school application process, including guidance for completing premedical coursework, finding research/shadowing experiences, preparing for the Medical College Admission Test, requesting letters of recommendation, writing applications, interviewing, and navigating financial aid processes. The guide is accessible to all backgrounds and assumes no prior knowledge about medical school or medical careers. It also includes sample essays, email/letter templates, course schedules, and budgets. The guide received review from several faculty members at the Perelman School of Medicine and prehealth advisors at several undergraduate institutions. The guide was disseminated via multiple platforms, including the UpLIFT website (https://uplift.guide), social media, and direct outreach to undergraduate prehealth advisors. Downloads of the guide and website traffic were recorded, and end-user feedback was collected.

Outcomes: The UpLIFT Guide was launched online on August 27, 2020. Over the course of 13 weeks, the guide has been viewed 7,223 times by 3,373 unique users, downloaded 303 times, and used by 34 undergraduate institutions. The UpLIFT Guide has been used as an official resource by national near-peer prehealth advising organizations and endorsed by medical school faculty members and undergraduate prehealth advisors at several universities.

Innovations Strengths and Weaknesses: The UpLIFT Guide demonstrates how medical students may effectively reduce structural barriers to successful matriculation of underrepresented, low-income, and first-generation students to medical school. The guide effectively uses a “crowd-sourcing” model to compile reliable advice and demonstrates the feasibility of disseminating open-source resources via social media. Lastly, our data suggest that dissemination of such free resources targeting FGLI students is more successful through established and trusted sources of information such as premed advisors. One weakness is that the guide does require internet access which may be a barrier for some potential users. In addition, admissions outcomes among students who used the guide are pending but planned for future analysis.

Feasibility and Transferability for Adoption: A recently launched, open-access, comprehensive guide to applying to medical school could mitigate the disparities in access to medical school for underrepresented premedical students and is easily accessible with feasibility for adoption by premedical offices and by interested students.

Correspondence should be addressed to Eric Li, University of Pennsylvania Perelman School of Medicine, 3400 Civic Center Blvd., Philadelphia, PA 19104; email: eric.li@upennmedicine.upenn.edu.

Author affiliations: E. Li, C. Williams, M. Hitchner, K.C. Lee, H. Ahmad, A. Naik, L. Jia, A. Chen, F. Ahmed, S. Nijim, S. Rose, Perelman School of Medicine at the University of Pennsylvania

Acknowledgments: The authors thank Dr. Horace DeLisser, Dr. Ellen Mandell, Dr. Gita Pensa, Dr. Sharon Lewis, and Dr. Neha Vapiwala for their advice during the conception of this project and continued support of this work.

Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: Reported as not applicable.

Previous presentations: Presented at the International Association of Medical Science Educators Annual Meeting: June 15, 2021; virtual.

References


A Second Chance for Learning and Wellness: Implementation of Second-Chance Quizzes

Suzy McTaggart, Eric Wilson Jr, Brendan Appold, MS, Jasmine Nevarez, MH, Michelle M. Daniel, MD, MHPE, and Seetha Monrad, MD

Purpose: Assessments are not only tools for measuring mastery of medical knowledge but also powerful promoters of learning and retention.1,2 However, high-stakes assessments are associated with anxiety and psychological distress in medical students.3 We describe and present preliminary outcomes for a novel preclinical assessment approach (second-chance quizzes [SCQ]), grounded in principles of assessment for learning and test-enhanced learning,4 but also designed to promote student well-being.

Methods: The University of Michigan Medical School (UMMS) preclinical curriculum is 1 year with pass–fail grading and quizzes approximately every other week. With the matriculating class of 2019, UMMS initiated the SCQ system, wherein students take a mandatory first quiz during a flexible weekend testing window via ExamSoft. The following Monday, all students are offered the optional SCQ, blueprinted similarly to the first quiz. The higher of the 2 quiz scores contributes to the student's overall cumulative course grade.

The number of students taking the SCQs, student testing behaviors, student performance, and psychometric data were recorded by ExamSoft’s built-in functionalities. End-of-course evaluations contain questions about the SCQ system, including perceived impact on wellness, how students strategized between the 2 available quizzes (2020–2021), and whether these assessments provided additional opportunities for learning and/or to demonstrate mastery of course content.

Descriptive analyses have been conducted to understand students’ usage and impact of SCQs. These initial findings will be further explored in the following ways: predictors of SCQ usage (such as student performance) will be examined via logistic regression and ANCOVA and the student-selected testing window compared with pre-SCQs years and between students who engage with SCQs and those who do not will be analyzed by chi-square testing.

Results/Outcomes: Between August 2019 and October 2020, 8 courses offering a combined 24 SCQs were completed in their entirety: 20 pairs of quizzes within 6 courses (2019–2020, [n = 177 students]) and 4 pairs of quizzes within 2 courses (2020–2021 [n = 168 students]).

The majority of students opted to complete the SCQ—ranging from 84 to 145 students (M = 118.54, SD = 18.67). In 2019–2020, 100% of students
completed at least 2 SCQs. Students engaged with 13 SCQs on average—with an average of 8 contributing to their course grade. Overall assessment performance is comparable with previous cohorts. SCQs overall show a median score increase on an individual quiz of only 2.37%.

On the 2019–2020 course evaluation, 86.8% of students reported that SCQs improved their wellness although 2.13% reported a decrease. 64.51% felt the SCQs enhanced their learning of material. On the preliminary 2020–2021 evaluations, more than half of students reported using SCQs primarily as practice questions.

Discussion: The moderate score increase between the initial quiz and SCQ is interesting in light of the positive wellness outcomes reported by the students. Our preliminary data suggest that SCQs promote both well-being and learning without compromising the need to measure the attainment of mastery. The 2-quiz assessment process appears to be effective in bridging assessment of and assessment for learning in 1 consolidated program of assessment. Areas for future study include investigating demographic differences in the utilization of SCQs, the impact of these quizzes on long-term retention of knowledge, and quantification of the impact on student wellness using validated well-being scales.

Significance: Given the heightened appreciation of the detrimental impact of medical education on student well-being, new and impactful strategies to address this national issue are sorely needed. To the best of our knowledge, this is one of the first studies using a 2-quiz assessment process as a strategy to support both learning and well-being.

Correspondence should be addressed to Suzy McTaggart, University of Michigan Medical School, 1135 Catherine St., Ann Arbor, MI 48109; email: sweeneys@med.umich.edu.

Author affiliations: S. McTaggart, E. Wilson Jr, B. Appold, J. Nevarez, M. Daniel, S. Monrad, University of Michigan Medical School

Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: University of Michigan Institutional Review Board (not regulated status—HUM00198005).

Previous presentations: Presented at the Association of American Medical Colleges Group on Educational Affairs Regional Spring Conference; April 20–22, 2021; virtual.

References
5 Friedman H. Repeat examinations in introductory statistics courses. Teach Psychol. 1987;14:20–23.

Using Learning Communities to Address Important Diversity Discussions

Ashley K. Mitchell, DrPH, MSPH, Kimberly C. Redding, MD, MPH, Carey Roth Bayer, EdD, MEd, BSN, RN, CSE, John Patrickson, PhD, and Meryl McNeal, PhD, MA

Purpose: A renewed call for antiracism pedagogy emerged in medical education in the wake of the COVID-19 pandemic and social unrest following several highly publicized incidences of police using excessive force with people of color.1 2 To address the health care needs of increasingly diverse U.S. communities, medical students must be knowledgeable on topics of race, racism, and implicit bias. Our learning communities (LCs) provided a space for a diverse student body to engage in difficult conversations, including conversations on implicit bias. We discuss lessons learned in implementing the LC structure and developing its curriculum.

Approach: Morehouse School of Medicine LCs were designed to discuss and develop relevant student skills and behaviors, foster a sense of community, improve peer-to-peer relationships, and encourage relationship development between students and faculty. Incoming medical students are divided into 8 LCs, named after school-specific values and culture (knowledge, wisdom, service, excellence, compassion, integrity, innovation, and leadership). LCs are longitudinal, with students continuing in these groups for all 4 years of medical school. In this model, rotating student leaders lead the interactive discussions with 2 faculty mentors, 1 clinician, and 1 basic science or public health, serving as facilitators for the sessions. Before each session, students are given discussion guides to serve as a framework and are encouraged to include other relevant information or activities.

Outcomes: LCs provide students with opportunities to self-reflect, share, and engage with their peers and faculty on complex and challenging topics. Race, racism, and implicit bias are discussed in various LC sessions, with discussion questions and activities designed to apply the indicated topic with diverse cultures and communities. In the end-of-year student LC surveys, 80% (academic year 2018–2019; N = 71) and 86% (academic year 2019–2020; N = 70) of MD year 2 student respondents said that LCs helped them gain a better understanding of implicit bias concepts.

Discussion: The curricular inclusion of discussions on race and implicit bias is crucial for the individual development of future doctors at this primary care-focused medical school. When integrated into the broader curriculum and culture of the institution, LCs can serve as a vehicle that builds relationships, establishes trust and safety, and provides the opportunity for students to critically think and self-reflect on race-related topics in a productive environment. Ultimately, these sessions aid in the production of physicians who will have the desire and the tools to work with a diverse patient base, addressing disparities in health care due to racism.

Significance: To address the needs of diverse populations, the physician workforce must be knowledgeable of the social determinants of health and be demographically reflective of the communities they serve. Teaching and learning about racism and diversity are particularly significant following the revelations of the COVID-19 pandemic, coupled with the call for social and racial justice due to the disproportionate use of excessive force by law enforcement against