

1 in 4 med students around the world shows depression signs

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Twenty-seven percent of medical students around the world report depression or depressive symptoms, and 11 percent experienced suicidal ideation during medical school, says a systematic review and meta-analysis published in *JAMA*. The review of nearly 200 studies reinforces the pressing nature of efforts to identify, treat and prevent causes of emotional distress among medical students.

The original investigation, published in the Dec. 6 medical education theme issue of *JAMA*, involved 167 cross-sectional studies and 16 longitudinal studies involving 129,000 medical students in 47 countries.

“These findings are concerning given that the development of depression and suicidality has been linked to an increased short-term risk of suicide as well as a higher long-term risk of future depressive episodes and morbidity,” wrote the authors, a team of researchers from Harvard, Yale, Brigham and Women’s Hospital, the University of Michigan, Ann Arbor, and the University of South Carolina.

“The present analysis builds on recent work demonstrating a high prevalence of depression among resident physicians, and the concordance between the summary prevalence estimates (27.2 percent in students vs. 28.8 percent in residents) suggests that depression is a problem affecting all levels of medical training,” they wrote.

The data in the study were mostly derived from self-report inventories of depressive symptoms. These varied substantially in their sensitivity and specificity for diagnosing major depressive disorder, and while they have limitations, the authors argued “they are essential tools for accurately measuring depression in medical trainees because they protect anonymity in a manner that is not possible through formal diagnostic interviews.”

How figures compare with public at large

Citing research by the National Institute of Mental Health, the authors noted that estimates of the 12-month prevalence of major depressive episodes among medical students in this study was between 2.2 and 5.2 times higher than that reported in 18- to 25-year-olds and 26- to 49-year-olds in the general population.

“These findings suggest that depressive symptom prevalence is substantially higher among medical students than among individuals of similar age in the general population,” the authors wrote. But they said it remains unclear “how depression levels in medical students compare with those in nonmedical undergraduate students and professional students.”

One review, the article mentions, concluded that depressive symptom prevalence did not differ statistically between medical and nonmedical undergraduate students, but two large studies estimated that it ranges from 13.8 percent to 21 percent in nonmedical students, lower than the estimates reported by many studies of medical students included in the meta-analysis.

“The finding in the longitudinal analysis of an increase in depressive symptom prevalence with the onset of medical school,” the authors opined, “suggests that it is not just that medical students (and other students) are prone to depression, but that the school experience may be a causal factor.”

Need to track med students over time

“Because of the high prevalence of depressive and suicidal symptomatology in medical students, there is a need for additional studies to identify the root causes of emotional distress in this population,” the authors commented. “To provide more relevant information, future epidemiological studies should consider adopting prospective study designs so that the same individuals can be assessed over time, use commonly used screening instruments with valid cutoffs for assessing depression in the community (e.g., the BDI, CES-D, or PHQ-9), screen for comorbid anxiety disorders, and completely and accurately report their data, for example, by closely following the Strengthening the Reporting of Observational Studies in Epidemiology guidelines.”

Stress and anxiety resulting from the competitiveness of medical school are possible causes of depressive and suicidal symptomatology in medical students, the authors contend, noting that restructuring medical school curricula and student evaluations could ameliorate the medical school experience. One idea along these lines is to use pass-fail grading schema rather than tiered grading schema.

“Future research should also determine how strongly depression in medical school predicts depression during residency and whether interventions that reduce depression in medical students carry over in their effectiveness when those students transition to residency,” the authors suggest.

“[E]fforts are continually needed to reduce barriers to mental health services, including addressing the stigma of depression.”

One view on what med schools should do

In a *JAMA* editorial commenting on the research, Stuart J. Slavin, MD, MEd, gestured at changes that could help address what now appears to be a global problem in medical education. Dr. Slavin, who works in Office of Curricular Affairs at Saint Louis University School of Medicine, in Missouri, cited his school’s multipronged strategy, which has “involved reducing curricular hours 10 percent, working with faculty to reduce the volume of material and level of detail, changing to pass/fail grading and encouraging students to become involved in elective and volunteer activities that they cared about.”

Dr. Slavin concluded that a wide-ranging approach that takes into account the entirety of the med school atmosphere is required to tackle student depression, anxiety and suicidality.

“Medical schools need to step up to address the mental health crisis among medical students, and solutions cannot just come from the mental health side; the problem needs to be viewed as an environmental health issue,” he wrote. “Medical school administrators must overcome any lingering indifference and institutional concerns and address this problem by concerted efforts to assess and monitor student well-being and to improve the culture and conditions in the educational environment.”