Creating Psychological Safety in the Learning Environment: Straightforward Answers to a Longstanding Challenge

Adelaide H. McClintock, MD, Tyra L. Fainstad, MD, and Joshua Jauregui, MD

Purpose: Psychological safety refers to the perception that a learning environment is safe for interpersonal risk taking, exposing vulnerability, and contributing perspectives without fear of negative consequences. The 3 core components of psychological safety are: set expectations, invite participation, and respond productively. The presence of psychological safety has also been tied to wellness, retention, and inclusiveness.

The medical education literature suggests that psychological safety frees learners from image management, enables learners to concentrate on the current tasks, and reduces fear of asking questions. However, national data demonstrate that many of the fundamental components of psychological safety are lacking in our current learning environments.

While we have evidence for those behaviors that create psychological safety in traditional work environments, these behaviors have not been well elucidated for clinical undergraduate medical education settings. Therefore, we sought to understand how psychological safety is created, destroyed, and rescued in the clinical learning environment.

Methods: This was a multicenter, cross-sectional qualitative study of fourth-year medical students from 2 institutions using semistructured interviews. In keeping with a theoretical and purposeful sample approach to recruitment, all fourth-year medical students were invited to participate in an 1-hour interview via zoom. Verbatim transcripts of the interviews underwent constant comparison and iterative data reduction and analysis by all 3 authors. Analysis continued beyond thematic sufficiency and counter examples were purposefully explored.

Results: Twenty students participated in 1-hour interviews. Students described key themes related to the creation, destruction, and restoration of psychological safety in the clinical learning environment. They described clear expectations, self-efficacy, team engagement, autonomy, and frequent feedback as important to establishing a psychologically safe learning environment. They reported educator disinterest in students, dismissal of questions, lack of autonomy, and unclear expectations as destructive of a psychologically safe learning environment. Most students were unable to describe a time psychological safety was restored if lost. Early impressions of individual learning environments and establishment as “safe” or “unsafe” were durable and rarely changed. Behaviors such as acknowledging and apologizing for team member misbehavior were among the few that did improve the learning experience once safety was lost.

Discussion: Our findings demonstrate that while it is difficult to repair an atmosphere that is psychologically unsafe, there are several simple actions that can be put into motion early on to ensure the learning environment is safe and remains so. Early and intentional demonstrations of investment in learners and their growth are critically important to build psychological safety. Creating safe and inclusive learning environments for students is a high priority with inherent merit, and it will also likely create progress toward larger goals in academic medicine such as fostering and supporting workforce diversity. Future research should investigate whether faculty development targeted to build specific skills and observable behaviors can improve the learning environment for students and other trainees and whether these changes ultimately impact larger issues of importance such as patient care, workforce diversity, and physician and trainee well-being.

Significance: Building a psychologically safe environment has been shown to be foundational to supporting diversity, inclusion, and well-being of employees across business and general educational fields. If we fail to identify behaviors that promote psychological safety in medical education, we risk these domains for our learners. This study is the first to identify behaviors that promote safety in clinical undergraduate medical education settings specifically and offers themes for future research and interventions to construct psychologically safe clinical teaching environments.

Correspondence should be addressed to Adelaide H. McClintock, University of Washington, 4245 Roosevelt Way, NE, Box 354765, Seattle, WA 98105; email: ahearsr@uw.edu.

Author affiliations: A.H. McClintock, J Jauregui, University of Washington; T.L. Fainstad, University of Colorado Anschutz Medical Campus

Funding/Support: Supported by the University of Washington Center for Leadership in Medical Education (CLIME).

Other disclosures: None reported.

Ethical approval: STUDY00010784 was approved by the University of Washington Institutional Review Board on July 24, 2020.

References
The Performance and Trajectory of Medical Students With Disabilities: Results From the Pathways Project

Lisa M. Meeks, PhD, MA, Melissa Plegue, MA, BonnieKl Svenor, PhD, MPH, Christopher J. Moreland, MD, MPH, Sharad Jain, MD, Christina J. Grabowski, PhD, Marjorie Westervelt, PhD, MPH, Benjamin Case, MPH, William H. Eidson, EdD, Rahul Patwari, MD, Nancy R. Angoff, MD, MPH, MEd, Jack LeConche, MS, Bliss M. Temple, MD, Peter Poulos, MD, Mijiza Sanchez-Guzman, EdD, Caitlyn Coates, MS, Christine Low, MSW, Mark C. Henderson, MD, Joel Purkiss, PhD, and Michael H. Kim, MD

Purpose: The number of medical students disclosing disabilities and requesting accommodations is increasing, prompting new questions about performance of students with disabilities (SWD) on United States Medical Licensing Exam (USMLE) examination scores and to match into residency. Historical data on SWD suggest lower performance and extended time to graduation, but little is known about whether category of disability and accommodation on the Step 1 examination impact performance, time to graduation, and match rates. Our aim was to determine performance outcomes and match to residency of medical SWD by category of disability and whether they received accommodations on Step 1.

Methods: A matched-cohort design study of graduated SWD (cases) and nondisabled controls (controls) from 2 cohorts (2018 and 2019) across 11 medical schools. Controls were matched by the final Medical College Admission Test score and self-reported gender.

Results: Primary outcome measures include scores on USMLE Step 1 and Step 2 Clinical Knowledge scores, time to graduation (years), and residency matching on the first attempt (yes/no). Secondary outcomes were leaves of absence (yes/no) and matched specialty. One hundred seventy-one SWD and 341 controls were included in the study, 118 (69%) were categorized as having cognitive/learning disabilities, 48 (28%) physical/sensory disabilities, and 5 were unknown. A higher proportion of SWD took a leave of absence as compared to controls (31.8%; 95% CI: 20.4, 43.3 vs 10.7%; 95% CI: 5.0, 16.4; P < .001). Students with physical/sensory disabilities had similar on-time graduation rates (88.6%; 95% CI: 77.0, 100.0 vs 94.9%; 95% CI: 91.3, 99.9; P = .20), mean Step 1 scores (229.6 vs 233.5; P = .118), and match on first attempt (93.9%; 95% CI: 86.9, 100 vs 94.6%; 95% CI: 91.7, 97.4; P = .84) compared with controls. Students with cognitive/learning disabilities had significantly lower average Step 1 scores than controls (219.4 vs 233.4; P < .001), were less likely to graduate on time (81.2%; 95% CI: 69.2, 93.2 vs 94.9%, 95% CI: 91.3, 99.9; P = .003), and were less likely to match on first attempt (85.3%; 95% CI: 78.0, 92.7; P = .009). When compared with controls, nonaccommodated SWD had average Step 1 scores that were 12.2 points lower (95% CI: −15.9, −8.4; P < .001). Accommodated students’ scores were significantly lower but only by 6 points (B = −6.3; 95% CI: −12.3, −0.29; P = .04). Accommodated SWD had higher average scores than nonaccommodated students by 5.9 points (95% CI: −0.70, 12.5; P = .08). Students with physical/sensory disabilities had higher odds of matching into primary care compared with controls (OR = 2.11; 95% CI: 1.05, 4.26) and students with cognitive/learning disabilities (OR = 2.32; 95% CI: 1.05, 5.14).

Conclusions: Barriers remain for medical students with cognitive/learning disabilities, which are partially mitigated by accommodations on board exams.

Acknowledgements: The authors would like to thank the following individuals for their partnership in collecting data and contributing to critical reviews of this manuscript. These individuals did not receive any financial compensation for this work: Joanna Arnold, Barbara Blacklock, Patrick Bridge, Sarah Scott Chang, Tonya Fancher, Mark Grichanik, Erin Griffin, Beth Holman, Allison Kommer, Carleigh Kude, Marie Lusk, Mikiba W. Morehead, Charlotte O’Connor, and Richard D. Peppler.

Funding/Support: This work was partially supported by grant U1H1P29965 from the Health Resources and Services Administration (HRSA) (L.M. Meeks and C.J. Moreland) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $3,791,026 with 0% financed with nongovernmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the U.S. government. For more information, please visit HRSA.gov.

Other disclosures: Dr. Meeks was an assistant professor of family medicine at the University of Michigan Medical school at the time of this study.

Ethical approval: The University of Michigan Institutional Review Board deemed the study exempt.

Previous presentations: These findings were presented at the Association of American Medical Colleges Group on Student Affairs/Organization of Student Representatives Meeting, April 2021, virtual.

References


