

# Is the medical teacher's mental health neglected? Effects of perceived student attitudes and behaviors on mental health and lifestyle of teachers in a rural university of western Maharashtra in India

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## ABSTRACT

**Background:** A medical teacher is a practitioner, teacher, trainer, and researcher all at once. There are very few studies assessing stress among medical teachers. With landmark policy changes, disruption and ongoing pandemic, looking at the mental health of medical teachers assumes greater importance. **Methods:** A cross-sectional study was carried out in the teaching faculty of medical, dental, nursing, and physiotherapy colleges affiliated within a rural medical university in western Maharashtra. A convenience sample of 100 teachers was taken and a self-report questionnaire was used to collect data from the teachers. Stress was measured by the Perceived Stress Scale. **Results:** Low stress scores (0-13) were seen in 43% of teachers, 55% had moderate stress scores (14-26), and 2% had high stress scores (27-40). Teaching was reported as a stressor by only 8%, whereas administrative work, lifestyle, family responsibilities, finances, patient care, professional jealousy, competition, and frequently changing norms were more commonly reported stressors. The overt focus on entrance test preparation, over-reliance on mobile phones, short attention span, poor listening skills, lack of interpersonal skills, lack of initiative to acquire clinical skills, lack of punctuality, and transactional nature toward learning were some of the perceived faults in the attitude of medical students as reported by the teachers. **Conclusion:** Teachers are coping with changing trends in technology and attitude of students toward learning and shoulder a multitude of responsibilities while creating doctors and healthcare professionals of the future. Attention needs to be paid to their health.

**Keywords:** Medical teacher, mental health, students attitude

## Introduction

There are plenty of studies that focus on stress in medical students but very few that have addressed stress among medical teachers. With

a change in the way students consume information, the teachers face challenges that go beyond the traditional role of teaching. The effect of student behavior and attitude on teachers is often neglected. Stress among teachers may be defined as the experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration, or burn out resulting from some aspect of their work as a teacher.<sup>[1]</sup> Stress can lead to reduced productivity which affects quality of medical education and ultimately leads to impaired quality

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of health care. Excessive stress may even lead to mental disorders. A medical teacher is a practitioner, teacher, trainer, and researcher all at once. The study aimed to find factors that contribute stress among medical and allied health sciences teachers.

### Material and Methods

A cross-sectional study was carried out in teaching faculty of different colleges affiliated within a rural medical university in western Maharashtra, India. A convenience sample of 100 teachers was taken. Teachers from departments of all institutes under the aegis of the university who consented to be part of the study were included in the study.

Prior Institutional Ethics Committee approval was obtained (Registration no. RMC/UG-PG/2019/34). Teachers satisfying the inclusion criteria were explained the study objectives and study procedures and written informed consent was obtained. A self-report questionnaire was used to collect data from the teachers. The questionnaire comprised information on the age, gender, stream, subject, teaching experience, and designation of the teacher. The questionnaire also comprised of open and close-ended questions to evaluate perceived stressors like student behavior. The stress was measured by the Perceived Stress Scale (PSS). PSS is a widely used stress scale developed by Cohen *et al.* in 1983.<sup>[2]</sup> We used the 10 item version of the scale which is the most reliable. It is graded on a 5 point Likert scale with zero standing for never and 4 for very often. The scale has a maximum score of 40 and a minimum score of zero. Scores ranging from 0 to 13 were considered low stress, 14 to 26 were moderate and 27 to 40 were considered high for perceived stress. The scores have good reliability ( $\alpha = 0.85$ ).

Data collected was compiled and tabulated and graphically represented using Microsoft Excel. Descriptive analysis was carried out using mean, percentage, and standard deviation. The association between the grade of stress and categorical variables was analyzed using Fisher's exact test.

### Results

The study found that 43% teachers had low stress scores (0–13), 55% had moderate stress scores (14–26), and 2% had high stress scores (27–40). [Table 1]. Forty-seven percent of the faculty members who were interviewed belonged to medical college while 23% were from nursing college and 20% were dental college teachers while 10% were teachers of physiotherapy. Study shows that most teachers belonged

PSS Score	Number of Teachers	Percentage
Low Stress (0-13)	43	43.0
Moderate Stress (14-26)	55	55.0
High Stress (27-40)	2	2.0
Total	100	100.0

to the age group of 31–40 years (42%), followed by 41–50 years (24%). Nineteen percent of teachers belonged to the age group of 21–30 years, followed by 10% in 51–60 years and 5% in 61–70 year group.

Most teachers rated the sincerity of students as average (5–7 in on a scale of 0–10). [Figure 1] Figure 2 shows some of the perceived faults in the attitude of medical students as reported by the teachers. Administrative work was the most commonly reported stressor by the teachers followed by lifestyle, family responsibilities, finances, patient care, professional jealousy, competition, and frequently changing norms. Teaching was reported as a stressor by only 8%. Four percent also reported mandatory research work to be a stressor. [Figure 3]

We found that 49% of teachers reported some negative attitudes toward students, whereas 10% said that they felt negative attitudes often. Seven percent of teachers claimed the inability to cope with the negative attitudes of students. Seventy percent of teachers reported a lack of student's attention in class sometimes, 9% reported it often and 3% reported that this was very often the case. Thirty-four percent made efforts to improve this behavior sometimes, 37% tried often while 27% tried very often. [Table 2]

Dental and Physiotherapy teachers had relatively higher stress scores as compared to medical and nursing teachers ( $P < 0.001$ ). Clinicians were 42% and 40% belonged to non-clinical branches while 18% belonged to para clinical branches. There is a statistically significant difference in stress scores of these three groups, with teachers from clinical and non-clinical branches having higher stress as compared to teachers from para clinical branches ( $P < 0.001$ ). Forty-three percent of study participants were assistant professors, 17% were associate professors, 14% were tutors, 16% were Professors, and 10% were Heads of Departments. There was no statistically significant association between designation and stress levels although a higher proportion of assistant professors had moderate stress levels ( $P = 0.122$ ). [Table 3]

Sixty percent of teachers reported that they were satisfied with student behavior while 40% were not satisfied. Forty-nine percent of teachers believed that technology has had a positive impact on students. On asking if student attitude has caused them stress 46% replied in affirmative and 93% said they can cope with the negative attitudes of students.

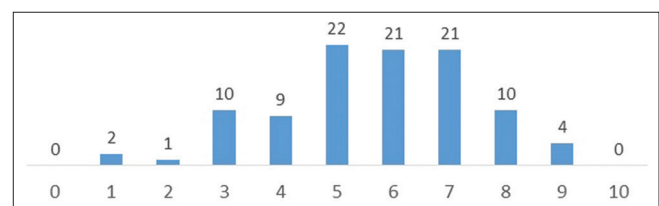


Figure 1: Perceived Sincerity of Students Rated by Teachers on Scale of 0 to 10

Ninety-three percent of teachers advocated for a more hands-on approach toward teaching since it improved student behavior. A new Competency Based Curriculum has been introduced in India. When asked if it will help train students better 83% replied in affirmative while 17% said that it would not make much difference.

### Discussion

Age distribution was in keeping with the norms of hierarchical faculty distribution in colleges. We found that younger teachers have higher levels of stress, which may be because of a higher burden of routine workload and additional responsibility of balancing family life and finances. on younger teachers. It might also be that with experience the older teachers have become better at coping with stress.<sup>[3]</sup>

Other studies have shown higher stress levels in females as compared to male teachers. We, however, could not find any such association in the current study. This may be attributed

to in campus housing, easy availability of domestic help, good schooling facilities for children, and lack of time spent commuting to work. The absence of these facilities may cause additional stress especially in female teachers.<sup>[4]</sup>

Studies have shown that work stress and job satisfaction are related to salaries.<sup>[5]</sup> Dental and Physiotherapy teachers, especially when compared to medical teachers, may feel that they get paid less for similar work, and this may influence their stress levels. Further studies are required to verify this hypothesis especially in teachers of allied health sciences.

The teachers of clinical subjects have the additional responsibility of patient care and irregular working hours which lead to additional stress. The teachers from non-clinical branches are often given additional administrative responsibilities which may take up a lot of their time. Predictability of working hours determines stress levels among professionals.<sup>[6]</sup> Administrative difficulties were common stressors in senior teachers while the workload was a common stressor in junior teachers. A medical teacher is a practitioner, teacher, trainer, and researcher all at once and has to wear many hats. [Figure 4] Studies have shown that the Socratic method of teaching gives better results as compared to the didactic method especially when teaching adults.<sup>[7]</sup>

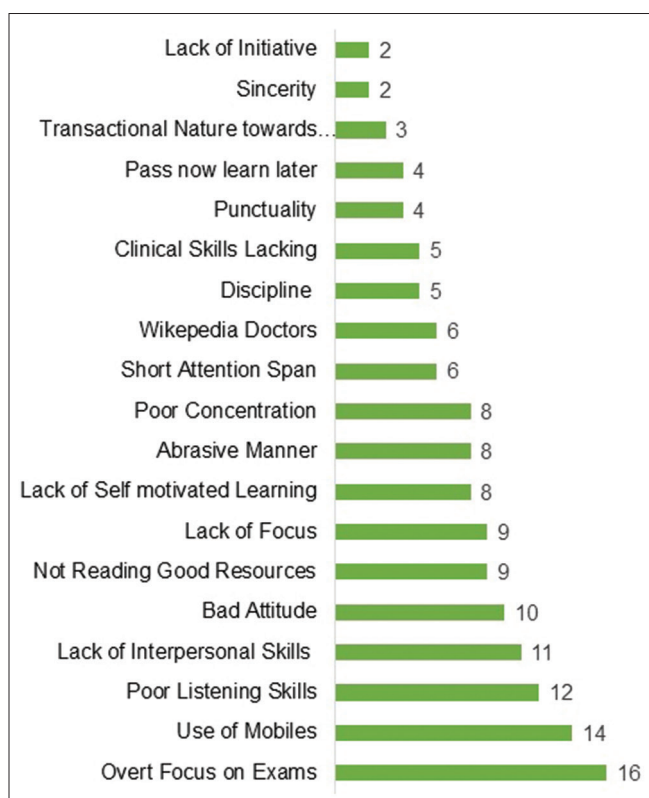


Figure 2: Perceived Problems in Student Attitudes

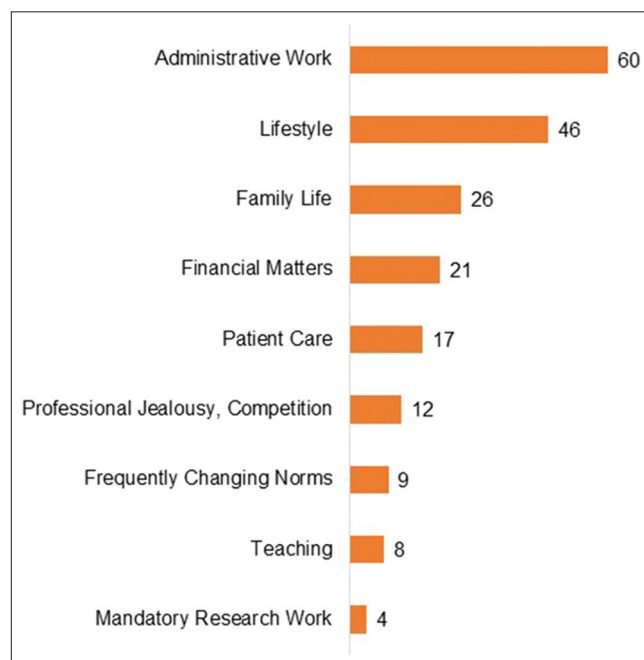


Figure 3: Common Stressors Reported By Teachers

Table 2: Response of Teachers to Students Attitudes

Question	Never	Almost Never	Sometimes	Often	Very Often
What is the frequency of negative attitude shown by students in class and or clinics?	8	33	49	4	6
Do students show lack of attention during lecture?	2	16	70	9	3
Have you made efforts to improve student behavior by increasing interaction?	1	1	34	37	27
How often do collect feedback and try to improve teaching methods?	2	12	39	32	15
Do you feel fulfilled while teaching?	1	6	15	36	42

Table 3: Comparison of Stress Score

Variable	PERCIEVED STRESS (%)			Total	Fisher's Exact
	Low Stress	Moderate Stress	High Stress		
Age Group (years)					
21-30	2 (4.7)	16 (29.1)	1 (50)	19 (19)	P=0.016
31-40	18 (41.9)	23 (41.8)	1 (50)	42 (42)	
41-50	14 (32.6)	10 (18.2)	0 (0)	24 (24)	
51-60	7 (16.3)	3 (5.5)	0 (0)	10 (10)	
61-70	2 (4.7)	3 (5.5)	0 (0)	5 (5)	
Total	43 (100)	55 (100)	2 (100)	100 (100)	
Gender					
Male	25 (58.1)	24 (43.6)	1 (50)	50 (50)	P=0.380
Female	18 (41.9)	31 (56.4)	1 (50)	50 (50)	
Total	43 (100)	55 (100)	2 (100)	100 (100)	
Designation					
Tutor	6 (14)	8 (14.5)	0 (0)	14 (14)	P=0.122
Assistant Professor	12 (27.9)	30 (54.5)	1 (50)	43 (43)	
Associate Professor	10 (23.3)	6 (10.9)	1 (50)	17 (17)	
Professor	10 (23.3)	6 (10.9)	0 (0)	16 (16)	
HOD	5 (10.6)	5 (9.1)	0 (0)	10 (10)	
Total	43 (100)	55 (100)	2 (100)	100 (100)	
Type of Subject					
Non Clinical	14 (32.6)	25 (45.5)	1 (50)	40 (40)	P<0.001
Para Clinical	16 (37.2)	2 (3.6)	0 (0)	18 (18)	
Clinical	13 (30.2)	28 (50.9)	1 (50)	42 (42)	
Total	43 (100)	55 (100)	2 (100)	100 (100)	
College					
Medical	28 (65.1)	19 (34.5)	0 (0)	47 (47)	P<0.001
Dental	2 (4.7)	16 (29.1)	2 (100)	20 (20)	
Physiotherapy	2 (4.7)	8 (14.5)	0 (0)	10 (10)	
Nursing	11 (25.6)	12 (21.8)	0 (0)	23 (23)	
Total	43 (100)	55 (100)	2 (100)	100 (100)	
Lack of Attention among Students					
Never	2 (4.7)	0 (0)	0 (0)	2 (2)	P=0.04
Almost Never	8 (18.6)	7 (12.7)	1 (50)	16 (16)	
Sometimes	25 (58.1)	45 (81.8)	0 (0)	70 (70)	
Often	7 (16.3)	2 (3.6)	0 (0)	9 (9)	
Very Often	1 (2.3)	1 (1.8)	1 (50)	3 (3)	
Total	43 (100)	55 (100)	2 (100)	100 (100)	

In recent years, the way students prefer to consume information has undergone drastic changes owing to the introduction of newer technology. Like all other sectors, this has disrupted medical education and student–teacher relationship as well. Students may not respond favorably to traditional teaching methods and may prefer their methods of learning. There is need for a policy to promote appropriate use of technology in healthcare and weed out the inappropriate use.<sup>[8]</sup>

Lack of fulfillment in work can adversely affect mental health and productivity.<sup>[9]</sup> Feelings of negativity and failure to cope with them are not conducive to a good learning environment and may demotivate teachers from doing their best while teaching and in turn affect student performance.<sup>[3]</sup>

The decision to reduce required teaching posts and rapid increase in undergraduate seats has skewed the teacher to student ratio.

This may have detrimental effect on quality of education. The new competency-based curriculum envisions providing much-needed hands-on training to undergraduate medical students which most teachers see as a welcome change. Proper implementation of this curriculum will however require systematic reorientation and training of medical teachers.<sup>[10]</sup> Small group discussions and imparting clinical skills to students will require recruitment of more teachers and creation of non-teaching consultancy and plain posts in hospitals to reduce the burden on teachers and help improve the quality of patient care as well as education. Well trained support staff can also help reduce additional work burden. The National Medical Council (NMC) must consider a more proactive role and involvement for family physicians in medical education.<sup>[11]</sup>

The National Education Policy 2020 recommends reducing teachers' time spent on non-teaching activities, it however excludes



**Figure 4:** Responsibilities of Medical and Health Sciences Teachers

medical and law teachers.<sup>[12]</sup> Increasing number of post graduate teaching institutes and teachers in existing colleges will be more fruitful than making a PG teacher guide multiple students.

Interventions like yoga and complementary medicine that helps balance personal and professional life and reduce stress should be advocated for the health sciences teaching fraternity.<sup>[13]</sup>

## Conclusion

Administrative work, lifestyle, family responsibilities, finances, patient care, professional jealousy, competition and frequently changing norms were reported as common stressors. Additional responsibilities along with teaching are more stressful than teaching itself and equitable distribution of these responsibilities may allay stress on teachers. Teachers are coping with changing trends in technology and attitude of students toward learning and shoulder a multitude of responsibilities while creating doctors and healthcare professionals of the future. The promotion of medical education technology and lifestyle interventions for medical teachers can go a long way in improving the health of those who teach others how to improve health.

The ongoing COVID pandemic has highlighted the need to make our medical colleges and hospitals more efficient. Increased investment in our healthcare infrastructure and human resources with more inclusive, deliberative and decentralized processes will yield better results. Honest situational analysis and empowerment of teachers to implement curricular reforms is needed. It is very important for the future of the medical profession to take concrete steps to address stressors afflicting the medical profession as a whole.

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## Conflicts of interest

There are no conflicts of interest.

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