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department (ED).

Background: Faculty and residents' assessments of medical students working in the ED play an integral role in helping students improve and in providing input for students' grades and standardized letters of evaluation for their residency applications. Despite the importance of these evaluations, students and clerkship directors often report that they do not receive sufficient evaluations to provide meaningful assessments. The aim of this study was to determine whether an electronic evaluation system would improve the frequency of submitted evaluations and the quantity of information submitted.

Methods: This was a prospective observational study at a single academic ED from 2019-2022 with an advanced clerkship elective for senior medical students in emergency medicine and an advanced elective in pediatric emergency medicine. Evaluations were performed utilizing a modified version of the National Clinical Assessment Tool for Medical Students in the Emergency Department. Prior to the intervention, residents and faculty were asked to complete paper evaluations on students after every shift in the ED and submit them to a locked box in the ED. In the beginning of academic year 2020, a new electronic evaluation format for the evaluation was provided as a Google Form. It was accessible by a hyperlink or QR code that was given to all students and posted in the ED. Descriptive and comparative statistics were calculated. A sensitivity analysis was performed to assess the impact of COVID-19 on results.

Results: Over the three-year period, 172 students rotated in the ED, and 718 evaluations were submitted. Students worked approximately 2,924 shifts and received submitted evaluations from 22% of these shifts. With the paper format students received a mean of 2.8 (SD 2.1) evaluations for their month-long rotation compared to 5.7 (SD 3.9) evaluations with the electronic format ($P< 0.001$). Resident evaluations increased more than attending evaluations following the implementation of an electronic format; a mean of 2.1 resident evaluations per student using the paper format and 4.1 evaluations using the electronic format ($P< 0.05$). Most electronic evaluations were accessed by the hyperlink (70%), followed by QR code (27%) and direct email (3%). The mean number of discrete comments included via free text on each evaluation increased from a median of 1 (IQR: 0-2) with the paper format to a median of 4 (IQR: 3-5) with the electronic format. A sensitivity analysis with exclusion of data from the 12 months at the height of the COVID-19 pandemic did not reveal any significant changes in the reported associations between the format of the evaluation and the frequency of submission.

Conclusion: An electronic format was associated with more frequent submission of ED shift evaluations of medical students and more content in the evaluations. As an observational study there are potentially unmeasured confounders that may have impacted the results. In addition, while the number of evaluations increased, the quality of the evaluations was not assessed.

13 (O-F7) Augmented Reality for Empathy Training: Stepping into the Patient's Shoes

Aaron Frank, MS-3; Melissa Allison, MS-3; Clara Riggle, MS-3; Ronnie Rivera, MD; Ariana Nelson, MD

Oral Presenter: Alisa Wray, MD, MAEd

Objectives: The patient-physician relationship and satisfaction are highly reliant on effective physician communication.[1, 2] We proposed that by utilizing the Microsoft HoloLens augmented reality to record and watch medical student standardized patient (SP) encounters students would be more empathetic and imagine what it is like to be "in the patient's shoes."

Background: Although virtual reality has been widely adopted for training practical skills, virtual and augmented reality are minimally utilized to improve medical students' (MS) empathy skills.[3] Medical students have limited options of reviewing their SP encounters and typically can only view footage from one camera angle. This limited point of view (POV) does not give a representation of eye contact, body language, or communication directly from the patient's POV. We initiated a pilot project utilizing Microsoft HoloLens augmented reality to give students an opportunity to view themselves from the patient's POV. The figurative "putting yourself in the patient's shoes" became literal with digital education.

Methods: To analyze the efficacy of augmented reality video, we designed a pilot study that evaluated students' self-perception of their performance immediately before and after watch-back sessions. Twenty MS1s and MS2s were randomly assigned into two groups: those who would review their video footage captured on the HoloLens, and those who would review their video footage captured from a standard camera. Students completed a 5-minute SP encounter, with all SPs wearing the HoloLens during the encounter. Students then completed the Consultation and Relational Empathy (CARE) validated survey, and additional questions evaluating body language, eye contact, and facial expressions. Students assigned to the HoloLens group then had the opportunity to wear the device and experience themselves delivering their 5-minute patient interview in an immersive, augmented-reality experience, from the patient's POV. The other group of students watched the third-person POV of their encounter. After completing the watch-back sessions, students repeated the CARE survey and additional questions, and provided feedback on the experience. Changes in CARE survey scores, evaluation of body language, eye contact, and facial

expressions. Each group then reviewed the alternative video and completed a final survey on their overall thoughts comparing HoloLens to the third-person POV camera.

Results: Each participant was able to view their encounter from the augmented reality and third-person perspective and completed a final survey: 84% (16/19) marked the HoloLens footage as "more informative" vs the third-person camera. Many of the students' reviews of the experience included descriptions of evaluating body language and facial expression with patients and seeing their mannerisms from a new perspective. 15/19 participants noted in their free response that the HoloLens was better than the third-party perspective for facial expressions, eye contact, and seeing from the patient's perspective. The third-person perspective was better for overall body language. One student stated that "It was great to see myself from the patient's perspective (HoloLens) and see the importance of body language and facial expressions." Other notable quotes regarding the HoloLens included "HoloLens helped me empathize better with the patient"; and "The HoloLens footage gave me a more detailed look into my facial expressions and how I was translating empathy through small acts of non-verbal communication (eyebrow raise, eye contact)." All 20 students stated that they felt the experience was valuable to their clinical practice, that they would participate in a study like this again and would recommend the session to a colleague.

Conclusion: This pilot study provided strong beneficial evidence to using augmented reality in medical communication training. The overwhelmingly positive reviews suggest that using augmented reality video feedback during SP encounters is an important supplement to traditional education and allows MSs to experience what it is like to be in a patient's shoes.

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14 (O-E2) Buprenorphine Initiation for Opioid Use Disorder in the Emergency Department: Impact on Patient Outcomes in at a Community Hospital

Nileena Johnkutty, DO; Nikitha Ashok, DO; Jibril Ahiru Balogun, MD; Eric Stander, MD; Greg Neyman, MD; Danielle Biggs, MD

Oral Presenter: Hrant Gevorgian, MD, MPH

Objectives: To investigate the impact of emergency department (ED)-initiated buprenorphine in comparison to current standard of care on various patient outcomes. The current standard of care will constitute the retrospective variable of the study while the ED-initiated buprenorphine protocol will constitute the prospective variable.

Background: Buprenorphine has been shown to be safe and effective in preventing withdrawal symptoms of opioid use disorder (OUD) and subsequent relapse into uncontrolled substance use. No standardized protocol currently exists for the treatment of OUD in the ED, and management has traditionally been at the discretion of the physician. This study examines the initiation of a department-based protocol based on a documented Clinical Opiate Withdrawal Scale (COWS) score of prescribing buprenorphine in the eligible population and following patient outcomes over a short-term interval (30 days from enrollment).

Methods: This is a single-center, cohort study set up with two phases: a retrospective phase that consisted of review of standard of care patients from October 2020–January 2021, and a prospective phase where an ED-initiated buprenorphine protocol was implemented from October 2021–January 2022. The inclusion criteria for the buprenorphine protocol included the following: patients ≥18 years of age who meet *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* criteria for OUD, patients seeking outpatient detoxification treatment with buprenorphine, and patients who were offered peer recovery program (PRP) services. Exclusion criteria included medical or psychiatric conditions requiring hospitalization; patients actively participating in methadone maintenance program; and history of allergic reactions to buprenorphine. The primary outcome evaluated was readmission to the ED for OUD within 30 days of initial discharge. The secondary outcomes included admission to