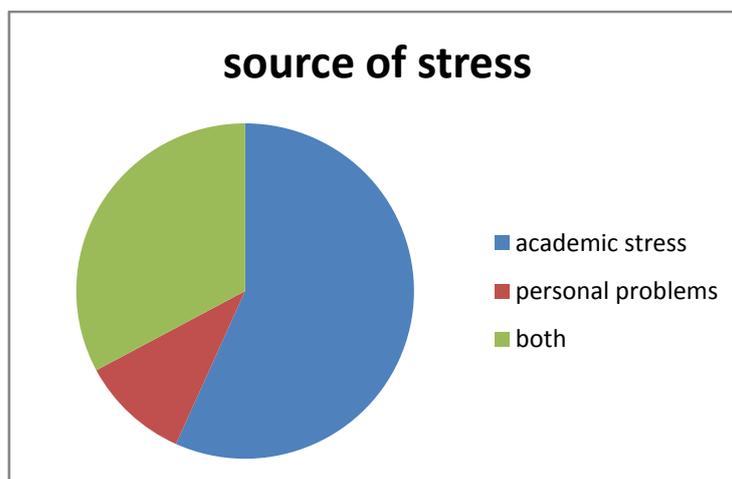
Accessibility to staff	11%
More frequent extracurricular activities	13%
Others (gym, play ground,)	20%
Canteen	10%

S.No	Symptom associated with stress	%
1	Loss of appetite	21
2	Continuous negative thoughts & sadness	19
3	Muscle aches	10
4	GERD	7
5	Nausea	3
6	Vomiting	2
7	Insomnia	8
8	Acidity	8
9	Xerostomia	3
10	Continuous headache	25
11	Anger	1
12	Mouth ulcers	1
13	Tension	1
14	Weakness	2



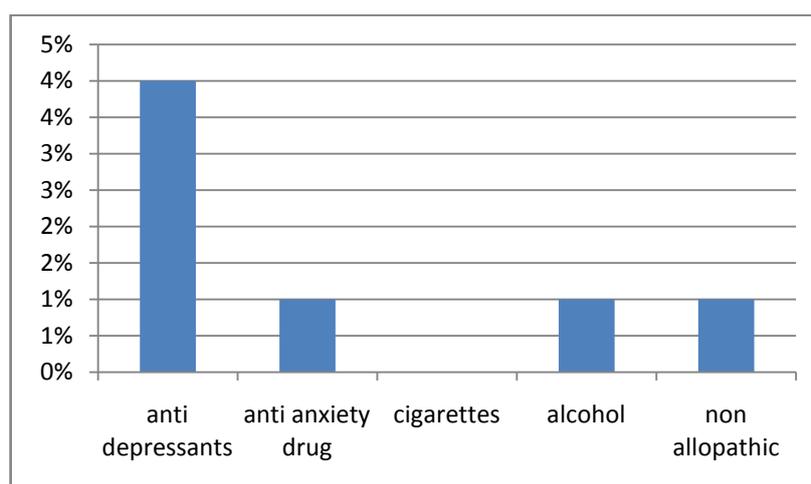
IV. Discussion

It is very common for medical students to get stressed. In this study 67% of students felt that they are stressed. In a similar study^[1], it was seen that depression, anxiety & stress were found among a number of medical students. A study^[2] in Haryana revealed that a number of medical and dental post graduate students have marked levels of stress. This can be due to their hectic schedule without enough time for recreational activities and relaxation. In this study, higher number students claimed that their stress was related to academics. In another study^[3] in Ethiopia, it was reported that stress in number of medical students was related to academics. The most important academic stressor identified in this study is related to huge syllabus & time management.



The easy & well known method to manage time efficiently is to prepare a good timetable. It should include all academic & non-academic activities. Even a large syllabus can be completed in time if a proper timetable is prepared. Guidance from senior professors will be very valuable while accomplishing such timetable. It is important to allot sufficient time to academic activities, especially revision in such a time table. Special emphasis should be given to topics that are important in examinations rather than trying to complete studying the entire text book. In this way, it will be very easy to manage huge syllabus.

Too much stress for a long period is definitely dangerous to health. So it is very important to manage stress. Decent methods should be practiced by students to manage stress & to lead a successful life. However, these days, a number of inappropriate methods like smoking, alcohol, drugs, etc. are being used by some students to manage stress. These methods result in psychological addiction & dependence. A study^[4] in a medical college, revealed that about half of people using such methods failed to quit these habits when they tried. In a study^[5] in Pakistan, it was seen that significant number of medical students used tranquilizers to cope up stress. In a study^[6] in Gujrath, it was seen that small percentage of students used smoking, alcohol, or sedatives to get relief from stress. On contrary, in this study none of the students claimed that they smoke to get relief from stress. However, it was seen that 4% use Anti Depressants (on prescription), 1% use Anti Anxiety Drugs (on prescription), 1% use alternative medicines, 1% use alcohol to get relief from stress



It was also seen that students use tea (38%) & coffee (20%) to stay awake during exams. These are safe & do not have any untoward side effects. In a recent study^[7] in kolkatha, it was seen very small percent of students used amphetamine. Using such drugs will aggravate stress much more. In our study, none of the students reported use of such CNS stimulant drugs.

It is very important to practice modest stress management techniques. Some of the important stress management techniques are outlined below.

Yogasanas

Yoga is an art of training Body, Breath & mind to a properly disciplined & healthy state. It involves a number of physical postures (which range from simple to very complex postures), along with control of breath & concentration of mind. In this study, it was seen that 18% of students practice Yogasanas regularly. 22% of students opined that yoga classes should be arranged in campus. It was seen that only 27% of students participated on yoga day organized by college. Apart from mental peace, yogasanas can be used as adjuvant for treatment of a number of ailments. Diseases controlled by yogasanas include Obesity, hypertension, diabetes, Muscle Aches, constipation, hyperacidity, etc. Yoga is also very well known to increase concentration of mind. According to a study^[8] in a medical college in Mumbai, yoga was proved to reduce Anxiety levels of students & improve their performance in exams. It is boon to students, especially medicos, who are often prone to stress. It is the safest method to alleviate stress. In another study^[9], significant number of medical students opined that yoga helped them to stay active & calm throughout the day. Recognizing the importance of yoga, our college organized Yoga classes (whenever possible) for interested students & staff.

Advantages of Yoga

- i) After some training, yoga can be safely practiced at home or hostel without instructor.
- ii) Simple yogasanas can be practiced even without instructor just by watching yoga programs in television, computer, etc. however it is advisable to get training from Yoga instructor in the beginning.
- iii) A number of health benefits besides mental peace are attributed to yoga.

- iv) Anxiety & depression can be easily alleviated by regular practice of yoga.
- v) When properly performed, there will not be any ill effects.

Disadvantages of Yoga

- i) Yoga Instructor is generally needed in the beginning for good number of yogasanas. If complex postures are practiced without instructor, ill effects can occur.
- ii) It cannot be used for treating severe anxiety, severe depression & other stress induced diseases (which are in advanced stage). However it can be used as adjuvant in these conditions.

Meditation

In this study, 20% of students practice meditation which is very popular stress management technique. It is considered completely safe & easiest way to stay peacefully. In a study^[10], it was seen, a meditation procedure decreased stress hormone levels of subjects(Adrenaline, cortisol) significantly . Besides a good mental status, meditation was shown to improve immunity^[11]. So meditation is a very good technique to combat stress & maintain health. Medicos should be informed about the benefits of meditation & must be advised to practice it regularly.

Advantages

- 1) Meditation can be practiced without a teacher. Simplest meditation involves sitting in relaxed posture & repetition of single word in the mind(usually given by guru).
- 2) Does not involve difficult postures as in yogasanas.
- 3) Breath holding or controlling breath movements voluntarily as in yogasanas is not required.

Disadvantages

- 1) Few types of meditation require a teacher in the beginning. However, after few days it can be practiced independently.
- 2) Very few types of meditations require breath holding or controlling breath movements.
- 3) Meditation is not advised after having a heavy meal.
There are no other disadvantages & it is completely safe.

Exercise

Besides physical build up, exercise can help in maintaining mental balance. Exercise makes the mind free from disturbed thoughts by concentrating on physical work. In this study, 25% of students (boys & girls) mentioned that they exercise regularly.

Advantages

- 1) Simple exercises don't require a trainer.
- 2) Physical build up besides mental peace
- 3) Walking, jogging, playing outdoor games like foot ball, cricket are all forms of exercise. In this study 32% of students mentioned outdoor games as their recreational activity. It is very important to encourage such outdoor games in college to make it stress free environment.

Disadvantages

- 1) Trainer is required for doing complex exercises
- 2) Gym or costly apparatus is required for doing full-fledged exercise. In this study 20% students suggested that a gymnasium & playground should be arranged.
- 3) Exercise should not be done after eating food or in hot climates (result in dehydration)

V. Conclusion

It is important to adopt decent stress management practices among medical students who are commonly prone to stress. It can be helpful for their academic improvement besides fitness of individual.

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