Evaluating the Knowledge of Those Who Teach: Doctorally-Prepared Faculty Members’ Performance on the Certified Nurse Educator Examination

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Purpose of Research

- Explore the pass/fail performance of doctorally-prepared CNE candidates compared to master’s-prepared CNE candidates
- Compare the content area performance of doctorally-prepared CNE candidates compared to master’s-prepared CNE candidates
Background of Problem

- The recommendation for doctorally prepared nursing faculty

- The lack of consensus regarding the required educational preparation of academic nurse educators

- Faculty are not required to possess formal preparation for the role or certification
Sample

• 2,673 first-time CNE Examination test takers

• Testing period:
<table>
<thead>
<tr>
<th>Option</th>
<th>Licensure</th>
<th>Education</th>
<th>Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option A:</strong>&lt;br&gt;Must meet criteria 1, 2, &amp; 3</td>
<td>1. A currently active registered nurse license in the United States or its territories</td>
<td>2. A master’s or doctoral degree in nursing with:&lt;br&gt;a major emphasis in nursing education or nine or more credit hours of graduate-level education courses*</td>
<td>3. Two years or more of full-time employment** in the academic faculty role within the past five years</td>
</tr>
<tr>
<td><strong>Option B:</strong>&lt;br&gt;Must meet criteria 1, 2, &amp; 3</td>
<td>1. A currently active registered nurse license in the United States or its territories</td>
<td>2. A master’s or doctoral degree in nursing (with a major emphasis in a role other than nursing education)</td>
<td>3. Four years or more of full-time employment** in the academic faculty role within the past five years</td>
</tr>
</tbody>
</table>
Academic Rank

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Asst Prof</th>
<th>Assoc Prof</th>
<th>Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>8%</td>
<td>27%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>46%</td>
<td>26%</td>
<td>34%</td>
<td>25%</td>
</tr>
</tbody>
</table>

- Master's
- Doctorate
Employment Setting by Program Type

- PN/VN
- Diploma
- ADN
- BSN
- Master's
- Doctorate
Pass Rate Data
Pass Rate

Statistically significant ($r = .08, p = .00, \alpha = .01$)

- Master's: 81.9%
- Doctorate: 88.1%
Pass Rate by Eligibility Option

<table>
<thead>
<tr>
<th>Option</th>
<th>Master's</th>
<th>Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option A</td>
<td>80.7%</td>
<td>88.4%</td>
</tr>
<tr>
<td>Option B</td>
<td>87.6%</td>
<td>83.8%</td>
</tr>
</tbody>
</table>
# Years of Full-Time Employment

<table>
<thead>
<tr>
<th>Variable</th>
<th>$n$</th>
<th>$M$</th>
<th>Mdn</th>
<th>Pass Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Master’s Degree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option A</td>
<td>1,072</td>
<td>9.2</td>
<td>6.0</td>
<td>80.6%</td>
</tr>
<tr>
<td>Option B</td>
<td>699</td>
<td>11.7</td>
<td>10.0</td>
<td>83.8%</td>
</tr>
<tr>
<td><strong>Doctoral Degree</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option A</td>
<td>466</td>
<td>15.9</td>
<td>15.0</td>
<td>88.4%</td>
</tr>
<tr>
<td>Option B</td>
<td>249</td>
<td>15.2</td>
<td>13.0</td>
<td>87.5%</td>
</tr>
</tbody>
</table>
Pass Rates based on Years of FT Employment

- 74%
- 76%
- 78%
- 80%
- 82%
- 84%
- 86%
- 88%
- 90%
- 92%
- 94%
- 96%
- 98%

2-5Y: 74%
6-10Y: 76%
11-15Y: 78%
16-20Y: 80%
21-25Y: 82%
26-30Y: 84%
>31Y: 86%
Pass Rates based on Academic Rank

- Instructor: 78.4%
- Asst Prof: 83.9% (Master's), 85.2% (Doctoral)
- Assoc Prof: 86.9% (Master's), 92.1% (Doctoral)
- Profesor: 89.8% (Master's), 91.5% (Doctoral)
Pass Rates Based on Program Type

- PN/VN: 66%
- Diploma: 68%
- ADN: 70%
- BSN: 72%
- Master's: 74%
- Doctorate: 76%
- 80%
- 82%
- 84%
- 86%
- 88%
- 90%
- 92%
- 94%
- 96%
Hypothesis Testing

**RQ1**: Is there a statistically significant relationship between highest degree earned and first-time performance on the CNE examination?

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Statistical Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Degree Earned</td>
<td>First-time Pass/Fail status</td>
<td>Chi-square</td>
</tr>
</tbody>
</table>
RQ1 Findings

• Chi-square test of independence

\[ \chi^2 = 14.269, \, df = 1, \, p = .000 \]

• \( H_{1a} \): There is a statistically significant relationship between highest degree earned and first-time performance on the CNE examination.
RQ2: Is there a statistically significant relationship between highest degree earned, and first-time performance in each of the six major CNE examination content areas?

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Statistical Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Degree Earned</td>
<td>Content area sub-score</td>
<td>Point biserial correlation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>t-test</td>
</tr>
</tbody>
</table>
**RQ2 Findings**

**H2ₐ**: There is a statistically significant relationship between highest degree earned and performance in the content area:

<table>
<thead>
<tr>
<th>Content Area</th>
<th>r</th>
<th>t-test</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Facilitate learning</td>
<td>.107</td>
<td>-5.377</td>
<td>.000</td>
</tr>
<tr>
<td>3. Use assessment and evaluation strategies</td>
<td>.084</td>
<td>-4.186</td>
<td>.000</td>
</tr>
<tr>
<td>4. Participate in curriculum design and evaluation of program outcomes</td>
<td>.114</td>
<td>-5.717</td>
<td>.000</td>
</tr>
</tbody>
</table>
## RQ2 Findings

<table>
<thead>
<tr>
<th>Content Area</th>
<th>$r$</th>
<th>$t$-test</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Pursue continuous quality improvement in the academic nurse educator role</td>
<td>.052</td>
<td>-2.613</td>
<td>.009</td>
</tr>
<tr>
<td>6. Engage in scholarship, service, and leadership</td>
<td>.130</td>
<td>-6.533</td>
<td>.000</td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 level (2-tailed)
H1₀: There is no statistically significant relationship between highest degree earned and performance in the content area:

2. Facilitate learner development and socialization
Interpretation of Findings

• The impact of doctoral preparation
• The impact of years of full-time experience
• Faculty teaching in various program types do not demonstrate the same level of performance
Interpretation (cont.)

• The role of education in the development of competency in:
  • facilitating learning
  • use of assessment and evaluation strategies
  • curriculum design and program evaluation
  • continuous quality improvement in the academic nurse educator role
  • scholarship, service, and leadership
Recommendations

• Doctoral education for nursing faculty should be promoted

• Orientation and mentoring programs for faculty with < 5 years of experience

• Faculty composition needs to include members with a wide range of experience
Future Research Recommendations

- Regression analysis designed to examine the impact of CNE candidate examination performance based on
  - the type of master’s and doctoral degree earned
  - Employment setting by program type

- Qualitative studies designed to identify which courses were most useful in preparing faculty for the role
Discussion and Questions
References
