

UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Escape Room: An Innovative Approach to Teaching Disaster Preparedness to Emergency Medicine Residents and Medical Students

Permalink

<https://escholarship.org/uc/item/2hs73930>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 20(4.1)

ISSN

1936-900X

Authors

Patineau, A
Leonowics, N
Mlynarek, C

Publication Date

2019

Copyright Information

Copyright 2019 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

the SimMan, iSIM, and procedural equipment were brought to the conference room. An attending, two residents, and nursing staff (who voluntarily attended weekly conference) were chosen at random to run the case in real time using the simulation equipment. They were then walked through a debriefing tool to discuss the set case-based educational and quality improvement objectives before the M&M was discussed in the more traditional step-by-step format, identifying areas for potential systematic improvement.

Impact/Effectiveness: Using a live demonstration of an actual M&M case can improve engagement and participation in resident conference while satisfying learners desire for novel teaching methods and the ACGME requirement. Observers in attendance noted a significant increase in verbal participation during the conference, and evaluations of attendees (via Google Forms) reflected the majority of learners requesting that it replace the typical M&M review. They also noted it to be more educational discourse than “finger-pointing.” We believe that showing the case in multiple forms can reinforce the desired educational objectives and truly engage residents to participate in departmental QI processes.

2 Escape Room: An Innovative Approach to Teaching Disaster Preparedness to Emergency Medicine Residents and Medical Students

Patineau A, Leonowics N, Mlynarek C / Ascension St John Hospital, Detroit, Michigan; Lutheran Health Network, Fort Wayne, Indiana

Background: Today’s adult learners find lecture-based curricula ineffective and inefficient. Simulation, small groups, and problem-based learning are now commonly used. Disaster preparedness is often taught using active education strategies such as these. Game-based instruction, however, has not been specifically studied.

Educational Objectives: To determine if this educational strategy is beneficial, we created an *Escape Room* competition to develop problem-solving and resource utilization skills, which are vital in mass casualty incidents (MCI).

Curricular Design: The workshop consisted of four “Escape Rooms.” The participants were divided into teams and presented with a scenario and a series of tasks to complete upon entering each room. In the first room, the participants were required to create a thoracostomy tube suction device out of limited hospital supplies. In the second room, the teams had to address stabilization and transport of an individual impaled through the thorax on a long pole. The third room required rapid, accurate triaging of multiple patients using Simple Triage and Rapid Treatment (START) criteria. Finally, the participants had to manage a patient with polytrauma in an austere, non-medical environment. After the competition,

there was a large- group debrief in which participants shared solutions to the problems. This competition provided learners with a unique challenge: to think creatively and work as a team to find solutions to atypical medical problems.

Impact/Effectiveness: The participants were surveyed before and after the competition. The survey showed that medical students and residents do not feel confident handling an MCI. Given that most residents and medical students expect to encounter such an event during their future careers, this is a missed educational opportunity. Most participants agreed that this competition was engaging and useful. Self-perceived ability to troubleshoot and comfort with resource limitation both improved after the workshop ($p = 0.005$ and $p = 0.001$, respectively). All study participants agreed that the *Escape Room* competition was beneficial to their medical education. Game-based educational interventions show promise as an innovative approach for teaching disaster preparedness and may be an effective method for teaching other elements of emergency medicine curriculum.

3 A Structured Curriculum for Interprofessional Training of Emergency Medicine Interns

Rider A, Nomura M, Anaebere T, Wills C, Duong D / Highland Hospital, Oakland, California

Background: Interprofessional Education (IPE) is now represented in the emergency medicine (EM) Milestones given the interprofessional, team-based nature of emergency department (ED) work. IPE can positively impact patient satisfaction and improve health outcomes. We present a structured curriculum for EM interns to improve interprofessional understanding.

Educational Objectives: The Highland Allied Health Rotation Program (H-AHRP) was developed to help interns 1) understand the roles of fellow health professionals; 2) perform procedures common to those professions; and 3) develop skills of interprofessional communication and approach to patient care.

Curricular Design: H-AHRP sessions were scheduled during orientation month of 2018, along with 10 ED shifts. Interns were paired with preceptors in ED nursing (RN), ED respiratory therapy (RT), ED pharmacy (PH), laboratory (LAB), and social work (SW) in either a four-hour shift (RN, RT, PH), or lecture-based overview (LAB, SW). Pre- and post-program surveys were conducted at the beginning and end of the month, using Likert scale responses (-2 strongly disagree to +2 strongly agree) to assess understanding of scope of practice and logistics of each professional. Interns also completed a post-shift survey to document procedures performed.

Impact/Effectiveness: Of the surveys distributed, 12/12(100%) pre- and 11/12(92%) post-program surveys