Learner Outcomes from the #MDsToo Student Mistreatment Prevention Curriculum

Research Highlights
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Purpose: Medical student mistreatment has detrimental effects on student well-being and poses a patient safety risk. For students, mistreatment can lead to stress, burnout, depression, substance use, and symptoms of post-traumatic stress disorder. Equally concerning, learners who work in a hostile environment are more likely to commit medical errors and less likely to report errors by other members of the healthcare team. Despite these profound negative consequences, the percent of medical school graduates that report being mistreated during their training is a staggering 39% nationally. The types of mistreatment reported on the AAMC Graduation Questionnaire include serious offenses, such as sexual harassment and unlawful discrimination. Even more alarming is that the national rate of mistreatment has not changed significantly in the past 5 years. One reason for this unyielding statistic is the hidden curriculum, whereby students who are victims or witnesses of mistreatment become desensitized to these inappropriate behaviors and ultimately go on to model them as residents and faculty. The #MDsToo curriculum was developed to combat the effects of the hidden curriculum by sensitizing faculty and residents to mistreatment.

Methods: The #MDsToo curriculum was designed using active-learning instructional strategies, including audience response tools, case-based learning, and reflective practice. This 90-minute training begins with an introduction to the purpose of the curriculum and the modeling of positive teacher-learner interactions through the Knowledge-sharing, Inclusive, Nondiscriminatory, Developmentally-appropriate (KIND) framework. This introduction is followed by a series of video cases supporting the teaching of KIND interactions, with real-world examples to illustrate the most common forms of mistreatment. Faculty and residents engage in dialogue and problem-solving around each case through audience response and small-group discussion. The curriculum concludes with self-assessment and reflection activities.

Results: There were 248 faculty and resident participants. 60% of respondents (n=195) reported that they had experienced mistreatment when they were a medical student. Of the eight major categories of student mistreatment as defined by the Association of American Medical Colleges (AAMC), the three most frequently experienced by respondents were public humiliation (67%, n=166), ethnic discrimination (58%, n=156), and gender discrimination (55%, n=166).

Following the training, 48% (n=141) agreed that there were situations in the past that they didn’t classify as mistreatment that they would classify as mistreatment now. 86% (n=147) reported that they were highly likely/likely to report witnessed cases of mistreatment. 98% (n=150) strongly agreed/agreed that mistreatment prevention promotes patient safety. 94% (n=119) strongly agreed/agreed that they wish faculty and residents had received this training when they were a medical student.

Discussion: The outcomes confirm that student mistreatment is a common occurrence with over half of respondents reporting that they had experienced mistreatment as a medical student. The curriculum was efficacious in sensitizing faculty and residents to mistreatment, with close to half of respondents admitting that there were cases of mistreatment in the past that they would not have
identified as mistreatment prior to engaging in the training. Finally, faculty and residents found the mistreatment curriculum worthwhile, as evidenced by their high concurrence with the statement that they wish faculty and residents had received this training when they were a student.

**Significance:** There are very few recent publications describing interventions for addressing medical student mistreatment. This curriculum has the potential to fill this gap. The #MDsToo curriculum is designed to be easy to deliver, without expensive technologies, such that it can be realistically implemented at any school. Plans to disseminate the curriculum for broad access by medical schools are underway.
The Morehouse School of Medicine ‘Learn, Serve, Lead’ Model for Developing Community-Oriented Physicians

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Purpose: To meet the growing needs of communities with increased chronic conditions, decreased healthcare access, and a changing sociocultural environment, there is a critical need for community-oriented physicians equipped with the skills to attend to the health of underserved populations. The Morehouse School of Medicine (MSM) Community Health Course (CHC) is purposed to inculcate service-learning and public health techniques to equip community-oriented physicians with empathy and tools to care for diverse populations that address the social determinants of health (SDH) and achieve health equity.

Methods: Utilizing the expertise of 20 interprofessional faculty members with backgrounds in medicine, public health, patient advocacy, and policy, in academia and federal service, the CHC provides didactic instruction and experiential learning to 100 first-year medical students. The students are organized into 9 groups and are assigned to community organizations that serve urban youth, seniors, and homeless persons in settings that include elementary schools, afterschool programs, senior residential facilities, and a homeless shelter for women and children. Innovatively, the community organizations partner with MSM students to complete a community needs and assets assessment in the Fall semester and to develop, implement, and evaluate an interventions in the Spring semester.

Course components include interactive games, role play, case studies, large group lectures, weekly small group discussion sessions, as well as weekly community engagement activities. The multidisciplinary faculty lecture on SDH and public health strategies for effective intervention. The small-group sessions are opportunities for student to develop leadership skills, explore community site-specific demographic data, health data, resources and needs, and to develop and evaluate interventions.

Student performance in the CHC is assessed through faculty evaluations, peer and self evaluations, short essays, and USMLE-style exam questions, group posters, and oral presentations. Students evaluate the course and course faculty, and the community sites evaluate the course and student groups. The CHC objectives are aligned with the institutions medical education competencies and the Accreditation Council on Graduate Medical Education competencies.

Results: The CHC has provided tangible benefits to its students and partners and has informed the overall curriculum of MSM. Course evaluation data from 2013-14 to 2017-18 show that 60% or higher of students agree or strongly agree that the course effectively addresses course objectives. As well, during exit interviews, 4th-year students state that participation in the CHC improves their competitiveness during the residency selection process.

The CHC has assisted partner sites in addressing short- and long-term needs in their respective communities, such as transportation for homeless women, physical activity and pedestrian and fire safety for seniors, college and career preparation, and interest in STEM and health careers among
Also, the CHC has helped to establish MSM’s legacy as a leader in social mission. Furthermore, other MSM programs at the pre-medical, graduate, and graduate medical education levels have developed courses that model the MSM CHC. These efforts strengthen and expand MSMs partnerships to ensure positive health outcomes in the local communities, moreover they further MSMs vision of creating and advancing health equity.

**Discussion:** The CHC includes an effective curriculum delivered by diverse faculty, that fosters meaningful community engagement and partnership with committed community partners who serve the needs of vulnerable populations. The Course limitations include ensuring consistent instruction and assessment among 20 faculty at 9 unique community sites. The CHCs next steps include expanding data collection to determine the impact of students course participation on their clinical years performance and on their specialty selection.

**Significance:** A structured curriculum and longstanding collaborations between academic institutions and community-based organizations can create community-oriented physicians, sustainable improvements in the community, and achieve health equity.
Supporting the Physician-Scientist Pipeline in Academic Medicine

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Purpose: The development and support of physician-scientists is essential to achieving academic medicine’s mission of education, research, and clinical service. Physician-scientists play a critical role in advancing medical knowledge through translation of laboratory findings to novel therapies and providing clinical insights throughout the translational spectrum. The shortage of experienced physician-scientists is a known barrier for medical students considering careers in clinical research. 1. Physician-scientists are a vital component of effective medical student education through provision of research opportunities, mentoring of interested individuals, and by serving as role models for the clinical/translational research career pathway. 2. With the many pressures on academic clinicians, the threat of the vanishing physician-scientist remains. 3-5. To mitigate this decline, efforts to provide research opportunities for students can be enabled by fostering physician-scientists with programs to develop both research knowledge and skills.

Methods: To address this need, the University of South Carolina School of Medicine (UofSC SOM) Research Center for Transforming Health (RCTH) developed an Emerging Physician Scientist (EPS) faculty development program. The EPS program is a 15-month program that provides early career or transitioning physician-scientists training and mentorship in translational research. This program supports clinical faculty physician, fostering career development and research success. Key components include an educational curriculum, along with pilot project funding intended to inform a successful extramural grant application submission by the end of the program. The EPS application required faculty to submit project proposals, with an overview of career goals. To enhance the development of competitive proposals meaningful to SC, the EPS application emphasized interdisciplinary teams and prioritized applications that addressed areas of health disparities.

Results: Prior to implementing the EPS program, a needs assessment was conducted that identified development needs and gaps in the support of emerging physician-scientists. Fifty-two percent of UofSC SOM clinical departments expressed the need for translational and clinical research faculty development opportunities and support. The top departmental training needs included: grant writing and submissions, research project management, statistical support, connecting with mentors and collaborators, and mentor training. This information was used to develop the EPS program and curriculum. A call for proposals was launched in spring 2018, and the RCTH received applications from 62% of the UofSC SOM clinical departments. Application proposals were subject to peer review comprised of experienced researchers, both internal and external to UofSC. The EPS program requires scholars to attend monthly didactic training meetings and serve as mentors in our medical student research internship program. Participation in this program also provides scholars assistance during the critical data collection phase of their project, and further opportunities to enhance the pipeline of physician-scientists.

Discussion: Physician-scientists play a critical role in advancing medicine and the search for cures and treatments of the future. These individuals are essential to the success of academic medical centers. The decline in the physician-scientist and the dearth of experienced researchers and mentors is a detriment to the future of medical science and education. Establishing the EPS program, following the internal needs assessment, enabled wide support and interest. The program is designed for clinician scientists and is focused on bridging gaps that may limit individual success. The RCTH provides infrastructure for the program and is an example of the investment needed to support the physician-scientist pipeline. Ultimately, the success of clinical investigators who may be
under significant pressure for clinical productivity requires targeted and sustained institutional support. By supporting and fostering the culture of curiosity and physician-scientists, institutions secure future mentors and enhance the development of academic communities.

**Significance:** Developing physicians-scientists remains a challenge for academic medicine. The UofSC SOM EPS program addresses this need and can be a potential model for other academic institutions.
Reaching the Troubled Learner: Faculty Development to Expand the Skill Set of Small Group Advisors

Innovation Highlights

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Purpose: Psychological distress is increasingly common in medical students, with high rates of depression, anxiety, compassion fatigue, and burnout documented in the literature (Drygbe, Academic Medicine, 2006; Rotenstein JAMA 2016). Despite high prevalence of adverse mood states among medical students, few seek treatment (Rothenstein, 2016). We aimed to enhance the ability of our Small Group Advisors to provide psychological support and to identify adverse mood states through an ongoing faculty development series led by psychology and psychiatry faculty.

Methods: Upon matriculation, students at Emory University School of Medicine are assigned to Small Groups of eight to nine students, led by a faculty Small Group Advisor (SGA). Small Groups meet regularly for interactive didactic instruction throughout medical school, including professional and personal development through process sessions. Beginning March of 2016, we created and delivered a three-phase faculty development curriculum for our SGAs. First, expert psychologists led sessions focusing on group dynamics, basic principles of group therapy, and facilitating a reflective practice.

Next, the SGAs participated in an ongoing faculty-only process group, led by a psychiatrist, to discuss challenges and successes in leading their Small Groups. Finally, a psychiatrist created a series of facilitator guides to assist SGAs in leading process sessions. In addition, SGAs engaged their students in completing serial Maslach Burnout Inventories (MBIs) over the course of their required clinical clerkship year. SGAs reviewed the results of the MBIs and reached out to students that appeared to be in distress.

Results: SGAs were asked to complete an evaluation of the faculty development series at the completion of the required clerkship year. 81.0% of SGAs (n=21) rated the faculty development sessions overall as very useful or extremely useful. The SGAs rating of the quality of the session facilitator guides varied by individual subject and ranged from 54.5% to 88.9% rated as very good to excellent. Students were also surveyed on various aspects of the small group curriculum during the required clerkship year, including their SGA-led process groups. When asked to rate the effectiveness of their SGAs in the leading their process groups, 71% rated their SGA as excellent or very good (n=69). Several themes emerged on qualitative analysis of students open-ended answers to the question What techniques did your SGA use to facilitate the process group?. The students commented on the SGAs modeling disclosure, allowing space for self-discovery, and normalizing the challenges of medical training.

Discussion: treatment; a recent meta-analysis revealed that only 15.7% of students that screened positive for depression sought treatment (Rothenstein JAMA 2016). Lack of help-seeking behavior may be attributed to multiple factors, with stigma and lack of readily available psychiatric/psychological resources likely playing a role. SGAs serve a unique role for students at our institution, and, with training can provide support and connectedness for students without imposing any stigma in treatment seeking. Although they are not acting as therapists, SGAs can act as group facilitators (albeit with support and training from therapists), thereby increasing access.

Significance: Medical students suffer a disproportionate share of adverse psychological states. Lack of emotional support contributes to these outcomes. SGAs from diverse backgrounds have the ability to provide support and lead group discussions concerning the challenges of medical training. Faculty development is an essential part of preparing SGAs for this role.