The aim of this presentation is to describe the value of case study and role play methodologies to develop the requisite clinical reasoning skills that positively impact patient outcomes. Research shows a gap in clinical reasoning accounts for errors in clinical judgement and decision making resulting in poor patient care outcomes (Levett-Jones, 2013). Nurses with poor clinical reasoning skills lack the experiential, cognitive proficiency to recognize changes in a patient’s condition that contribute to adverse clinical events or errors of omission, termed failure-to-rescue. Using the educational interventions of unfolding case studies and role play to help develop situated thinking and action are two learner-centered evidence-based pedagogies effective in developing clinical reasoning skills by facilitating reflection and increasing metacognitive knowledge (Malik, McKenna, & Griffiths, 2016). The purpose of these interventions is to bridge the theory-practice gap for graduate and newly hired nurses who typically lack the vital metacognitive strategies and patterns of thinking necessary to manage and prioritize complex patient care. Effective and efficient clinical reasoning skills can be learned using interactive unfolding case studies and role play scenarios that facilitate skill acquisition from novice to expert with simulated complex, real world patient scenarios.

Methods:

Unfolding case study and role play were employed as a component of a comprehensive outcome-based acute care training program for new graduate and experienced nurses. The program cadence of educational instruction scaffolds with synchronous teaching-learning activities, e.g., interactive games, lab & learn sessions, and group-based problem-solving strategies, Essentials of Critical Care Orientation 3.0 self-learning online modules (American Association of Critical Care Nurses, 2016), unit-based precepted instruction, and small group learner-focused unfolding case study/role play days. Each learning sequence builds on physiologic concepts in the following order: 1) oxygenation and ventilation, 2) circulation and perfusion, 3) neuro and brain/behavior, 4) hormonal, immunotherapy, and palliative care. The unfolding case study and role play classes employ simulated scenarios aligned with related physiologic concepts, e.g., stroke, septic shock, and abdominal compartment syndrome scenarios related to perfusion and circulation. The role play methodology will be discussed later.

Learning outcomes for each unfolding patient scenario were designed to enable learners to integrate their experience, knowledge, and understanding of the patient to acquire an initial grasp of the patient’s condition and as the case progresses, the learner utilizes the steps of the clinical reasoning cycle to manage care (Tanner, 2006). As learners are exposed to various patients at differing levels of acuity, they engage in situated-thinking and develop a sense of salience to make decisions regarding the management of complex patient conditions (Benner, 2015; Kaylor & Strickland, 2015; Schuelke & Barnason, 2017; Tanner, 2006). Learners practice reflection to use the process of unlearning to build new knowledge and gain insight into their ability (Peisachovich, 2017). Faculty facilitate the unfolding case and stimulate discussion using Socratic questioning to encourage critical inquiry from a multi-dimensional perspective and improve group collaboration, discussion, and critical thinking to build clinical reasoning skills (Billings & Halstead, 2016). The ability to transfer knowledge from one context to another is stimulated and assessed during the reflection stage as faculty assisted learners to connect back to the learning outcomes. Formative and summative evaluation of skill acquisition was assessed using the Nursing Process Learning Evaluation Tool developed for this purpose. The tool is based on the following theories: Benner’s Stages of Clinical Competence, Benner’s seven practice domains, and the University of Newcastle Clinical Reasoning Cycle (Benner, 1984; University of Newcastle 2009).
Learning outcomes for semi-structured role play scenarios focus on practicing communication skills, demonstrating caring behaviors, and gaining insight into their feelings, ability to manage cases, and explore patient scenarios from a different perspective (Billings & Halstead, 2016). Each participant in the triad is assigned the role of either nurse, patient/family, or observer. Faculty usually portrays the patient and/or family member. It is expected the nurse will incorporate patient teaching principles and the theoretical principles of Human Caring Science by Watson during the interaction (Watson, 2008). The patient/family member portray their role followed by completing an affective domain evaluation of the nurses’ role in the interaction. The evaluation is guided by the question ‘Did the nurse demonstrate caring behaviors?’ The observer assesses the nurse guided by the question, ‘Did the nurse display the principles of patient teaching?’ The recorded analysis of what each learner experienced or observed was scored using the validated Affective Competence Scoring tool adapted to incorporate patient teaching principles and caring behaviors contained within the Ten Caritas Processes of Human Caring Science (Quest, Ander, & Ratcliff, 2006; Watson, 2008).

**Outcomes:**

Innovative teaching-learning strategies may be effective in increasing clinical reasoning and affective domain skills that enhance and propel skill acquisition for novice and advanced beginner learners. Of the 30 learners involved in our program, all learners were initially assessed at the novice and/or advanced beginner level. By the end of the fourth case study/role play day, most learners tended to perform at a higher level of skill acquisition, with assessment scores ranging between advanced beginner and competent. Scores tended to improve in each of the four domains and each step in the Clinical Reasoning Cycle (Figure 1: Patient Situation). The level of ‘competent’ has traditionally been acquired after 2-3 years of experience. These data suggest that intensive, learner-centered instruction to develop clinical reasoning skills may help to shorten this timeframe in a simulated environment.

Initially, role play scenario scores were completed by the learners and data reflected the tendency of the learner to score their colleagues from their individual experiential lens. The scores recorded by the learners represented a false sense of competency. Therefore, when faculty observed the triad of learners, it was clear they did not have real-life experiences to effectively portray the patient/family member and score competence accurately, so faculty began to portray this role in the triad and scored for the learner who portrayed the nurse. The learner was evaluated on eight affective domain criteria using a Likert scale (Figure 2: Affective Domain).

**Figure 2: Affective Domain Scores**

<table>
<thead>
<tr>
<th>Caring Behavior</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0=unsatisfactory, 1=below average, 3=average, 4=above average, 5=superior)</td>
</tr>
<tr>
<td>Case Study Day</td>
<td>Case Study Day</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Confident</td>
<td>2.2</td>
</tr>
<tr>
<td>Comfortable</td>
<td>2</td>
</tr>
<tr>
<td>Compassionate/Sensitive</td>
<td>2.5</td>
</tr>
<tr>
<td>Respectful/Professional</td>
<td>2.7</td>
</tr>
<tr>
<td>Informative</td>
<td>2</td>
</tr>
<tr>
<td>Comforting</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Acknowledges struggles 2 3
Encouraging 2.3 2.8

The data reveal competence levels range between below average and above average. The mean average was 2.3 on the first case study day and 2.9 on the last case study day, representing a 26% increase in competence. The mean average score of 2.9 is representative of a new graduate learner who is in the process of acquiring experiences that will improve competence.

The observer in the triad rated the nurse on fifteen different criteria needed for competency in patient teaching and communication. Data revealed an average of 33% missed three main components of patient teaching, 1) utilizing the ‘teach back’ method, 2) assessing readiness to learn, and 3) verifying the preferred learning style. The rater completed the assessment using a global assessment rating that included 1) needs further instruction prior to future patient teaching sessions, 2) needs to perform future patient teaching with preceptor present, and 3) able to demonstrate effective patient teaching independently. The average percentage of scores is 2.7% and supports the expected competence level of a new graduate nurse indicating the need to provide additional practice and real-life experiences with patient teaching with their unit preceptor.

Anecdotal feedback received was considered positive as novice nurses expressed their reflective thoughts regarding the role play activity and in some cases, learners requested more opportunities to practice.

**Summary:**

The use of learner-focused unfolding case studies and role play are effective teaching-learning methodologies that increase situated thinking and action, knowledge, and skills and lessen the effect of the theory-practice gap, ultimately having a potential reduction in failure-to-rescue events.

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**Title:**
Bridging the Theory-to-Practice Gap: Innovative Teaching-Learning Methodologies

**Symposium**

**Keywords:**
Clinical reasoning, Teaching/learning methodologies and Transition to practice

**References:**


**Abstract Summary:**
The purpose of this abstract is to describe how the utilization of two learner-centered pedagogies, interactive case studies and role play, are effective in mitigating the theory-practice gap essential in safe patient care. These interventions facilitate development of requisite clinical reasoning and affective domain skills that positively impact patient outcomes.

**Content Outline:**
I. Significance/Purpose
   A. Bridge the Theory-Practice Gap
   B. Mitigate Failure-to-Rescue
   C. Skill Acquisition
D. Clinical Reasoning Cycle

II. Teaching-Learning Methodologies:

A. Unfolding Case Studies
B. Nursing Process Learning Evaluation Tool
C. Role Play
D. Affective Domain Assessment

III. Outcomes

A. Summary/Future Implications

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