

Designing for Clinical Judgment: Integration of Screen-Based Simulation

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OBJECTIVES

- Understand the importance of clinical judgment within healthcare education
- Identify how screen-based simulation can facilitate development of clinical judgment
- Discuss design strategies for integrating screen-based simulation into healthcare professions education

INTRODUCTION

Clinical judgment is essential to nursing practice. Increased attention is being paid to the role nursing judgment has on the safety of patients. According to Saintsing et. al. (2011), one fifth of employers are satisfied with the decision-making ability of new nurses.

“[In] today’s complex, fast-paced world of hospital nursing, new graduate nurses face significant challenges to providing care and are often unprepared to deal with the realities of practice”

(Nielsen, Lasater & Stock, 2016, p. 84)

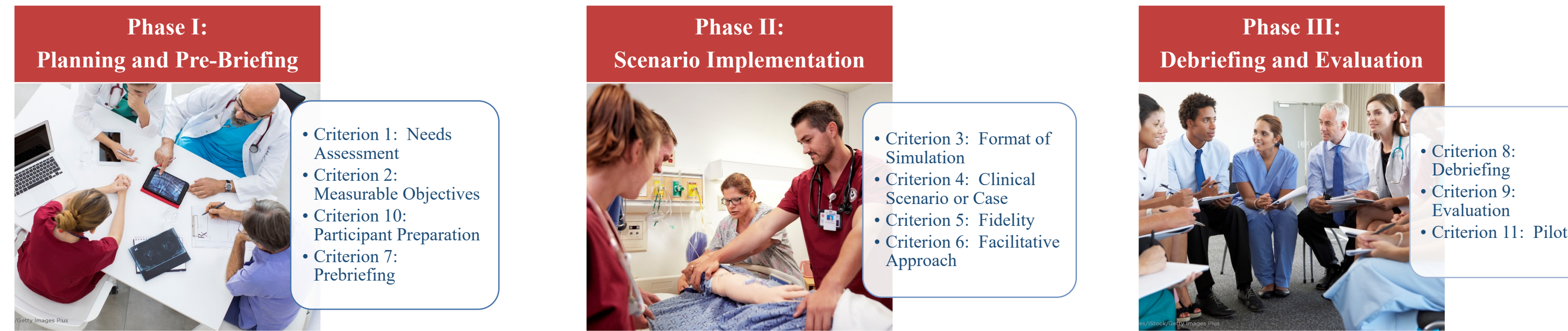
Screen-based simulation has emerged as a meaningful and safe strategy for incorporation of clinical situations that emphasize the skills needed to inform clinical judgment among health professions, with the potential for improving patient safety outcomes.

LITERATURE REVIEW

- Screen-based simulation can be used to evaluate competency and knowledge attainment and provide feedback related to clinical knowledge and critical-thinking skills (Durmaz, Diele, Cakir, & Cakir, 2012)
- “Clinical judgment is defined as the observed outcome of critical thinking and decision-making. It is an iterative process that uses nursing knowledge to observe and assess presenting situations, identify a prioritized client concern and generate the best possible evidence-based solutions in order to deliver safe client care.” (NCSBN, 2019)
- “Clinical judgment is developed through practice, experience, knowledge and continuous critical analysis. It extends into all medical areas: diagnosis, therapy, communication and decision making” (Kienle & Kiene, 2011, p. 621)
- Simulation-based educational programs need to be integrated into clinical education and practice to maximize the effectiveness of simulation in developing students’ clinical judgment skills (Lasater, 2010)
- Early introduction of virtual patient-based assessment with self-evaluations led to student identification of clinical reasoning, clinical practice focus, and clinical competence expectations (Forsberg, Ziegert, Hult, & Fors, 2016)
- Expertise develops as the learner transfers skills (clinical judgment, ethical comportment, and formation) to actual patient care situations (Benner et al., 2010)

CONCEPTUAL FRAMEWORK

The NLN/Jeffries simulation theory provided an evidence-based framework for incorporation of the INACSL Standards of Best Practice: Simulation Design for the integration of screen-based simulation into the health professions curriculum.

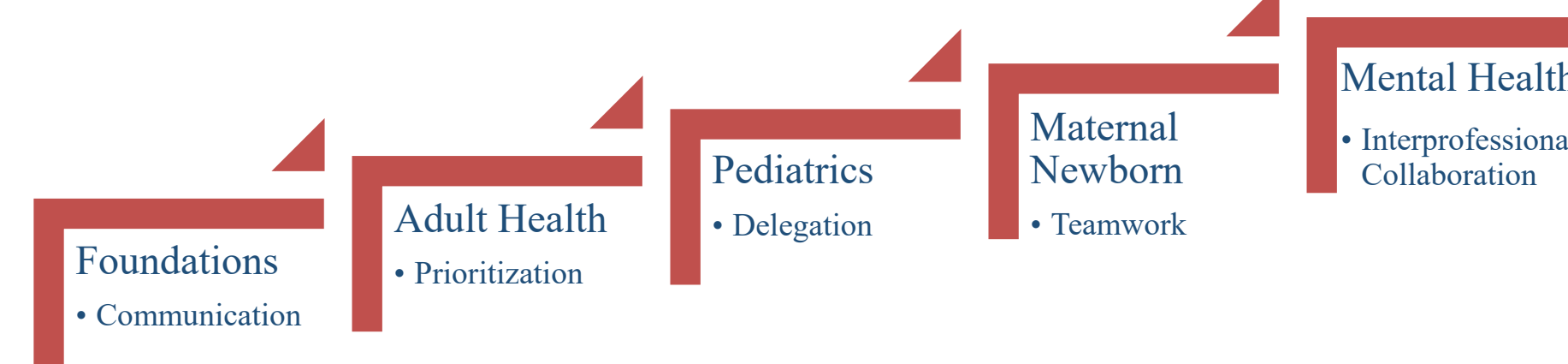


PROJECT DESCRIPTION

This project offers health professions educators techniques for integration of screen-based simulation to move through a clinical judgment case study suitable for a large group classroom setting, simulation lab preparation or clinical post-conference experience. The learner is immersed in the client care situation during briefing, data gathering, hypothesis generation, testing and evaluation. Learners engage in a structured debriefing, peer discussion/analysis and guided reflection.

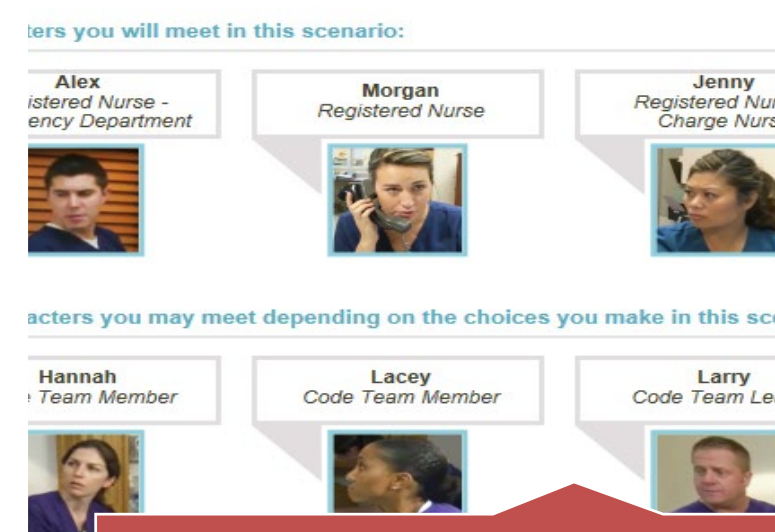
Scenario Selection and Scaffolding

Guided by the NCSBN Clinical Judgment Measurement Model and the needs assessment/gap analysis, scenario selection and progressive placement begins with the basics in patient care contexts. Students are encouraged to build upon prior learning and facilitate deliberate practice through scaffolding of topics and care environments (Leighton, 2017).

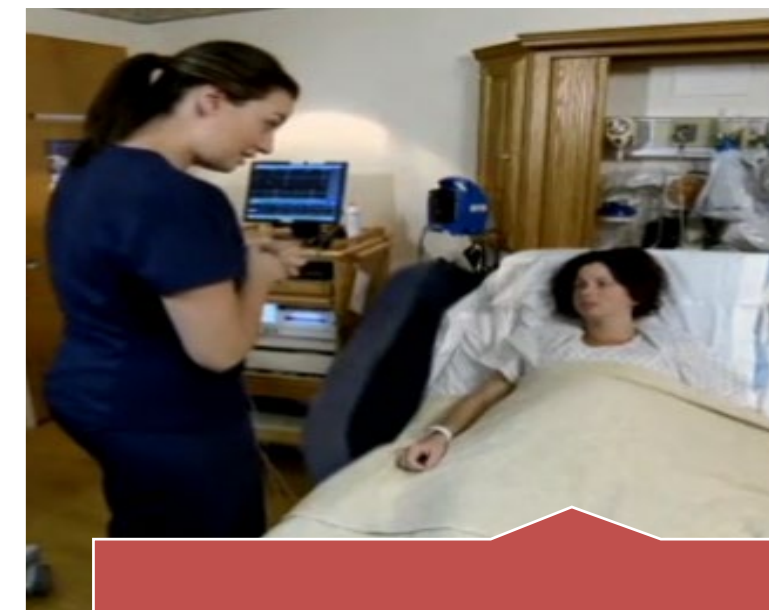


Unfolding Case Studies for Clinical Judgment: From Classroom to Clinical Laboratory and Beyond

Based upon a study by Liaw, S. Y., Wong, L. F., Chan, S. W.-C., Ho, J. T. Y., Mordiffi, S. Z., Ang, S. B. L., ... Ang, E. N. K. (2015), a variety of instructional activities using video with live actors, multimedia, and online quizzes, the student begins to apply knowledge in the context of patient care. Instructional design elements included intentional content focusing on analysis, strategy and evaluation.



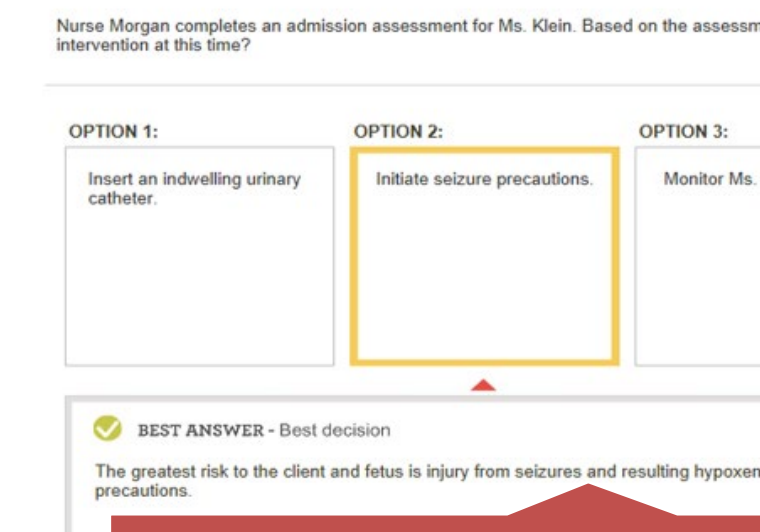
Stimulate Motivation:
Recognize Cues



Knowledge Acquisition:
Analyze Cues
Prioritize Hypotheses



Practice & Feedback:
Generate Solutions
Take Action
Evaluate Outcomes



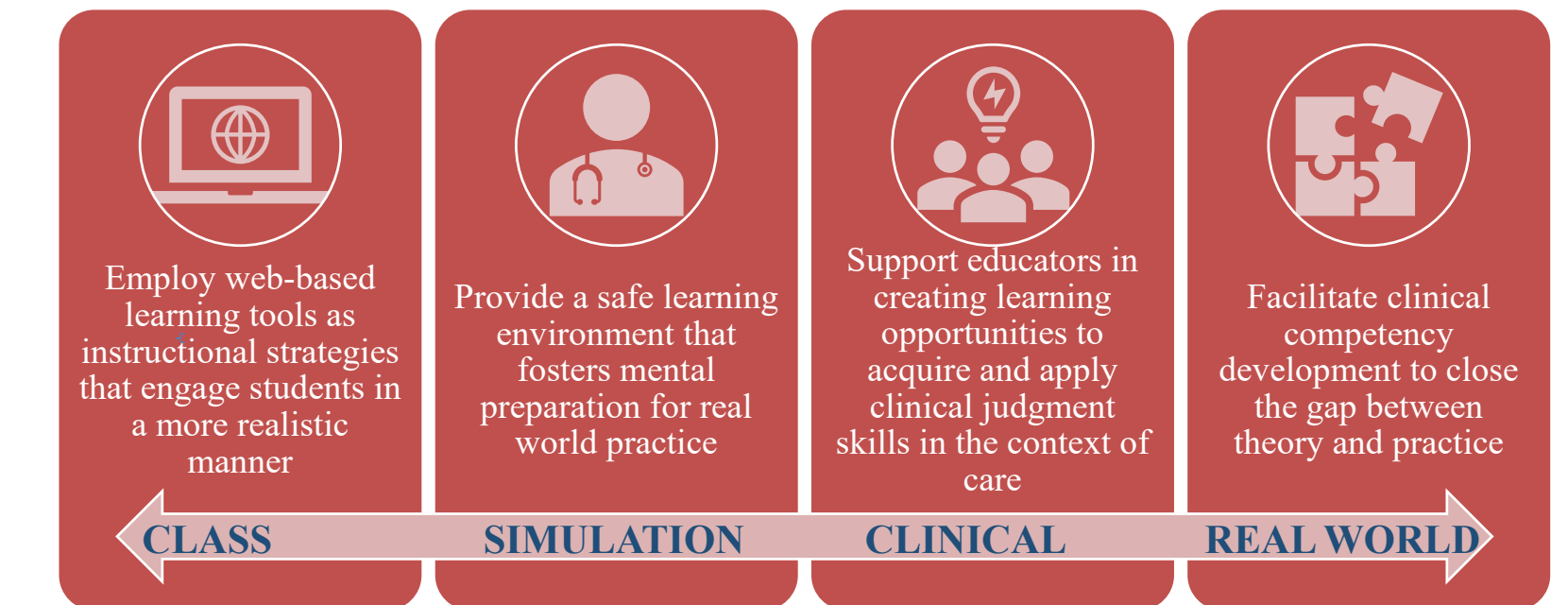
Formative Assessment:
Online Quiz
Individual Reflection

Reflective Debriefing and Evaluation

Students discussed the simulation experience outcome, what went well and what they would change, using the Plus-Delta Method (INACSL, 2015). Additional evaluation included reflection on learning and identification of considerations for practice settings should they encounter a similar situation. Moving into the laboratory or clinical environment provide the opportunity for students and faculty to evaluate competencies using evidence-based evaluation methods.

DISCUSSION AND CONCLUSION

With a focus on improving the safety of healthcare environments, simulationists are charged with designing for clinical judgment. Screen-based simulation offers an affordable modality for deliberate practice of this essential skill to promote safe, quality healthcare.



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