

A Call to Action: Leveraging Mindfulness-Based Interventions in Medical Education Reform

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To the Editor:

The mental health crisis affecting medical students reflects a systemic failure in medical education, with more than 27% of medical students experiencing depression or depressive symptoms, 33% experiencing anxiety, and 11% experiencing suicidal ideation.¹ Additionally, the COVID-19 pandemic increased depression and anxiety among medical students, with rates as high as 60% and 70% for these conditions, respectively.¹ Although medical education is known to be a stressful time, factors such as educational demands, economic hardship, sleep disturbances, and witnessing patients' distress contribute to a decline in mental wellness among medical students.² Medical student wellness, including mindfulness-based interventions (MBI), is not universally required in American medical student education and curriculum. Thus, we commend Wasson et al on their recent innovative virtual wellness program for medical students' mental health.³ Their study highlights the feasibility, acceptability, and sustainability of an online intervention that integrates self-compassion, yoga, mindfulness, and other aspects of interpersonal support.³ We aim to expand this study by promoting the widespread adoption of MBI to improve mental health and academic outcomes among medical students.

Medical education requires a recurrent cycle of high-stakes exams, which often leads to an increase in stress, anxiety, and burnout. Chronic stress also elicits a physiologic response that affects the cardiovascular, neuroendocrine, and immune system. This is reported in Hearn et al's study that found an indirect relationship between increased cortisol and worse exam performance. These findings underscore the relationship between detrimental physiological effects of stress and worse academic outcomes. Incorporating MBI in medical education can serve as a crucial tactic to ameliorate the psychological and mental health distress that medical students are enduring in this country. MBI has been shown to improve mental health outcomes and can positively influence examination scores.⁴ MBI practices are both accessible and feasible and can be utilized in medical education reform to foster resilience and improve mental wellness for future physicians. MBI, including Mindfulness-Based Stress Management (MBSM) and Mindfulness-Based Art Workshops (MBAW), has demonstrated utility in improving mental health in medical students.^{1,5} MBSM was associated with a significant reduction in perceived stress and mental distress, and increased levels of mindfulness and self-efficacy at 1-week postintervention.

MBI can be implemented longitudinally in preexisting medical school curricula, such as resilience or wellness curricula, as early as preclinical years; introduction of MBI as a core professional competency rather than a remedial intervention can encourage peer support and decrease stigma. MBI can be helpful as students progress through the rigors of medical school. A proactive approach allows them to manage stress and regulate emotions before maladaptive coping mechanisms form in high-demand training, such as during

clerkship training or residency. For sustainable and widespread adoption, one can consider incorporating MBI into the educational program objective in the Liaison Committee on Medical Education (LCME). This ensures consistency across institutions irrespective of school culture and resources. MBI is a helpful yet underutilized tool, especially among medical students. Incorporation in medical curricula offers a feasible, evidence-based strategy that can contribute to strengthening the mental health

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References

1. Wang C, Darbari I, Tolaymat M, Quezada S, Allen J, Cross RK. Randomized controlled pilot study of feasibility and effectiveness of peer led remote Mindfulness-Based Art Workshops on stress, anxiety, and depression in medical students. *Psychol Sch*. 2023;60(6):1744-1759. doi:10.1002/pits.22809
2. Fazia T, Bubbico F, Nova A, et al. Improving stress management, anxiety, and mental well-being in medical students through an online Mindfulness-Based Intervention: a randomized study. *Sci Rep*. 2023;13(1):8214. doi:10.1038/s41598-023-35483-z
3. Wasson RS, O'Brien WH, Dietrich KM. Virtual wellness workshop for medical students: effects on healthy lifestyle behavior. *PRiMER Peer-Rev Rep Med Educ Res*. 2024;8:18. doi:10.22454/PRiMER.2024.293111
4. Hearn JH, Stocker CJ. Mindfulness practice correlates with reduced exam-induced stress and improved exam performance in preclinical medical students with the “acting with awareness”, “non-judging” and “non-reacting” facets of mindfulness particularly associated with improved exam performance. *BMC Psychol*. 2022;10(1):41. doi:10.1186/s40359-022-00754-3
5. Phang CK, Mukhtar F, Ibrahim N, Keng SL, Mohd Sidik S. Effects of a brief mindfulness-based intervention program for stress management among medical students: the Mindful-Gym randomized controlled study. *Adv Health Sci Educ Theory Pract*. 2015;20(5):1115-1134. doi:10.1007/s10459-015-9591-3

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