Exploring an Instructional Model's Impact on Students' Self-Efficacy, Readiness, and Confidence in Skills Performance

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Alpha Omicron Chapter #037
Learner Outcomes

• At the end of this session Learners will:
  – Understand how self-efficacy can impact student's performance.
  – Be able to discuss the impact of the educational models impact on students’ readiness for clinical.
  – Analyze student's confidence in performing skills learned in the following semester.

Disclosures:

• I have nothing to disclosure currently.
What impact if any, does this instructional model have on performance of skills in clinical?

This instructional model for the Accelerated BSN students differs from the traditional BSN pre-licensure nursing students. Can this model be successful with the traditional BSN groups?

Will students feel more confident during skills validation during the next course bootcamp?

Will student's self-efficacy improve?
Bandura and Self-Efficacy

- Knowledge
- Anxiety
- Confidence

Self-Efficacy
Why does the instructional model matter?

- Content is oversaturated
- Different learning styles
- Concept based/infused curriculums
- Active learning techniques
- Improving critical thinking
- Improvement of knowledge retention
- High-stakes testing

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Model of Instruction Defined

The model studied was used previously in the Accelerated BSN cohorts prior to this study.

The Junior I practicum took place in Summer of 2018 and occurred over 6 weeks.

The were 5 lab days and 7 clinical days with labs on Mondays and Clinical on Tuesday for the first 5 weeks.

The last week students attended clinical on both Monday and Tuesday.
Methods

• A search of the literature revealed a few tools/questionnaires related to our study

• Approval for use of one questionnaire was obtained

• Two surveys to gather additional data were developed by the investigator

• Institution Review Board Approval was obtained
Methods Continued

• Students were provided informed consent and 23 participants were obtained from a convenience sample.

• Students participated in the skills lab and clinical as usual per the design of the course.

• Students completed all five lab experiences and completed the Clinical Skills Self-Efficacy Scale.

• At the start of their Junior II semester (Fall 2018), students completed their validations of skills learned over the Summer session at the Junior II Skills Bootcamp.
What skills did we focus on?

• Administration of Intramuscular injections
• Administration of subcutaneous injections
• Change sterile dressing
• Vital Signs
• Oxygen Administration
Clinical Skills Self-Efficacy Scale-Sharon Oetker-Black

**DIRECTIONS:** This questionnaire should take no more than 10-15 minutes to complete. Each of the statements below is written so nursing students can describe their perceptions of their confidence in performing certain skills that they are routinely expected to do in their clinical settings. Please **circle the number** that identifies how confident you are **right now** of your ability to perform each of the behaviors. Remember there is no right, or wrong answers but it is very important that you answer the questions honestly.

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1. How confident are you <strong>right now</strong> that you can independently administer an intramuscular injection?</td>
<td>1. How confident are you <strong>right now</strong> that you can independently insert a nasogastric tube with correct placement?</td>
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<tr>
<td>2. How confident are you <strong>right now</strong> that you can independently administer an insulin injection?</td>
<td>2. How confident are you <strong>right now</strong> that can independently start an intravenous line?</td>
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<tr>
<td>3. How confident are you <strong>right now</strong> that you can independently change a dressing maintaining sterile technique?</td>
<td>3. How confident are you <strong>right now</strong> that you can correctly transfer an immobile patient from bed to chair using correct technique?</td>
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<tr>
<td>4. How confident are you <strong>right now</strong> that you can independently insert a Foley catheter using sterile technique?</td>
<td>4. How confident are you <strong>right now</strong> that you can independently hang an intravenous piggyback medicine and program the pump accurately?</td>
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<tr>
<td>5. How confident are you <strong>right now</strong> that you can administer a tube feeding through a PEG tube using correct technique?</td>
<td>5. How confident are you <strong>right now</strong> that you can administer a tube feeding through a PEG tube using correct technique?</td>
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</table>
**Second part of the CSES**

1. What is your age? ______
2. Male ______  Female ______
3. Clinical course currently enrolled in ______________
4. Have you ever administered an intramuscular injection?  
   Yes ______  No ______
5. Have you ever changed a dressing using sterile technique?  
   Yes ______  No ______
6. Have you ever inserted a Foley catheter?  
   Yes ______  No ______
7. Have you ever inserted a nasogastric tube?  
   Yes ______  No ______
8. Have you ever started an intravenous line?  
   Yes ______  No ______
9. Have you ever calculated a dose of medication?  
   Yes ______  No ______
10. Have you ever transferred a bedridden patient from bed to chair?  
    Yes ______  No ______
11. Have you ever hung an intravenous piggy back medication?  
    Yes ______  No ______
Post Boot Camp Survey and Reflection

Post Junior II Boot Camp Skills Survey

Please select a rating of 1 to 5 based on your thoughts and feelings about completing your required validation. There is no right or wrong answers but it is important that you answer these questions honestly.

1= Strongly disagree  2= Disagree  3= Neutral  4= Agree  5= Strongly agree

1. I was anxious prior to being validated on my assigned skill?
   1  2  3  4  5

2. I practiced required skills prior to boot camp on my own time in the lab.
   1  2  3  4  5

3. I felt the lab/Clinical experience during NURSP 337 prepared me for skills validation.
   1  2  3  4  5

4. I was able to perform all the required skills for validation during clinical in NURSP 337.
   1  2  3  4  5
   If you selected something other then 5 please circle the skills you did not perform.
   Vital signs  IM injection  SubQ injection
   Wound Dressing/Sterile Technique  Oral medication  Oxygen administration

5. I felt confident in performing any of the skills that I learned in NURSP 337.
   1  2  3  4  5

6. I was successful in performing my skill that I was assigned.
   Yes  No

Guided Reflection for NURSP 337 Skills Performance

Please answer the following questions with yes or no with a short explanation for your answer.

1. Did you feel prepared to perform the skills (ex. medication administration, sub Q injections, dressing changes) in the clinical setting after lab? Why or Why not.
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

2. Did you feel that having lab the day before clinical improved your performance overall in the clinical setting? Why or why not?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

3. Where you anxious about performing skills (ex. medication administration, sub Q injections, dressing changes) in the clinical setting that you just learned the day before? Why or Why not?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________

4. Do you feel that lab and clinical supported skill acquisition? Why or Why not?
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
Results - CSES

Means for Self-Efficacy for skills performed

- Insulin
- Independently change sterile dressing
- Independently transfer patient
- Independently insert a Foley
- Independently insert an NG tube
- Independently start an IV
- Hang an IV
- Independently administer feeding through a nasogastric tube
- Independently administer

Mean values range from 0 to 10.
### Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident independantly admin IM</td>
<td>23</td>
<td>1</td>
<td>10</td>
<td>7.22</td>
<td>2.215</td>
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<tr>
<td>Confident independantly admin insulin</td>
<td>23</td>
<td>6</td>
<td>10</td>
<td>8.78</td>
<td>1.278</td>
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<tr>
<td>Transfer patient independantly</td>
<td>23</td>
<td>3</td>
<td>10</td>
<td>8.17</td>
<td>1.946</td>
</tr>
<tr>
<td>independantly change sterile dressing</td>
<td>23</td>
<td>4</td>
<td>10</td>
<td>7.87</td>
<td>1.486</td>
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<tr>
<td>Valid N (listwise)</td>
<td>23</td>
<td></td>
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</table>

### Report

<table>
<thead>
<tr>
<th>Confident independantly admin IM</th>
<th>Confident independantly admin insulin</th>
<th>independantly change sterile dressing</th>
<th>Independently insert a foley</th>
<th>Independently insert a NG tube</th>
<th>Independently start an IV</th>
<th>Transfer patient independantly</th>
<th>Hang an IVPB independantly</th>
<th>Administer feeding through Peg Tube</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.22</td>
<td>8.78</td>
<td>7.87</td>
<td>3.78</td>
<td>1.70</td>
<td>1.83</td>
<td>8.17</td>
<td>3.13</td>
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<td>23</td>
<td>23</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>2.215</td>
<td>1.278</td>
<td>1.486</td>
<td>2.954</td>
<td>2.653</td>
<td>2.949</td>
<td>1.946</td>
<td>3.659</td>
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</tbody>
</table>
Boot Camp Performance Data

Post “Skills Boot Camp” Agree and Strongly Agree

- Anxiety before: 68.40%
- Practiced before: 40%
- Was prepared: 90.80%
- Performed skills in clinical: 100%
- Confident in performing skills: 96.30%
Guided Reflection
What did the students think?

Did you feel prepared to perform the skills?
- 22 out of 23 or 95% participants felt that lab prepared them for clinical

Did you feel that having lab the day before clinical helped?
- Participants commented that “skills were fresh”, and “could not imagine learning all the skills and then going to clinical 6 weeks later and being expected to perform them”
- One participant felt “All labs should be completed then attend clinical”

Were you anxious about performing skills in clinical?
- 18 out of 23 or 78% of participants felt some anxiety performing skills in clinical
- Some felt excited, or were more concerned about how patients would react

Do you feel that lab and clinical supported skill acquisition?
- 100% of participants felt the lab and clinical supported skills acquisition
- Some comments: “Many opportunities to practice”, “Facility did not have many opportunities”, “some clinical groups did more”
Lessons and Limitations

Many variables can affect a student’s self-efficacy.

Skill acquisition can be impacted by the opportunities in clinical.

Anxiety can affect a student’s confidence.

The n=23 is a small sample size.

The results are only generalizable to Accelerated BSN students.

Results indicate a need for further study.
Conclusion

• Students need to have exposure to the skills they are expected to perform in order to have confidence and self-efficacy in performance of that skill.

• Most students preferred the instructional model where Monday was lab and Tuesday was clinical.

• It was not possible to identify a positive correlation for the instructional model being the reason students reported higher levels of self-efficacy in those skill taught.

• More research is needed to determine if the instructional model is the reason for positive student outcomes.
References


