Use of Simulation to Improve Student Confidence

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Disclosure Statement

Dr.’s Showalter and Amiri do not have financial interests, sponsorships, relationships, nor conflict of interests with any of the products and/or services discussed in the program.
Learning Objectives

• Compare and contrast student perception of readiness for clinical and anxiety/nervousness level without and with the interventional simulation model.

• Appreciate the benefit of conducting a simulation prior to student entry to clinical in the acute care setting.
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<thead>
<tr>
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<th>Traditional Model</th>
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<tbody>
<tr>
<td>1.</td>
<td>Orientation: didactic</td>
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<tr>
<td>2.</td>
<td>Hospital</td>
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<td>3.</td>
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<td>4.</td>
<td>Hospital</td>
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<td>5.</td>
<td>Hospital</td>
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<td>6.</td>
<td>Simulation lab: comprehensive</td>
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Problem

• OB class: Unfamiliar, short

• Clinical: Student
  – Unprepared
  – Anxious
  – Fearful
  – Insecure
  – Lacking skills
**Student Feedback: Traditional Model**

- “I didn’t feel ready for this clinical”.
- “It would have been helpful to have been exposed to more fetal strips”.
- “Let us brush up on skills and learn new ones prior to first day in hospital”.
- “Great program but we need to know how to put on fetal monitors before getting to the patient’s room”.
- “Do sims early in the course or at least before clinicals”.
ROL

• Nursing students experience increased levels of depression, anxiety, and stress (Parkes, 1982; Beck & Srivastava, 1991; Pryjmachuk & Richards, 2007; Papazisis et al., 2008).

• High stress and anxiety impede concentration, memory, and problem-solving ability; affects academic performance and learning (Beddoe & Murphy, 2004).

• Simulation decreased anxiety in Nursing students prior to clinical entry (Szpak & Kameg, 2011, Megel et al., 2012, Doolen et al., 2014).

• Simulation enhanced students’ communication skills and confidence. (Doolen et al., 2014).

• Skill-practice program helped students increase their competence and confidence (Lioua, Changa, Tsaib, Chenga, 2013).

• Competence and self confidence are the most important factors in allowing students to make appropriate decisions in patient care (Hagbaghery et al., 2004).
METHODS

• Non-randomized interventional study

• Population: BSN senior students enrolled in OB class

• N= 132
  – 43: traditional model
  – 89: interventional model

• Demographics:
  – Age : mean 24.26 (SD: 5.1, range:21-44)
  – Gender: female 90.5% Male 9.5%
• Outcomes measured (Post-test):
  – nervousness/anxiety, discomfort
  – preparedness for clinical

• Likert scale: 1-none, 2-some, 3- moderate, 4-severe
# Interventional Model

1. **Orientation**: didactic

2. **Simulation lab (formative)**: FHT/EFM, labor support, cervix, birth, communication, postpartum assessment

3. Hospital

4. Hospital

5. Hospital

6. **Simulation lab**: Comprehensive
Results

Nervousness/anxiety and discomfort about first OB clinicals
The level of nervousness/anxiety and discomfort before starting clinical rotations
Results

Prepared: Fetal heart rate (p<0.01)
Results

Prepared: Application of fetal monitor (p<0.001)
Results

Prepared: Assessment of uterine activity (p<0.01)
Results

Prepared: Assessment of labor pain (p<0.001)
Prepared: Assessment of cervix (p<0.01)
Results

Prepared: Postpartum Assessment (p<0.001)
Results

![Bar chart showing results for traditional and interventional models with data points labeled as follows: traditional model - 2.3, 48.8, 27.9, 20.9 percent; interventional model - 6.3, 34.1, 22.7, 36.4 percent.]

Prepared: Communication (p<0.05)
Nervousness/anxiety and discomfort reduction after simulation.

Results

Discomfort level (Likert scale 1-4)

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<tr>
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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>nervousness</td>
<td>8</td>
<td>19.5</td>
<td>36.5</td>
<td>35.6</td>
</tr>
<tr>
<td>discomfort</td>
<td>8.1</td>
<td>18.6</td>
<td>37.2</td>
<td>36</td>
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</table>

Nervousness/anxiety and discomfort reduction after simulation.
### Student Feedback: Intervention Model

- “A needed step prior to going into clinical”.

- “The first simulation helped me transition to the hospital setting.... I felt confident on my first day at the hospital”.

- “The first simulation day showed me what to do when I actually got to clinical”.

- “After the first simulation I was no longer nervous, but excited. I knew what to expect”.

- “I still struggled with the communication piece”.

Limitations

• Randomization
• Faculty variance
• Sample size
• Post-test design
Considerations for Future Research

• More Research
  – Relevant to OB clinicals
  – Relevant to course outcomes
  – Relevant to client outcomes
Looking Ahead

• Communication
• Cervical assessment
• Faculty consistency
• Utilize standardized instruments
Findings: Summary

*A pre-clinical simulation-based session can decrease student nervousness/anxiety and discomfort and can improve their sense of “readiness” to deliver patient care.

*Pre-clinical simulation-based teaching should be considered a viable option for preparing students for clinicals.
Thank You!

Questions?
References


