

Faking a Crisis: Examining the Effectiveness of Simulation Training for Emergency Situations

Claire O’Friel, UVA School of Nursing
Rebecca T. Gilbert, DNP, RN, CCRN

Background

- Emergency situations often result in patient mortality.
- Hospitals and training programs need to effectively educate employees who frequently care for patients in critical condition.

Purpose

- Question: Do healthcare professionals with simulation training for emergency situations demonstrate higher clinical competence than healthcare professionals without simulation training?

Methods

- Databases searched:
 - Cochrane Library - Key words: “emergency simulations,” 2006-2016
 - OVID MEDLINE - Key words: “emergency simulations clinical competence” + “patient simulation,” 2011-2016
- Inclusion Criteria
 - Physicians, nurses, Emergency Medical Services and students in emergency or critical care simulations, peer-reviewed, randomized controlled trials (RCTs) or systematic reviews, English language studies
- Exclusion Criteria
 - Non-emergency simulations, studies that compared only different types of simulations, pharmacists/pharmacy students, studies with outcomes unrelated to clinical competence



Results

- 5 studies met search criteria
- 1 systematic review, 4 RCTs
- Outcomes measured included knowledge, patient outcomes, skills, teamwork, and case management (all components of clinical competence).
- All interventions resulted in higher outcome scores than no intervention.
- But results were mixed when comparing simulation to the other interventions:
 - No difference in outcomes between simulations and other interventions
 - Simulation training → higher knowledge retention
 - Lecture before simulation improved task performance

Conclusions

- The results indicate that simulation training improves the clinical competence of participants.
- BUT inconclusive if simulation > other training
- Limitations: Small sample size, not all studies included every aspect of clinical competence in their outcomes, few nurse participants
- Should simulations be included in training?
- YES, BUT also present a pre-simulation lecture on the simulation topic.

Nursing Implications

- Hospitals and schools for healthcare professionals should continue to use simulations
- They should also combine practical simulations with classroom teaching about the subject of the simulation.

Future Research

- Further research needed:
 - Specialty units as research setting
 - Patient outcomes as a focus
 - Nurses as primary study participants