Mock Competencies: An Intervention to Improve Student Outcomes

Jackie Jones, EdD, RN, Associate Professor
M. Penny Ziegler, MSN, RN, Nursing Lab Coordinator
Diana Baughman, MSN, RN, FNP-C, Lab Coordinator
Camille Payne, PhD, RN, Professor
Disclosure

Learner Objectives:

- The learner will be able to explain the impact that stress can have on students enrolled in an undergraduate nursing program.
- The learner will be able to discuss the benefits of developing/designing pedagogical interventions to reduce stress in high-stakes testing situations.

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WellStar School of Nursing

• The WellStar School of Nursing BSN program admits 200-250 students per year
• NCLEX pass rates range 92%-95%

• Students engage in high stakes skills competency testing in two required courses
Skills Competencies

- Taught beginning the first semester of nursing school
- Practiced in both supervised and unsupervised lab experiences
- Assessment of learning, “skills check-offs” or “competency assessments”
- Occurs at multiple points throughout program
- Noted behavioral manifestations of stress: shaking hands, tears, emotional outbursts
- High percentage of first-time failures
Stress

- Negative impact on ability to learn and academic performance (Chernomas & Shapiro; Jimenez, Navia-Osorio, & Diaz, 2013)
- High levels of anxiety, worry, anger, fear, depression, crying, irritability, feelings of rejection and inadequacy, maladaptive behaviors (Reeve, Shumaker, Yearwood, Crowell, & Riley, 2013)
- Can cause students to question their decision to study nursing (Roykenes, Smith, & Larsen, 2014)
Nursing Courses Involved

Nursing Fundamentals

• Six hour nursing lab one day a week for six weeks
• Competency Assessment of Nursing Skills is REQUIRED to pass the course

Adult Health

• Two hour nursing lab for four sessions
• Competency Assessment of Nursing Skills is REQUIRED to pass the course
Intervention

• Mock Competency
• Began Summer 2012 in Adult Health & Fall 2012 in Fundamentals
• Chose a representative sample of testable skills
• Prepare a bedside station
• Make Skill Performance Cards
• Create a Peer to Peer Skills Checklist
• Assign two students per bed
• Decide on a time limit per skill
• Rotate by skill group to the next skill station
Process

• Students reset their bedside station before the next skill begins
• Supplies are re-used during the Mock Competency
• Professors observe students during the process
• Conduct a debriefing session at the end of the class
  • Common errors observed
  • Q&A
Although data collection was retrospective, approval from the Institutional Review Board was obtained from the institution in order to access and obtain de-identified student cohort demographic data.

Informed consent was not necessary, since data were anonymous and reported in collective cohorts.
Demographic Data

- Demographic data were collected for both the Nursing Fundamentals Courses (N =798) and Adult Health Courses (N= 758) for each of the four semesters preceding the intervention and for four semesters following implementation of the intervention.

- Crosstab comparison of GPAs of the four cohorts before and after the implementation of the intervention was non-significant ($p=.333$).
Sample

Generally, KSU nursing students are:

- 80-85% female, 15-20% male
- Mean age: 28-30
- Ethnicity
  - African American = 23 (20%)
  - Asian = 7 (6%)
  - Caucasian = 69 (60%)
  - Hispanic = 7 (6%)
  - Pacific Islander = 1 (<1%)
  - Two or more Ethnicities = 6 (5%)
  - Unknown = 2 (2%)
- US Born = 90%
- GPA = 3.53
Nursing Fundamentals Course

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<tr>
<th></th>
<th>Spring 2011</th>
<th>Summer 2011</th>
<th>Fall 2011</th>
<th>Spring 2012</th>
<th>Fall 2012</th>
<th>Spring 2013</th>
<th>Fall 2013</th>
<th>Spring 2014</th>
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<tr>
<td><strong>Taking Comps</strong></td>
<td>94</td>
<td>56</td>
<td>108</td>
<td>110</td>
<td>95</td>
<td>117</td>
<td>104</td>
<td>114</td>
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<tr>
<td><strong>Passing Comps</strong></td>
<td>44</td>
<td>28</td>
<td>51</td>
<td>41</td>
<td>63</td>
<td>77</td>
<td>64</td>
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<tr>
<td><strong>Percentage Passing</strong></td>
<td>46%</td>
<td>50%</td>
<td>47%</td>
<td>37%</td>
<td>66%</td>
<td>66%</td>
<td>62%</td>
<td>69%</td>
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Adult Health Course

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<tr>
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<td>53</td>
<td>68</td>
<td>115</td>
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<td>82</td>
<td>97</td>
<td>36</td>
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<td>Percentage</td>
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<td>30%</td>
<td>40%</td>
<td>59%</td>
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<td>78%</td>
<td>85%</td>
<td>100%</td>
<td>78%</td>
<td>72%</td>
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Descriptive Student Responses:

• Seeing a check-off list & understanding what will be looked for on competency—it’s the first time I’ve understood what an instructor will be looking for in a concrete format.

• The opportunity to “get” my mistake & be timed to recognize my limitations.

• I appreciated the chance to work with the timer and have a similar situation to what we’ll find in competency. It really opened my eyes to what I need to focus on & also to the fact that time management is key.

• Having the opportunity to find my weaknesses. Feeling more prepared for competencies.


Results

- The results of this study provide beginning support for utilizing peer mentoring and assessment through the use of a Mock Competency strategy.
- Improvement in student pass rates for first time skill assessment, as well as reduction of student stress levels have resulted in improved student outcomes in one undergraduate nursing program.
- Faculty experience more efficient use of time rather than spending an additional month of testing, remediation and re-examination of the skill competencies.
- Students are able to direct their attention back to the learning continuum when they have successfully completed their skills competency experience for the semester.
References


- Roykenes, K., Smith, K., & Larsen, T. M.B. (2014). ‘It is the situation that makes it difficult’: Experiences of nursing students faced with a high-stake drug calculation test. *Nurse Education in Practice.* [http://dx.doi.org/10.1016/j.nepr.2014.01.004](http://dx.doi.org/10.1016/j.nepr.2014.01.004).
Questions?