

Addressing unprofessional behaviors in the clinical learning environment: lessons from a multi-year virtual, intergenerational, interdisciplinary workshop

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ABSTRACT

Introduction: Optimizing the clinical learning environment (CLE) is a medical education priority nationwide.

Materials and Methods: We developed a virtual, one-hour workshop engaging students, house-staff and faculty in small-group discussions of five case scenarios adapted from reported unprofessional behaviors in the CLE, plus didactics regarding mistreatment, microaggressions and bystander interventions.

Results: Over two sessions (2021–2022), we engaged 340 students and 73 faculty/housestaff facilitators. Post-session surveys showed significant improvement in participants' ability to recognize and respond to challenges in the CLE.

Discussion: Our innovative workshop, including scenarios derived from institutional reports of unprofessional behaviors, advanced participants' knowledge and commitment to improve the CLE.

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Introduction


Nationwide, medical schools are designing interventions to address mistreatment and other unprofessional behaviors in the clinical learning environment (CLE), due to their detrimental impact on learner outcomes [1,2]. Similar to the experiences of other learners nationwide [3], Baylor College of Medicine (BCM) School of Medicine (SOM), medical students report witnessing harassment, bias and derogatory comments towards patients and other health care providers. In response, BCM SOM leaders developed an intergenerational, interdisciplinary, interactive workshop to better enable faculty, housestaff and students to recognize and address unprofessional behaviors in the CLE.

Materials and methods

We developed a virtual (Zoom), interactive one-hour workshop to discuss five scenarios depicting mistreatment or unprofessional behaviors in the CLE. Scenarios were adapted from student-reported encounters in the BCM SOM learning environment, per institutional

surveys, with modifications to maintain confidentiality. Scenarios included derogatory comments about a patient, discrimination based on political views and gender, sexual harassment and a request for a student to perform non-medical tasks. The workshop was developed by a multidisciplinary team of curriculum leaders, including Deans and clerkship directors across surgical and medical specialties. The workshop was implemented in July 2021 and July 2022 as part of a mandatory, half-day training session for clinical students. Participants included third-year medical students (~186 per class), plus volunteer faculty and housestaff facilitators (73 across both years) representing a broad range of medical and surgical departments (e.g., anesthesiology, emergency medicine, family and community medicine, general surgery, genetics, internal medicine, obstetrics and gynecology, orthopedic surgery, pediatrics, psychiatry, urology). Although students receive information about mistreatment prior to starting clinical rotations, this workshop was timed intentionally several months into clinical training, when students would be able to use their own experiences on clinical rotations to inform small group

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discussions on the learning environment. Facilitators took part in same-day facilitator training (30 minutes prior to the start of the workshop) with an associated facilitator's guide (Appendix A). The guide included the scenarios and question prompts, and reviewed faculty/housestaff responsibilities to report observed negative behaviors in the CLE.

The Associate Dean of Curriculum opened the workshop with a brief didactic session (10 min); topics included a review of definitions of mistreatment and microaggressions, institutional policies and procedures for reporting mistreatment and sex-based discrimination (Title IX violations), and new curriculum on how to intervene as an active bystander to address observed unprofessional behaviors. Participants then 'broke out' into small groups of 8–10 students and 1–2 faculty and housestaff facilitators for discussion (45 minutes), using guiding prompts such as 'Is this mistreatment?'; 'How would you have felt as a student or educator?'; and 'What could have been done differently?' To conclude, participants returned to large group discussion (5 minutes), summarizing personal and institutional strategies to improve the CLE.

A post-session survey (Appendix B) was developed (based on Kirkpatrick's Evaluation Model [4]) to assess attitudes, learning outcomes, and intended behavior change. Following the session, all workshop participants were emailed the Qualtrics survey link; completion was optional. Questions included

retrospective pre/post knowledge items based on learning objectives (1 = strongly disagree, 5 = strongly agree), perceived effectiveness of scenarios (1 = not at all effective, 5 = extremely effective), attitudes post-workshop (1 = strongly disagree, 5 = strongly agree), overall satisfaction (1 = below expectations, 5 = above expectations), and outcomes/intentions broken out by role (1 = strongly disagree, 5 = strongly agree). Qualitative comments captured areas for improvement, strengths, and implementation strategies. Analyses included Wilcoxon Signed Ranks test with associated effect sizes η^2 , count/percentages and content analysis [5] of text comments. The protocol was approved by the Baylor College of Medicine Institutional Review Board.

Results

Of 413 participants across both years (340 students, 73 faculty/housestaff), 235 (57%) responded to the post-evaluation survey (176 students [52%] and 59 faculty/housestaff [81%]); findings are summarized in Table 1. Following the workshop, both students and faculty/housestaff independently had statistically significant ($p < .001$) increases in knowledge regarding the stated learning objectives (effect size range: $0.40 \leq r \leq 0.51$), including identifying and responding to bias, microaggressions and other negative interactions in the CLE. Most participants found the

Table 1. CLE workshop evaluations: Count and percentage of response options.

Workshop Learning Objectives	Before Workshop	After Workshop
	Agree + Strongly Agree	
Examine personal biases that may manifest in the workplace.*	191 (81%)	224 (95%)
Formulate positive responses to negative interactions within the clinical learning environment.*	154 (66%)	213 (91%)
Devise a strategy to combat microaggressions, in order to advocate for the wellbeing of colleagues and self.*	122 (52%)	209 (89%)
Describe the resources at BCM for reporting mistreatment or other concerns regarding the learning environment.*	161 (69%)	217 (92%)
Perceived Effectiveness of Scenarios	<i>Very Effective + Extremely Effective</i>	
Scenario 1: Attending commenting about a patient: 'She won't take meds or come to appointments, but she'll make sure her crack supply doesn't run out'.	150 (70%)	
Scenario 2: Comment from educator to female student: 'Well, you think you want to go into [specialty] now but just wait until you have children.'	162 (76%)	
Scenario 3: Student comment: 'My preceptor would push for me to express my political views ... putting me in an extremely uncomfortable position.'	169 (76%)	
Scenario 4: Patient referred to trainees as 'small busted women.'	148 (75%)	
Scenario 5: Comment from educator to student: 'Oh great, I have the perfect medical student job for you ... I want you to make a plate of food and deliver it to a patient in XXX. She's one of my colleagues.'	124 (69%)	
Attitudes Post-Workshop	<i>Agree + Strongly Agree</i>	
Students, housestaff and faculty have a shared understanding of:		
• definition of mistreatment	209 (89%)	
• balance of patient care and teaching in the CLE	208 (89%)	
• factors that may influence behaviors in the CLE	200 (85%)	
Overall Satisfaction with Workshop	<i>Somewhat Above + Above Expectations</i>	
Overall effectiveness of your small group facilitator(s).	165 (70%)	
Overall quality of workshop.	138 (59%)	
Implementation of Zoom technology for the workshop.	152 (65%)	
Outcomes and Intentions Post-Workshop	<i>Facilitators (n = 59) Students (n = 176)</i>	
I have an improved understanding of best practices for education of students in the clinical learning environment.	57 (97%)	N/A
I am committed to recognizing and addressing microaggressions in the clinical learning environment.	55 (93%)	147 (84%)
I feel more prepared to recognize and address negative behaviors in the clinical learning environment.	54 (92%)	148 (84%)

*Significant difference at $p < .001$, $0.40 < r < .51$ effect size.

Table 2. CLE workshop evaluations: qualitative data* (2021–2022).

How could this workshop be improved? (83 Commented)	# of Comments
Scenarios (fewer, more diverse, more relevant)	17
Student Engagement (active participation, camera on virtually)	15
More time in small group	11
Preferred in person	8
What did you enjoy most about the workshop? (84 Commented)	
Discussions	41
The scenarios	17
Hearing different perspective	15
The facilitators	8
Learning strategies	6
Describe one strategy that you plan to implement to improve the clinical learning environment. (74 Commented)	
Address microaggressions	13
Be more aware/mindful	13
Create positive learning environment for trainees	12
Ask students to be vocal about concerns	11
Report mistreatment	8
Speak up	8

*includes content patterns with more than 5 comments.

scenarios effective and were satisfied with the quality and implementation of the workshop. Both students and faculty/housestaff indicated an intention for behavior change to recognize and address negative behaviors in the CLE. Qualitative data from text comment questions provided additional insights (Table 2). Areas of improvement for the workshop included refinement of scenarios, greater student engagement, and more time in small groups. Respondents most enjoyed the discussions, scenarios and hearing different perspectives. Qualitative content analysis of text comments showed that planned behavior changes included addressing microaggressions, being more aware/mindful, creating positive learning environments for trainees, and asking students to be vocal about concerns.

Discussion

Using institutional data regarding reports of negative behaviors, we developed and implemented a virtual, intergenerational, interdisciplinary workshop that resulted in statistically significant improvement in participants' ability to recognize and respond to challenges in the CLE. Participants found the scenarios to be highly effective, likely because they were based on actual student-reported encounters on prior institutional surveys. The use of realistic scenarios has been previously shown to enhance recognition of student mistreatment [6]. Qualitative comments indicated the important role of the discussions in engaging participants. Perhaps most importantly, participants indicated a commitment to behavior change; many respondents identified one or more specific planned strategies, such as *'being explicit with learners about having permission to let me know if anything is said or done that makes them feel uncomfortable'*; *'being more vigilant about reporting mistreatment/microaggressions when they arise*

instead of brushing them aside'; and *'changing the conversation or pointing out comments that make me uncomfortable if I encounter situations of mistreatment in the future.'* These and other identified strategies suggest that participants not only achieved stated the learning objectives but also developed plans for behavior change based on their improved understanding of challenges in the CLE and ways to intervene or report problems.

A limitation of this work is the potential for respondent bias, since survey completion was optional. Similarly, faculty and housestaff volunteered to participate and thus their opinions may not be broadly generalizable. However, the intervention is strengthened by its ease of implementation (virtual, low cost, time-limited) and the inclusion of multiple generations of learners and providers across a range of medical and surgical disciplines. Although faculty and housestaff served as facilitators, their survey responses indicated that they, too, learned from and were motivated by the session. Given the multifactorial nature of the CLE, including multiple stakeholder groups is key to addressing unprofessional behaviors [7]. Often, interventions to improve the CLE are designed for either learners or faculty [8]; by contrast, our intervention intentionally included students, housestaff and faculty across a variety of medical and surgical disciplines, thus promoting discussion across educational hierarchies and contexts. Involving both learners and faculty has proven successful in other initiatives, such as improving feedback [9] and inclusion [10].

Due to its success, the CLE workshop has been implemented annually at BCM SOM. Future studies will examine longitudinal effectiveness via participants' behavior changes. Notably, this low-cost educational initiative would be easily adaptable to other settings and audiences, including outside institutions and non-physician health care professionals.

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Author contributions

All authors have contributed significantly to the reported work.

SR, AK, PH, AG, NI, NA contributed to the conception, study design, acquisition of data, analysis and interpretation.

JG, YR-K, DK contributed to the conception and execution of the work.

All authors contributed to the drafting and/or revision of the manuscript submission.

Ethics approval

The protocol was approved by the Baylor College of Medicine Institutional Review Board (H-48964).

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