Identifying the Impact of a Designated Education Unit Experience on Clinical Reasoning in Associate Degree Nursing Students

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Background

• Development of clinical reasoning in NLNs—demonstrated as decision making in practice
• Seamless transition-IOM recommendations for realistic clinical experiences
• DEU—variety of models, outcomes assumed but not well documented
• Critical Thinking research—imperative in nursing for successful practice; rarely measured
• Advisory Board—Critical Thinking Diagnostic developed for use in variety of skill levels
• Outcomes for DEU in respect of impact on critical thinking not found

Purpose

The purpose of this project is to identify the impact of the DEU experience on Associate Degree nursing students critical thinking ability.

Design

Longitudinal study of repeated measures with Pre-and-Post Assessment of student groups in an Associate Degree (AD) nursing program. IRB approval obtained.

Critical Thinking Diagnostic Tool

• Advisory Board Company Nursing Executive Center’s Critical Thinking Diagnostic (CTD) tool
• 25-item tool reflecting critical thinking components; 1-6 likert scale for self-assessment
• Objectively measures the student’s performance on five areas noted to be components of critical thinking:
  o Prioritization
  o Problem Recognition
  o Clinical Decision making
  o Clinical Implementation
  o Reflection

Methods

• Student groups within course with a DEU experience
• All students given the opportunity to participate
• All students of three identified nursing courses given the Critical Thinking Diagnostic at the beginning of the semester
• Repeated measure at the end of the semester with identification if the student participated in DEU or a regular clinical experience
• Total time for study is 2 academic years or 4 semesters
• All data was analyzed using SPSS (IBM)

Preliminary Results

• Total N after data cleaning = 72 participants
• DEU participants (intervention group) = 21
• Non-DEU clinical experience (control group) = 51
• Overall Mean Pre & Post Scores: P value <.005
  o Significant increase in overall mean scores for the DEU students
  o No significant difference in overall mean scores for the non-DEU students
• Paired T-Test Results: P value <.005
  o In DEU students—All 5 categories were shown to have a demonstrated and significant increase from the measurement
  o In Non-DEU students only 2 of 5 categories had significant increases: Clinical Implementation and Reflection

In running the ANOVA on this preliminary data, there is no statistically significant effect of DEU intervention on Nursing Assessment scores [F (1,70) = 3.192, p = 0.078].

In running the ANCOVA on this preliminary data, there was no statistically significant effect of DEU intervention on Nursing Assessment Post scores after controlling for pre-test scores [F (1,69) = 2.545, p = 0.115].

Discussion

• Longitudinal 2 year study—interim data analyzed for first 72 participants (21 intervention; 51 control)
• Significant increase in overall total scores for intervention group—not control group
• Significant change in critical thinking scores in all categories for intervention group
• Significant change in two of five categories for control group
• Insufficient data to demonstrate significant change between intervention and control groups; however the overall total mean score for intervention students was higher as compared to the control group
• Future implications: Over next two years will explore if the difference is due to the intervention

Overall Pre/Post Mean Scores

DEU Students: Pre/Post Mean Scores by Category

Non-DEU Students: Pre/Post Mean Scores by Category

Hallmark Health System