Background/Significance

• Nurses' optimal responses to adverse or near miss events and their inclusion in resultant root cause analyses promotes a safe health care environment (Keatign, 2013)
• Most student nurses do not experience adverse events nor participate in root-cause analysis.
• Simulation is an experiential teaching technique “to replace or amplify real experiences with guided experiences that evoke .... substantial aspects of the real world in a full interactive manner” (Gaba, 2004, p. i2)
• Simulation has been used in pre-licensure nursing programs to develop students’ QSEN competencies (Piscotty, Grobbel & Tzeng, 2011).

Purpose

To evaluate student self-reported QSEN competencies before & after experiencing a multi-patient simulation which included a near miss/adverse event.

Methods

Quantitative Pre/post test

<table>
<thead>
<tr>
<th>Competency</th>
<th>Pre</th>
<th>Post</th>
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<tbody>
<tr>
<td>Patient Centered Care</td>
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<td>Evidence-Based Practice</td>
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<td>Teamwork &amp; Collaboration</td>
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<td>Quality Improvement</td>
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<td>Informatics</td>
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- QSEN Competencies (Knowledge/Skill/Attitude):
- Measured using The Nursing Quality and Safety Self-Inventory (Piscotty, Grobbel, & Adele, 2013)
- 7 point Likert-type scale: Strongly Agree → Strongly Disagree
- Pre-simulation experience; Post after debriefing

Simulation Scenario

- 6-8 Students randomly assigned roles on 4-patient simulated med/surg unit: Primary RN; Charge RN; LVN; CNA; Clerk; Resource RN; Family Members
- All oriented to “unit”
- Individually oriented to role

Sample

- 87 Nursing Students: 2nd degree BSN
- Leadership course
  - 64 females, 23 males
  - Mean age: 29.7 years
  - Most held BS in life science, human development, or psychology.

Pre & Post mean scores compared

• Total Score
• Total for each competency (K/S/A)
• Total for K/S/A

Results

- Significant improvement in the Total Quality Improvement Competency pre/post scores (p=.004).
- No difference in the Total pre-post scores.
- No difference in K/S/A pre-post scores.

Near Miss / Adverse Event

- Lack of patient allergy information (No documentation in EMR)
- Patient unreliable historian
- Scenario halted when the near miss/adverse event occurred

Debriefing

- Reflection
- Student lead/instructor facilitated root cause analysis of event.

Conclusions

- Adverse event simulation was an effective learning methodology
- QSEN Self-Inventory is useful to evaluate student learning.