Clinical Autonomy, Nurse/Physician Collaboration & Organisational Influence Among Emergency Nurses

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Study Background

• Nurses’ role in responding to healthcare challenges recognised (Hanley, 2003; DOH&C, 2011)

• Suggestions usually around skills enhancement

• Nurses with greater skills/knowledge = Greater contribution to patient care (?)

• High levels of perceived competence among ED nurses in many skills (McCarthy, et al., 2013)

• Good education levels among ED nurses (McCarthy, et al., 2013)

• Why repeated suggestions around skills enhancement??

• What about authority to utilise skills?
Background

- Nurse Autonomy and Collaboration between nurses and physicians has positive influence on health outcomes for patients (Institute of Medicine, 2004; Zurmehly, 2008; Shang, et al., 2012)
- Some confusion - number of meanings in nursing mainly professional, organisational and clinical
- **Clinical Autonomy** appears to be of most importance to nurses (Mrayyan, 2004; Stewart, et al., 2004; Skar, 2009)
- Suggestion that collaboration with physicians has positive influence on clinical autonomy
- The role of education, experience and gender unclear
- The role of the organisation highlighted in literature
“Clinical autonomy is evident where nurses have the authority to exercise their capacity for clinical judgement in the realm of clinical nursing care and collaboratively with other professions in overall patient care while practicing within a professional nursing context”. (Cotter, 2016)
Aims

• **Primary aim** – Investigate levels of Clinical Autonomy & Nurse/Physician Collaboration among Emergency Nurses

• **Secondary Aim** – Establish if relationship exists between Clinical Autonomy & Nurse/Physician Collaboration & Organisational Influences & Demographic Variables
Conceptual Framework
Clinical Autonomy and Nurse/Physician Collaboration: Applied to Staff Nurses Working in Emergency Departments (Measures)
Instruments

- Instrument selection challenging: many instruments used to measure autonomy in nursing: not always appropriately, poor validity (Weston, 2008)
- Issues relating to practice: instruments measuring behaviours in practice sought
- **Clinical Autonomy**: DPBS (Dempster, 1990)
- **Nurse/Physician Collaboration**: NPCS (Ushiro, 2009)
- **Organisational Influence on Nursing**: New Scale
- Data on gender, age, experience, qualifications, education level also gathered
Organisational Influence on Nursing Scale

- Based on items extracted from published qualitative studies
- Items refined to 7 common items
- Extra item added following review
- Face validity from supervisors and external advisor
- Content Validity established through CVI based on 8 expert reviewers
### Organisational Influences in Nursing Scale

**Expert Panel Rating – Content Validity Index**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>The organisation in which I work...</td>
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<td>...values my nursing practice</td>
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<td>...gives me the opportunity to practice to my full capacity as a nurse</td>
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<td>...encourages me to communicate with all the members of the healthcare team</td>
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<td>8</td>
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<tr>
<td>...exerts too much control over my nursing practice</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>N/A</td>
<td>1</td>
<td>6 (of 7)</td>
<td>0.86*</td>
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<tr>
<td>...encourages me to contribute to decisions about patient care</td>
<td>4</td>
<td>4</td>
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<td>4</td>
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<td>...encourages trusting and supportive relationships within the healthcare team</td>
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<td>8</td>
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<tr>
<td>...has too many policies, procedures and routines involved in patient care</td>
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<td>4</td>
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<td>4</td>
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<tr>
<td>...recognises my knowledge and ability as a nurse</td>
<td>4</td>
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<td>3</td>
<td>8</td>
<td>1.00</td>
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</tbody>
</table>

**Apparent Internal Consistency for Scale**

(*Scored on basis of 7 experts – Data missing from rater no. 7*)

| Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | 8 | 100% |

**Mean I-CVI**

0.98

**S-CVI/Ave**

0.98
## Organisational Influences on Nursing Practice Scale

<table>
<thead>
<tr>
<th>The organisation in which I work...</th>
<th>Always</th>
<th>Usually</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>...values clinical nursing practice</td>
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<td>...exerts control over clinical nursing practice</td>
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<td>...allows nurses have a say in patient care</td>
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<tr>
<td>...develops trusting and supportive relationships within the healthcare team</td>
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</table>

Scoring: each item scored 1 to 5 (always=5, usually=4, sometimes=3, rarely=2, never=1), items 4 and 7 reverse scored. Range 8 to 40. Higher score indicates more positive organisational influence.
Sample

- Sample size calculated using G-Power 3.1
- \(N=84\) required for medium correlation (Cohen’s \(r=0.3\)) between clinical autonomy and nurse/physician collaboration (80% power, \(p=0.05\))
- Non-randomised sample of 141 emergency nurses working in 3 Emergency Departments in the Rep. of Ireland
  
  Response 70.9% (\(n=100\))

- **Inclusion**
  - Registered Nurses
  - Employed in Emergency Departments
  - Staff Nurse grade

- **Exclusion**
  - Undergraduate student nurses
  - Advanced Nurse Practitioners
  - Nurse Managers
  - Agency or ‘relief nurses’
• **Ethics**
  - Ethical approval sought and granted by Cork Teaching Hospitals Research Ethics Committee

• **Access:**
  - Through hospital Directors of Nursing and relevant nursing managers

• **Instrument Reliability**
  - DPBS - $\alpha=0.86$
  - NPCS - $\alpha=0.918$
  - OINS – $\alpha=0.797$
Participants

Age in years: mean 35.57 (SD 7.83)
Qualifications & Experience

Length of Experience

Total Nursing – Median 10.17 (IQR=9.44)
Emergency Nursing - Median 6.04 (IQR=6.37)
Level of Clinical Autonomy
• Mean DPBS score = 104.54 (SD=12.53)

Level of Nurse Physician Collaboration
• Mean NPCS score = 72.56 (SD 13.34)

Level of Organisational Influence on Nursing
• Mean Score 27.95 (SD=4.48).
Clinical Autonomy

• *No relationship established between Clinical Autonomy and*
  
  – **Gender** (males $M=109.46$, $SD=12.01$; females $M=103.81$; $t(98)=1.53$, $p=0.13$)
  
  – **Length of Nursing Experience** ($r=0.168$, $n=100$, $p=0.095$)
  
  – **Length of Emergency Nursing Experience** ($r=0.072$, $n=100$, $p=0.479$)
Clinical Autonomy

- *No relationship established between Clinical Autonomy and*
  - **Level of education** *(under grad M=104.70, SD=11.59, post grad M=104.19, SD=14.60; p=0.85)*
  - **Specialist emergency nursing qualification** *(Qualification M=105.74, SD=13.27; without qualification M=103.74, SD=12.05; t(98)=0.783, p=0.606)*
Nurse Physician Collaboration

• *No relationship established between Nurse Physician Collaboration and*
  
  – *Gender* (*males M=73, SD=13.51; females M=72.50; t(98)=0.126, p=0.90*)
  
  – *Level of Education* (*under grad M=73.00, SD=14.02; post grad M=73.58, SD=11.85; t(98)=0.492, p=0.62*)
  
  – *Specialist emergency nursing qualification* (*Qualification M=71.71, SD=13.68; without qualification M=73.13, SD=13.20; t(98)=-0.521, p=0.603*)
Nurse Physician Collaboration

- No relationship established between Nurse Physician Collaboration and
  - Length of Nursing Experience \((r=-0.056, n=100, p=0.577)\)
  - Length of Emergency Nursing Experience \((r=-0.140, n=100, p=0.166)\)
• A significant negative relationship between Clinical Autonomy and Nurse Physician Collaboration ($r=-0.395$, $n=100$, $p<0.001$)

Note: Low scores on NPCS = Higher levels of Nurse Physician Collaboration
Clinical Autonomy and Organisational Influence on Nursing Practice

- A significant positive relationship between Clinical Autonomy and Organisational Influence on Nursing Practice ($r=0.455$, $n=100$, $p<0.001$)
Nurse Physician Collaboration and Organisational Influence on Nursing Practice

• A significant negative relationship between Clinical Autonomy and Nurse Physician Collaboration ($r=-0.413$, $n=100$, $p<0.001$)

Note: Low scores on NPCS = Higher levels of Nurse Physician Collaboration
Discussion - Demographics

• Double national gender distribution of males in Emergency Nursing (7.75% Vs 13%)
• Disproportionately young (75% < 40yrs Vs 34.6% in UK (NMC, 2008) and 35% Australia (Turner et al., 2009))
• Median length of ED experience low (6.04 years)
• Mixed EDs (adult and paeds) – 4% paeds trained, 3% psych quals – issues for practice and education
• Only 40% have specialist qualification in Emergency Nursing
• Demographics raise issues for service provision and planning
Levels of Clinical Autonomy

• Moderate level
• Lower than found for Advanced Nurse Practitioners (M=124.20(SD=14.3), Ulrich et al., 2003; M=127.19(SD=4.45), Bahadori and Fitzpatrick, 2009; M=123(SD=12.7) Maylone et al., 2010)
• Level of competence may be perceived as high (McCarthy, et al., 2013) but autonomy appears determined by practice level
• Supports the belief that level of practice determines level of autonomy
Clinical Autonomy and Sample Characteristics

• No relationship between Clinical Autonomy sample characteristics could be established

• Strategies to increase the involvement of nurses in care often focus on education and skills development (Reconfiguration Forum for Cork and Kerry, 2009; National Emergency Medicine Programme, 2012)

• Despite indicating high levels of competence (McCarthy, et al., 2013) education in particular appears to have no significant influence over clinical autonomy

• Education and skills need to be coupled with strategies to increase autonomy in practice to realise potential of nurses
Clinical Autonomy and Nurse Physician Collaboration

• A relationship between CA and NPC supported (Hinno, et al., 2009; Gagnon, et al., 2010, Maylone, et al., 2010; Papathanassoglou, et al., 2012)

• Findings support belief that autonomy is context based – involves interaction with wider society (MacDonald, 2002; Weston, 2009; Iliopoulou and While, 2010)

• Strategies to increase involvement of nurses should include building strong relationships between nurses and physicians
Recommendations

• A number of issues raised through demographics – implications for recruitment and retention

• Strategies to increase the practice sphere of emergency nurses should be cogniscent of the influences on Clinical Autonomy

• Clinical relationships between nurses and physicians should be supported

• Organisational strategy to support nursing practice

• Influence of CA and NPC on patient care in ED
Acknowledgements
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References