Validating Nursing Students’ Self-Efficacy Ratings and Urinary Catheterization Skills Using Simulation and iPad Video Debriefing
Disclosure

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• Disclosure statement
  • The authors disclose no financial or non-financial support or sponsorship for this project or presentation.
Objectives

• By the end of this presentation, participants will be able to:

1. Evaluate the process used to validate the level of understanding of senior-level nursing student’s self-efficacy ratings in Foley catheter insertion.

2. Describe how the simulation laboratory, deliberate practice, and video debriefing, were effective in improving student’s self-efficacy in performance of nursing skills including urinary catheter insertion.

3. Understand the deficiencies surrounding nursing student skill and confidence in Foley catheter insertion.
The aim of this study was to validate the level of understanding of senior-level nursing students of their self-efficacy by completing the Clinical Skills Self-Efficacy Scale (CSES) pretest/posttest, deliberate practice in the skills laboratory, and by video recording and debriefing of urinary catheter insertion pretest and posttest.
<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&quot;Do not have a clue&quot;</td>
</tr>
<tr>
<td>2</td>
<td>&quot;Know in theory, but not confident at all in practice&quot;</td>
</tr>
<tr>
<td>3</td>
<td>&quot;Know in theory, can perform some parts in practice independently, and needs supervision to be readily available&quot;</td>
</tr>
<tr>
<td>4</td>
<td>&quot;Know in theory, competent in practice, need contactable sources of supervision&quot;</td>
</tr>
<tr>
<td>5</td>
<td>&quot;Know in theory, competent in practice without supervision&quot;</td>
</tr>
</tbody>
</table>

Two Categories CCQ
1. Nursing Professional Behaviors Questions 1-16
2. Skill Competencies Questions 17-47
Performing urinary catheter insertion and care (junior year)

p-value = 0.3014
Methods

1. Pretest-Posttest design using the CSES
2. Convenience sample of first semester senior baccalaureate nursing students n=21 (88%)
3. iPad technology for video recording pretest-posttest
4. Foley catheter kit with QR code provided to each student

https://www.youtube.com/watch?v=1zoP8nDs Ms
Clinical Skills Self-Efficacy Scale

"How confident are you right now that you can independently perform these skills?"

1. IM injection
2. Insulin
3. Dressing change with Sterile technique
4. Inserting a Foley catheter
5. NG tube insertion
6. Start an IV
7. Transfer a patient from bed to chair
8. Hang secondary medication and program the pump
9. Administer a tube feeding through a PEG tube
Open Lab Hours

Peer Mentoring
Simulation

- Stroke
- Diabetic Ketoacidosis
- Blood Transfusion Reaction
- ST-Elevation Myocardial Infarction
Inserting a Foley catheter

p-value = 0.02507
NG tube insertion

$p$-value = 0.6452
iPad Video Recording Insertion of a Foley Catheter Pretest and Posttest

Video Recording Pretest and Posttest Areas of Improvement

- Open Foley Catheter Kit Without Contamination
- Placing Sterile Drape Under Patient
- Donning Sterile Gloves
- Inserting Catheter with Sterile Hand and Advancing
- Inflating the balloon with Sterile Hand While Continuing to Hold the Catheter with Clean Hand

<table>
<thead>
<tr>
<th>Area</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Foley Catheter Kit Without Contamination</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Placing Sterile Drape Under Patient</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Donning Sterile Gloves</td>
<td>10</td>
<td>16</td>
</tr>
<tr>
<td>Inserting Catheter with Sterile Hand and Advancing</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td>Inflating the balloon with Sterile Hand While Continuing to Hold the Catheter with Clean Hand</td>
<td>9</td>
<td>18</td>
</tr>
</tbody>
</table>
Results

• Findings indicated that the simulation laboratory, deliberate practice, and video debriefing, were effective in improving student’s self-efficacy in performance of nursing skills including urinary catheter insertion.

• Thirteen students (62%) increased their ratings on the CSES by 1 or more between pretest and posttest with a p-value = 0.025.
Future Work

• Nasal Gastric tube insertion and care
References


• McCabe, D., Gilmartin, M., & Goldsamt, L. (2016). Student self-confidence with clinical nursing competencies in a high-dose simulation clinical teaching model. Journal of Nursing Education in Practice, 6(8), 52-58. doi: 10.5430/jnep.v6n8p52


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