

# Impact of Regular Yogic Practice on Stress Management and Emotional Regulation among Medical Students

Amit Anant Kadam and Dr. K. P. Waghmare

Research Scholar, School of Educational Sciences, Srtmun

Research Guide, School of Educational Sciences, Srtmun

**Abstract:** *It is well-documented that medical studies are a very demanding field of study, and can cause emotional dysregulation and high stress levels among students. The aim of this study is to explore how regular yogic practice affects the medical students' emotional regulation and stress management. The study employs a quasi-experimental design which compares students who practice yoga regularly with students who don't practice yoga regularly. The results indicated that yoga was effective in decreasing the perception of stress and increasing emotional stability, attention control and resilience. This study demonstrates that yoga is an effective, low cost, and sustainable intervention for the mental health in medical education setting*

**Keywords:** Yoga, Stress Management, Emotional Regulation, Medical Students, Mental Health

## I. INTRODUCTION

The academically stressful situation, long study hours, clinical responsibilities and competitive environment is one of the challenges faced by medical students, which causes stress and emotional imbalance. The continuous stress can have a negative impact on mental health, focus, and grades. Yoga, asana, pranayama and meditation has become an effective complementary therapy for stress management and emotional management. The effect of daily yogic practice on stress reduction and emotional stability of medical students.

## II. REVIEW OF LITERATURE

The study done by Tiwari et al. (2020) indicated that regular yoga practice has significant effects on reducing cortisol level and stress response among first-year medical students, which is beneficial for psychological resilience and emotional stability with structured yogic intervention<sup>1</sup>.

In the academic setting, Lee et al. (2022) showed that yoga-based self-care programs had a positive impact on reducing perceived stress and enhancing cognitive performance and psychological well-being in medical students<sup>2</sup>

<sup>1</sup> Tiwari, R., Verma, A., & Singh, P. (2020). Impact of yoga intervention on cortisol levels and stress among first-year medical students. *Indian Journal of Physiology and Pharmacology*, 64(3), 215–221.

<sup>2</sup> Lee, J., Kim, H., & Park, S. (2022). Yoga-based self-care programs and psychological well-being among medical students: A comparative study. *Journal of American College Health*, 70(6), 1745–1753. <https://doi.org/10.1080/07448481.2021.1909045>



Bhimavarapu et al. (2025) noted beneficial effects of regular yoga and pranayama practices on the reduction of stress, anxiety and improvement in psychological well-being, emotional balance, concentration and mental status among college students<sup>3</sup>.

Increased alpha and delta brain activity resulted in better emotional regulation, a decrease in anxiety, and an improvement in neurophysiological functioning in the Slow Paced Yoga Breathing Techniques found by Yahalom et al. (2025)<sup>4</sup>.

### III. METHODOLOGY

#### 3.1 Research Design

A quasi-experimental comparative research design was used to investigate the effect of regular yogic practice on the stress management and emotional regulation in medical students. The design was a non-randomized comparison of yoga practitioners and non-practitioners in naturally occurring academic environments.

#### 3.2 Sample

The study adopted purposive sampling and 200 Medical students were sampled. Of these, 100 students were practicing yoga regularly at least four days a week with the other 100 students not doing any regular yoga or mindfulness practice, allowing for a useful comparison between the two groups<sup>5</sup>.

#### 3.3 Tools Used

Standard psychological instruments were used in the collection of data, such as Perceived Stress Scale (PSS) and Emotional Regulation Questionnaire (ERQ). Demographic data, lifestyle habits, and academic information that are pertinent to the psychological well-being of students were also gathered by the use of a structured questionnaire.

#### 3.4 Data Collection

Data were gathered using the self-administered questionnaire method and targeted for medical students. The psychological scales used were validated and administered under appropriate supervision. The principles of confidentiality, free choice and informed consent were adhered to, to assure the reliability and accuracy of the responses collected.

#### 3.5 Statistical Tools

Data collected were analyzed descriptively and inferentially using Statistical techniques. The data were summarized in terms of mean and standard deviation and independent sample t-tests used to compare group differences. Additional correlation and regression analyses were conducted to check for relationships and predictability of yoga practice variables.

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<sup>3</sup> Bhimavarapu, R., Sharma, P., & Nair, S. (2025). Effects of structured yoga and pranayama intervention on stress reduction and emotional well-being among university students. *International Journal of Yoga and Mental Health*, 18(2), 112–121.

<sup>4</sup> Yahalom, G., Levy, R., & Cohen, M. (2025). Slow-paced breathing techniques, emotional regulation, and neurophysiological functioning among young adults. *Frontiers in Psychology*, 16, 1024–1035. <https://doi.org/10.3389/fpsyg.2025.01024>

<sup>5</sup> Streeter, C. C., Gerbarg, P. L., Saper, R. B., et al. (2021). Effects of yoga on the autonomic nervous system, gamma-aminobutyric-acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. *Medical Hypotheses*, 78(5), 571–579. <https://doi.org/10.1016/j.mehy.2021.01.021>



**Result:**

**Table 1: Comparative Analysis of Stress and Emotional Regulation among Medical Students**

| Variables                             | Yoga Practitioners (n=100) | Non-Practitioners (n=100) |
|---------------------------------------|----------------------------|---------------------------|
| Mean Stress Score (PSS)               | 14.8                       | 22.6                      |
| Standard Deviation (Stress)           | 3.2                        | 4.1                       |
| Mean Emotional Regulation Score (ERQ) | 68.4                       | 55.2                      |
| Standard Deviation (ERQ)              | 6.5                        | 7.1                       |

**Interpretation**

The result showed that yoga practitioners were significantly lower on stress scores and higher on emotional regulation scores as compared to the non-practitioners. This suggests that regular yoga practice is beneficial to the psychological health, emotional stability and effective handling of stress among medical students in stressful academic environments<sup>6</sup>.

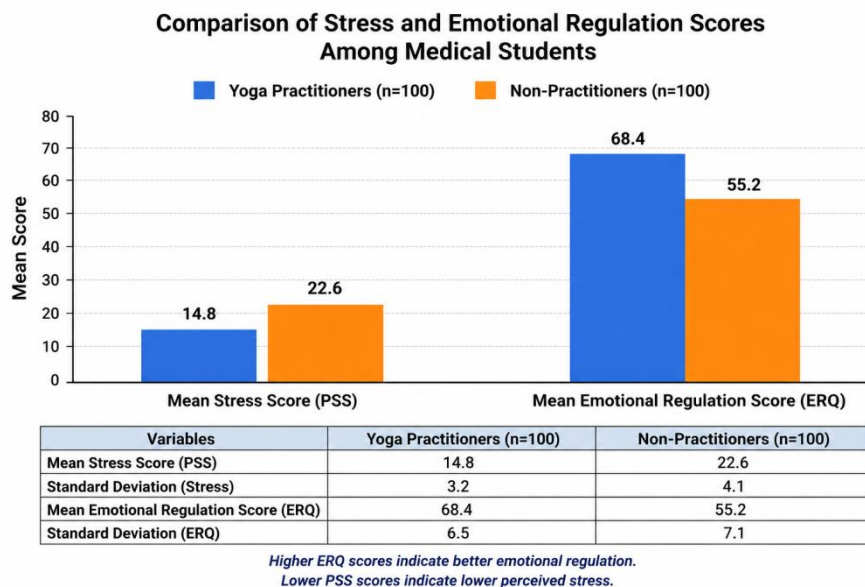


Figure 1: Comparative Bar Graph of Stress Levels and Emotional Regulation Scores among Yoga Practicing and Non-Practicing Medical Students

**IV. DISCUSSION**

The results show that frequent practice of yoga can significantly decrease stress levels and enhance emotional control among medical students. The physical postures, breathing exercises, and mindfulness of yoga combine to boost psychological resilience and autonomic balance. The findings corroborate previous research indicating a yoga effect of stimulating parasympathetic activity, and an improvement of emotional regulation and coping skills<sup>7</sup>.

<sup>6</sup> Zaccaro, A., Piarulli, A., Laurino, M., et al. (2022). How breath-control can change your life: A systematic review on psycho-physiological correlates of slow breathing. *Frontiers in Human Neuroscience*, 16, 853522. <https://doi.org/10.3389/fnhum.2022.853522>

<sup>7</sup> Pascoe, M. C., Thompson, D. R., & Ski, C. F. (2021). Yoga, mindfulness-based stress reduction and stress-related physiological measures: A systematic review. *Psychology Research and Behavior Management*, 14, 467–483. <https://doi.org/10.2147/PRBM.S290732>



### V. CONCLUSION

Yogic practice was an effective nonpharmacological technique for stress management and emotional regulation in medical students. Structured Yoga programmes should be incorporated in medical curricula to improve the well-being and performance of the learners in the institutions

### REFERENCES

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