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Teaching Clinical Judgement and Decision-Making: A Cognitive Processing Model for the Education of Entry-Level Nurses

Philip Dickison, PhD, RN - Chief Officer, Examinations
Ada Woo, PhD - Director of Measurement and Testing

Disclosure

- Dr. Dickison and Dr. Woo are staff members of the National Council of State Boards of Nursing (NCSBN®).
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Presentation Outline

- Nursing Clinical Judgment
- Conceptualizing Clinical Judgment
- Proposed Pedagogical Model
- Sample Clinical Scenario and Task Model
- Additional Research
- Discussion and Conclusion

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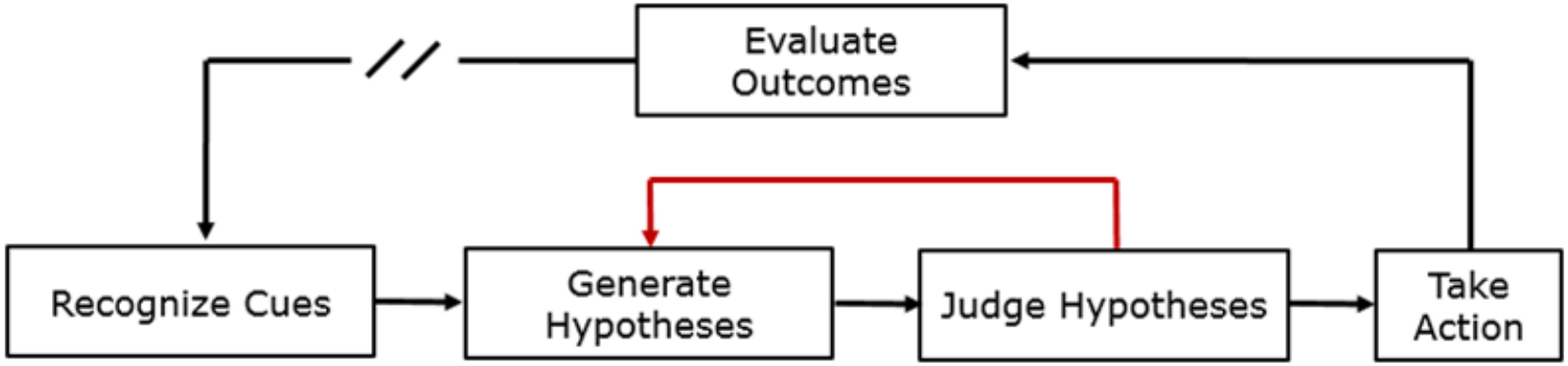
Nursing Clinical Judgment

- Nursing clinical judgment is an iterative decision making 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.

Conceptualizing Clinical Judgment



Individual Factors:
Education
Experience
Knowledge
Communication
Emotions and perceptions
Professional orientation
Consequences and risks

Environmental Factors:
Task complexity
Time pressure
Distractions
Interruptions
Professional autonomy

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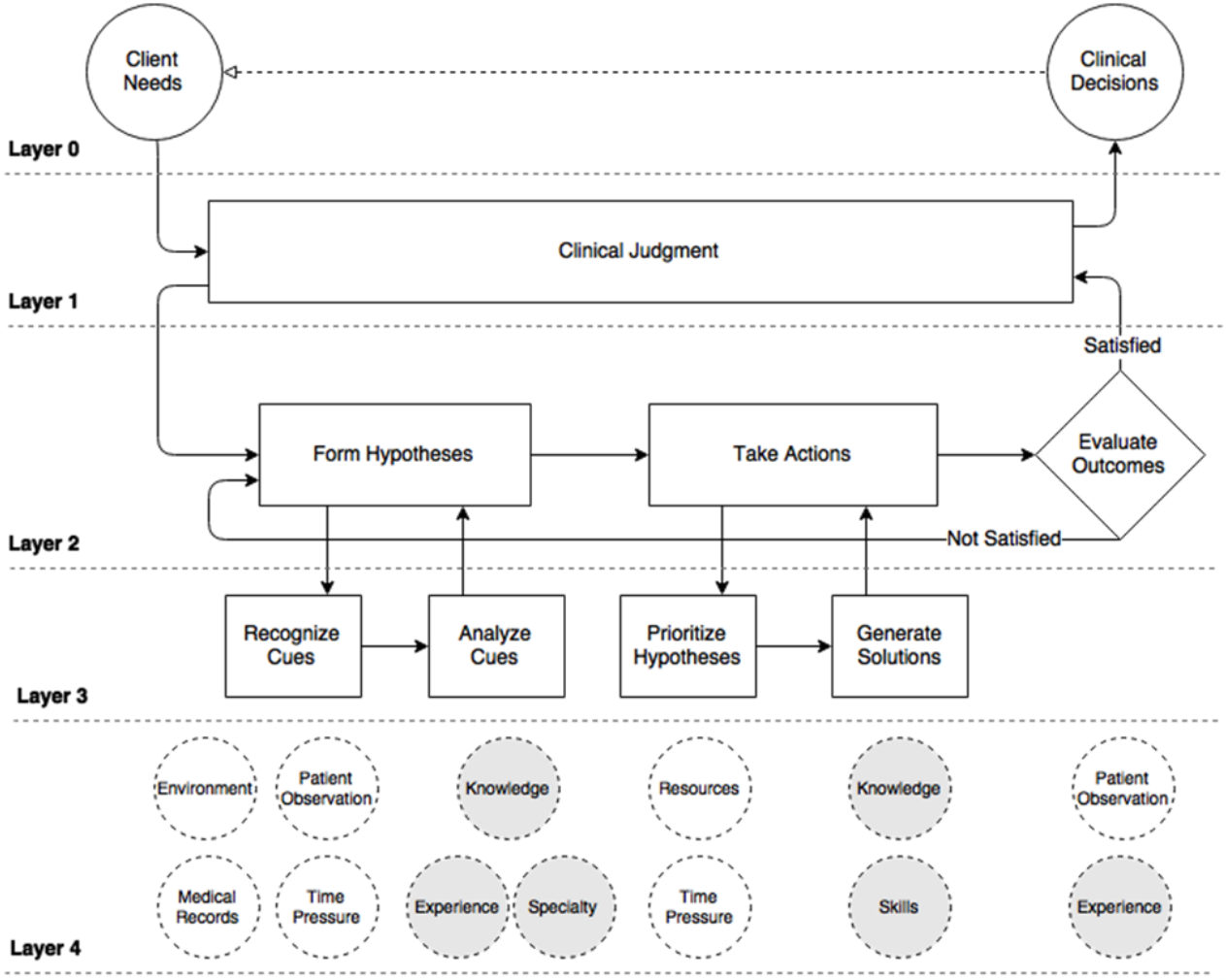
Proposed Pedagogical Model



Sample Clinical Scenario

An 8-year-old client with a history of diabetes presents to the emergency room with his mother, who reports that the child has not been feeling well for the last two days. She states he has a low-grade temperature, diarrhea, and a poor appetite. Today, the child reports he is feeling dizzy and that his head hurts. The mother also reports that he is refusing to eat or drink anything. Client vital signs upon arrival are pulse–162 beats/minute, respirations–26 breaths/minute, blood pressure–78/42 mmHg, temperature-100.3° F orally and blood serum glucose-75mg/dL. The client is admitted to the hospital, and an intravenous line is placed with 0.9% normal saline infusing at 50mL/hr. The nurse notes that the child is responsive to questions but appears lethargic. The mucous membranes appear dry, extremities are cool, and capillary refill is 3-4 seconds.

The nurse re-evaluates the client after two hours from the initial admission. The child is awake and talking, extremities remain cool, and capillary refill is 2-3 seconds. The client is asking to drink something. Client vital signs are pulse–152 beats/minute, respirations–22 breaths/minute, blood pressure–82/46 mmHg, temperature-100.2° F orally. Laboratory values: electrolytes, within normal limits; blood serum glucose, 80mg/dL.

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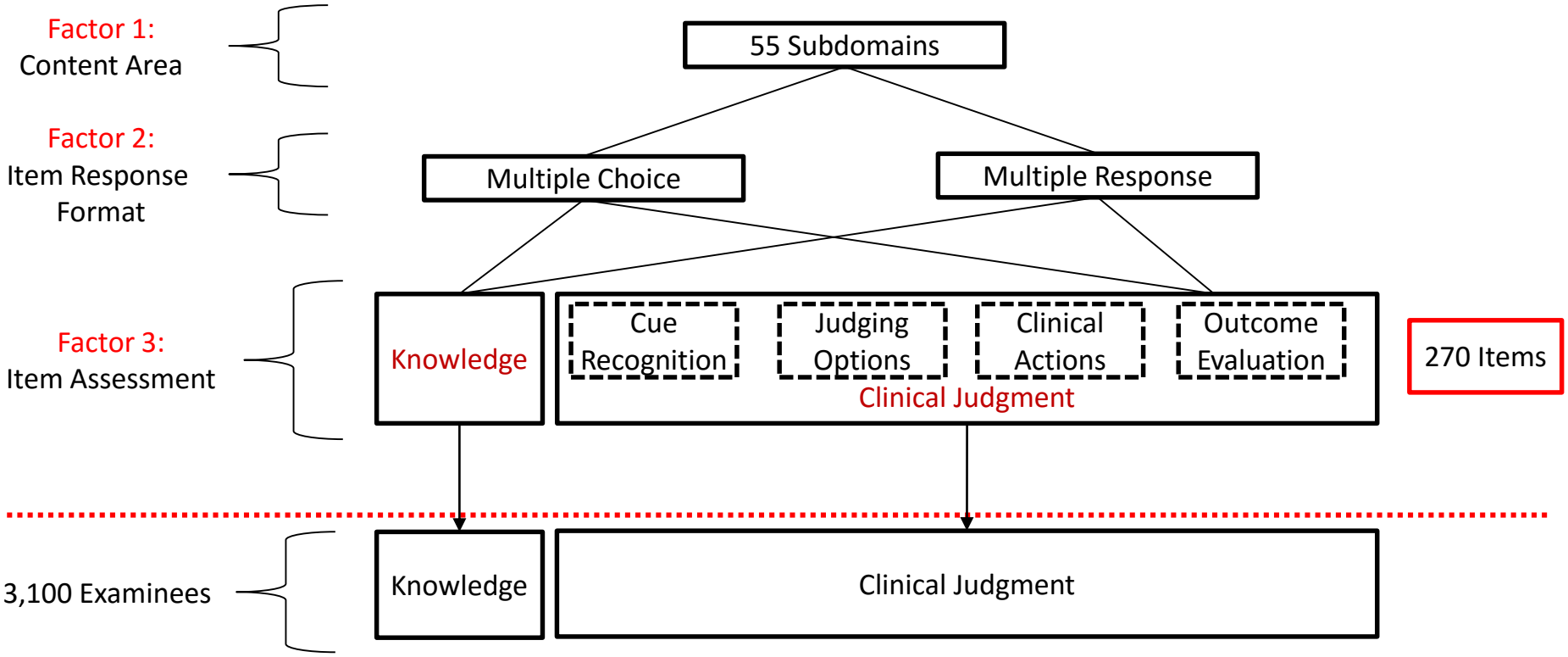
Task Model

Cognitive Operation	Factor Conditioning	Expected Behavior
Recognize Cues	Environmental Cues: • Set *location* to *emergency room* • Show *the presence of parent* Patient Observation Cues: • Show *age* to *8-10* • Show *dehydration symptoms* (e.g., dry mucous membranes appear, cool extremities, cap refill 3-4 seconds) • Show/Imply *lethargy* Medical Record Cues: • Show *dehydration symptoms* (e.g., a lower-grade temperature, diarrhea, a poor appetite) • Show/Imply *history of diabetes* • Show/Imply *vital signs* Time Pressure Cue: • Set *time pressure* to *varying with onset of symptoms and current lethargy*	• Recognize *abnormal vital signs* • Recognize *symptoms of dehydration* • Identify *the history of diabetes* • Hypothesize *dehydration* • Hypothesize *diabetes*
Analyze Cues	• Require *knowledge* of *dehydration symptoms* • Require *knowledge* of *diabetes symptoms*	
Prioritize Hypotheses	• Give *vital sign monitors* as *resources* • Set *time pressure* to *vary with vital signs*	• Prioritize *dehydration* • Address *dehydration* • Avoid *glucose*
Generate Solutions	• Require *knowledge* of *dehydration treatment and intervention* • Require *knowledge* of *diabetes treatment and intervention*	
Evaluate Outcomes	Experience: • *Require experience of administering isotonic fluid* Patient Observation Cue: • *Show patient awaking and talking* • *Imply <Set vital signs to varying with action>*	• Check *vital signs* • Check *lethargy*

Additional Research: Pilot Study

- Does clinical judgment require subject matter knowledge?
- Hypothesized causes of faulty clinical judgment
  - Errant decision making
  - Insufficient subject matter knowledge
- How to disentangle sources of errors?

Pilot Study: Methods



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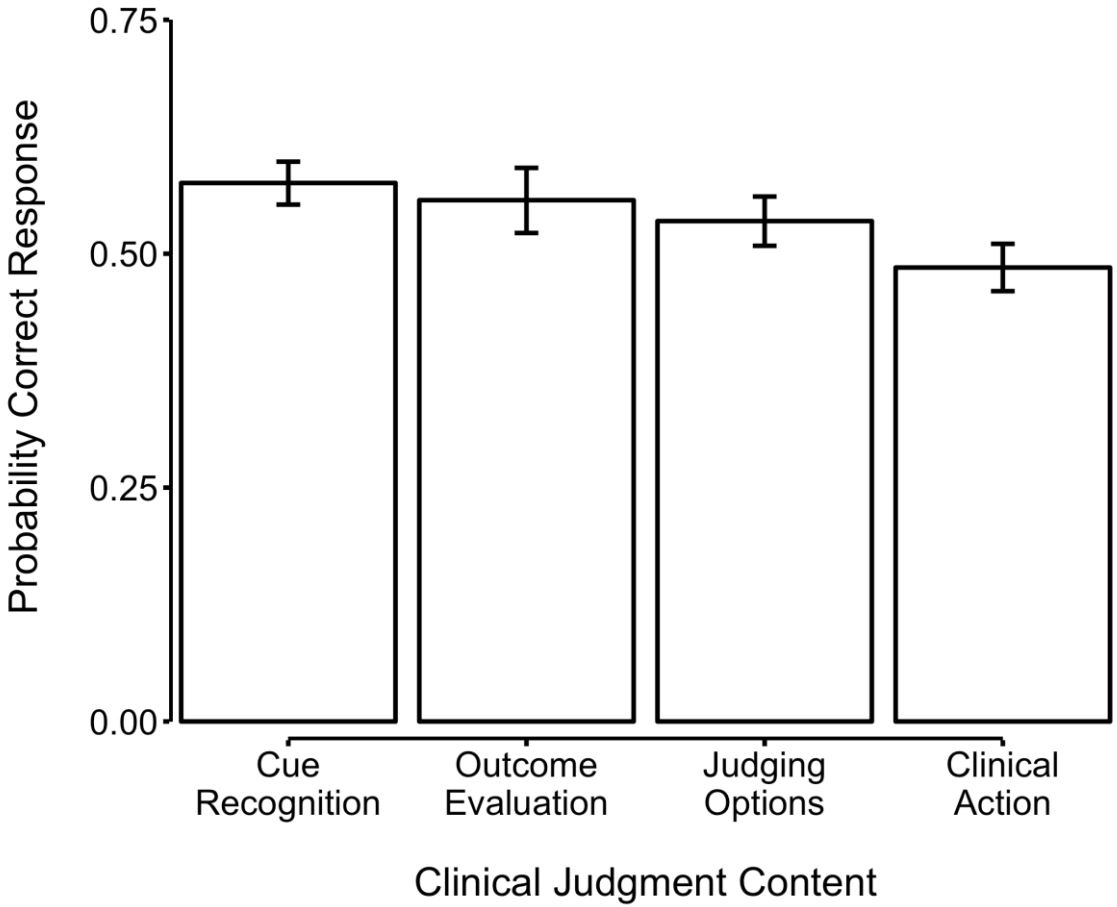
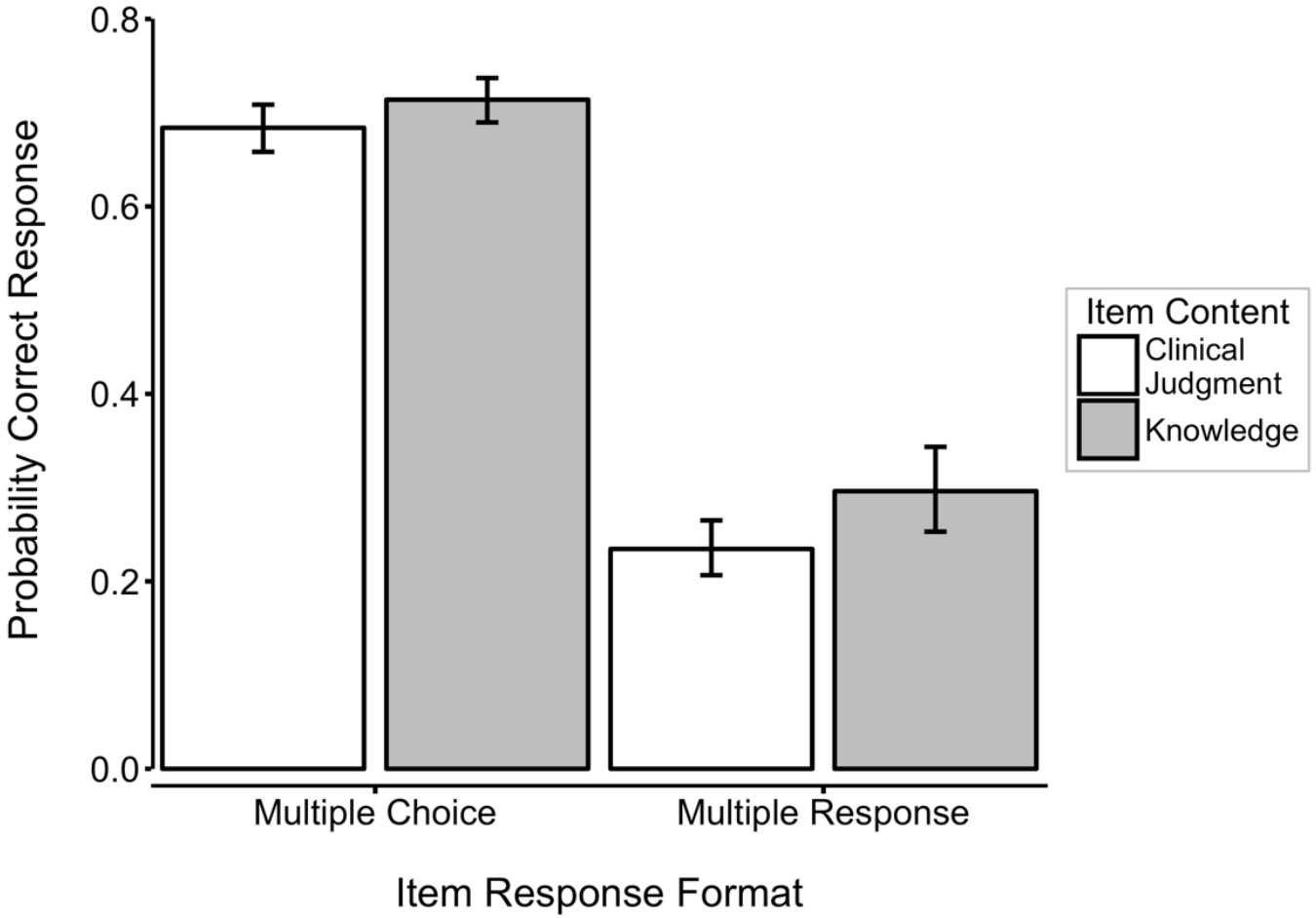
Pilot Study: Results



Pilot Study: Results (cont.)



Discussion and Conclusions

- The proposed cognitive model offered a systematic way to construct clinical scenarios for training purposes.
- Clinical scenarios may be constructed to emphasize different aspects of the clinical judgment processes.
- Preliminary findings from the pilot study suggested that the relationship between knowledge and clinical judgment is asymmetrical.

References and Further Reading

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