



ORIGINAL ARTICLE

Levels of Stress in Medical Students

Muhammad Mateen

Affiliations

Neurologist, Mohammadi Hospital, Khadim Ali Road, Sialkot.

Corresponding Author:

Dr. Muhammad Mateen,
Neurologist, Mohammadi Hospital, Khadim Ali Road, Sialkot.
0332-8644563
mateen.shahid49@gmail.com

Submission complete: Dec, 2024

Review began: Dec, 2024

Review ended: Jan, 2025,

Acceptance: Feb, 2025

Published: March, 2025

Author contribution:

M.M. Conceptualization of project, data collection, literature search, writing manuscript, statistical analysis, drafting, revision and final approval.

ABSTRACT

Objectives: With the intention of enhancing their general well-being and academic performance, this research examines towards degrees regarding tension experienced by learners in medicine. This also pinpoints main stressors connected to their academic environment, and examine the efficacy of present coping mechanisms.

Methodology: Medical students were polled cross-sectionally using a validated stress measurement tool. Data on stress levels, academic load, and coping mechanisms was gathered from participants of first and second year medical students—were gathered. Significant stress elements and relationships between stress levels and academic performance were found by means of statistical analysis. Total Participants were 150 who were classified according to gender residences and academic years.

Result:

Academic Year	Total Students	Male	Female	Stressed
1 st year	75	24	51	35
2 nd year	75	24	51	25

Conclusion: This cross sectional study shows that academic expectations and workload cause medical students to be somewhat stressed. Development of focused treatments depends on the identification of main stresses and assessment of coping mechanisms. Improving support networks and stress-reducing tools helps pupils to be healthier and more successful academically.

Keywords: Medical students, stress levels, academic workload, coping strategies, mental health, stress assessment, well-being, support systems, academic performance

Cite this Article as: Mateen M.; Levels of Stress in Medical Students. SIAL J Med. Sci. Sept-2024 V-3 (Issue-11):22-26

Introduction

Stress is the body and mind's reaction to any form of strain or danger. It may have both good (eustress) and negative (distress) consequences which can be acute (short-term) or chronic (long term). Extended or severe stress, or the buildup of pressures, may

cause disturbance in normal development throughout childhood¹.

One of the things which one has to satisfy to reach personal well-being is an optimal state of mind. On the other hand, a disturbance of psychological functioning could cause issues in everyday living. Many elements may lead

How to prevent Surgical Site Infection (SSI) in a Tertiary Care Hospital, Sialkot



to psychological issues. One of them is societal change comprising modifications to familial relationships, increasing joblessness, and mounting standards and requirements in job or schooling². Educational tension, occupational problems, misery, burden, healthcare learner, sports participation, educational supervision, tobacco and uncertainties are elements connected to internal situation in the educational setting. Through, it is evident that the educational procedure connected to the length of study was a trending topic covered in many studies about causes of psychological strain among university students. Every component of the institution, including policy makers, should focus on this issue to lower the stress level among students throughout their studies³. Parents' concern, kids' hard work, instructors' tiredness, and such other education stakeholders are raising their financial stake; hence, the education enlargement is additionally among the frequently often stated "suffering sites"⁴. Among medical students, some learners further claimed that the extra burden and obligations of the distance education caused them to feel overwhelmed. Pupils also claimed various computer problems including network signal failures between tests and examinations, which caused them to be booted out of the computer network⁵. Burnout in pre-clinical years has been linked in studies to major professional misbehavior in later practice. Sleep deprivation and more stress in females is also seen.^{6,7}

Objectives: With the intention of enhancing their general well-being and academic performance, this research examines

towards degrees regarding tension experienced by learners in medicine. This also pinpoints main stressors connected to their academic environment, and examine the efficacy of present coping mechanisms.

Methodology:

Using a validated stress scale—the Perceived Stress Scale, PSS—150 medical students (First and Second Year) underwent a comprehensive research program. Facts collecting consisted of a online indistinguishable form sent by email.

Classification	Score
No	0-13
Mild	14-27
Moderate	28-41
Severe	42-56

Results

Total Participants:

- Year 1: 75
- Year 2: 75

Gender Breakdown:

- Females (Year 1): 51
- Females (Year 2): 51
- Males (Year 1): 24
- Males (Year 2): 24

Stress Level Breakdown:

- Stressed (Total): 60
- Non-Stressed (Total): 90

Detailed Breakdown:



Year 1:

- Females (51 total):
- Stressed: 25
- Non-Stressed: 26
- Males (24 total):
- Stressed: 10
- Non-Stressed: 14

Year 2:

- Females (51 total):
- Stressed: 15
- Non-Stressed: 36
- Males (24 total):
- Stressed: 10
- Non-Stressed: 14

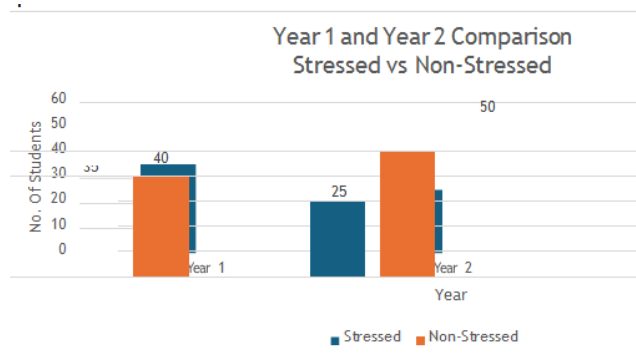


Figure-1; Distribution of Stressed versus Non-Stressed With respect to Years 1 and 2

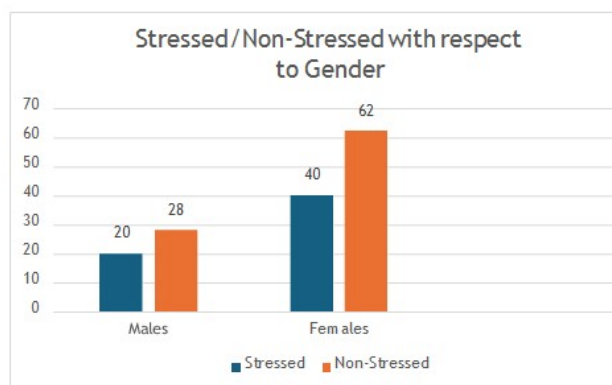


Figure-2; Distribution of Stressed/Non-Stressed with respect to Gender Class.

We distributed an anonymous questionnaire, which was completed by first and second-year students. The summary and the results of the questionnaire are as follows:

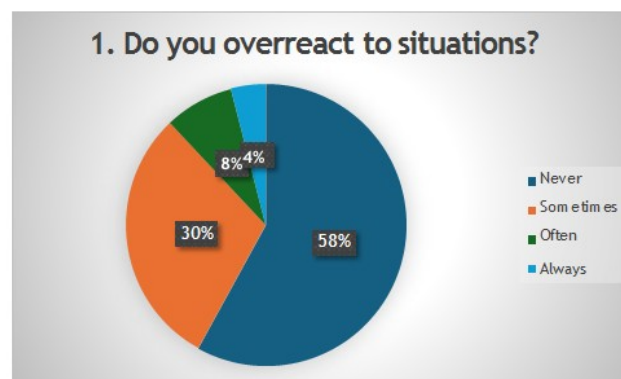


Figure-3;

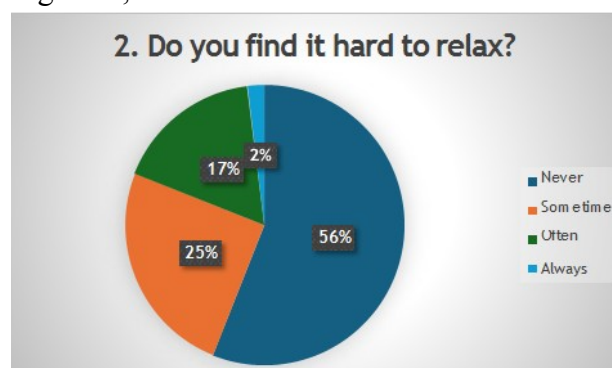


Figure-4;

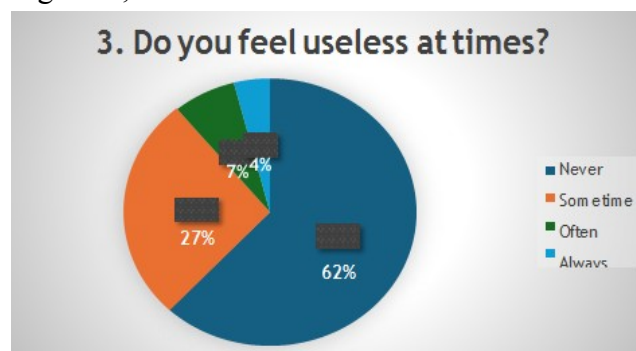


Figure-5;

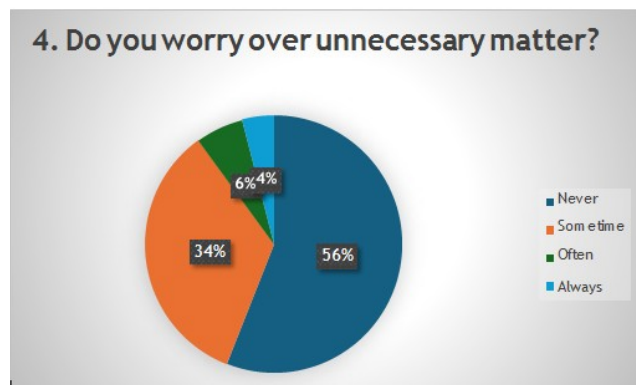


Figure-6;

Figure-9;

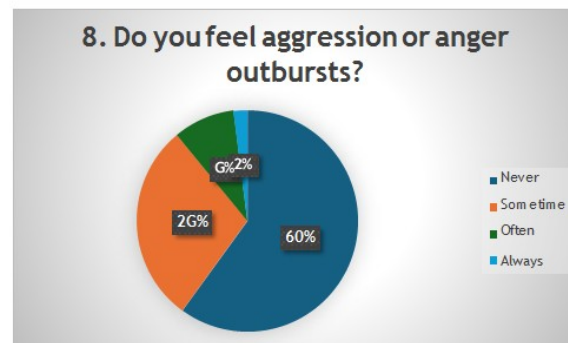


Figure-10;

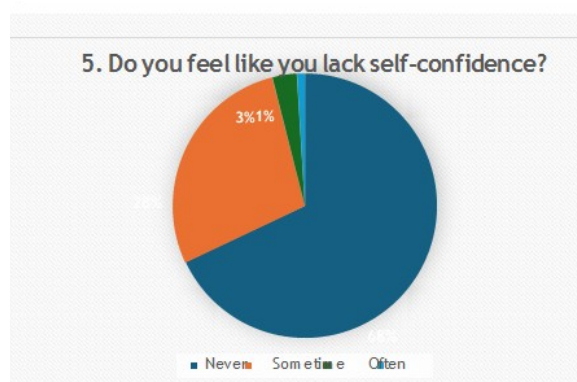


Figure-7;



Figure-11;

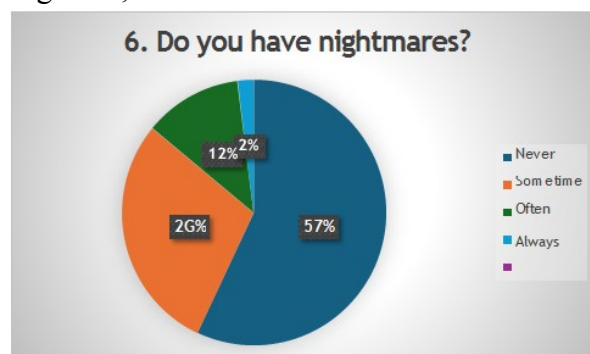


Figure-8;

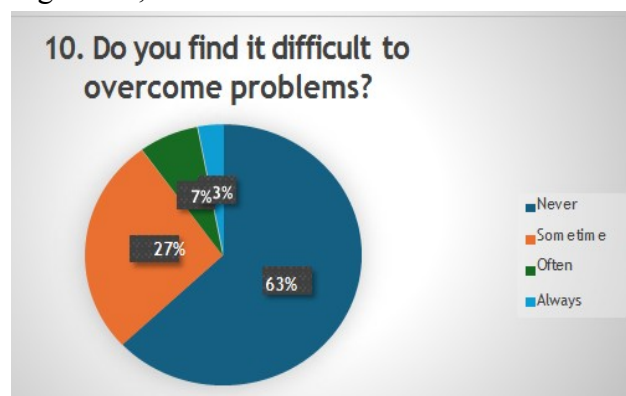
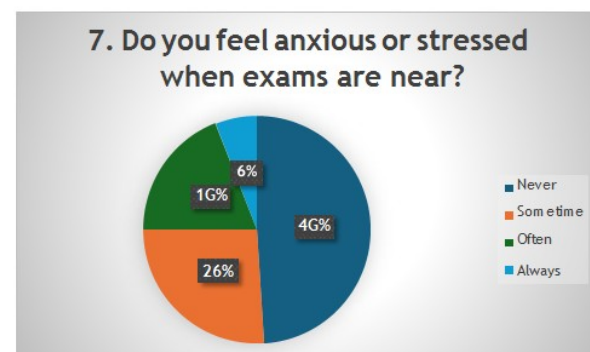


Figure-12;



Discussion:

The analysis indicates that female medical students experience higher stress levels than their male counterparts. This trend is consistent across both years, although the intensity of stress varies. The findings suggest that gender differences may play a



role in stress levels among medical students. Understanding these disparities it can help in tailoring support and interventions to address the specific needs of each gender, and potentially improving overall student well-being⁸. Mostly it is based on academic and clinical pressures, the study findings show great stress levels among medical students which coincides with other studies. Investigating successful stress-reducing techniques is still much required⁹⁻¹⁰.

Conclusion: The data reveals a higher stress level among the female medical students compared to males. The demanding nature of their study causes great stress on medical students.

Budget: Nil

Disclaimer: None

Conflict of Interest: None

Source of Funding: None

References

1. Remmers MC, Reijs RP, Hoebe CJ. Defining and distinguishing early life stress, trauma, adversity, toxic and chronic stress and allostatic load: a descriptive review. *Scandinavian Journal of Public Health*. 2024 Aug 1;14034948241260105.
2. Angriyani D, Angelika V. Profiling DISC Personality Types, Spiritual Intelligence, and Perceived Stress in Medical Students.
3. Kurniawan W, Pranata S, Vranada A, Agustini A, Irham LM. Bibliometric analysis of triggers on environmental stress among medical and health sciences students at the university. *Scripta Medica*. 2024 Jun 28;55(3):371-8.
4. Zhang W, Cao Z, Ye X, Shen T, Zhao F. Psychological Adjustment of Medical Students in Coping with Stress under Chinese Academic Involution: A constructivist grounded theory study.
5. Jabour AM. Continuous measurement of university students stress level during COVID-19 lockdown: longitudinal study. *Informatics in Medicine Unlocked*. 2024 Jul 24;101560.
6. Thangaraj S, D'souza L. Prevalence of Stress Levels Among First Year Medical Undergraduate Students.
7. Saxena Y, Shrivastava A, Singh P. Medical education gender correlation of stress levels and sources of stress among first year students in a medical college. *Indian J Physiol Pharmacol*. 2014;58(2):147- 51.
8. Alhatmi SM, Aldabali SO, Alzubaidi ZA. Assessing the level of stress among medical students at the medical college of Um Al Qura University in AlQunfudhah. *Medical Science*. 2022 Dec 30;26.
9. Abdulghani HM, AlKanhah AA, Mahmoud ES, Ponnampereuma GG, Alfari EA. Stress and its effects on medical students: a cross-sectional study at a college of medicine in Saudi Arabia. *Journal of health, population, and nutrition*. 2011 Oct;29(5):516.
10. Nikanjam R, Barati M, Bashirian S, Babamiri M, Fattahi A, Soltanian A. Student-life stress level and its related factors among medical students of Hamadan University of Medical Sciences in 2015. *Journal of Education and Community Health*. 2016 Mar 30;2(4):57-64.