

Creating Space for Well-Being in Medical School and Beyond

by Stephanie Bagby-Stone, MD



When medical students trust you enough to open up, you can listen without passing judgment and be willing to help remove the barriers. We must learn from our students to be able to teach them.



Stephanie Bagby-Stone, MD, DFAPA, CEDS, is Adjunct Associate Professor of Clinical Psychiatry, University of Missouri-Columbia School of Medicine, Certified Eating Disorder Specialist, and Private Practice Psychiatrist.

Abstract

The harmful effects of medical education on student well-being are concerning with ever more frequent outcomes of burnout, depression, and even suicide. Medical schools are working to better understand factors that adversely affect student well-being, and to implement interventions, develop strategies for prevention, raise awareness, decrease stigma, encourage treatment, and promote lifelong resilience and wellness. In Missouri, statewide meetings among medical and osteopathic schools and legislative actions are aiding in these efforts.

I am a psychiatrist, an educator, and a mentor, but my most important role is that of a medical student well-being advocate. Over the past 20 years, I have experienced great joy and satisfaction working with medical students while in these roles at the University of Missouri. I remain inspired by these future physicians and the stories of what they have experienced to get to where they are and who they want to become as a physician. Their compassion and their passion to serve are profound. Our students are often quite resilient and have grit. And yet, despite their strengths, intelligence, and resilience, many suffer and become at risk.

Medical Student Mental Health

The statistics on the adverse effects of medical education on student mental health demonstrate disturbing trends. Doctors in training are vulnerable to burnout, depression, suicide, and substance use.

But it doesn't start out that way. In the U.S., medical students start off their medical learning with significantly less depression, less burnout and better quality of life than their college-educated peers; however, during the process and environment of their four years of medical education, their reported well-being decreases.¹ A recent systematic review revealed 27.2% of medical students experience depression or depressive symptoms and 11.1% have suicidal ideation.² Burnout is even more common, with nearly 50% of medical students experiencing this syndrome of exhaustion, cynicism, and inefficacy.³ Rates of depression, suicidal ideation, and burnout are also elevated in residency and fellowship years, continuing on into early career. Burnout is more frequent than among their non-medical peers at each step in their professional development.⁴

Substance abuse among medical students is another issue of concern. While much is known about the concerning substance abuse patterns among physicians,

more information is needed about the current status of substance abuse in medical students since most of the studies were performed over twenty years ago.⁵ The available data suggests that substance use continues among U.S. medical students and that this use can be accompanied by interpersonal, academic, physical, cognitive, and emotional consequences.⁶ Alcohol use is especially common, with up to 90% reporting use and 34-58% of medical students reporting binge drinking.^{6,7} Regarding illicit substances, marijuana is reported to be the most common, with as many as one in three medical students having used cannabis.⁸

Personality, Perfectionism, and Impostor Syndrome

In my work with medical students, I find certain themes arise repeatedly in our conversations. Self-doubt, excessive comparison, perfectionism, and lack of confidence are among the most common.

Since the late 1970s, it has been recognized that some high achievers experience “impostor syndrome.” It is often experienced as enduring feelings of self-doubt and insecurity, as well as feeling less intelligent or incompetent. Those with impostor syndrome find it very difficult to feel a sense of success, expertise, or skill. They attribute their achievements to luck, charm, or another person’s mistake. They fear being found out as a fraud, fake, or sham. Racial or ethnic minority students and women of color may be particularly vulnerable to impostor feelings.^{9,10,11} These feelings are common among medical students, evidenced by a recent study finding that impostor syndrome affects nearly 50% of female and 25% of male medical students.¹² It can occur at all stages of a medical career and often worsens during transitions, of which medical school has many. Not surprisingly, impostor syndrome is associated with perfectionism and can have detrimental effects on mental well-being by generating feelings of depression, anxiety, fear, and burnout.¹¹

We know that perfectionism is very common among high achieving individuals, including medical students, residents and practicing physicians.¹³ Perfectionism can be a great strength for a physician prompting them to be detailed and responsible. These high standards help them achieve medical school admission and contribute to their success during their education. The difficulty comes when perfectionists set unrealistic expectations, strive to be flawless, and their high standards become overly critical. With inherent risks and uncertainties, the practice of medicine is not

a perfect science. This dynamic creates vulnerability, doubt and dissonance in the overly perfectionistic young physician.

Other personality characteristics, including obsessionality and compulsiveness, may affect a medical student’s ability to set limits and their expectations of themselves and others. A “compulsive triad” of “doubt, guilt feelings, and an exaggerated sense of responsibility” have also been suggested as core personality features which are often prevalent among many physicians.¹⁴ As you can imagine, much like perfectionism, these traits may have both helpful and harmful consequences, and can profoundly affect their confidence, performance, and self-care, as well as their sense of success or shame.

The Cost of Medical Student Stress

Medical school and the residency Match process, which feel like high stakes, low control situations for students, exacerbate worries about high educational debt and their overall future professional and personal life. The demanding academic and clinical workload, curriculum, evaluation, and culture alone can trigger significant medical school distress.¹⁵ Students are exposed to clinical experiences and to death, suffering, and pain, perhaps for the first time. They may be working with residents or attendings who are unhappy and experiencing burnout. Students may experience ethical or value conflicts in educational or clinical settings. Expected or unexpected life events occurring in their personal lives during medical school can also influence student distress.¹⁵

Student motivation, learning style, and reservoir of coping skills can also contribute to their stress level.¹⁵ The time and energy demands and academic rigor of medical school, combined with the competitiveness of the Match, make it difficult for students to prioritize self-care and cultivate healthy coping mechanisms even when they have the skills.

Another concerning issue is mistreatment. Mistreatment of medical students by faculty, peers, or clinical staff remains common with more than one-third of students reporting at least one episode by the end of their medical school training.¹⁶ In addition to those who report, there are students who will never report mistreatment due to fear of retaliation. Student mistreatment comprises a range of negative behaviors including discrimination, humiliation, verbal abuse or threats, assault, and sexual harassment. These episodes can significantly influence student well-being,



contribute to burnout and create negative mental health consequences. When compared to other groups, women, racial and ethnic minorities, and sexual minorities reported more occurrences of mistreatment during medical school based on review of recent AAMC-GQ data.¹⁶

Not surprisingly, the effects of these stressors on medical students can have serious professional and personal consequences, which may include worsening academic performance, academic dishonesty, attrition, impaired competency, medical errors, reduction in quality of patient care and safety, relationship problems, poor self-care, cynicism, loss of empathy, burnout, substance abuse, worsening physical health, worsening mental health, and suicide.^{15,17} The costs are very high indeed.

Sadly, far too many students suffer in silence thinking they are the only ones experiencing these issues. They fear exposing their vulnerabilities and weaknesses. Many medical students do not seek help or delay seeking help for mental health concerns due to stigma and worries about how it will affect their academic and professional career, credentialing, or licensing.

Seeking Solutions

Medical student mental health, suicide, burnout awareness and prevention, as well as resilience and wellness are increasingly topics of concern and interest among medical schools. Exploring ways to bring resources to students to assess and alleviate these issues are a priority among schools.¹⁸

The accrediting bodies for medical and osteopathic schools have revised standards to include elements about student well-being. The Liaison Committee on Medical Education (LCME) has acknowledged the importance of improving medical student well-being and requires medical schools to have programs that “promote student well-being and facilitate adjustment to the physical and emotional demands of medical education.”¹⁹ The Commission on Osteopathic College Accreditation (COCA) also revised standards to include heightened student health and wellness resources, including focusing on the clinical learning environment. These increased core requirements included confidential access to an effective system of counseling and mental healthcare.²⁰

Medical school initiatives to improve student well-being include reducing unnecessary stressors in medical schools, making curricular changes, improving

mentoring, teaching stress management skills, providing mental health education, improving access to resources and treatment, reducing stigma, providing wellness programming and creating opportunities for students to find meaning and purpose at each step of the medical school journey.^{21,22,23}

A systematic review found some evidence that pass/fail grading systems, elements of curriculum structure (including increased clinical time, decreased time on exams, prematriculation programs, and problem-based learning), multicomponent program reform, mental health programs, wellness programs, mind-body skills programs, advising programs, and mentoring programs were associated with improvements in medical student well-being, but concluded more high-quality research is needed to develop best practices.²⁴ Other strategies utilized in medical schools include designating an individual to oversee student well-being, creating student well-being committees, and fostering the presence of learning communities.²⁵

How Missouri is Uniquely Addressing the Issue

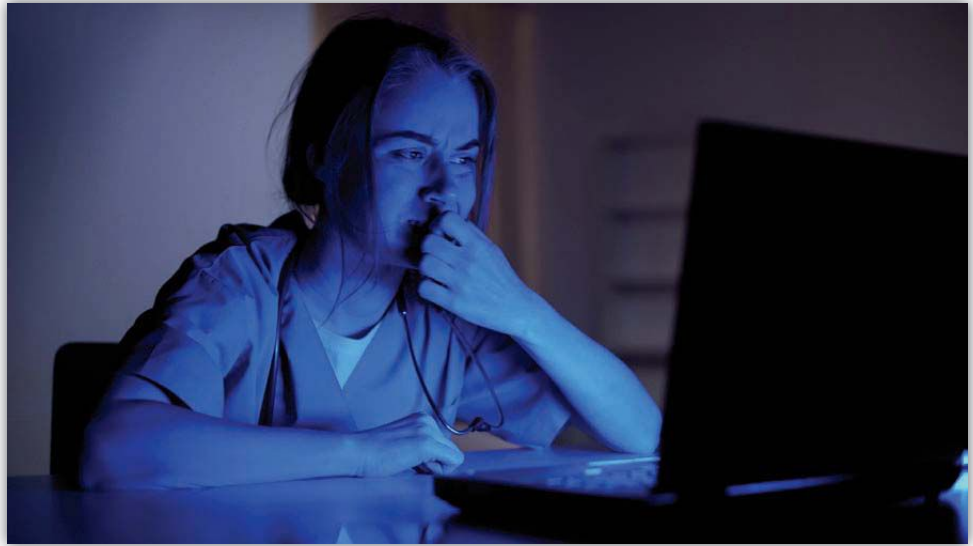
Missouri has been working to improve medical student well-being for many years. The medical and osteopathic schools in the state of Missouri have been gathering regularly to discuss student mental health and wellness since 2015.¹⁸ Due to the increasing importance of these topics, these calls and meetings have become more frequent over time. The collaboration and sharing of ideas, experiences, and resources promotes student well-being for all of the medical students in the state. Topics discussed include student mental health and substance use, campus resources, curricular design, wellness programs, mindfulness, resilience, stigma, and most recently the effects of COVID-19 on the students’ educational experience and well-being and how to better support them through these uncertain times.

In 2017, Missouri became the first state in the nation to take legislative action to raise awareness of the mental health risks of depression and suicide faced by students in medical school. Missouri Senate Bill 52 designated “Show-Me Compassionate Medical Education Day” to be observed on the third Monday in September.²⁶ This bill also promotes research on depression, suicide and other mental health concerns among our medical students to find possible strategies to improve their well-being and to save lives.

Student well-being is very important to the University of Missouri School of Medicine. Wellness activities and programs have been expanding over recent years and continue to grow. Over five years ago, my position was created to work closely with the Associate Dean for Student Programs, to provide support for our medical students, and to create wellness programming.

Here's a snapshot of some of the elements of our programs: Early in medical school, all of our first-year students are required to participate in a wellness orientation which strives to decrease stigma and increase awareness of the importance of early intervention. All of our students are asked to complete a mandatory online suicide prevention training. Every first- and second-year medical student attends a one-on-one wellness check-in to discuss how they are functioning in medical school, answer questions, and provide information about available resources. Our students have access to primary care, psychiatry, and therapy services on campus, and as well as wellness services such as yoga and mindfulness training. They also have access to MizzouRec, a state-of-the-art fitness center, which is a short walk from the medical school.

We highly value student input to help evolve our wellness programs and activities. Two elected students from each class serve as Wellness Representatives. In this role, they actively participate in committees, provide insights into the issues and concerns of medical school life, and generate ideas for our presentations and activities. Students can attend health and wellness talks on topics that have included fitness, nutrition, coping with academic stress and exams, stress management, positive psychology, and mindfulness. We have also provided health and wellness newsletters, volunteering opportunities, food fairs, cooking demonstrations, yoga, and various sport/fitness related activities. We recently created a house system to help students build



Effects of stressors on medical students can have serious professional and personal consequences, which may include worsening academic performance, academic dishonesty, attrition, impaired competency, medical errors, reduction in quality of patient care and safety, relationship problems, poor self-care, cynicism, loss of empathy, burnout, substance abuse, worsening physical health, worsening mental health, and suicide.

relationships with each other and with faculty and are in the process of expanding our peer support program.

Curricular wellness, academic accommodations and mistreatment reporting are also important components of our student well-being program. MU has a longstanding Patient-Based Learning curriculum with pass/fail grading in the first year. Well-being topics are a component of our required curriculum in Contemplating Medicine, Patients, Self, and Society (COMPASS), a longitudinal course in which faculty members facilitate discussions on topics related to professionalism with small groups of students from all four classes. For ongoing support, students are matched with academic advisors at all stages of their medical school career.

Creating Space

I am a doctor, an educator, a mentor, a human being, and a recovering perfectionist. As physicians, we must never lose touch with our humanity and our vulnerability as this is how we feel empathy and generate the energy for compassion to move us to serve others. We must use this compassion to help our own students and to recognize and respond to their vulnerabilities. This compassion also needs to extend to our colleagues in residency and in practice.

We must model and help learners to know that a physician must be physically, mentally, and spiritually

healthy in order to heal. We must teach them self-care skills and how to make purpose and value driven career decisions. We must encourage them to understand that investing time and energy in well-being is the key to success, professionally, and personally.

In my experience, medical students are most likely to listen to the experiences of trusted medical students, residents, and physicians. To be effective mentors, we need to be real and vulnerable ourselves and talk about our struggles, our failures, our successes, and how we have coped.

Do not be quick to judge younger generations of student doctors as lacking resilience. I have never met a medical student who did not possess significant strengths and some coping skills. It is almost impossible to achieve medical school admission without these abilities. The question to ask is, “What is preventing you from using these skills?” And when they trust you enough to open up, listen without passing judgment, and be willing to help remove the barriers. We must learn from our students to be able to teach them.

Teaching coping skills and building resilience is a very small part of the solution. We need to be vigilant in refining our content and process for teaching future doctors. We must continually strive to eliminate the unnecessary stresses that accompany medical training and to improve the medical culture and environments that physicians will be working in now and in future. There is already more than enough stress learning to become a doctor and in practicing medicine. Creating space in these ways will allow for medical students and physicians to thrive and care for themselves and others.

References

1. Brazeau CM, Shanafelt T, Durning SJ, et al. Distress among matriculating medical students relative to the general population. *Acad Med*. 2014;89(11):1520-1525. doi:10.1097/ACM.0000000000000482
2. Rotenstein LS, Ramos MA, Torre M, et al. Prevalence of Depression, Depressive Symptoms, and Suicidal Ideation Among Medical Students: A Systematic Review and Meta-Analysis. *JAMA*. 2016;316(21):2214-2236. doi:10.1001/jama.2016.17324
3. Dyrbye LN, Thomas MR, Massie FS, et al. Burnout and suicidal ideation among U.S. medical students. *Ann Intern Med*. 2008;149(5):334-341. doi:10.7326/0003-4819-149-5-200809020-00008
4. Dyrbye LN, West CP, Satele D, et al. Burnout among U.S. medical students, residents, and early career physicians relative to the general U.S. population. *Acad Med*. 2014;89(3):443-451. doi:10.1097/ACM.0000000000000134
5. Dumitrascu CI, Mannes PZ, Gamble LJ, et al. Substance use among physicians and medical students. *Med Student Res J*. 2014;3(Winter):26-35.
6. Ayala EE, Roseman D, Winseman JS, Mason HRC. Prevalence, perceptions, and consequences of substance use in medical students. *Med Educ Online*. 2017;22(1):1392824. doi:10.1080/10872981.2017.1392824
7. Trostler M, Li Y, Plankey MW. Prevalence of binge drinking and associated co-factors among medical students in a U.S. Jesuit University. *Am J Drug Alcohol Abuse*. 2014;40(4):336-341. doi:10.3109/00952990.2014.907302

8. Papazisis G, Sifakis S, Tsakiridis I, Koulas I, Dagklis T, Kouvelas D. Prevalence of Cannabis Use Among Medical Students: A Systematic Review and Meta-analysis. *Subst Abuse*. 2018;12:1178221818805977.
9. Cokley K, Smith L, Bernard D, et al. Impostor feelings as a moderator and mediator of the relationship between perceived discrimination and mental health among racial/ethnic minority college students. *J Couns Psychol*. 2017;64(2):141-154. doi:10.1037/cou0000198
10. Cokley K, McClain S, Enciso A, Martinez M. An Examination of the Impact of Minority Status Stress and Impostor Feelings on the Mental Health of Diverse Ethnic Minority College Students. *Journal of Multicultural Counseling and Development*. 2013;41:82-95. doi:10.1002/j.2161-1912.2013.00029.x
11. Clance PR, Dingman D, Reviere SL, Stober DR. Impostor phenomenon in an interpersonal/social context: Origins and treatment. *Women & Therapy*. 1995;16(4):79-96. https://doi.org/10.1300/J015v16n04_07
12. Villwock JA, Sobin LB, Koester LA, Harris TM. Impostor syndrome and burnout among American medical students: a pilot study. *Int J Med Educ*. 2016;7:364-369. Published 2016 Oct 31. doi:10.5116/ijme.5801.eac4
13. Peters M KJ. Perfectionism in doctors. *BMJ*. 2012;334(e1674).
14. Gabbard GO. The role of compulsiveness in the normal physician. *JAMA*. 1985; 254:2926-2999
15. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc*. 2005;80(12):1613-1622. doi:10.4065/80.12.1613
16. Hill KA, Samuels EA, Gross CP, et al. Assessment of the Prevalence of Medical Student Mistreatment by Sex, Race/Ethnicity, and Sexual Orientation. *JAMA Intern Med*. 2020;180(5):653-665. doi:10.1001/jamainternmed.2020.0030
17. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety, and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med*. 2006;81(4), 354-373. DOI: 10.1097/00001888-200604000-00009
18. Rachow J, Wiegert A, Thomas S, Haxton L, Bagby-Stone S, Young Walker L. State of Mind: Missouri Medical Schools Collaborate on Student Mental Health & Wellness. Poster session presented at the AAMC Continuum Connections, April 2018, Orlando, Florida.
19. Liaison Committee on Medical Education. Functions and Structure of a Medical School Standards for Accreditation of Medical Education Programs Leading to the MD Degree. Available at: (<https://lcme.org/publications/>). Accessed July 14, 2020.
20. American Osteopathic Association Commission on Osteopathic College Accreditation. Accreditation of Colleges of Osteopathic Medicine: COM Accreditation Standards and Procedures. Chicago: American Osteopathic Association, 2019. Available at: (<https://osteopathic.org/wp-content/uploads/2018/02/com-continuing-accreditation-standards.pdf>). Accessed July 14, 2020.
21. Slavin SJ, Schindler DL, Chibnall JT. Medical student mental health 3.0: improving student wellness through curricular changes. *Acad Med*. 2014;89(4):573-577. doi:10.1097/ACM.0000000000000166
22. Drolet BC, Rodgers S. A comprehensive medical student wellness program—design and implementation at Vanderbilt School of Medicine. *Acad Med*. 2010;85:103-110. doi: 10.1097/ACM.0b013e3181c46963
23. Slavin S. Reflections on a Decade Leading a Medical Student Well-Being Initiative. *Acad Med*. 2019;94(6):771-774. doi:10.1097/ACM.00000000000002540
24. Wasson LT, Cusmano A, Meli L, et al. Association Between Learning Environment Interventions and Medical Student Well-being: A Systematic Review. *JAMA*. 2016;316(21):2237-2252. doi:10.1001/jama.2016.17573
25. Dyrbye LN, Sciolle AF, Dekhtyar M, et al. Medical School Strategies to Address Student Well-Being: A National Survey. *Acad Med*. 2019;94(6):861-868. doi:10.1097/ACM.00000000000002611
26. Show Me Compassionate Medical Education Act, Missouri Senate Bill No. 52, 99th General Assembly, 2017. Available at: <http://www.senate.mo.gov/17info/pdf-bill/tat/SB52.pdf>

Disclosure

None reported.

MM

Copyright of Missouri Medicine is the property of Missouri State Medical Association and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.