The ultimate goal for nursing educators and nursing practitioners is the same: improved outcomes in care. The quality and safety of client care depends on the nursing care delivered. Novice nurses are often called upon to make clinical decisions without benefit of adequate experience. Saintsing, Gibson, and Pennington (2011) report that 80 percent of nursing employers are dissatisfied with novice nurses’ clinical decision-making abilities.

Models for clinical decision-making describe the process nurses use to make decisions. Clinical decision-making is a complex skill that involves combining knowledge, skill, experience, and intuition (Duff, Miller, & Bruce, 2016). The National Council of State Boards of Nursing (NCSBN) has proposed a decision-making model called nursing clinical judgment (NCJ) (Dickison, Luo, Kim, & Woo, 2016). In fact, the NCSBN is conducting a study to construct a tool to measure a higher-order cognitive construct in nursing licensure candidates. This study has led to the Next-Gen NCLEX (NGN), which is being done to assess potential changes to the NCLEX (NCSBN, 2018).

As a result of this research, the NCSBN has developed a conceptual model to synthesize the assessment of their NCJ cognitive task model. This cognitive task model involves the following steps:

- Recognizing cues
- Analyzing cues
- Prioritizing hypotheses
- Taking action
- Generating solutions
- Evaluating outcomes

“Cue recognition is the foundation of all decision-making and is built through knowledge that is gained in nursing school. Some of these factors can be taught or tested to improve decision-making (e.g., cue recognition, hypothesis updating, task complexity)” (Muntean, 2012, p. 3). It therefore stands to reason that nursing education learning activities should incorporate multiple opportunities and methodologies for the development of nursing clinical judgment.

Virtual simulation is just one method of helping educators teach nursing clinical judgment. Nursing and medical educators both utilize simulation to provide clinical practice opportunities in a safe environment. Simulation has been shown to increase patient safety and improve clinical judgment, and it can also act as an adjunct in teaching/evaluating clinical skills (Bearnson & Wiker, 2005). In the Carnegie report, Benner, Sutphen, Leonard, & Day (2009) noted the need to use simulation as a bridge between theory and practice in educating nurses of the future. The NCSBN conducted and published their landmark study on the use of simulation in nursing education in 2014, and since that time, numerous undergraduate programs in nursing have been using and adopting simulation in their clinical-education requirements. The Liaw, Chan, Chen, Hooi, and Siau (2014) study did not show that “virtual patient simulation was
superior to mannequin-based simulation, both simulations have demonstrated to be effective refresher learning strategies for improving nursing students’ clinical performance." However, a strong case for virtual simulation can be made when considering the cost savings, flexibility, and ease of use of virtual simulation over manikin simulation. The virtual simulation provides the student with guidance on “what to do” for a client before learning “how to do it”.

Tschannen, Aebersold, McLaughlin, Bowen, & Fairchild’s (2012) research on the use of virtual simulations for baccalaureate nursing students provides additional evidence to support virtual simulation in nursing education. Their study showed that the addition of virtual simulation improved student performance and added greater access to practice tools, due to lower cost than high-fidelity simulators and the convenience of distance technology (Internet). Practice opportunities for nontechnical skills such as clinical judgment, teamwork, communication, and leadership skills were also available through the simulations.

Similar successful results were discussed in Georg & Zary’s study (2014), which showed development of students’ clinical-reasoning skills and clinical data gathering with the utilization of virtual patients. Duff, Miller, & Bruce (2016) identified that Online Virtual Simulation (OVS) can support acquisition of diagnostic-reasoning skills (clinical judgment) and is comparable to traditional simulation. Deliberate practice using OVS is particularly enhanced when effective and real-time expert feedback is provided during the formative process. Improved learner satisfaction was also noted in this study because the OVS provided more realistic practice than standard patients or manikins, there was timely feedback, the students felt more engaged and enjoyed the “safe environment”, and it was easier for them to practice from any location.

Title:
Next Gen NCLEX and Virtual Simulation

Keywords:
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References:
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**Abstract Summary:**
Many challenges face nurse educators as we move toward the development of the Next-Gen NCLEX. Clinical judgment has been and continues to be a focus for nurses and nursing students. One method of improving/developing clinical judgment in nursing is by adopting virtual simulation methods.

**Content Outline:**
Introduction: The ultimate goal for nursing educators and nursing practitioners is the same: improved outcomes in care. The quality and safety of client care depends on the nursing care delivered. Novice nurses are often called upon to make clinical decisions without benefit of adequate experience. Saintsing, Gibson, and Pennington (2011) report that 80 percent of nursing employers are dissatisfied with novice nurses’ clinical decision-making abilities.
Supporting Point #1a: Clinical decision-making is a complex skill that involves combining knowledge, skill, experience, and intuition (Duff, Miller, & Bruce, 2016).

Supporting Point #1b: The National Council of State Boards of Nursing (NCSBN) has proposed a decision-making model called nursing clinical judgment (NCJ) within the framework of the Next Gen NCLEX (Dickison, Luo, Kim, & Woo, 2016).

Main Point #2: “Cue recognition is the foundation of all decision-making and is built through knowledge that is gained in nursing school. Some of these factors can be taught or tested to improve decision-making (e.g., cue recognition, hypothesis updating, task complexity)” (Muntean, 2012, p. 3).

Supporting Point #2a: Nursing education learning activities should incorporate multiple opportunities and methodologies for the development of nursing clinical judgment.

Supporting Point #2b: Virtual simulation is just one method of helping educators teach nursing clinical judgment.

Main Point #3: The call for the transformation of nursing education and the evidence in the literature encourages the development of an innovative solution that will play an important role in nursing education and care delivery.

Supporting Point #3a: The opportunity to use virtual simulation in an educational setting provides multiple benefits for students, faculty, and patients.

Supporting Point #3a: Benefits include measurable feedback for student performance, no-risk decision making and opportunity for students to interact with virtual clients.

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