“Escape the Trauma Room” – A Simulated Learning Experience

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Introduction/Background

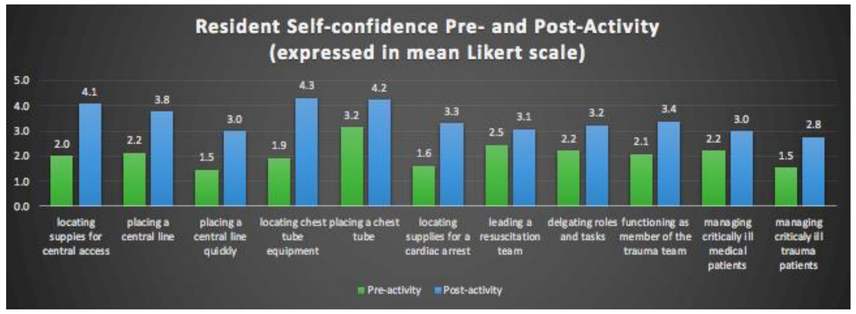
Medical education has been pushing the boundaries of curriculum design and innovation, particularly in the setting of the limitations posed by the novel coronavirus in 2020. “Escape the Room” activities that incorporate active learning through puzzles and problem-solving have been described in both nursing and medical student education, and more recently in Emergency Medicine (EM) resident education. We designed such an activity for our rising second-year EM residents in order to prepare them for their role as the “Resuscitation Resident” in the upcoming year.

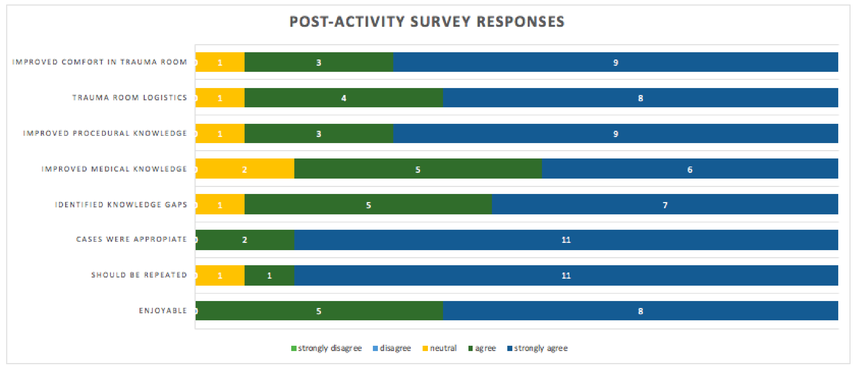
Objectives

The main objective of the activity was to prepare second-year residents for running medical resuscitations and performing critical procedures in the Emergency Department. An additional focus was to incorporate teamwork Crisis Resource Management domains through orienting residents to the physical space of the trauma bays, managing procedural competency during high-stress situations, and developing leadership and communication skills essential for managing a multi-disciplinary medical team.

Methods

Thirteen EM residents (split in two teams) participated in this simulated learning experience. Teams completed three cases which incorporated procedural simulations, medical knowledge, and leadership skills, as well as rapid fire medical knowledge questions to gain clues and unlock the code to “escape” the trauma bay in sixty minutes. Cases included penetrating trauma with chest tube insertion, cardiac arrest with IO placement, and a trauma resuscitation requiring central access. The residents completed pre- and post-activity surveys regarding confidence in various high-yield tasks, medical knowledge, and procedures.





Results

Data is represented in mean Likert scale. Residents noted substantial improvement in their ability to locate supplies for chest tubes (1.9 to 4.3), cardiac arrests (1.6 to 3.3), and trauma central lines (2 to 4.1). Residents felt more comfortable functioning as a member of the trauma team (2.1 to 3.4) and delegating tasks during resuscitation cases (2.2 to 3.2). Residents agreed the activity was enjoyable (4.6), improved procedural knowledge (4.6), helped identify medical knowledge gaps (4.5), and that it should be repeated for future residents (4.8).

Conclusion

“Escape the Trauma Room” is an enjoyable way to improve procedural techniques and medical knowledge, orient to new clinical spaces, and develop team leadership skills. This exercise boosted confidence for residents in performing critical procedures and leading resuscitation efforts. The versatility of this activity allows for application towards various aspects of EM and any level of training, with potential for competency-based evaluation of educational milestones.

Disclosures

No financial disclosures.