The effectiveness of preparation programs for clinical nurse educators on role confidence

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Content

- Research background
- Research question
- Design and method
- Survey instrument
- Findings
- Discussion
- Conclusion
Abbreviation:
- NE: Nurse Educator
- CliNE: Clinical Nurse Educator
Clinical placement is central to nursing education.

Quality of clinical teaching affects quality of student learning experience.

Teaching in clinical settings is complex and challenging.

CiNEs require preparation and support for their role.

CiNEs report of ill-prepared, lack of support and as a result, low confidence in their role.

Lack of evidence about which preparation strategies contribute to confidence development.

(Heydari, Hosseini, & Moonaghi, 2015; McSharry, McGloin, Frizzell, & Winters-O'Donnell, 2010; Needham, McMurray, & Shaban, 2016; Suplee, Gardner, & Jerome-D'Emilia, 2014)
Research questions

- How CliNEs are prepared for their role?
- What level of confidence do they have in the clinical teaching role?
- Is there an association between preparation methods and perceived confidence among CliNEs?
Design & Method

- **Design**: Multi-setting descriptive survey study.
- **Method**: Cross-sectional surveys.
- **Surveys content**:
  - Questions about demographics, preparation and clinical teaching activities
  - Clinical Nurse Educator Skill Acquisition Assessment instrument (CNESAA).
- **Analysis**: Descriptive, bivariate and regression
- **Software**: Statistical Package for the Social Sciences (SPSS) version 22.0
Survey instrument

- Clinical Nurse Educator Skill Acquisition Assessment instrument (CNESAA)
- Piloted, modified and validated in Vietnam
- Contains 24 Likert-like questions & 5 domains:
  1) Enhancing student learning,
  2) Relating theory and practice,
  3) Engaging in scholarship,
  4) Functioning as a leader,
  5) Participating in professional development.

(Nguyen, Forbes, Mohebbi, & Duke, 2017)
Research participants

Inclusion:
- Nurse educators employed by a university/college
- Involved in clinical teaching in the areas of fundamental nursing skills, medical and/or surgical nursing;
- Willing to participate in the surveys.

Exclusion:
- Nurse educators who did not meet the above criteria, or
- Teaching in clinical psychiatry, emergency or separate palliative care areas (to ensure sample homogeneity).
Results
## Demographics

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>241</td>
<td>72.2</td>
</tr>
<tr>
<td>Male</td>
<td>93</td>
<td>27.8</td>
</tr>
<tr>
<td><strong>Age (mean)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33.2</td>
<td>(SD = 8.6)</td>
</tr>
<tr>
<td><strong>Years of experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7.60</td>
<td>(SD = 6.8)</td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td>246</td>
<td>73.7</td>
</tr>
<tr>
<td>Medicine</td>
<td>81</td>
<td>24.3</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Highest qualification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor of Nursing(^a)</td>
<td>194</td>
<td>58.1</td>
</tr>
<tr>
<td>Master of Nursing</td>
<td>37</td>
<td>11.1</td>
</tr>
<tr>
<td>Doctor of Nursing</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td>Postgraduate in health-related discipline</td>
<td>26</td>
<td>7.8</td>
</tr>
<tr>
<td>Medical doctor</td>
<td>73</td>
<td>21.9</td>
</tr>
</tbody>
</table>

Note. N = 334. \(^a\)No previous practice or teaching experience. SD: Standard deviation.
Most common preparation methods

- Pedagogical courses: 76.6%
- Teaching in simulation laboratories: 46.4%
- Compulsory practice prior to teaching: 56.9%
- Simultaneous practice & clinical teaching: 34.1%
- Informal mentorship: 35.9%
- Guidelines: 38.9%
- Micro-teaching: 43.1%
Clinical nurse educators perceived confidence.

- Recruited as new Bachelor of Nursing graduates
- Recruited as experienced nurses/educators
- Medicine
- Other
### Preparation & CLIENE’s perceived confidence

<table>
<thead>
<tr>
<th>Preparation strategies</th>
<th>Perceived confidence (dichotomous variable)</th>
<th>Perceived confidence (continuous variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chi-square</td>
<td>p-value (2-sided)</td>
</tr>
<tr>
<td>Pedagogical courses</td>
<td>6.09</td>
<td>.01*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teaching in stimulation laboratories</td>
<td>1.35</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops in clinical nursing education</td>
<td>5.32</td>
<td>.02*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compulsory practice before teaching</td>
<td>.50</td>
<td>.48</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simultaneous practice &amp; teaching</td>
<td>7.72</td>
<td>.005*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mentorship</td>
<td>.02</td>
<td>.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guidelines</td>
<td>.03</td>
<td>.87</td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### General linear regression model

<table>
<thead>
<tr>
<th>Factor</th>
<th>Beta [95% CI]</th>
<th>F</th>
<th>p-value</th>
<th>Eta square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workshops in clinical nurse education¹</td>
<td>3.45 [0.48, 6.43]</td>
<td>5.22</td>
<td>.02</td>
<td>0.0005</td>
</tr>
<tr>
<td>Simultaneous practice &amp; teaching¹</td>
<td>3.17 [0.08, 6.26]</td>
<td>4.07</td>
<td>.04</td>
<td>0.0004</td>
</tr>
<tr>
<td>Informal mentorship¹</td>
<td>3.25 [–6.25, –0.25]</td>
<td>4.54</td>
<td>.03</td>
<td>0.0004</td>
</tr>
<tr>
<td>Years of experience</td>
<td>.38 [0.18, 0.59]</td>
<td>13.07</td>
<td>&lt;.001</td>
<td>0.001</td>
</tr>
</tbody>
</table>

- Note: Dependent variable: perceived confidence; CI: confidence interval; 1: reference group. Model A: \( R^2 = .09, \Delta R^2 = .08. \) Lack of fit test: \( p = .19, \) df = 121, \( F = 1.15, \eta^2 = .40 \)
Preparation & CliNE’s perceived confidence

- **Logistic regression model**

<table>
<thead>
<tr>
<th>Model</th>
<th>Variable</th>
<th>Chi-square</th>
<th>df</th>
<th>p-value</th>
<th>Odds ratio [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Simultaneous practice and teaching(^1) (Yes)</td>
<td>37.97</td>
<td>6</td>
<td>.04</td>
<td>1.64 [1.01, 2.66]</td>
</tr>
<tr>
<td></td>
<td>Pedagogical courses(^1) (Yes)</td>
<td></td>
<td></td>
<td>.03</td>
<td>1.86 [1.07, 3.22]</td>
</tr>
<tr>
<td></td>
<td>Years of experience in clinical teaching</td>
<td></td>
<td></td>
<td>.02</td>
<td>1.05 [1.01, 1.07]</td>
</tr>
<tr>
<td></td>
<td>Highest qualification</td>
<td></td>
<td></td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Postgraduate in Nursing(^2)</td>
<td></td>
<td></td>
<td></td>
<td>1.95 [0.94, 4.07]</td>
</tr>
<tr>
<td></td>
<td>Postgraduate in health sciences(^2)</td>
<td></td>
<td></td>
<td></td>
<td>2.43 [0.99, 5.98]</td>
</tr>
<tr>
<td></td>
<td>Medical doctor or Master of Medicine(^2)</td>
<td></td>
<td></td>
<td></td>
<td>2.53 [1.41, 4.55]</td>
</tr>
</tbody>
</table>

- **Note:** Compared to reference group:\(^1\): Not attending the preparation strategy. \(^2\): Bachelor of Nursing, df: Degree of freedom. CI: Confidence interval.

Hosmer and Lemeshow test: Model B: \(\chi^2(8) = 4.47, p = .81\); Model D: \(\chi^2(8) = 2.98, p = .94\).
Discussion

- Preparation had significant effects on CliNEs’ perceived confidence level.
- Not all preparation strategies are effective.
- Of the eight preparation strategies:
  - 3 effective (formal strategies)
    - pedagogical courses,
    - workshops in clinical nursing education, and
    - a period of simultaneous practice and clinical teaching.
  - 1 Ineffective: Informal mentorship
  - 4 no effect
Effectiveness of formal preparation (1/4)

- **Pedagogical courses and workshops in clinical nursing education:**
  - Use of multiple teaching modalities: lectures, group discussion, interaction, scenarios, role-play, self-reflection and provision of feedback.
  - Trainees (neophyte CliNEs) and Trainers (nurse managers and senior CliNEs).
  - Intensive training (multiple sessions, multiple level, involve high level of learner engagement).
Effectiveness of formal preparation (2/4)

- Problem-based, reflective and cooperative learning techniques: empirically proven to maximise learning transfer and experiential learning among adult learners (Furman & Sibthorp, 2013).
- The use of different teaching strategies are helpful for different learning styles.
- These findings are consistent with previous studies reporting CliNEs’ need for formal preparation (Warren & Denham, 2010).
- CliNEs require preparation for adult learning theory to promote student learning and teaching in clinical environments (Cangelosi, Crocker, & Sorrell, 2009; Jetha et al., 2016).
Simultaneous practice and clinical teaching:

The periods varied from several months to two years.

The strategy involved these new graduates working as nurse clinicians to gain clinical experience as a nurse while at other times taking the CliNE role in the same hospital ward.

Substantial participants particularly recruited straight from BN programs without any clinical practice experience as a nurse ($n = 122, 36.5\%$).
Simultaneous practice and clinical teaching:

Clinical education models that involve patient care responsibilities concurrently with clinical teaching report characterised by heavy workloads, time constraints and role conflicts (Huybrecht, Loeckx, Quaeyhaegens, De Tobel, & Mistiaen, 2011; Kalischuk, Vandenberg, & Awosoga, 2013; McShany et al., 2010).

The difference in the perceived experience may be related to the background of the participants.

Perhaps, in the early transition from new graduate to NEs/CliNEs, learning to be a nurse at the same time as having opportunities to take the role of CliNE appears to be a useful way for the new CliNE to reflect on, internalise and actualise both roles.
Effectiveness of informal preparation

- **Informal mentorship:** adverse effect on perceived confidence.

- Formal mentorship widely considered essential to nurse clinicians in the socialisation to, adjustment to and development of the educator role (Dunham-Taylor & Lynn, 2008; Gardner, 2014).

- Effective mentorship linked to psychological empowerment, commitment to the organisation (Chung & Kowalski, 2012), job satisfaction and retention (Bittner & O’Connor, 2012).

- The effect of mentorship has also been found to vary depending on the formality of the relationship (Mann, 2013; Reid, Hinderer, Jarosinski, Mister, & Seldomridge, 2013).

- Informal mentorship hinders the understanding of the role/ responsibilities of mentors and mentees (Siler & Kliener, 2001).
Preparation strategies of no effect
Conclusion

- Importance to apply evidence in the preparation of CliNEs.
- Implication of effectiveness on preparation strategies on organisational resource.
- Need to evaluate/quantify the effectiveness of current/commonly used preparation strategies using appropriate instrument (i.e. CNESAA).
- Effectiveness of preparation strategies can be different, depending on context, design and application.
- Similar studies can be replicated in other context and other health-related disciplines.
References

Full results of this study:


Thank you for your attention!