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

John C. Wheelwright, BS; Riley Pence, BS; Boyd Richards, PhD; Robert Stephen, MD; Susan Stroud, MD; Megan Fix, MD

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%
Satisfaction with virtual compared to in-person	Much more satisfied	More satisfied	Equally satisfied	Less satisfied	Much less satisfied
	1.8%	1.8%	26.8%	60.7%	8.9%
Would participate again? Participate in another specialty?	Definitely yes	Likely yes	Unsure	Likely no	Definitely no
	71.4%	23.2%	3.6%	1.8%	0.0%
Find faculty mentor Build rapport with peers	Much more likely with virtual	More likely with virtual	Equally likely	Less likely with virtual	Much less likely with virtual
	1.8%	10.7%	26.8%	41.1%	19.6%
	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