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Improving Emergency Medicine Resident Ophthalmologic Management Skills via Simulation

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included over forty EM interns from five institutions. The vast majority completed post-event surveys which showed overwhelmingly positive feedback for the structure of the course. After a one-day session at the beginning of residency, interns gained the experience of applying POCUS to clinical practice. Future directions include additional evaluative feedback and continued minor curricular improvements.

#### **18** High Risk, Low Frequency Emergency Medicine Resident Asynchronous Simulation Curriculum

Taylor Petrusevski, Adriana Segura Olson, Nathan Olson

**Introduction/ Background:** Integrating high risk, low frequency cases into EM resident education remains a challenge and are often integrated into SIM. There is an increasing focus on asynchronous curricula in medical training, but little on blending asynchronous and SIM.

**Educational Objectives:** We instituted a pilot asynchronous SIM curriculum for high risk, low frequency cases; our goal was to assess the effect of the curriculum on EM resident knowledge retention and confidence.

**Curricular Design:** A needs assessment showed that the majority of EM residents at a 3-year academic residency did not feel confident managing high risk, low frequency cases, but did feel that pre-existing SIM and asynchronous curricula were valuable for knowledge retention. We implemented an asynchronous SIM curriculum to address this need. A SIM for EM PGY 1-3s involved an inferior STEMI complicated by unstable complete heart block requiring pacing. Asynchronous FOAMEd content was curated with different modalities. Residents were randomized to participate in SIM alone or in SIM and asynchronous curriculum. A survey assessing knowledge retention via quiz and resident confidence via Likert scale was administered to both groups directly after SIM and at 1 month.

**Impact/Effectiveness:** Directly after SIM, less than 50% of participants (n=22) were confident identifying complications of STEMIs and managing complete heart block, demonstrating the educational need that can be met by an asynchronous SIM curriculum. The asynchronous group had no change in average knowledge quiz score at 1 month while the non-asynchronous group had an average change in score of 1 at 1 month. These non-significant findings are likely secondary to a small sample size; data collection is ongoing as we are approximately 1-month post SIM. The theoretical value of blending debrief-focused SIM with different modalities of asynchronous material allows for spaced repetition with practical, balanced, and individualized education.

#### **19** Implementing A Mutually Educational Measure for ACGME Residency Core Didactic Participation Tracking

Kelly Roszcynialski, Ashley Rider, Yvonne Landeros, Sara Krzyzaniak

**Introduction/ Background:** The COVID-19 pandemic necessitated moving core residency didactics to a virtual platform. The inability to use in-person sign-ins and physical evaluation forms posed challenges for tracking attendance as part of the ACGME conference participation including an evaluative component. (ACGME 2011) Objectives: To develop an attendance tool that is reliable and convenient for didactic participants in a hybrid setting, offers a reflection opportunity for learners, and provides specific and actionable feedback to educators.

**Design:** Program leadership designed a novel conference feedback form (CFF), consisting of two free text response assessments for each didactic activity. The first prompts a reflection on what the resident learned. The second asks for feedback from the resident to the lecturer. The CFF was built in Smartsheets and made accessible to residents through a physically posted QR code, hyperlink in Zoom chat, and on our program's secure webpage. Completion by the end of the day qualified as participation for attendance tracking.

**Impact:** The CFF was piloted May-June 2022. Pilot feedback to learners was that answers must be concrete, and an empty field or 'N/A' would not suffice. The CFF was formally implemented in July 2022. To date, we have gone from no formal qualitative feedback to presenters to 864 submissions. Residents reported they are more attentive to lecture content in anticipation of synthesizing a learning point to earn participation credit. This confirms the objective in alignment with a constructivism theory to increase learning by self-reflection. This simple CFF can be implemented in any residency program looking to both formalize attendance tracking and add a mutually educational tool for residents and presenters to align with ACGME core program requirements.

#### 20 Improving Emergency Medicine Resident Ophthalmologic Management Skills via Simulation

Jessica Pelletier, Alexander Croft, Michael Pajor, Matthew Santos, Ernesto Romo, Douglas Char, Marc Mendelsohn

**Introduction/ Background:** Ophthalmology education in emergency medicine (EM) residencies is lacking, with the majority of EM physicians feeling they could benefit from additional training in this domain, and less than half of EM physicians comfortable performing a lateral canthotomy. To address this need, the Departments of EM and Ophthalmology at our institution have designed an Ophthalmology Education Day (OED) designed to improve performance of ophthalmologic examination and procedural skills.

**Educational Objectives:** (1) By the end of the OED learners will demonstrate a systematic approach to the emergency ophthalmologic examination, developing a differential diagnosis of emergent causes of eye pain and vision loss. (2) Our OED will increase resident comfort and knowledge of the major components of the emergency ophthalmologic examination. (3) By the end of the session, our learners will demonstrate sustained proficiency in performing potentially vision-saving procedures within the scope of EM practice. (4) Learners will demonstrate ongoing knowledge retention after participation in the OED.

**Curricular Design:** Our OED will include systematic eye examination instruction, high-fidelity procedural stations, and three simulation cases. A single-center prospective pre- and post-interventional study involving PGY-1-4 EM residents evaluating change in checklist-based performance on a simulated case of orbital compartment syndrome requiring lateral canthotomy will be performed. Our checklist is being validated via modified Delphi methodology. Resident performance on the case will be assessed three months before the OED, after procedural training on OED, and three months after the OED.

**Impact:** There is an urgent need for improved ophthalmology education during EM residency, particularly for managing vision-threatening diagnoses. We hypothesize that resident performance of management of eye-saving interventions will statistically significantly improve after OED participation.

#### **21** Improving Patient Care at the Bedside for Disadvantaged Populations through Medical Student Participation in a Shelter Outreach Clinic

#### Laura Ortiz, Brian Felice, Stephen Fox, Michael Marchiori, Divyani Patel, Jason Adam Wasserman

**Background:** Providing care at the bedside for disadvantaged patients can be difficult due to few interactions with these patients and unconscious biases that may exist in providers and lead to poorer patient encounters and care.

**Objectives:** A pilot study was performed to see if participation in a Street Medicine Program during medical school enhances a student's comfort at the bedside for both the general and a disadvantaged population.

**Methods:** This is a retrospective study. A survey was sent out to medical students in their clinical years who had participated in a shelter outreach encounter during their first two years of medical school. Students participate in a free clinic where they perform history and physicals, staff with the attending physician and develop a plan for treatment of the patient. The survey had 36 questions, asking students their comfort levels in specific activities. These questions were asked for before and after participation in an outreach encounter. A modified Likert scale was used, with a range between 0-100, with 0 extremely uncomfortable and 100 extremely comfortable. Responses were anonymous and a paired t-test was used to analyze the mean change in comfort level of participants after their participation in the clinic. A p value of <0.05 was used as cutoff for statistical significance.

**Results:** 36 students were emailed the survey with 11 students responding (31% response rate). Statistically significant increases in comfort levels were found in 11 of the 14 categories, notably with comfort levels in all areas (history, physicals, assessment and plan, presenting to a physician) regarding treating disadvantaged populations.

**Conclusions:** Medical student comfort with disadvantaged populations increases with the opportunity to treat these patients. Limitations to this study include low response rate, and recall bias with before and after an intervention being asked on the same survey.

# **22** Interviewing the Neurodivergent Candidate

#### Erin K. Gonzalez, Suchismita Datta, Danielle Stansky, Christopher Caspers, Meredith Ankerman

**Background:** Understanding the complexity of autobiographical memories and developing interview techniques for autistic adults are areas of active research.

**Educational Objectives:** Pilot a training session for EM faculty for interviewing neurodivergent [ND] residency applicants to develop competent, equity-minded residency interviewers.

Curricular Design: A 1-hour, virtual session was scheduled within an existing faculty development time slot to facilitate faculty availability. Educational leadership supported this initiative as an informal needs assessment suggested interest and a knowledge gap. The ADDIE instructional design model was used. Self-reported effectiveness and enjoyment was measured via anonymous survey based on the validated Intrinsic Motivation Inventory tool. Direct instruction was used to present current understanding and terminology of autism and neurodiversity, including executive function, autobiographical memory, and theory of mind. Then, prerecorded videos were shown with actors representing a neurotypical and a ND candidate who received the same interview questions. Guided practice was used to demonstrate how to elicit relevant responses from a ND interviewee. Concluding the lecture was a review of recent studies showing positive effects of semantic prompting, visual-verbal prompting, and other question adaptations in employment interviews. The session ended with a group reflection around topics presented. Since participants were advanced adult learners but novices in this field, the