

Utilizing Screen-Based Nursing Simulations to Prioritize Clinical Judgment Assessment and Feedback

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INTRODUCTION

Problem:

New nurses have shown an increase in errors in practice and missed care, suggesting a lack of practice readiness and **clinical judgment skills**

- The National Council of State Boards of Nursing (NCSBN) updated the licensure exam to prioritize the measurement of clinical judgment
- A Next-Generation NCLEX (NGN) with new item formats that align with the **Clinical Judgment Measurement Model (CJMM)** was implemented

Clinical judgment development is a priority in undergraduate nursing education to support practice readiness and licensure exam success.

Screen-based virtual simulations can be utilized to align with CJMM to promote clinical judgment development for undergraduate learners

This Project:

This poster explores **utilizing screen-based simulations with assessment and feedback aligned with CJMM** to support clinical judgment development for undergraduate learners.

- Undergraduate Gerontology virtual simulations were designed and utilized to assess and provide feedback of clinical judgment skills.
- This included the 1) systematic mapping of assessment opportunities to CJMM's cognitive components, 2) the addition of NGN-style items, and 3) a new results page with feedback aligned with CJMM.

THEORETICAL FRAMEWORK

The following models and frameworks grounded the design of the virtual, screen-based simulations to prioritize clinical judgment.

| Model or Framework | Application |
|--|--|
| ADDIE instructional design | Structured project phases: analysis, design, development, implementation, and evaluation |
| Backwards design | Established learning goals first, then designed instruction to meet those goals |
| CJMM Layer 3 | Basis of adapting simulations to assess clinical judgment and provide targeted feedback |
| Metacognition and self-regulation | Informed the design of feedback that promotes self-reflection and action |
| NGN item types | Referenced to ensure new items added to simulations were authentic NGN practice |

VIRTUAL, SCREEN-BASED SIMULATION DESIGN

Undergraduate Gerontology virtual, screen-based simulations were designed to include assessment and feedback of clinical judgment skills based on **Layer 3 of the Clinical Judgment Measurement Model (CJMM)**.

| CJMM Layer 3 Component | Alignment | Simulation Activity |
|------------------------|-----------|---|
| Recognize cues | ➡ | NGN item: Key findings |
| Analyze cues | ➡ | Signs and symptoms |
| Prioritize hypotheses | ➡ | Nursing diagnosis |
| Generate solutions | ➡ | Interventions |
| Take actions | ➡ | Short term goals |
| Evaluate Outcomes | ➡ | Evaluation of goals NGN item: Patient evaluation |

NGN-Style Item Example

Checkpoint: Key Findings

Based on your subjective and objective data collection, identify the correct category for each Client Finding.

| Client Findings | Normal or Expected | Abnormal: Does NOT Require Immediate Follow-Up | Abnormal: Requires Immediate Follow-Up |
|---------------------------|-----------------------|--|--|
| Cognitive Testing Results | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Gait Assessment | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Heart Sounds | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| History of Claudication | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Submit >

CJMM Results Page Example

Clinical Judgment Measurement Model (CJMM)

| Recognize Cues | Analyze Cues | Prioritize Hypothesis | Generate Solutions | Take Actions | Evaluate Outcomes |
|----------------|--------------|-----------------------|--------------------|--------------|-------------------|
| Developing | Developing | Acceptable | Needs Improvement | Developing | Developing |

Recognize Cues

Developing. You identified some key pieces of information from the patient exam, but not all of them. Continue to work on recognizing cues by considering and identifying the most important and relevant information you collect from the patient interview, physical assessments, and EHR.

☐ Developing

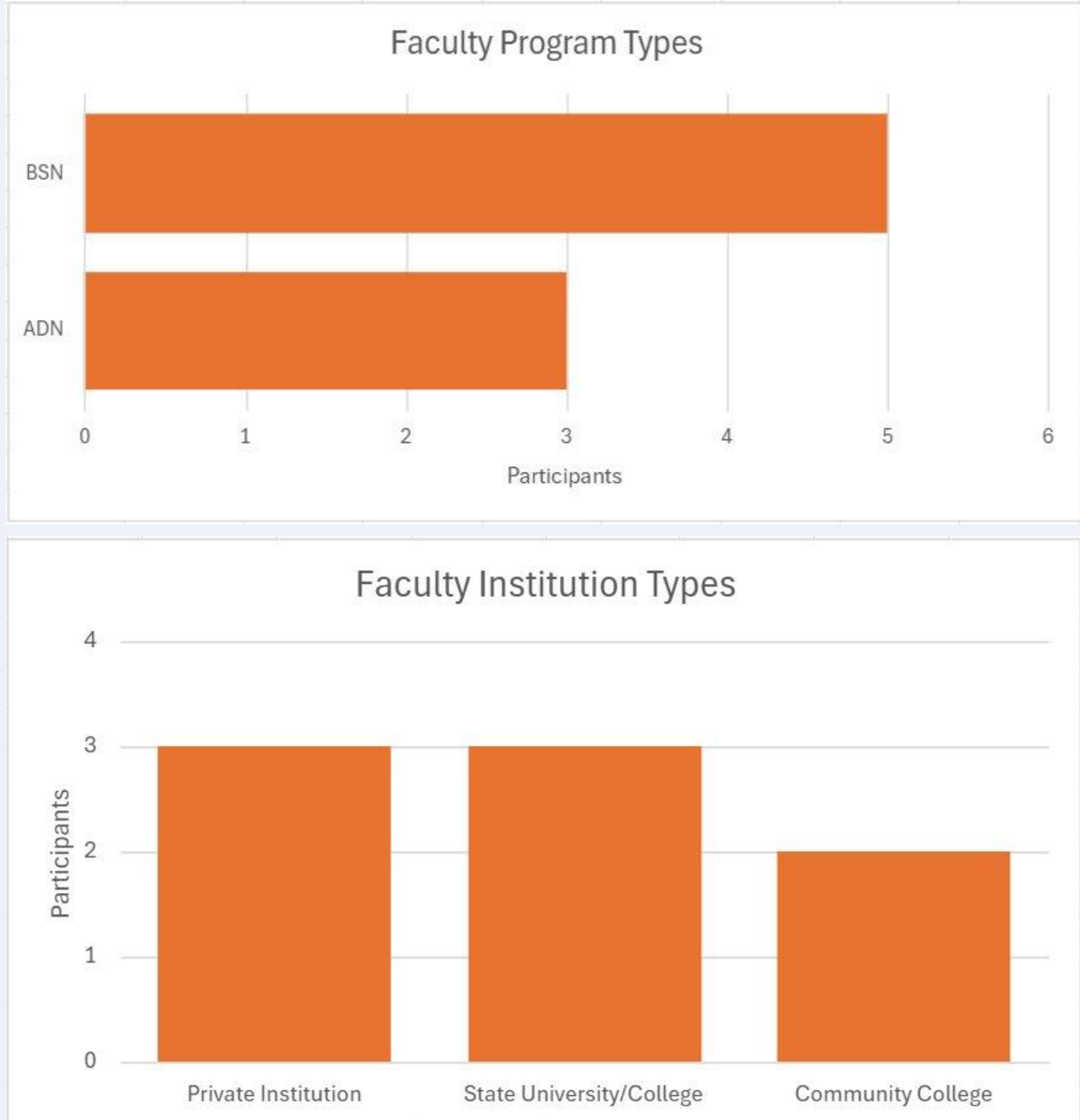
Opportunities for recognizing cues were encountered during:
• Checkpoint: Key Findings

METHODS

Semi-structured interviews were conducted with 8 undergraduate faculty and 8 undergraduate students.

- Learners completed the Gerontology assignment prior to interview
- Faculty were given a walkthrough of the Gerontology assignment to start the interview

A qualitative, thematic analysis was applied to generate insights from the interview data.



FINDINGS

| | |
|-----------------------------------|---|
| Need for framework | Programs use a variety of methods to assess clinical judgment, but do not have good ways to track it. |
| Alignment to simulation | Faculty support assessment framework and NGN items, citing alignment and early exposure to NGN practice. |
| Connected feedback | Learners want clear, item-level connections between CJMM feedback and simulation activity performance. |
| CJMM support needed | Learners and faculty express that early learners need support in understanding and using CJMM feedback. |
| Aggregated results desired | Faculty described a strong desire for a course- or cohort view to support efficient analysis and decision-making. |
| CJMM: feedback only | Faculty stated that CJMM should not be emphasized during assignments; only afterwards for feedback. |

CONCLUSIONS

Clinical judgment and the CJMM are prioritized in undergraduate nursing education.

- There is a need for ways to measure and track clinical judgment development
- Virtual simulation can support!

Simulation educators can **apply findings and lessons learned** to their own simulations to support clinical judgment development

- Simulation educators can also use our alignment and assessment framework as a roadmap.

Aligning virtual simulation with the CJMM as an assessment and feedback framework can support:

- Licensure exam success
- Increased practice readiness
- Improved patient outcomes

Next steps:

- Validate assessment framework
- Explore the simulation's impact on clinical judgment performance outcomes

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