57 Virtual Shadowing as an Effective Approach to Gaining Exposure to the Field of Emergency Medicine

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Learning Objectives: Expose students to the field of EM during the COVID-19 pandemic in a virtual setting.

Facilitate mentor-mentee relationships between EM staff and students.

Foster a peer-to-peer support network among similarly interested students.

Abstract:

Introduction: Shadowing is an important part of the education of medical students. The COVID-19 pandemic has limited medical students' hospital access during their first two years. In response, we implemented a novel virtual shadowing system to provide students with convenient and safe exposure to the ED.

Curricular Design: Six EM faculty hosted 2-hour virtual shadowing experiences. Up to 10 students per shift signed up via signupgenius.com. Before each shift, students were given a chapter from the EMRA/CORD student advising guide about EM. Virtual shadowing was conducted using a HIPAA-compliant Zoom account on an ED issued mobile telehealth iPad. The physician would bring the iPad into the room, obtain consent from patients, and ensure students were able to see the encounter. Between visits, students were encouraged to ask questions using the chat function. A short de-briefing followed each shift. Students were sent a post-encounter survey via Google Forms.

Impact/effectiveness: Survey responses were collected between October 20, 2020 and November 20, 2020. The overall response rate was 96.6% (56/58 surveys completed). Of respondents, 46 (82.1%) rated the experience as "effective" or "very effective" at providing exposure to EM. 53 (94.6%) said they would participate in virtual shadowing in the ED again, and 48 (85.7%) would do virtual shadowing in another specialty were it available. Further results are included in Table 1. Themed feedback from students is shown in Table 2.

We found virtual shadowing to be an easy to implement and effective way for students to shadow physicians in the ED. Even in post-pandemic times, virtual shadowing should be explored as an accessible and effective way to expose students to a broad array of specialties.

Table 1.

Focus of Question	Response Frequencies Across 5-point Scales				
	Very effective	Effective	Not sure	Ineffective	Very ineffective
Effectiveness as exposure to EM	10.7%	71.4%	10.7%	5.4%	1.8%
	Much more satisfied	More satisfied	Equally satisfied	Less satisfied	Much less satisfied
Satisfaction with virtual compared to in-person	1.8%	1.8%	26.8%	60.7%	8.9%
	Definitely yes	Likely yes	Unsure	Likely no	Definitely no
Would participate again?	71.4%	23.2%	3.6%	1.8%	0.0%
Participate in another specialty?	66.1%	19.6%	10.7%	3.6%	0.0%
	Much more likely with virtual	More likely with virtual	Equally likely	Less likely with virtual	Much less likely with virtual
Find faculty mentor	1.8%	10.7%	26.8%	41.1%	19.6%
Build rapport with peers	10.7%	19.6%	17.9%	44.6%	7.1%

Table 2. Student feedback (positives/critiques).

Positive Feedback	Critiques
Convenient with exposure to wide variety of cases "Getting to see some of what goes on in the ED while avoiding COVID exposure; small time commitment." – Student	Various technology issues (audio, video, etc.) "It was a bit difficult to hear during the experience when we were not in a patient room...[maybe] the attending physician could use a microphone." - Student
Real time discussions about cases "We were able to ask questions and get prompt answers." - Student	Meaningful relationships "...I wish I could have connected more with the people on the Zoom as well as with personnel in the ED." - Student
Easy first introduction to EM "I thought that the virtual shadowing was helpful to get a better feel for what it is like to work in the ED, which I greatly appreciated." - Student	Extra work for physicians "...to have someone worrying about a laptop every second... isn't realistic, so I understand why at times the [iPad] was pushed to the side." - Student

58 Virtual Simulation Going Live, a Feasible Option for Clinical Evaluation During the COVID-19 Pandemic

Jared Kilpatrick; Kelly Kehm, MD; Xiao Chi Zhang, MD; Dimitrios Papanagnou, MD

Learning Objectives: Demonstrate the ability of commercially available simulation software as an effective student assessment tool in lieu of live simulation during the COVID-19 pandemic.

Abstract:

Background: In-person simulation is often used as a tool for instruction and assessment in Emergency Medicine (EM). The COVID-19 pandemic, however, has necessitated

shifting simulation online. It is unknown if online simulation software, such as Full Code, represents an appropriate tool for simulation-based training.

Objective: We aim to assess Full Code, a commercial virtual simulation program, as an objective assessment of medical student performance in an EM Clerkship and Sub-Internship (Sub-I).

Design: Third-year (MS-3s) and fourth-year medical students (MS-4s) completed Full Code assessments during their EM clerkships and Sub-I during the pandemic. Full Code is a virtual simulation offered by Minerva Medical (https://full-code.com/). Our institution purchased a 1-year software license. Students had access to >100 virtual cases and participated in faculty-facilitated practice session, in lieu of in-person simulation. Students completed 3 Full Code cases as part of their clerkship grade, each of which aligned with course objectives. The grade the for cases was calculated using Full Code's internal scoring system and counted for 15% of the overall course grade.

Impact: On review of 120 MS-3 and 24 MS-4 students, the average final scores were 81.99% and 81.37%, respectively. For MS-4 students, there was no statistical difference between average score on the Full Code assessment and other assessments (departmental clerkship exam, shift evaluations). For MS-3 students, average score on the Full Code assessment was statistically higher than other forms of assessment (EM NBME Subject Exam, shift evaluations). Full Code represents a feasible alternative to simulation experiences in EM student courses. Next steps will evaluate the Full Code scoring system to determine if assessing for only critical actions represents a reliable proxy for student knowledge and performance, and evaluating whether the number of practice cases completed correlates with exam performance.

59 Virtual Simulation-Based Workshop for Addressing Patient Discrimination Against Trainees

Kimberly Sokol, MD, MS, MACM; Lauren Bacon, MD

Learning Objectives:
1.State 4 communication strategies medical trainees can use when faced with patient discrimination.
2.Apply those 4 communication strategies to actual patient scenarios.
3.State the resources available to employees at their hospital when faced with discriminatory patients.

Abstract:
Introduction: Incidents of patient discrimination towards medical residents can present intense challenges for them as they go through their training. There is, however, little guidance provided to resident physicians when faced with these challenges. In an effort to address this, we instituted
a virtual simulation-based workshop to help trainees better navigate such encounters as they occur in the moment.

Educational Objectives:
1.State 4 communication strategies medical trainees can use when faced with patient discrimination.
2.Apply those 4 communication strategies to actual patient scenarios.
3.State the resources available to employees at their hospital when faced with discriminatory patients.

Curricular Design: We created a workshop to address discrimination towards medical trainees. It was a single 2-hour session that involved resident physicians from several specialties including emergency medicine, core faculty members, and program coordinators. Learners went through two virtual simulation scenarios depicting discrimination against trainees. In between the scenarios, the learners underwent a lecture in which they learned 4 different communication strategies to help them more effectively manage the discrimination. The second scenario was therefore used to help the learners put their knowledge into practice. Pre- and post-session questionnaires were distributed to evaluate the workshop in terms of learning and satisfaction.

Impact/Effectiveness: The workshop was effective in teaching strategies for managing patient discrimination in real time. Attendees expressed the desire for us to create similar workshops to include discrimination by attending physicians and advised the broader incorporation of hospital personnel; we are currently working on these. While prevention of these situations would be the ultimate goal, in the meantime, we can at least place our attention on giving our residents the tools to better manage these situations.

60 Virtual Standardized Direct Observation Tool (v-SDOT)

Amber Billet, MD; Robert Clontz, MD; Hieger Michelle, DO

Learning Objectives:
1. For attending physicians to complete a virtual SDOT instead of an in-person SDOT. 2. To provide emergency medicine residents real time feedback at the completion of the v-SDOT.

Abstract:
Introduction/Background: Resident feedback is an ACGME common program requirement. Feedback serves to help identify a resident's strengths and areas for improvement. It also aids residency leadership in identifying those individuals who may need extra educational assistance. One of the most common ways residency programs evaluate residents is through a standardized direct observation tool (SDOT). Traditionally, these individual resident SDOTs are completed by attending physicians in person. During the covid-19 pandemic, virtual video-based SDOTs (v-SDOT) were performed.