Enhancing Mental Health Nursing Practicum with Clinical Simulation:
A Comparison of Student Outcomes

April Mouser, DNP, RN
Assistant Professor and Simulation Center Director
Lizann Atkin, MSN, RN
Nurse Lecturer
Indiana University Kokomo School of Nursing

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Disclosure

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Learner Objectives

• The learner will be able to describe the mental health nursing practicum enhanced with 31% clinical simulation.

• The learner will be able to compare and contrast the statistically significant student outcomes between students in a traditional mental health nursing practicum and the practicum enhanced with 31% clinical simulation.
Background

• Decrease in experiential mental health experiences in acute care settings
• Increase in restrictions on student practice opportunities
• Experiential alternatives needed for student learning
  • Clinical simulation
Significance

• Research focused on student perceptions of simulation
  • Anxiety
  • Confidence
  • Self-efficacy
• Limited research on impact of clinical simulation on student learning outcomes
Study Purpose

• To compare student learning outcomes between 2 groups of students:
  • Traditional practicum
    • 8.8% or 8 hours of clinical hours are spent in simulation
  • Practicum enhanced with 31% clinical simulation
    • 28 hours in simulation
Research Design, Setting, Sample

- Paired t-test experimental design
- Indiana University Kokomo, regional university campus
- Convenience Sample
  - Students self-enrolled into practicum sections
  - Data includes students over 3 semesters involving 6 clinical groups
- Sample (n=35 pairs of students)
  - 18 years or older
  - Enrolled in mental health practicum
Defined Student Learning Outcomes

• Didactic Course Performance
  • Includes exam grades and final course grade
• Standardized Test Performance
  • Nationally normed exam with mental health focus
• Purposefully excluded practicum course grades
Procedures

• Institutional and IRB approval
• Self-enrolled into practicum sections
• Data collected
• Performed analyses of descriptive statistics and paired t-test means
Traditional Practicum Simulation

- Experienced 2 simulations
  - Orientation to Mental Health
  - Adverse Medication Effects or Suicidal Ideation
    - Serotonin Syndrome
    - Extrapyramidal Symptoms
    - Neuroleptic Malignant Syndrome
Enhanced Practicum Simulation

• Experienced a series of 7 simulations
  • Orientation to Mental Health
  • Assessment of Common Mental Health Disorders
    • Anxiety and Substance Abuse
    • Schizophrenia
    • Depression
  • Common Adverse Medication Effects of Antipsychotic and Antidepressant Medications
    • Serotonin Syndrome
    • Extrapyramidal Symptoms
    • Neuroleptic Malignant Syndrome
• Suicidal Ideation
• Use of Restraints
Analyzing Student Learning Outcomes

• Analyzed using matched pair t-tests and aggregate data
  • Students matched within and across semesters based on nursing program grade point average (GPA)
  • Nursing program GPA
    • Excludes any courses that are not nursing courses
Sample Characteristics

- N=35 pairs (70 total participants)
- Average nursing GPA
  - Enhanced practicum: 3.191
  - Traditional practicum: 3.1885
- Average didactic grade
  - Enhanced practicum: 2.925
  - Traditional practicum: 2.7083
# Significant Findings

## Paired Samples Test

**Students with Nursing GPAs of 3.25 (out of 4.0) or Less**

<table>
<thead>
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<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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<td>.15884</td>
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Significant Results

• Students in the experimental group with average nursing GPAs of 3.25 (out of 4.0) or lower and/or who had previously repeated nursing coursework showed significant positive differences in student learning outcomes over the students with matched GPA in the traditional practicum.

• n=27 pairs
Additional Findings

- No significant difference noted among students with nursing GPAs of 3.26 or higher on the didactic course grade or standardized testing performance.
- n=8 pairs
Discussion

• Increased Clinical Simulation
  • Improves student learning outcomes and performance in higher risk student populations
  • Nursing GPAs of 3.25 or lower
  • Previously repeated nursing coursework
Limitations

- Sample from one site, regional university campus
- Convenience sample
- Limited descriptive statistics
- Self-enrollment