

Level of Stress among Medical Students of Selected Non Government Medical College

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ABSTRACT

Background: Stress among doctors is a major concern that can direct to physical and mental illness and can harm the quality of patient care. This stress starts from their student life. This study assessed stress and its associated factors among Medical students from first year to fifth year.

Materials and methods: This was a cross sectional study based on level of stress among Medical students. Respondents were selected on purposive sampling technique according to the availability and consent. Face-to-face interviews were conducted using interviewer administered semi-structured pretested questionnaire which was developed using Medical Students Stressor Questionnaire and The Perceived Stress Scale (PSS).

Results: This study was conducted among 194 Medical Students, among them 44 students from 1st year, 54 students from 2nd year, 46 students from 3rd year, 35 students from 4th year, 15 students from 5th year. Among them 75.3% were from nuclear family. Among 194 respondents 80.4% had experience mild to moderate stressors as perceived by the respondent, 4.6% respondent experience severe stressor and others (14.9%) had no experience of stressor. More than 94.8% respondents were Very High Severe health concerns according to PSS scale. Most students (184 out of 194) scored more than 20 on the PSS, indicating higher perceived stress. The majority of those students (147) had stress questionnaire scores between 55 and 81. The p-value (0.676) for the Pearson Chi-Square test is greater than 0.05, indicating no significant association between the Student Stress Questionnaire categories and PSS scores. Noted that 2 cells (33.3%) have expected counts less than 5, which slightly violates Chi-square test assumptions.

Conclusion: Though it is not significant but its confirm that maximum respondent experience severe stressor and they were Very High Severe health concerns according to PSS scale.

KEY WORDS

Medical education; Medical Students Stressor Questionnaire and the Perceived Stress Scale (PSS); Stress.

INTRODUCTION

Medical education is considered one of the most demanding course works. Students have to absorb a lot of information from day one, face frequent exams, and assume real clinical duties.¹ Unsurprisingly a lot of medical students feel stressed, anxious and at times depressed - often more so than students in other fields.²

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Studies worldwide indicate that approximately 30 to 60% experience moderate to severe stress at some time during training.³

Pressure is coming at us from all directions. Academic pressure is a big driver: the course blends hard theory with hands-on clinical work.⁴ A pounding schedule of high-stakes tests, a competitive atmosphere and little downtime makes for a heavy workload. Traits like perfectionism, as well as social and financial pressures, may contribute to making it seem even harder.⁵

The consequences of chronic stress are real. It is associated with lower academic performance, burnout, depression and in some cases suicidal ideation.⁶ Exhausted and disengaged, those battling burnout, a well-documented problem in medicine, may struggle to embrace each day, much less their future careers as physicians.⁷ For many, the strain even extends into relationships and everyday activities, making it harder to keep going.

Stress is also influenced by gender and year of study. It is common for female students in early clinical years to report greater stress.⁸ In Bangladesh, more than two-thirds of medical and dental students experience high

stress, with excessive workload, clinical work and financial concerns as major stressors.⁹ Even when students recognize that stress is a problem, many find it difficult to cope, highlighting the importance of intervention-based support.¹⁰

On the basis of these results it is essential to evaluate the stress of medical students. This study was designed to find out the level of stress among Medical students of selective private medical college, to know how we might better support resilience, well being and educational success, we must first better understand the major stressors and their implications.

MATERIALS AND METHODS

This was a cross sectional study based on Mental Health among 194 Medical students (From 1st year to 5th year) at Ashiyan Medical College, Dhaka. Respondents were selected on purposive sampling technique according to the availability and consent. Face-to-face interviews were conducted using interviewer administered semi-structured pretested questionnaire from 1st September to 30th September 2025 which was developed using Medical Students Stressor Questionnaire and The Perceived Stress Scale (PSS) Score Assessment Method for Stress Reduction: An Overview.^{11,12} After data collection, the data were checked and edited to reduce error. Descriptive and statistical methods were used in analyzing data. Data processing and data analysis by were done manually and by computer.

Scoring Pattern of the Medical Students Stressor Questionnaire¹¹:

The total score of 27 items ranges between 0 and 108. Since the options 1, 2 and 3 do not indicate any stressor experience, score

- 54 means no experience of stressors as perceived by the respondent.
- A score between 55 and 81 indicates mild to moderate stressor experience and
- A score between 82 and 108 denotes severe stressor experience.

Perceived Stress Scale Scoring PSS-10 Scores are Obtained by¹²

Reversing the scores on the four positive items, e.g., 0=4, 1=3, 2=2, etc. and then summing across all 10 items. Items 4, 5, 7 and 8 are the positively stated items.

Interpretation of Scores The interpretation of PSS scores is crucial for understanding an individual's perceived stress levels. The total score can be categorized into different ranges, each reflecting distinct levels of perceived stress and corresponding

health concern levels: PSS Score Range Total Score Perceived Stress Levels Health Concern Levels

- 0-7 Much Lower than Average Very Low
- 8-11 Slightly Lower than Average Minimal health concerns Low Minor health concerns
- 12-15 Average Average Moderate health concerns
- 16-20 Slightly Higher than Average High Significant health concerns
- 21 and over Much Higher than Average Very High Severe health concerns.

RESULTS

This study was conducted among 194 Medical Students, among them 44 students from 1st year, 54 students from 2nd year, 46 students from 3rd year, 35 students from 4th year, 15 students from 5th year. Among them 75.3% were from nuclear family. Among 194 respondents 80.4% had experience mild to moderate stressors as perceived by the respondent, 4.6% respondent experience severe stressor and others (14.9%) had no experience of stressor. More than 94.8% respondents were Very High Severe health concerns according to PSS scale. Most students (184 out of 194) scored more than 20 on the PSS, indicating higher perceived stress. The majority of those students (147) had stress questionnaire scores between 55 and 81. The p-value (0.676) for the Pearson Chi-Square test is greater than 0.05, indicating no significant association between the Student Stress Questionnaire categories and PSS scores.

- Note: 2 cells (33.3%) have expected counts less than 5, which slightly violates Chi-square test assumptions.

Table I Socio demographic Information (n=194)

Variables	Frequency (n)	Percentage (%)
LEVEL OF EDUCATION OF THE RESPONDENTS		
1 st year	44	22.7
2 nd year	54	27.8
3 rd year	46	23.7
4 th year	35	18.0
5 th year	15	7.7
Total	194	100.0
TYPES OF THE FAMILY		
Nuclear family	146	75.3
joint family	48	24.7
Total	194	100.0
MONTHLY INCOME		
less than 50000	42	21.6
51000 to one lac	92	47.4
more than one lac	60	30.9
Total	194	100.0

Variables	Frequency (n)	Percentage (%)
LEVEL OF FATHERS OCCUPATION OF THE RESPONDENTS		
Service	53	27.3
Business	108	55.7
Farmer	11	5.7
Others	22	11.3
Total	194	100.0
LEVEL OF MOTHERS OCCUPATION OF THE RESPONDENTS		
Service	30	15.5
Business	8	4.1
Home maker	146	75.3
Others	10	5.2
Total	194	100.0
LEVEL OF FATHERS EDUCATION OF THE RESPONDENTS		
primary	3	1.5
SSC	14	7.2
HSC	25	12.9
Graduation	139	71.6
others	13	6.7
Total	194	100.0
LEVEL OF MOTHERS EDUCATION OF THE RESPONDENTS		
Illiterate	1	0.5
primary	8	4.1
SSC	42	21.6
HSC	59	30.4
Graduation	78	40.2
others	6	3.1
Total	194	100.0

Table II level of stress of the Medical student (n=194)

Variables	Frequency (n)	Percentage (%)
Level of stress	Frequency	Percentage (%)
less than 54 (No experience of stressors)	29	14.9
55 to 81 (Mild to moderate stressor)	156	80.4
82 to 108 (Severe stressor experience)	9	4.6
Total	194	100.0

Table III Level of PSS (Perceived Stress Scale) of the student (n=194)

Variables	Frequency (n)	Percentage (%)
PSS	Frequency	Percentage (%)
16-20 (Significant health concern)	10	5.2
more than 21 (High Severe health concerns)	184	94.8
Total	194	100.0

Table IV Relation between PSS (Perceived Stress Scale) and Medical stressor scale of the student (n=194)

Level of stress	PSS		Total	p Value
	16-20 (Significant health concern)	More than 21 (High Severe health concerns)		
less than 54 (No experience of stressors)	1	28	29	(0.676)
55 to 81 (Mild to moderate stressor)	9	147	156	
82 to 108 (Severe stressor experience)	0	9	9	
Total	10	184	194	

DISCUSSION

Health care occupations that require a lot of responsibility, which involves human well-being, can be stressful. In this study, we assessed the stress levels and influencing factors among medical students in Bangladesh. To the best of our knowledge, this is novel research delving into the stress levels of the medical students in Bangladesh. Almost 50% of medical students suffer psychological helplessness, detachment and burnout.¹³

In this research, Among 194 respondents 80.4% had experience mild to moderate stressors as perceived by the respondent, 4.6% respondent experience severe stressor and others (14.9%) had no experience of stressor. More than 94.8% respondents were Very High Severe health concerns according to PSS scale. Most students (184 out of 194) scored more than 20 on the PSS, indicating higher perceived stress. The majority of those students (147) had stress questionnaire scores between 55 and 81.

Other study findings in India indicate that 78% of medical students experience moderate to high levels of stress. This significant proportion highlights the demanding nature of medical education and the widespread impact of stress among students. Stress levels tend to vary based on academic year, with

students in later clinical years reporting higher stress due to increasing responsibilities, patient interactions, and expectations for clinical competency.¹⁴ This finding also similar to this study here 80.4% had experience mild to moderate stressors as perceived by the respondent. This study aligns with the study by Ragab et al. that the significant impact of academic and personal stressors on medical students.¹⁵

Our study also aligns with the findings from the study by Al-Shahrani et al. at King Khalid University, which also reported high academic stress among medical students.¹⁶ While we found that 80.4% had experience mild to moderate stressors as perceived by the respondent.

It was students base study. This type of study usually has some limitations. During this study various types of limitations were faced by the researcher which may have influenced the quality of the study.

CONCLUSION

In a conclusion medical students face a unique set of academic and personal stressors that significantly impact their mental health and well-being and overall academic performance.

By recognizing stress factors, medical college can help develop resilience and make certain better academic and professional outcomes for future healthcare professionals.

RECOMMENDATION

1. Support Mental Health and Stress Management by Counseling Services, Peer Support Programs, Workload and Burnout Prevention by Monitor academic workload, provide flexibility during exams and encourage breaks. And at last but not least Awareness Campaigns

- Promote Physical Well-being
- Improve Environmental Health
- Enhance Health Education and Awareness.

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LIMITATION

- It was a cross sectional study.
- It was conducted on small sample size and the study place was selected purposively due to time constraint and it does not necessarily reflect the situation of the whole country.

DISCLOSURE

The authors declared no conflict of interest.

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