

COMPARISON OF THE EFFECT OF IN SITU SIMULATION TRAINING (ISST) VERSUS OTHER TRAINING METHODS ON TEAMWORK AND COMMUNICATION DURING BEDSIDE EMERGENCIES IN CRITICAL CARE PATIENTS

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BACKGROUND AND SIGNIFICANCE

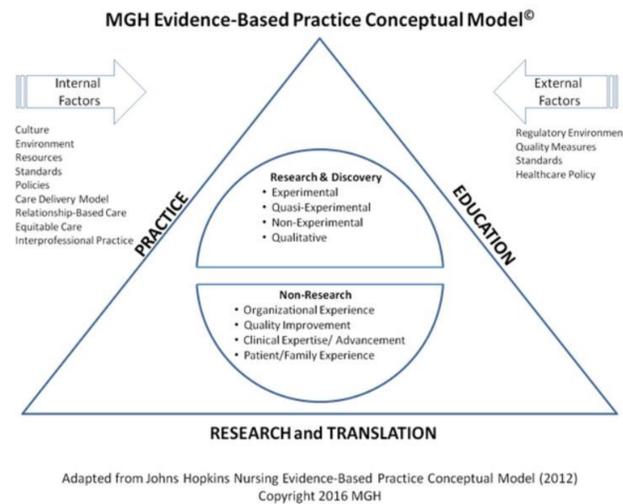
- Emergency situations require high performance inter-professional teams who provide simultaneous and coordinated input to address the need for rapid resuscitation, stabilization, and prioritization of patient care.
- In addition to advance clinical skills, members need to be proficient in nontechnical skills, such as team leadership and communication to make timely critical decisions and perform life-saving interventions (Murphy, 2016).
- In 2000, the Institute for Medicine recommended that the health care industry employ measures to enhance patient safety.
- Among these recommendations was training for teamwork which has been shown to result in fewer patient errors than when individuals work independently.
- Poor communication is one of the leading causes of medical errors.
- Simulation was recommended as an education strategy for team training to improve performance, outcomes, errors, leadership skills, communication skills, and role expectations (Rice, 2016).

OBJECTIVE

A search for evidence was conducted to investigate the following PICO question: Is in situ simulation training (I) more effective than other training methods (C) at improving teamwork and communication during bedside resuscitations of critical care patients.

IMPLEMENTATION

- A comprehensive literature search was conducted and limited to peer reviewed English language studies from 1998-2017.
- Database search: CINAHL, OVID Nursing and OVID Medline.
- Evidence-Based Practice Model: The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) model.
- Research: Type of simulation training, participants, end-points of the studies, sample size, evidence level, quality and limitations were considered prior to synthesizing the evidence to evaluate fit, feasibility, and appropriateness of potential recommendations.



PERFORMANCE IMPROVEMENT/OUTCOME

- Twenty-five studies were identified in the search for evidence.
- Twenty references were eligible:
 - Four Level I studies (two RCT's, and two integrative reviews)
 - Four Level II (quasi-experimental studies)
 - Six Level III studies (non-experimental, descriptive, or qualitative,
 - Two Level V articles (literature review, educational guide).
- The quality of the evidence was predominantly good to high.
- Only one of the two Level I RCT's (Frenley et al., 2011), involving self-controlled randomized crossover study design (i.e., case-based learning vs. simulation based learning) with blinded assessors, demonstrated significant improvements in scores for overall teamwork and two behavior factors: Leadership and Team Coordination ($p < 0.002$) and Verbalizing Situational Information ($p < 0.003$).

DISCUSSION

Overall, there is limited high level and high quality evidence suggesting that ISST is an effective teaching method to promote teamwork and communication among inter-professional teams during resuscitation of critically ill patients.

IMPLICATIONS FOR NURSING PRACTICE

Original research is needed prior to adopting ISST as the sole training method.

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