approach to guide professional identity formation and enculturation into the rituals and ideals of the profession. Furthermore, our medical student engagement with resources, supports, and opportunities was highly variable depending on how proactive and knowledgeable a student was about the system, which created disparities.

**Approach:** We replaced our existing advising system with a 4-year longitudinal coaching program based on the Doctor Coach model to better support all students with a structured approach to enculturate into the medical field, develop professional identity, cultivate professional networks, address unique needs, and manage challenges. Coaches meet with students individually and in small groups to cover topics in the domains of well-being, academics, career exploration, and professional character development. The program launched in 2019 for incoming medical students.

Online surveys based on survey about underrepresented minority (URM) student needs were administered to first-year (M1) students in the coaching program (1 by program and 1 external), second-year (M2) students in the prior advising program, and coaches. Likert anchors ranged from 1 (strongly disagree) to 5 (strongly agree). Chi-square test was used to compare M1 vs M2 responses M2 in the external survey. Qualitative responses were summarized.

**Outcomes:** Response rates were 77/92 (84%) for M1 internal, 63/92 (68%) for M1 external, 65/99 (66%) for M2, and 13/13 (100%) for coaches. All coaches (13/13, 100%) and 56/77 (73%) students agreed that the program added value to the curriculum. Most coaches (12/13, 92%) and students (54/77, 70%) agreed that the program would make the students better physicians. All coaches (13/13, 100%) and 60/77 (78%) students agreed that the program improved students’ sense of belonging. Nearly all students (73/77, 95%) agreed that they felt comfortable having candid conversations with their coach. Students had a more positive experience with coaching than the prior advising program, including (all \( P < .0001 \)):
- comfort expressing vulnerability (4.0 vs 2.4),
- coach understands your challenges (4.2 vs 2.6),
- addressing your unique concerns/questions (4.0 vs 2.6), and connecting with resources (4.0 vs 2.8). Some students preferred that small group coaching time focus on current issues they are facing, while others wanted to minimize the group time spent “complaining.” Of the 36 M1–2 students who in the external survey indicated that they identify with an underrepresented minority group, only 4 (11%) “somewhat agreed” that identifying with their coach/advisor on race/ethnicity was important. In the qualitative comments, these students indicated that they wanted more support and resources.

**Discussion:** Triangulation between coach and student perspectives and internal and external sources of data strengthen the conclusions. Nearly all students felt comfortable with their coach. All coaches and most students found the program valuable and thought it increased students’ sense of belonging. Students had a more positive experience with the coaching program than the prior advising program in all domains. There was a tension between some students wanting to focus their small group time on current issues and the need to cover the full coaching curriculum to guide enculturation and help prepare students for the next steps in their training. Coaches should be aware that students who identify as URM may have unique coaching needs.

**Significance:** Our coaching model was an effective way to support student enculturation and sense of belonging. We adjusted some of the small group sessions based on student feedback. The coaching program infrastructure enabled a rapid response and support system for students during the pandemic. We used the survey results to construct a faculty development to train coaches on resources and approaches to supporting students who identify as URM. At Learn Serve Lead 2021: The AAMC Annual Meeting, we will also report on the student outcomes following this faculty development session and during the pandemic.

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**References**

**Surgical Trainee Well-Being: A Synergy of Individual and System-Level Interventions**

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**Purpose:** Physician well-being is associated with performance, patient satisfaction, and health outcomes.¹ Yet, up to 80% of U.S. physicians experience burnout,² over 40% screen positive for depression,³ and more than 15% of surgeons exhibit alcohol dependence.⁴ Risk factors for physician distress have received much attention. Recent work suggests mindfulness-based cognitive training enhances executive function, mitigates burnout, and reduces stress, while social support increases job satisfaction and resilience.⁵ Though the need for multilevel well-being programming has grown in acceptance, implementation in surgical trainees remains limited. We describe our institution’s individual and system-level
well-being offerings for Department of Surgery (DOS) residents, their preliminary assessment, and a conceptual framework for program design.

Approach/Methods: In 2016, we implemented an individually based intervention, Enhanced Stress Resilience Training (ESRT), that teaches affective regulation techniques through mindfulness meditation. The skills-based curriculum consists of 5 weekly 1-hour classes and access to online resources to enable personal practice of acquired skills. Content and skills are contextualized to surgeons’ experience.

In 2018, multiple system-level initiatives were introduced. First, 2 annual prescheduled wellness half-days (to use as desired) were added. Second, a resident-led well-being committee, responsible for community-building activities, was formed. Finally, an Administrative Chief role was established, allowing for centralized oversight of duty hours and advanced scheduling of time off.

Results/Outcomes: Since 2016, 45 General Surgery residents have completed ESRT during post-graduate year 1. Results from randomized trials have shown that a single experience with ESRT during the first year of surgical residency significantly benefits burnout, executive function, and physiologic markers of stress, immediately and 12 months postintervention.

In April 2020, at the height of the first COVID-19 surge, we administered a cross-sectional survey of anxiety (Generalized Anxiety Disorder 7-item scale) to DOS residents (72.7% response rate, 40% exposed to ESRT). Those not exposed to ESRT had a 6-fold higher odds of clinically relevant anxiety (P = .036) independent of gender, hospital site, hours worked, or shifts in high-exposure settings, suggesting ESRT may mitigate COVID-19-related anxiety.

In 2019, a survey was administered to all DOS residents to understand the end-user experience of our institution’s well-being program. Responses revealed both individual- (ESRT) and system-level (advanced scheduling, wellness days) interventions to be effective, while increased accessibility to mindfulness training and minimization of conflicts (e.g., via clear organizational priorities and scheduling) were cited as key opportunities.

A resident focus group was subsequently held to further illuminate concepts raised. Four key areas within the work environment were highlighted: (1) the value of affective regulation skills to address the inherent emotional intensity of surgical work; (2) the importance of control through advanced scheduling and avenues to address inefficiencies; (3) an appreciation for demand (i.e., challenging work), but resentment for disproportionate administrative burden; and (4) the necessity of social support, with time conflicts posing a major barrier.

Discussion: Our findings suggest that benefits of mindfulness training not only persist over time but also extend to unprecedented circumstances with major disruption of surgical training. However, while such an individually based intervention may be beneficial, a system designed to enable overall well-being is equally important. We conclude that, together with mindfulness training, enabling an increased sense of control (e.g., through wellness days, advanced scheduling), maximizing challenging work while minimizing administrative burden, and promoting relationship-building and social support at work (e.g., through organized outings, mentorship) are critical pillars of impactful well-being programs.

Significance: While our current well-being initiatives show promise, this remains an area of active discovery, evolution in thinking, and much opportunity. However, the need to address well-being through individual and system-level interventions will remain critical, and limited resources should be directed toward areas with the greatest impact as determined by purposeful research.

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References

Improving Preclinical Examinations: The Role of Senior Students in Review
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Purpose: Preclinical examination questions are often created and reviewed by faculty question writers for accuracy, importance, and applicability to clinical practice. However, threats to validity for home-grown assessments can persist, even with input from assessment team specialists. In particular, it can be challenging to align faculty question writers’ goals for assessment with students’ interpretations of questions. Given the varied nature of their clinical rotations and temporal proximity to their board examinations, senior students may have a unique perspective to offer in the examination review process. Recognizing this, students at the University of Michigan Medical School sought to incorporate senior medical student review and feedback into first-year end-of-course examinations.

Approach: For the initial round of review, 3 senior students from different years (a third-year medical student, a fourth-year medical student, and a medical scientist training program student) reviewed 386 first-year end-of-course exam questions. Reviewers read blocks of questions individually before discussing them as a group. The students collaboratively developed a framework...