The Role of Simulation in Bridging the Preparation to Practice Gap

Sandra Rader, DNP, MSA, RN, NEA-BC
Chief Nursing Officer and VP, Patient Care Services
UPMC Presbyterian Shadyside, Shadyside Campus
Learning Objectives

• Identify the use of simulation for new graduate nurses.

• Describe the challenges new graduates face in the work force.
UPMC Shadyside

- 520-bed acute care facility with specialties in Oncology, Orthopedics, Cardiology, Neurosurgery
- UPMC Shadyside School of Nursing
- Magnet designated in 2010
Bridging the Gap: Partnering with Education

• Budgetary constraints
• Nursing workforce shortages
• Insufficient clinical learning experiences
Bridging the Gap: Partnering with Education

Academic Service Partnership Council

**Mission:** Serve as an exemplar nursing academic-service partnership to promote best practices within collaborative, working learning environments
Bridging the Gap: ASPC Goals

- Streamline faculty orientation process
- Share capacity projections across academic partners to provide the basis for a proactive nursing student placement model
- Pilot creative clinical placement models
- Incorporate the Institute of Medicine future of nursing corporate report recommendations
Bridging the Gap: The Importance of Simulation

- Literature shows that 65-75% of new graduate nurses are not at a safe entry level of practice to meet current hospital demands. (Del Bueno, 2005)
- UPMC hired 675 new graduate nurses in FY 2011
- Turnover rate = 9%
- Cost of turnover = $31,564
Bridging the Gap: Improved Clinical Performance

Literature Review

- Simulation still in the development phase.
- Literature not clear regarding the correlation between simulation and improved clinical performance (Nehring and Lashley, 2004)
Bridging the Gap: Improved clinical performance

Literature review

• Aspects of simulation practice supported in the literature
• Developing scenarios to meet specific learning objectives
• Planning scenarios so they are appropriate to student level and learning
• Using a planned debriefing strategy
• Employing a theoretical framework to plan and guide a simulation
Bridging the Gap:
Improved Clinical Performance

• Simulation is not a substitute for clinical rotations
  – Declining census
  – Refusal to permit students in critical care units
• Simulation is not a substitute for faculty shortages
• Simulation is not a substitute for a clinical orientation
Simulation + Traditional Clinical Hours = Favorable Student Outcomes.
Bridging the Gap: Student Perceptions

Study completed by Casida and Shpakoff

- 209 teaching evaluations completed
- 15 items asking students agreement about the effectiveness of simulation on learning outcomes in three domains
  - Cognitive
  - Psychomotor
  - Affective
- One open ended item asking students to comment about their overall experience with simulation
# Bridging the Gap: Student Perceptions

Table 1  Student Perceptions of the Effectiveness of Simulation as a Teaching Strategy

<table>
<thead>
<tr>
<th>Learning Domains</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Critical thinking</td>
<td>3.4</td>
<td>0.58</td>
</tr>
<tr>
<td>• Theoretical application</td>
<td>3.5</td>
<td>0.63</td>
</tr>
<tr>
<td>• Organization and prioritization</td>
<td>3.3</td>
<td>0.74</td>
</tr>
<tr>
<td>• Outcome evaluation</td>
<td>3.4</td>
<td>0.72</td>
</tr>
<tr>
<td>Psychomotor</td>
<td>3.3</td>
<td>0.57</td>
</tr>
<tr>
<td>• Head-to-toe assessment</td>
<td>3.4</td>
<td>0.72</td>
</tr>
<tr>
<td>• Management of acutely/critically ill patient</td>
<td>3.6</td>
<td>0.59</td>
</tr>
<tr>
<td>• Interpretation of normal electrocardiogram</td>
<td>3.5</td>
<td>0.67</td>
</tr>
<tr>
<td>• Hemodynamic monitoring</td>
<td>3.3</td>
<td>0.74</td>
</tr>
<tr>
<td>• Arrhythmia management</td>
<td>3.5</td>
<td>0.88</td>
</tr>
<tr>
<td>• Pacemaker management</td>
<td>3.0</td>
<td>0.88</td>
</tr>
<tr>
<td>• Manipulation of vasoactive drugs</td>
<td>3.3</td>
<td>0.77</td>
</tr>
<tr>
<td>Affective</td>
<td>3.4</td>
<td>0.57</td>
</tr>
<tr>
<td>• Overcome anxiety</td>
<td>3.1</td>
<td>0.85</td>
</tr>
<tr>
<td>• Build confidence</td>
<td>3.2</td>
<td>0.71</td>
</tr>
<tr>
<td>• Teamwork</td>
<td>3.7</td>
<td>0.55</td>
</tr>
<tr>
<td>• Reflective practice</td>
<td>3.5</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Note. Rating scale used: 4-point Likert-type scale (1 = strongly disagree, 2=disagree, 3=agree, 4=strongly agree)

Bridging the Gap: Student Perceptions

• Applying theoretical knowledge
• Actualizing the management of a complex patient
• Working with teams
• Reflecting on their actions specific to clinical judgment, reasoning, and accountability
Bridging the Gap: Student Perceptions

Minimal impact - Overcoming anxiety related to caring for an acutely/critical ill patient in a simulated environment
Bridging the Gap: Innovative Uses of Simulation

Lauren’s blog

• Collection of fictitious stories based on real situation.
• Includes character photographs and biographical information
• Purpose – enhance and reinforce management/leadership concepts that are needed in the professional nurse practice.

Lauren’s Blog

- Stress
- Time management issues
- Team building
- Organizational risk during her weekly shifts
- Conflict in the workplace
- Coaching
- Disciplinary measures, and the termination of a coworker
- Power and politics
- Legal and ethical issues

Questions her decision to become a nurse, experiences frustration with coworkers, becomes emotionally involved and demonstrates signs of early burnout.
Bridging the Gap:
Shadyside School of Nursing Simulation Lab
Bridging the Gap: Shadyside School of Nursing Simulation Lab
Bridging the Gap: Simulation Promotes Teamwork
Bridging the Gap: Simulation Promotes Collaborative Practice
Bridging the Gap: Simulation Promotes Interdisciplinary Relationships
Bridging the Gap: Simulation Promotes Leadership

Nurses as leaders at every level of the Organization
MyResidency Program

Looking Toward the Future

New nurse news from September December, 2011 will begin the 2012 cohort.
Each new nurse will receive an email confirmation for each scheduled meeting. At this time either the new nurse or the IDR should register participants via elearn.

2012 Cohort 1:
New hires from September, October, November & December, 2011:
- January 17, 2012 (Tuesday)
- February 9, 2012 (Thursday)
- March 9, 2012 (Friday)

2012 Cohort 2:
New hires from January, February & March, 2012:
- April 4, 2012 (Wednesday)
- May 7, 2012 (Monday)
- June 18, 2012 (Monday)

2013 Cohort 3:
New hires from April, May, June, July & August, 2012:
- September 26, 2012 (Wednesday)
- October 8, 2012 (Monday)
- November 1, 2012 (Thursday)

uLearn Registration Directions:
- When on the elearn home page, select MyResidency.
- Select the Clinical Development category.
- Select the MyResidency Learning tool.
- The available MyResidency sessions will be displayed.
- Enroll into the appropriate session 1, 2 or 3 that you wish to attend by selecting the Enroll button.
- Select the Submit (enroll) button.
- A confirmation page will be displayed.

MyResidency Program

The MyResidency program will continue to be three 8-hour sessions (8:00 am - 4:30 pm) over three months. The new nurse is required to attend three sessions in a 6-month period of time, when those sessions will be most helpful. The target group for the fall/winter sessions are new nurses hired in May, June, July and August 2011. Nurses that miss a session can make it up during the next cohort.

Fall/winter 2011 dates:
1. October 10, 2011
2. November 10, 2011
3. December 14, 2011

Program Summary

Clinical Competencies:
- Managing Crisis
- Pain Management
- Palliative Care/Death & Dying
- Patient Safety/Risk Management
- Skin Care
- Geriatric Considerations
- Diabetes Management
- Stroke Care
- Mental Health Care in Clinical Practice
- Monitoring Strategies

Socialization and Self-care:
- Team Building
- Stress Management
- Communication and Networking

Professional Growth and Development:
- Healthcare Delivery Systems
- Quality Improvement Practices
- Evidence-Based Practice
- Inter-professional Relationships
- Priorities, Delegation & Time Management
- Conflict Engagement
- Horizontal Violence
- Incorporating Families into Care

Sessions include core competencies and hospital-specific content. Topics discussed are based on the evaluations and constructive comments of the current cohort.

Professional Portfolio:
All new nurses will be encouraged to develop a professional portfolio. These are to be presented to their Unit Director during their annual evaluation.

Additional Learning:
New nurses will be given a list of additional in-services, conferences and educational programs that they can attend throughout the year. They will be encouraged to participate in educational classes/vessions of their choice. Proof of their attendance should be included in their professional portfolio.

MyResidency program will also encourage the new nurse to consider a certification path. This educational opportunity provides direction towards a successful MyCareer by helping the new nurse develop:
- Clinical Competence
- Social Interaction
- Professional Growth & Development
Bridging the Gap:
UPMC Shadyside New Hire Turnover
FY 07 – FY11
Is there more simulation in your future?

Table 5 Which Statement Best Describes Your Opinion of the Amount of Simulation Used in Your Prelicensure Program?

<table>
<thead>
<tr>
<th>Program</th>
<th>We Should Be Using More Simulation</th>
<th>We are Using the Right Amount of Simulation</th>
<th>We Should Be Using Less Simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>740 (81%)</td>
<td>164 (18%)</td>
<td>3 (&lt;1%)</td>
</tr>
<tr>
<td>Associate</td>
<td>420 (80%)</td>
<td>94 (18%)</td>
<td>2 (&lt;1%)</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>313 (83%)</td>
<td>62 (16%)</td>
<td>1 (&lt;1%)</td>
</tr>
<tr>
<td>Diploma</td>
<td>31 (65%)</td>
<td>16 (33%)</td>
<td>0</td>
</tr>
<tr>
<td>Prelicensure</td>
<td>25 (81%)</td>
<td>5 (16%)</td>
<td>1 (3%)</td>
</tr>
</tbody>
</table>

Questions?