

The alarming situation of medical student mental health La situation alarmante de la santé mentale des étudiants en médecine

Marcel D'Eon,¹ Galilee Thompson,² Adam Stacey,³ Jessica Campoli,³ Kylie Riou,³ Melissa Andersen,³ Niels Koehncke³

¹Augusta University, Georgia, USA; ²University of British Columbia, British Columbia, Canada; ³University of Saskatchewan, Saskatchewan, Canada

Correspondence to: Marcel D'Eon, email: marcel.deon@usask.ca

Published ahead of issue: March 23, 2021; published: June 30, 2021. CMEJ 2021, 12(3) Available at <http://www.cmej.ca>

© 2021 D'Eon, Thompson, Stacey, Campoli, Riou, Andersen, Koehncke; licensee Synergies Partners

<https://doi.org/10.36834/cmej.70693>. This is an Open Journal Systems article distributed under the terms of the Creative Commons Attribution License.

<https://creativecommons.org/licenses/by-nc-nd/4.0> which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is cited.

Numerous studies documented in several recent reviews attest to the poor mental health of medical students over several decades¹⁻³ and the marginal and limited efficacy of most interventions.^{4,5} This is not a crisis but rather, in the language of public health, a disease condition that is endemic to medical schools. Through this commentary we hope to make a convincing argument for greater resolve in addressing medical student mental health, enough to generate effective action.

Several studies have also reported that medical students have mental health scores below those of age matched peers or the general public^{2,3,6-8,9-12} who are themselves experiencing poor mental health.¹³⁻¹⁶ That medical students score lower than those who are already low highlights the alarmingly poor status of their mental health. Studies at one Canadian medical school show high levels of stress over almost 10 years.^{11,17,18} Furthermore, it appears that medical schools negatively affect the health of our students.^{8,19} If we can do something about this, are we not morally accountable to do so? And should not this responsibility extend beyond initiating and maintaining programs and policies to actual outcomes such as lowering the general level of distress and demonstrably improving medical student mental health?

Given the high and persistent rates of mental health concerns among medical students, and the so far limited effectiveness of measures implemented to address these concerns, we believe the response of medical schools and the medical education community has been inadequate

and needs to improve. This statement does not lay blame with any group or set of individuals within medical schools or the medical education establishment generally. What we mean to state is the logical conclusion that there has been little or no improvement over many years despite well-intentioned interventions and expressions of genuine concern.

Wellness programs and access to tertiary care services have not only had limited effect but they may have distracted us from addressing the root causes of this distress and burnout. To illustrate this point, we include here the articulate but distraught voice of a family member who observed the deterioration of a resident's mental health and well-being. While the condition of being a resident is different in many respects from that of a medical student, the point made in this blog is applicable:

*"Practices like mindfulness and gratitude and other forms of yuppie "self-care" are generally benign unless and until they obscure the material causes of people's suffering. No amount of meditation will compensate for not having nutritious food to eat, time to sleep or emotional bandwidth to spend on one's loved ones."*²⁰

Let us amplify what she has just told us: We need to fix the problems not the people. More resilience training and wellness programs are unlikely to make a difference.²² We believe we need a comprehensive approach that also addresses the systems and structures in which the medical students live and learn.²²⁻²⁴

Leaders in medical schools have a responsibility to address conditions within their control that contribute to this unacceptable endemic disease state among medical students. Health services and programs to enhance medical student wellness have not been successful in the past.⁴ It is unlikely that well-crafted accreditation standards or medical school plans that mandate these standards, without recommended outcomes and vigilant monitoring, will be effective in the future.

We therefore appeal to medical education leaders in medical schools to act on this persistent and pernicious situation. We need leaders to step up and make the kinds of substantive changes in systems and cultures that will create measurable improvements in medical student mental health. An actionable item under the control of medical schools would be reducing the unreasonable amount of content in the overcrowded medical school curriculum that both contributes considerably to the excessive and chronic stress medical students experience²⁵⁻³¹ and functionally prohibits students from engaging in necessary self-care.⁷ Managing the excessive demands of the curriculum would be a good place to start.

If we were seeing a spike in cases, we might be justified in calling this alarming situation a crisis. Perhaps we have become inured over the last several decades to the poor mental health that is endemic among medical students. If labeling it a crisis will mobilize us to engage in timely, resolute, and effective action, then a crisis we should call it.

References

1. 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 Dec 6;316(21):2214-36. <https://doi.org/10.1001/jama.2016.17324>
2. Dyrbye L, Shanafelt T. A narrative review on burnout experienced by medical students and residents. *Med ed*. 2016 Jan;50(1):132-49. <https://doi.org/10.1111/medu.12927>
3. Shanafelt T, Trockel M, Ripp J, Murphy ML, Sandborg C, Bohman B. Building a program on well-being: key design considerations to meet the unique needs of each organization. *Acad Med*. 2019 Feb 1;94(2):156-61. <https://doi.org/10.1097/ACM.0000000000002415>
4. Wasson LT, Cusmano A, Meli L, et al. Association between learning environment interventions and medical student well-being: a systematic review. *Jama*. 2016 Dec 6;316(21):2237-52. <https://doi.org/10.1001/jama.2016.17573>
5. Regehr C, Glancy D, Pitts A, LeBlanc VR. Interventions to reduce the consequences of stress in physicians: a review and meta-analysis. *J. Nerv. Ment. Dis*. 2014 May 1;202(5):353-9. <https://doi.org/10.1097/NMD.0000000000000130>
6. Ayala EE, Omorodion AM, Nmecha D, Winseman JS, Mason HRC. What do medical students do for self-care? A student-centered approach to well-being. *Teach Learn Med*, 2017,29, 237-246. <https://doi.org/10.1080/10401334.2016.1271334>
7. Maser B, Danilewitz M, Gu erin E, Findlay L, Frank E. Medical student psychological distress and mental illness relative to the general population: a Canadian cross-sectional survey. *Acad Med*. 2019 Nov 1;94(11):1781-91 <https://doi.org/10.1097/ACM.0000000000002958>
8. Kjeldstadli K, Tyssen R, Finset A, et al. Life satisfaction and resilience in medical school—a six-year longitudinal, nationwide and comparative study. *BMC med ed*. 2006 Dec;6(1):48. <https://doi.org/10.1186/1472-6920-6-48>
9. Brazeau CM, Shanafelt T, Durning SJ, et al. Distress among matriculating medical students relative to the general population. *Acad Med* 2014; 89: 1520-5. <https://doi.org/10.1097/ACM.0000000000000482>
10. Stacey A, D'Eon M; Madojemu G. Stress, burnout, and learning environment of pre-medical and medical students at the University of Saskatchewan. Forthcoming.
11. Benbassat J. Changes in wellbeing and professional values among medical undergraduate students: a narrative review of the literature. *Adv Health Sci Ed*. Oct 1 2014;19(4):597-610. <https://doi.org/10.1007/s10459-014-9500-1>
12. Blacker CJ, Lewis CP, Swintak CC, Bostwick JM, Rackley SJ. Medical student suicide rates: a systematic review of the historical and international literature. *Acad med*. 2019 Feb 1;94(2):274-80. <https://doi.org/10.1097/ACM.0000000000002430>
13. CMHA National. *Fast facts about mental illness* [Internet]. Available from: <https://cmha.ca/fast-facts-about-mental-illness> [Accessed January 16, 2020].
14. Mental Health America. *The state of mental health in America* [Internet]. <http://www.mentalhealthamerica.net/issues/state-mental-health-america> [Accessed January 20, 2020].
15. Canadian Association for Suicide Prevention. *Suicide in Canada* [Internet]. Available from <https://suicideprevention.ca/page-18154> [Accessed January 20, 2020].
16. American Foundation for Suicide Prevention *2018 Annual Report*. [Internet]. <https://annual2018.afsp.org/> [Accessed January 20, 2020].
17. Rahimi B, Baetz M, Bowen R, Balbuena L. Resilience, stress, and coping among Canadian medical students. *Can Med Ed J*. 2014;5(1):e5. <https://doi.org/10.36834/cmej.36689>

18. Thompson G, Wrath A, Trinder K, Adams GC. The roles of attachment and resilience in perceived stress in medical students. *Can. Med. Ed. J.* 2018 Nov;9(4):e69. <https://doi.org/10.36834/cmej.43204>
19. Smith CK, Peterson DF, Degenhardt BF, Johnson JC. Depression, anxiety, and perceived hassles among entering medical students. *Psych, health & med.* 2007 Jan 1;12(1):31-9. <https://doi.org/10.1080/13548500500429387>
20. Bernstein JR. *Resident wellness is a lie* [Internet] February 18, 2019. Available at <http://in-housestaff.org/resident-wellness-is-a-lie-part-1-1319> [Accessed January 20, 2020]
21. West CP, Dyrbye LN, Sinsky C, et al. Resilience and burnout among physicians and the general US working population. *JAMA network open.* 2020 Jul 1;3(7):e209385- <https://doi.org/10.1001/jamanetworkopen.2020.9385>
22. Hodges BD, Kuper A. Education reform and the hidden curriculum: The Canadian journey. In *The hidden curriculum in health professional education.* 2014:41-50.
23. Khan R, Martimianakis MA. Empathy, burnout, and the hidden curriculum in medical training. *Teaching empathy in healthcare* 2019;p239-250. Springer, Cham. https://doi.org/10.1007/978-3-030-29876-0_15
24. Maslach C. Finding solutions to the problem of burnout. *Consult. Psychol. J.: Pract. Res.* 2017 Jun;69(2):143-152.
25. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: causes, consequences, and proposed solutions. *Mayo Clin Proc.* December 2005;80(12):1613-22. <https://doi.org/10.4065/80.12.1613>
26. Sletta C, Tyssen R, Løvseth LT. Change in subjective well-being over 20 years at two Norwegian medical schools and factors linked to well-being today: a survey. *BMC Med Educ* 2019;19, 45 <https://doi.org/10.1186/s12909-019-1476-3>
27. Dyrbye L, Lipscomb W, Thibault G. Redesigning the learning environment to promote learner well-being and professional development. *Acad Med.* November 26, 2019; Ahead of Print. <https://doi.org/10.1097/ACM.0000000000003094>
28. Slavin SJ, Schindler DL, Chibnall JT. Medical student mental health 3.0: improving student wellness through curricular changes. *Acad Med.* 2014 Apr;89(4):573. <https://doi.org/10.1097/ACM.0000000000000166>
29. Slavin S. Reflections on a decade leading a medical student well-being initiative. *Acad Med.* 2019 Jun 1;94(6):771-4 <https://doi.org/10.1097/ACM.0000000000002540>
30. Weston WW. Do we pay enough attention to science in medical education? *CMEJ.* 2018 Jul;9(3):e109. <https://doi.org/10.36834/cmej.43435>
31. MacArthur KR, Sikorski J. A qualitative analysis of the coping reservoir model of pre-clinical medical student well-being: human connection as making it 'worth it'. *BMC Med Ed.* 2020 Dec;20:1-1. <https://doi.org/10.1186/s12909-020-02067-8>