The Effect of Preparatory Interventions on Performance on Comprehensive Assessments and the National Council Licensure Examination of Graduating Baccalaureate Nursing Students
PURPOSE

- This study compared the effect of two different preparatory interventions on the performance on comprehensive assessments by achievement level and degree status of graduating nursing students, and the relationship of these scores to the first-time pass rates on the National Council Licensure Examination (NCLEX).

- The graduates’ perceptions of the preparatory activities were also explored.
Nursing programs prepare students for professional practice, but employment as Registered Professional Nurses is contingent on obtaining licensure.

Changes to the NCLEX has increased the challenge in passing this test.

The need to provide specific NCLEX preparation prior to graduation is now recognized, but variation in current research precludes establishment of best practices to improve outcomes.
SIGNIFICANCE

- Graduates’ inability to pass on first testing attempt has significant effects on:
  - candidates
  - nursing programs
  - nursing profession

- It is important to identify effective strategies to improve/maintain high first-time pass rates to minimize candidates’ delay in obtaining licensure and entering into practice.
SAMPLE

- The sample of 109 participants was obtained from the nursing graduates of one semester.
- Only participants who took both exit assessments and the NCLEX-RN during the data collection period were included.
- Institutional permission to conduct this study was obtained.
Students were randomly assigned to one of two preparatory interventions:

- 54 students were assigned to attend the faculty-led onsite review class
- 55 were assigned to participate in the online review program

Analyses identified no significant difference in the two groups prior to the intervention.
METHOD

- Students took the web-based standardized exam (Form A) in a proctored setting 2 months prior to graduation; their scores were reported upon completing this assessment.
- All the students were required to participate in the intervention to which they were assigned.
- One month later, the students took Form B of this assessment; this was conducted and reported in the same manner as the first.
METHOD

- After graduation, candidates took the NCLEX-RN; their pass-fail status was reported to the school by the state.
- Surveys were sent to graduates who took the NCLEX-RN to obtain their input about the preparatory activities.
- Exam scores, demographic data, GPAs were obtained from college records.
INSTRUMENTS - EXAMS

- Assessment Technology Institute (ATI) RN Comprehensive Predictor® Form A and B (2007)
- 180 item computerized assessment accessed through the internet (150 scored items)
- Designed to be similar to the NCLEX-RN
- A reliability & validity reported by ATI
  - 86.9% of students performed on the NCLEX-RN as predicted by this assessment
  - Alpha coefficients of .79 for both versions
INSTRUMENT-SURVEY

- The survey included 16 scaled items, 2 fixed response and 2 open ended questions. Age and primary language spoken at home was self-reported.
- Evaluated for clarity, preciseness and content; reliability established in a previous study.
- Factor Analysis- 3 interpretable factors
  - Participants’ perception of their confidence level, the benefit of the intervention, the impact of personal factors.
- Reliability: alpha coefficient obtained was .842
RESULTS – ENTIRE SAMPLE

- There was a statistically significant increase in the scores from pretest (M = 62.31, SD = 8.51) to posttest (M = 65.36, SD = 8.26), \( t(108) = 5.434, p = .000 \) (two-tailed).

- The differences in performance by achievement level and degree status were not significant.

- There was also a significant relationship between the posttest scores and NCLEX outcomes (\( r = .405, p = .000 \)).
A multivariate analysis revealed a statistically significant increase in pretest and posttest scores for students in both intervention groups, \((p = .000)\); the difference in performance on assessments and NCLEX outcomes between the groups was not statistically significant.
RESULTS – SURVEY

- Descriptive statistics used to analyze survey responses revealed a variation in the perceived benefit of these interventions reported by participants.

- All of the students that entered positive comments for the online review were in the high achievement group whereas students who rated the online review negatively were in the average or low achievement group.
DISCUSSION

- Use of targeted preparation can promote success on NCLEX-RN.

- Offering alternative methods of preparation that are deemed effective may be considered to promote efficiency and acceptance.

- Inconsistency in the benefit perceived by the participants supports the likelihood that other factors impact the effectiveness of resources for the individual learner including aptitude and learning style.
RECOMMENDATIONS

- Repeat this study in other baccalaureate programs with a larger sample and a control group.

- Conduct further research that compares the effectiveness of different interventions based on students aptitude and preference.