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Novel Approach to Quality Improvement and Patient Safety Education for Emergency Medicine Residents

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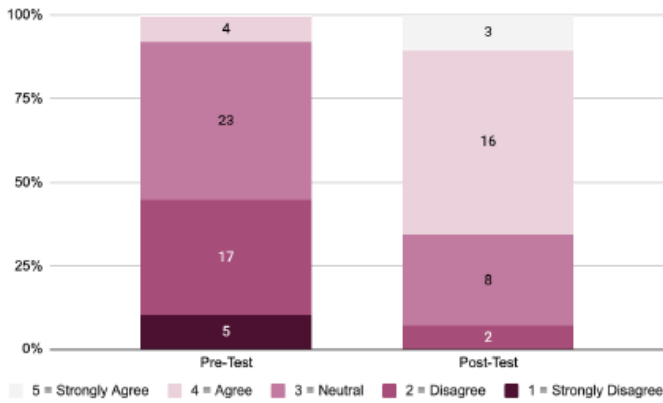
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**Image 1.** Frequency counts to the Likert-scale "I am confident in my ability to handle an incident such as this" before and after MCI simulation.

**Table 1.** Mean MCI knowledge scores for participants before and after their MCI simulation by education level.

	Pre-Test		Post-Test		p-value
	Mean (SD)	N	Mean (SD)	N	
Medical Students	31% (0.15)	19	60% (0.19)	10	<0.05*
PGY-1	54% (0.23)	12	68% (0.19)	9	0.07
PGY-2	60% (0.20)	10	80% (0.18)	7	<0.05*
PGY-3	57% (0.13)	8	81% (0.22)	3	<0.05*
Total	47% (0.22)	49	69% (0.20)	29	<0.05*

\*Statistical significance at p<0.05

## 28 Novel Approach to Quality Improvement and Patient Safety Education for Emergency Medicine Residents

Nicole Vuong, Ayanna Walker, Shayne Gue, Stephanie Cohen, Latha Ganti

**Introduction:** Patient safety has become a national topic since a 1999 Institute of Medicine report estimated that medical errors kill almost 100,000 people per year. Education of the emergency physician would not be complete without a robust curriculum dedicated to this topic.

**Learning Objective:** Our goal was to create a novel curriculum introducing EM residents to the importance of quality improvement and patient safety in today’s healthcare marketplace with a focus on experiential learning.

**Curricular Design:** We designed and delivered an 18-month Quality Improvement curriculum through multiple educational strategies. Emphasis was placed on experiential learning which included: 1) Project teams consisting of faculty and resident members who work collaboratively on projects using the PDSA methods. Projects are presented at Hospital Quality Council meetings and regional/national quality conferences. 2) DEMQC (Dept of Emergency Medicine Quality Committee), a monthly workgroup of PGY-3

residents, who identify and execute QI initiatives in our ED in a timely/efficient manner. 3) Participation in various hospital committees to recognize and appreciate the importance of ongoing QI and patient safety initiatives, as well as serving in a liaison role to keep ED staff informed.

**Impact/Effectiveness:** Since implementation, there have been 20 QI projects completed, with 3 ongoing, by 49 (100%) of our residents. These projects have been disseminated broadly through abstracts/presentations/publications on the local, regional, and national levels. Some lasting examples include: decreased CAUTIs after education on foley placement in the ED; utilization of airway checklists; and the impact of onboarding education for off-service rotators.

## 29 Population Health in the Emergency Department - Creation of an M4 Elective

Madeline Kenzie, Sehr Khan, Taylor Sonnenberg, Ashley Pavlic

**Introduction:** In July 2020, ACGME’s common program requirements were updated to include population health training and competency. Beginning training during medical school for students pursuing emergency medicine will allow future trainees a head start at gaining skills and awareness surrounding social determinants of health and community engagement. There is wide variety in undergraduate medical education pedagogy but a demonstrated growing interest nationally regarding population health training.

**Educational Objectives:** To create an interdisciplinary, multimodal course focused on addressing population health topics with an emphasis on community involvement. This curriculum will target M4s with varying specialty interests who elect to participate in the elective.

**Curricular Design:** EM residents and faculty were involved in curating a curriculum for M4s. A four week curriculum was divided into four main topics: introductory discussion, homelessness/poverty, victims of violence, and mental health. The course focused on incorporating non-traditional methods including site visits, shadowing experiences, and patient panels to supplement background reading and video material. Surveys were given to students at the end of the rotation for feedback.

**Impact/Effectiveness:** Students in their post-curriculum survey expressed appreciation. Notably, experiences with videos, book chapters and conversations with community stakeholders were rewarding for the students. Their reflections suggested that these experiences will impact their future interactions with vulnerable patient populations. The population health elective was continued on for the following year and is scheduled to occur again this upcoming year. Limitation of our evaluation is the bias of participant self-