



Transform 2023

Co-Creation of a Shared Mental Model: A Roadmap to Design Clinical Assignments to Measure Clinical Judgment

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Milwaukee School of Engineering (MSOE) – School of Nursing Summer Research Grant

Acknowledgement:

- Jane Paige PhD, RN, CNE, CHSE (PI)
- Jessica Barkimer PhD, RN, CNE
- Amy Ketchum DNP, RN, OCNS-C
- Jennifer Klug DNP, RN, CNEcl
- Olivia Gray, BSN (former MSOE nursing student)



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Background

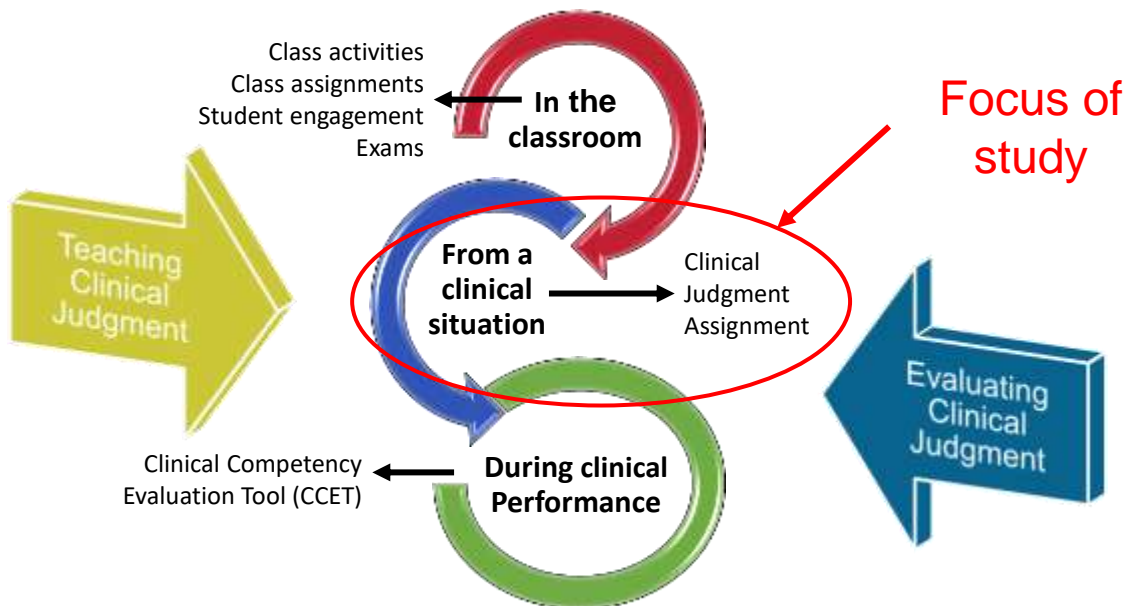
- Major shift towards competency-based assessment with clinical judgment (CJ) one the integrated concepts.
- CJ is an essential skill for nursing graduates to manage the demands of an unpredictable and complex health care environment.
- Concerns exist over practice readiness of nursing graduates (Kavanagh & Sharpnack, 2021)
- Need for evidence-based-clinical assignments that optimize the development of CJ using a consistent process with clear expectations.
- Need clear measurement criteria for CJ (AACN, 2021)
- Internally, found inconsistency in process and expectations for clinical assignments.



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Developing and Measuring Clinical Judgment



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Purpose of Study

- Create an evidence-based and scaffolded Shared Mental Model (SMM) to guide the design of clinical assignments and evaluation (scoring) methods that focus on developing nursing students' clinical judgment skills across clinical courses.
- Apply SMM to create/revise the clinical judgment assignments (CJA)

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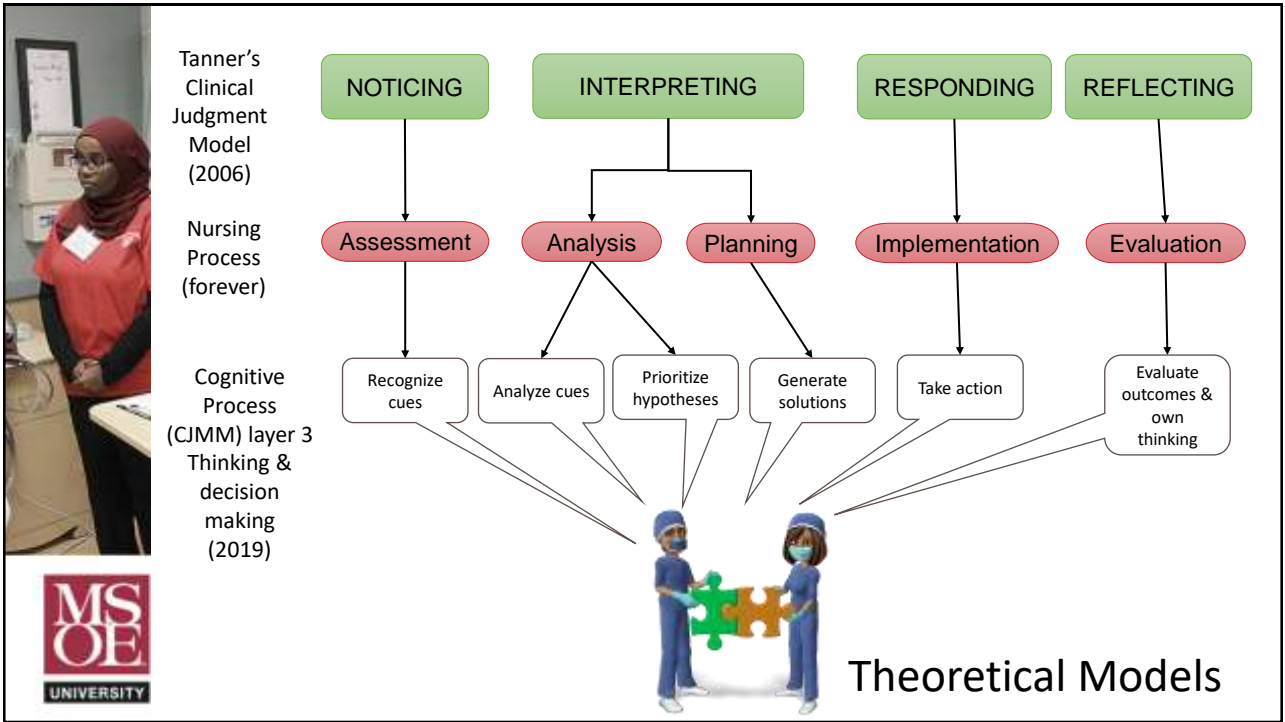
Research Questions

1. What attributes of clinical judgment can be sequentially incorporated into and subsequently measured in clinical assignments as nursing student progress across clinical courses in a baccalaureate nursing program? (SMM)
2. What do faculty and clinical instructors need to know about clinical judgment and subsequently do to facilitate nursing students' growth in clinical judgment skills across clinical courses in a baccalaureate nursing program? (SMM, Training, Scoring)
3. What is the impact of use of evidence-based and scaffolded 'clinical-derived' assignments on the growth of nursing students' clinical judgment skills? (CJA scores, NCLEX pass rate)



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Definitions

- Clinical judgment** (*primary variable of interest*) - skill of recognizing cues about a clinical situation, generating and weighing hypotheses, taking action, and evaluating outcomes for the purpose of arriving at a satisfactory outcome. CJ is the observed outcome of two unobserved underlying mental processes: *critical thinking* and *decision making* (Dickison et al., 2019)
- Clinical Experience** - hands-on learning situations where students directly care for patients within the relevant setting. Hands-on clinical instruction means adequate contact directly with patients/clients under the supervision of a clinical instructor.
- Clinical Judgment Assignment (CJA)** – a piece of student work that is derived from clinical experience(s). Student completes assignment independently. The assignment is evaluated and scored by the clinical instructors based on a criterion-based rubric.

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Participatory Action Research (PAR)

- **Initial Planning**
 - Data collection: literature, survey, focus groups
- **Acting**
 - Created Shared Mental Model
 - Designed 1st CJA
 - 1st Workshop
- **Observing**
 - Measured outcomes on CJA

PAR Cycle 1
(July-Sept 2022)

- **Reflection-informed replanning**
 - Focus group
 - survey
 - Revised CJA
- **Acting**
 - Created 2 more CJAs
- **Observing**
 - CJA scores
 - Instructor feedback

PAR Cycle 2
(AY 22-23)

- **Reflection-informed replanning**
 - Revised CJA
 - Instructor training
- **Acting**
 - Created 3 more CJAs
 - 2nd Workshop
- **Observing**
 - CJA scores

PAR Cycle 3
(AY 23-24)

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External and Internal Data Sources



Literature Review

- *External data*
 - 23 sources – 10 retained



Focus groups

- *Internal data*
 - N of 10 alumni, students, faculty in clinical courses



Surveys

- *Internal data*
 - N of 57 alumni, students, faculty in clinical courses

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Literature Results

- Need for conceptualization and consistent definitions (Betts et al., 2019; Brentnall et al. 2022; Christensen et al 2017).
- Importance of a framework throughout the curriculum (Caputi, 2022; Gonzalez et al. 2021; Hensel & Billings 2020; Sommer et al. 2019)
- Layering clinical judgment across a program (Betts et al., 2019)
- Scaffolding of Assignments within courses and across program (Manetti, 2019)
- Structured scaffolding for reflection (Braun et al., 2019)
- Reflection is a key learning strategy to support clinical judgment (Christensen et al., 2017; Smith 2021).

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Survey & Focus Group Results



- *Characteristics of clinical judgment*
 - Context (seeing the big picture)
 - Detailing the story (connections between body systems, assessment, pathophysiology) to set priorities and determine action
 - Recognizing patterns and trends and the meaning of trends
 - Answering the “*why that intervention*”
- *Hardest areas of CJ to develop*
 - Prioritization, explaining the rationale or why, and evaluation
 - Time management “*if you don’t have that, your start to miss things.*”
- *Things that help develop CJ overtime*
 - Psychological safety
 - Consistency between instructors and connection to rubric
 - Smaller, more frequent clinical judgment exercises with timely feedback
 - Structure in CJA

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Triangulation of Findings



Shared Mental Model (SMM)

- ‘Roadmap’ to guide design of CJAs and scoring rubrics
- Six underlying assumptions
 - Psychological safety, increase confidence, receive meaningful feedback, faculty familiarity with curriculum, engagement by all stakeholders, and small frequent CJA.
- Six guiding principles
 - Grounded in Tanner model & measured by CJMM, address AACN sub-competencies of CJ, scaffolded scoring rubric, increase in complexity, common language, flexibility.



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Shared Mental Model

Pairs Tanner’s 4 concepts with the underlying cognitive processes within layer 3 of the CJMM.

Examples

• NOTICING

- *Recognize Cues (Gather information)*
 - Displays a process for gathering information in an organized and timely fashion.
 - Evaluates accuracy of collected information.

• INTERPRETING

- *Analyze Cues (Making Meaning of the information)*
 - Analyzes information for trends and patterns.
- *Prioritize Hypotheses (Determine Actions to take) - Setting Priorities*
 - Justifies rationale for prioritization between conflicting choices and/or multiple clients

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Shared Mental Model

• RESPONDING

- *Generate Solutions (Determine Actions to take)*
 - Justifies the selection of actions (interventions), why appropriate, and why selected for this situation/client, and how will work.
- *Take Action*
 - Explains and justifies the necessary parameters to be monitored during or after implementation of actions

• REFLECTING

- *Evaluate Outcomes AND your thinking*
 - Evaluates client's response to actions (interventions), and whether making progress, stable, or deteriorating with thoughts on why.
- Describes/reflects on thinking process and decisions made as to how will apply to future situations or clients (reflection beyond-action)

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Clinical Judgment Assignments – Unique Features

Foundation Course (1st clinical)

- Long-term care
- Develop sections of CJA across semester

Episodic & Chronic Health courses (2nd & 3rd clinical)

- Acute care
- Feedback in clinical
- Use of post conference time

Population Health Course (4th clinical)

- being developed

Supportive Care Course (5th clinical)

- Mental Health
- Compares 3 clients on psycho-social, emotional, available resources

Complex High Acuity Course (6th clinical)

- Critical care
- Potential complications
- Conflicting choices

Practice Synthesis Course (7th clinical)

- Preceptorship
- Comparative analysis of growth in CJ

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QUESTIONS

References

