

23% of medical students mistreated. Regret, burnout often follow.

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Mistreatment and a less favorable view of the learning environment during the earlier portion of medical school can lead to increased career regret and more severe burnout by the time those medical students are entering residency, according to the findings of a recent study.

The study, published in *JAMA Network Open*, drew from survey data collected from medical students at the beginning of their second year of medical school and also near the conclusion of their fourth year. The analyzed data set included more than 14,000 student respondents between 2014–2016.

“These findings suggest the prevalence of burnout among medical students and students’ empathetic orientation and career satisfaction are, at least partially, attributable to factors within the learning environment,” says the study, which was co-written by AMA members Liselotte N. Dyrbye, MD, MHPE, and Colin P. West, MD, PhD, along with Daniel Satele, all of the Mayo Clinic in Rochester, Minnesota.

Learn the four key elements of medical student well-being.

Frequency of mistreatment

In assessing which factors within the learning environment may have adverse effects, the survey of second-year students asked about mistreatment, student-faculty relationships, and student-student relationships, and educational experiences. Questions from the survey asked about students’ personally experiencing negative behavior such as public humiliation, unwanted sexual advances and bigoted remarks.

Within that framework, 23% of respondents said they experienced some form of mistreatment by the beginning of their second year of medical school. Among respondents who reported mistreatment, about half said they had been mistreated once, with the other half reporting mistreatment on more than one occasion.

The Mayo Clinic Alix School of Medicine, one of 37 member schools of the AMA's Accelerating Change in Medical Education Consortium, is working to improve the learning environment through faculty development and a project based on emphasizing the science of health care delivery in the curriculum.

JAMA Network Open also published an invited commentary about the study's findings and relevance. Gain further insight on how burnout can be fixed in medical education.

Results of mistreatment

Students who experienced mistreatment by the beginning of their second year of training had much higher burnout in the fourth year of medical school.

There also was a stark contrast in career regret among the medical students who did—and did not—experience mistreatment. Medical students who reported mistreatment in year 2 of medical school had 35% higher odds of reporting career regret in year 4 of medical school.

“If we extrapolate our data to the full population of approximately 20,000 medical students, 2,320 medical students are likely to experience being mistreated more than once by the beginning of year two of medical school,” the study's authors wrote. “Among these students, we estimate that 11.3% would experience career regret, compared with 6.4% of students who did not experience mistreatment more than once. The increased risk of 4.9% means that 980 additional students may experience career regret owing to multiple mistreatment experiences with associated potential effects on well-being.”

A key to battling against burnout and career regret, the study's authors posited, is to continue to create positive experiences within the learning environment. Additionally, researchers found that students' perceptions of academic and nonacademic support and their experiences with faculty during the early years of medical school related to their subsequent levels of empathy.

“The potential protective effect of positive experiences within the learning environment may provide insight into strengths that organizations can amplify to mitigate burnout, decline in empathy, and career choice regret among their students,” wrote Dr. Dyrbye and her colleagues.

Dr. Dyrbye also wrote “Medical Student Well-Being: Minimize Burnout and Improve Mental Health Among Medical Students,” which is part of the AMA STEPS Forward collection of open-access toolkits.

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