

## 51 Leading in Silence: Simulating a Mass Casualty Event with a Deafened Commander

Shayne Gue, Stephanie Cohen, David Lebowitz, Drake Dixon, Evan Stern, Natalie Diers, Jonathan Littell, Tracy MacIntosh

**Background:** Mass casualty incidents (MCIs) are difficult to adequately prepare for given their inherent unique circumstances. We aimed to improve the learner’s ability to overcome communication barriers. Simulating an MCI where the team leader cannot hear builds confidence and proficiency for future real MCIs.

**Educational Objectives:** By the end of this session, residents will be able to:

1. Evaluate and triage multiple patients from a natural disaster while remaining calm and utilizing the resources and team members you have
2. Assign roles in order to care for all patients effectively
3. Communicate effectively due to disability to the team leader so the team can continue to treat patients effectively

**Curricular Design:** A team is placed on a simulated cruise ship where an explosion occurs and results in the team leader losing the ability to hear. The team and leader must evaluate three patients and prioritize patients for airlift evacuation. We prepared three simultaneously run cases that were procedure-heavy and medically complex. The cases consisted of a pregnant patient in labor, a patient suffering a pneumothorax and hypothermia, and a patient who suffered severe facial trauma. The team must perform an urgent delivery, neonatal and maternal resuscitation, chest tube insertion, and a cricothyrotomy among other critical actions. The learners were surveyed on how this MCI simulation scenario better motivated/engaged/challenged/prepared them compared to other traditional educational methods.

**Impact/Effectiveness:** Data was collected from the surveys completed by learners regarding this MCI simulation. 100.0% of learners indicated they “strongly agreed” or “agreed” that the MCI Simulation session motivated, engaged, and challenged them more than traditional educational methods. 86.7% of learners “strongly agreed” with the statement “I feel better prepared to manage a real-life MCI/disaster/event medicine scenario as a result of my participation in this activity” with the remaining 13.3% indicating they “agreed”.

## 52 Best Practices for Teaching Verbal De-Escalation in Health Professions Education: A Systematic Review

Emily Jameyfield

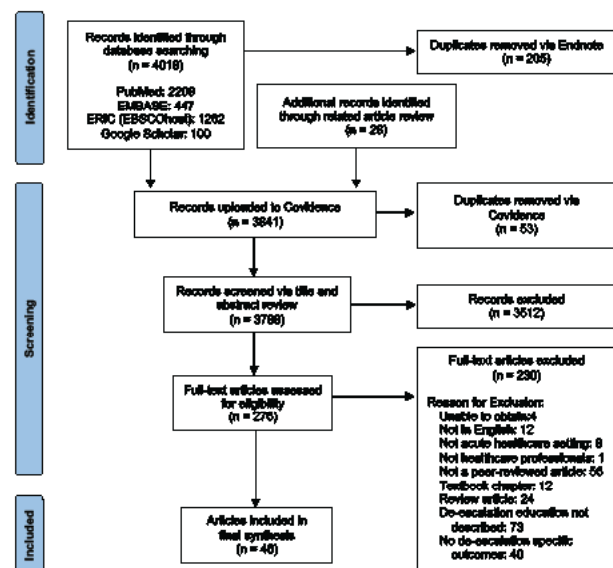
**Background:** Workplace violence is unfortunately very prevalent in emergency departments. First line management

of agitation within healthcare is widely understood to be verbal de-escalation. Trainees such as EM residents are commonly responsible for managing agitated patients or visitors. Unfortunately, formalized training in the skill of verbal de-escalation is grossly lacking across health professions education (HPE), and consensus on how best to teach the skill is absent.

**Objectives:** This systematic review aims to outline the characteristics of curricula within HPE that teach de-escalation skills, to assess the studies describing these curricula in regards to research quality and strength of evidence, and to outline consequent best practices for how to teach the skill of de-escalation to health professionals.

**Methods:** The databases PubMed, EMBASE, ERIC (EBSCOhost), and Google Scholar were searched in November 2023. Studies that looked at empirical outcomes from educational interventions designed to teach de-escalation to health professionals were included. A standardized data extraction form was utilized and included studies were assigned scores on the Medical Education Research Study Quality Instrument (MERSQI) and the Best Evidence Medical Education (BEME) Strength of Evidence scale. A narrative synthesis approach was adopted.

**Results:** Out of 3788 unique records that were identified via search protocols, 46 studies met inclusion criteria. Nine had BEME scores of 4 or 5, indicating strong evidence. MERSQI scores ranged from 5.5– 16, (mean 10.36). Learners included nurses, physicians, nursing and medical students, and other hospital staff. Interventions with



**Figure 1.** Preferred reporting items for systematic reviews and meta-analyses (PRISMA) flow diagram. From: Page MJ, McKenzie JE, Bossuyt I, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ.* 2021; 372:n71. doi: 10.1136/bmj.n71.

strong evidence all incorporated role-play or simulation for teaching. The most evidence-supported frameworks for verbal de-escalation content are the Ten Domains of De-escalation by the American Association for Emergency Psychiatry and the De-escalating Violence in Health-care Settings Trainer Manual by the International Committee of the Red Cross.

**Conclusions:** Available evidence suggests that the most effective way to teach de-escalation within health professions education is through a combination of lecture, discussion, and active skills practice.

## 53 Rapid Development of a Novel Faculty Development Curriculum Utilizing Junior Faculty as Primary Authors

*Heather Brown, Amanda Stratton, Stanley Hassinger*

**Background:** Academic faculty development can vary in scope and perceived utility. The ACGME Common Program Requirements mandate that faculty pursue faculty development annually. Timely and specialty-specific faculty development is important for ensuring academic success for junior faculty and fellows and should be incorporated early in their careers. While creating a specialty and site-specific curriculum is likely most beneficial to learners, the process can be laborious and daunting.

**Educational Objectives:** Rapidly create and deploy an effective faculty development curriculum for EM fellows and junior faculty to prepare them for successful careers in academic emergency medicine.

**Curricular Design:** Eight senior faculty developed a list of high-yield topics for junior faculty, the most useful decided by consensus (table 1). To promote independent learning and collaboration, five junior faculty and two EM fellows were assigned as primary authors for each of the topics according to their interest. A senior faculty considered an expert in the area was assigned as a mentor. Topics were presented in seminar format at a peer review session with all participants present. This stimulated valuable discussion including additional topics for the future.

**Impact:** Participants took an electronic survey with an 86% response rate (table 2). Responses strongly support the curriculum’s importance and effectiveness. Responses particularly reflect the effectiveness of junior faculty as primary authors with all junior faculty strongly agreeing that creation of the modules improved their knowledge. Since curriculum deployment, new educational strategies are being employed by faculty and there is an increased emphasis on academic promotion. The curriculum is now being delivered to fellows and new-hire faculty in quarterly modules, with each participant creating an additional module to add to the curriculum.

**Table 1.** Curriculum topics and associated deliverables.

Topic	Deliverables
Navigating the IRB and protocol development	<ul style="list-style-type: none"> <li><input type="checkbox"/> Complete Citi Training</li> <li><input type="checkbox"/> Register for IRB account</li> <li><input type="checkbox"/> Request redcap account</li> </ul>
Writing and submitting a scientific manuscript	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify relevant journals for research topic</li> </ul>
Administrative skills	<ul style="list-style-type: none"> <li><input type="checkbox"/> Quality improvement project sign up</li> </ul>
ACGME faculty requirements and tenure track criteria	<ul style="list-style-type: none"> <li><input type="checkbox"/> Review CV</li> <li><input type="checkbox"/> Apply for academic appointment</li> </ul>
Leadership	<ul style="list-style-type: none"> <li><input type="checkbox"/> Hospital committee sign up</li> </ul>
Teaching outside the box	<ul style="list-style-type: none"> <li><input type="checkbox"/> Lecture development</li> </ul>
Effective Mentorship/Giving effective feedback	<ul style="list-style-type: none"> <li><input type="checkbox"/> Identify mentor</li> <li><input type="checkbox"/> Write goals for mentorship</li> </ul>
Additional topics to add, as recommended by the participating faculty and fellows: <ul style="list-style-type: none"> <li>- Journal peer review and editing</li> <li>- Grant writing</li> <li>- Quality improvement</li> <li>- How to give a great presentation</li> </ul>	

## 54 Cost-Effective Transesophageal Echocardiography Training on Cadavers with Nonfunctional Transducer

*Christopher Clark, Nigel Bowe, Rupinder Sekhon, Caroline Dowers, Andrew Park, Abigail Brackney, Erin Cuddeback*

**Background:** Emergency providers (EPs) face challenges in performing transesophageal echocardiography (TEE) due to insufficient training and high equipment costs. ACEP guidelines for TEE credentialing include verification of competency of transthoracic echocardiography (TTE) and 4-6 hours of TEE didactics followed by 10 supervised transducer insertions on live patients or high-fidelity simulators. A structured course for EPs to meet these standards can increase credentialing and overall use of TEE.

**Educational Objectives:** Participants will recognize indications, contraindications, and limitations of TEE with identification of appropriate views. Participants will then demonstrate the ability to place a TEE on a high-fidelity simulator and with use of a clinically nonfunctional transducer on cadavers. With course completion, participants will earn credentialing in accordance with ACEP guidelines.

**Curricular Design:** TTE proficiency is verified before course participation. Learners then engage with pre-lecture modules covering essential TEE concepts. Participants then practice TEE using a high-fidelity simulator, analyzing 10 cases with common pathologies or normal findings. Next, hands-on experience placing a TEE transducer on cadavers. Following this, participants complete an Objective Structured Clinical Examination (OSCE) with 10 proctored exams. The session concludes with a debrief.

**Impact/Effectiveness:** The course was implemented at an academic emergency center in June 2024. All participants achieved a score of 80% or higher with the OSCE, with most