Implementation and Evaluation of Home Health Simulation to Improve Pre-licensure Bachelor of Science Nursing Students’ Learning: An Action Research Study

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Disclaimer: Faculty Disclosure

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Goals and Objectives

- **Session Goal:**
The learner will know the value of home health simulation in pre-licensure nursing programs.

- **Session Objectives:**
  1. The learner will be able to understand the impact of student attitudes with alternative learning methods.
  2. The learner will understand the impact of an action based study for making a system change using a triangulation process.
Context, Target Population, Recruitment, & Sample

- BSN students in private, proprietary nursing program in a Midwestern metropolitan area enrolled in 300 level community health course
- Accredited by the ACEN
- Simulated home health environment
- Consented student volunteers
- Sample: 27 participants
  - June \( (n=14) \) 5 groups of students
  - August \( (n=13) \) 4 groups of students
Research Questions

1. What is the impact of the BSN student perceptions of learning with the use of home health simulation?
   a) Is there a statistically significant difference in nurses' perceptions of learning after completing a home health care simulation?
   b) What patterns of responses will be identified with the focus groups related to their perceptions of the home health learning experience?
   c) What are the results with comparing two cohorts of students who are participating in the home health simulation that show improved student perceptions of learning as a whole?
Literature Review

- History of High Fidelity Nursing Simulation
- Safety & Patient Care
- Home Health Simulation
- Gap:
  - Lack of evidence regarding value of home health simulation for clinical learning
  - Lack of standardizations of the process
Theoretical Framework

Bloom’s Taxonomy
- Adult Learning Theory
- Higher levels of learning

Kirkpatrick’s Evaluation model
1. Reaction of the learning process
2. Learning that took place
3. Behavior changes*
4. Results of the learning process
Methodology

- Action-based research study
- Descriptive triangulation process
- Quantitative methods
  - Pre & post survey
  - Observation
    - field notes on group simulations
- Qualitative method
  - Focus group interviews
    - Grounded Theory approach
Instrumentation Background

- Adapted/modified with permission from Colorado Center of Nursing Excellence training
- QSEN
  - Based on 5 out of 6 competencies
    - Patient-centered care
    - Teamwork & collaboration
    - Evidence-based practice (EBP)
    - Quality improvement
    - Safety
- Simulation day:
  - High fidelity mannequin used to simulate an Elderly woman in home setting
Data Collection and Analysis

Quantitative

- Pre and post surveys
  - 11 questions/Likert scale 1-5

Analysis

- Measures of central tendency
  - Nonparametric
  - Mann-Whitney U test due to small sample size
  - Software used (SPSS 22)
  - \( p < 0.05 / 95\% \) CI
Data Collection and Analysis

Quantitative

- Observation tool
  - 11 questions/Likert scale 1-5
- Observation Questionnaire
  - Frequency (%) of ratings for each simulation group within each cohort
Data Collection and Analysis

Qualitative

- Focused group interviews
  - Focus group interviews
  - 12 open-ended guided reflection questions facilitated by researcher
  - digitally recorded & transcribed verbatim

- Analysis
  - Dedoose software
  - Axial thematic coding analyzed until saturation
1. What statistically significant differences are there with nursing students’ perceptions of learning after completing a home health care simulation?

- Pre & post survey results:
  - June Cohort:
    - Competency \((p=0.008)\)
    - Teamwork \((p=0.04)\)
    - Education \((p=0.009)\)
    - Value of Home Health Simulation \((p=0.005)\)
  - August Cohort:
    - No statistical significance noted
Result and Discussion

1 b. What patterns of responses will be identified with the focus groups related to their perceptions of the home health learning experience?

- 3 themes
  1. Awareness of the value of learning through the home health simulation experience
  2. Knowledge deficit of the home health nursing role
  3. Home health care is in an unfamiliar setting
Result and Discussion

1c. What are the results with comparing two cohort of students who are participating in the home health simulation that show improved student perceptions of learning as a whole?

- Comparing June and August cohorts with:
  - Pre/Post online survey results
  - Observation tool results
Research Question 1c (continued)

STRENGTHS
(Likert scale 2 or above)
• June & Aug Cohorts
  • Patient care*100%
  • Communication
  • Education
  • Patient centered care Teamwork: 100%
  • Professionalism

WEAKNESSES
(Likert scale 3 or below)
• June & Aug Cohorts
  • Organizational skills: June 80% & August 50%
Final Result and Recommendations

1. What is the impact of the BSN student perceptions of learning with the use of home health simulation?
   - Enhanced learning
   - Recognized value
   - Recognized lack of knowledge
   - Identified challenges unique to care in home health setting.
   - Recognized their own limited critical thinking & decision-making skills in this unfamiliar home health nursing role

   **Recommendations:** System change
   - Add home health simulation in course.
Conclusion

• Simulation provides valuable clinical delivery method for pre-licensure BSN students to learn about the home health nursing role.

• Student perceptions of learning:
  • Valued high fidelity home health simulation experience
  • “Prepares you”
Questions?
References


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