Screen-Based Simulation: Engaging Learners with Technology

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Learning Objectives

1. Understand the importance of clinical judgment within healthcare education

2. Identify how screen-based simulation can facilitate development of clinical judgment

3. Discuss strategies for incorporating screen-based simulation into the healthcare education curriculum
The Importance of Clinical Judgment

- Lack of communication and poor clinical judgment result in medical errors causing 250,000 deaths annually.
- 3rd leading cause of death, following heart disease and cancer (Cola, 2016)
“Clinical judgment is a central element of the medical profession, essential for the performance of the doctor, and potentially generating information also for other clinicians and for scientists and health care managers” (Kienle & Kiene, 2011, p. 621).
Vision for the Future: Continuum of Learning

Bridging the gap requires integration of simulation into mainstream healthcare education
What is Screen-Based Simulation?

- Use digital technology to represent patients, populations, or other healthcare encounters on a computer screen or a mobile tablet, smartphone, or other screen-based device (Chang, Gerard, & Pusic, 2016) to impart knowledge (Durmaz, Dicle, Cakan, & Cakir, 2012).
Key Considerations when choosing Screen-Based Simulation

Objectives matter!

Make sure to fit learning objectives/outcomes with the best simulation resource.
Screen-Based Simulation Strategies

**Strategy #1:**
- Complimentary learning tool
  - Roh & Kim (2014)
- Scaffolding Across the Curriculum

**Strategy #2:**
- Interactive web-based multimedia
- Unfolding Case Studies

**Strategy #3:**
- Through the eyes of experts
  - Harder & Turner (2020)
- Modified Shadow Box Method
Multimedia Web-Based Activities
- Use a variety of instructional activities to:
  - provide intentional content delivery
  - focus on analysis, strategy, and evaluation

How to Implement this Strategy
- Identify a topic / content area that requires decision making
- Select a simulation scenario that evolves
- Provide students feedback on their engagement

Unfolding Case Study
- Stimulate motivation
- Acquisition of knowledge
- Practice and feedback
- Formative assessment
- Clinical judgment
Using INACSL Standards of Best Practice: Simulation SM to Foster Clinical Judgment

(INACSL Standards Committee, 2016)
- Clarify expectations and how to participate in the simulation

- What preparation is needed prior to the scenario?
  - Review therapeutic communication techniques (verbal / non-verbal)
  - Identify members of the interdisciplinary healthcare

- Debriefing using Plus-Delta method
Simulation Scenario: Scene 1
Simulation Scenario: Scene 3
Simulation Scenario: Scene 4
Debriefing & Evaluation

**INITIAL REFLECTION**
- Emotional response to scenario
  - How did you feel during the simulation?

**DISCOVERY**
- Analysis of scenario with facilitated reflection
  - What went well during the scenario?
  - What would you change if you could do it again?

**EVALUATION & SUMMARY**
- Connecting to learning objectives
  - How could you improve your performance for the real-world?
Tips for Creating a Pathway to Clinical Judgment using Screen-Based Simulation

- Employ web-based learning tools as instructional strategies that engage students in a more realistic manner.
- Provide a safe learning environment that fosters mental preparation for real-world practice.
- Support educators in creating learning opportunities to acquire and apply clinical judgment skills in the context of care.
- Facilitate clinical competency development to close the gap between theory and practice.
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References


