Assessing and Correlating Nursing Clinical Decision Making to NCLEX-RN® Outcomes

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Introduction
Determining a student’s ability to implement Nursing Clinical Judgment (NCJ) in the clinical setting is paramount to positive patient outcomes. Deficient clinical decision-making could be caused by lack of content knowledge resulting in diminished recognition of cues and therefore decisions will be based on insufficient information. Nurses make better decisions with clinical experience yet novice nurses have limited experience in the clinical setting. This limited experience with identifying patient care problems leads to an increased potential for errors in decision-making.

Background
Novice nurses are called upon to make clinical decisions often without benefit of adequate experience. Only 20% of employers report being satisfied with the novice nurses’ clinical-decision-making abilities (Saising, Gibson & Pennington, 2011). The quality and safety of patient care depends on the nursing care delivered. The National Council of State Boards of Nursing (NCSBN) in the United States is undergoing a study to construct a tool to measure a higher making abilities (report being satisfied with the novice nurses’ clinical decision making without benefit of adequate experience. Only 20% of employers

Steps in Clinical Decision Making (Nursing Clinical Judgment)
1. Recognizing Cues
2. Generating hypotheses
3. Judging hypotheses
4. Taking action and
5. Evaluating outcomes
(Muntean, 2015).

Objectives
- Correlate a student’s ability to utilize a decision-making model to correctly answer NCLEX-RN®-style assessment items.
- Determine gaps in the student’s ability based on their performance on steps in the decision making model.
- Correlate the student’s ability with their outcome on the NCLEX-RN®.

Description
Clinical Decision Making models describe the process nurses use to make decisions. The information-processing model provides a systematic framework, which enables nurses to describe how they arrive at decisions (Banning, 2007). One example of a clinical decision-making model is the Kaplan Decision Tree, utilized in the Kaplan Review Course (preparation for the NCLEX®). Figure 1 below shows how the steps of the Kaplan Decision Tree (KDT) mirror the steps of the Nursing Clinical Judgment model as described by Muntean (2013). The KDT provides an algorithm for nursing students to utilize in answering NCLEX-RN®-style test items.

NCBSN Clinical Judgment Kaplan Decision Tree Alignment

Methodology
After a 6 month collection period, 1,552 student records were reviewed retrospectively to determine student performance on the NCLEX-RN®-style test items (n=1,410,180) from the Kaplan NCLEX® Qbank. Incorrect Qbank items were analyzed to determine which step of the Decision Tree was missed. Cumulative review of the missed steps were compared with NCLEX® outcomes to determine any correlation with specific steps of the Kaplan Decision Tree and failure of the NCLEX® itself.

Discussion
Figure 2 looks at the scores on each step of the Decision Tree based on whether the student passed/failed the NCLEX-RN®. There were statistically significant differences in the scores on all steps between the students who passed and those who failed. As may be expected, the mean student scores decreased as the steps of the decision tree became more difficult. The exception here would be on Step 1 (topic of the question) which appears to be as difficult as Step 5 (outcomes). This data is to be explored further.

ANOVA results (Figure 3) compared the change in score between students who passed and those who failed. The only significant difference in this data was the change in score from Step 1 to Step 2. This implies that the step between 1 & 2 is the most difficult step – resulting in scores decreasing. This was an unexpected finding and is opportunity for future study. We have found that “good” test takers know what a test item is asking and what the outcome would/should be, thus showing their clinical decision making ability. If a student has difficulty with identifying the topic of the test item, this may portend their ability to answer the item correctly.

Summary
The steps of the Kaplan Decision Tree (KDT) mirror the steps of the Nursing Clinical Judgment model as described by Muntean (2013). A six month review of 1,552 nursing students’ decision making results on 1.4 million NCLEX®-style test items were evaluated (Figure 4).

Further study is recommended to validate this finding and to determine if a method for assisting students in learning how to determine the topic of the test item leads to improved clinical decision making and therefore passing the NCLEX-RN®.

Figure 1

45
46
48
50
52
58

Figure 2

40

Figure 3

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Figure 4

6 months
1,552 students
1,410,180 items

Literature Cited

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