Nursing Research and Clinical Practice Improvements: experiences from Italy

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36 Bachelor Degrees, First Cycle
32 Master, Second Cycle
4 Medical, Law other degrees
15 PhD programmes
University of Udine, Italy

✓ 15.385 Students
✓ 652 Professor
✓ 126 Research Assistants
✓ 234 PhD Students
Agenda

 ✓ Presenting briefly advancements in Italian nursing education and research;

 ✓ Debating connections –through concrete/paradigmatic examples- between research and clinical practice improvements;

 ✓ What we have learnt through our experience? strategies to improve nursing research relevance in the practice.
Italy, nursing education and research (1)

- **Nursing Education at the University level, since 1992**
  - Bachelor of Nursing Degree – 3 years in length

- **Advanced Nursing education, since 2004**
  - Master in Nursing Science, Advancing Competences in Management, Teaching and Research

- **PhD Nursing programmes, since 2006**
  - Rome, Genova, Florence and L’Aquila

- **University career for Nurses**
  - first Nursing Professors on 2000
Italy, nursing education and research (3)

- **240 studies**, nursing practice (43%), nursing education (6%),
  nursing administration (34%), and nursing perceptions by society (17%)

Majority = cross study design
42% of studies were authored by nurses
Nurses were little or no trained in research

- **52 studies**, 73% clinical research, 21.2% management, 5.8% nursing education research
Majority = cross study design
A nurse was principal investigator only in 58% of the studies.

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<thead>
<tr>
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<tbody>
<tr>
<td>Descriptive</td>
<td>5</td>
<td>10</td>
<td>11</td>
<td>16</td>
<td>42</td>
<td>23.5</td>
</tr>
<tr>
<td>Cross sectional</td>
<td>9</td>
<td>5</td>
<td>16</td>
<td>10</td>
<td>40</td>
<td>22.5</td>
</tr>
<tr>
<td>Cohort</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>21</td>
<td>11.8</td>
</tr>
<tr>
<td>Survey</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>19</td>
<td>10.7</td>
</tr>
<tr>
<td>Action research</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>14</td>
<td>7.9</td>
</tr>
<tr>
<td>Trial/quasi experim.</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>12</td>
<td>6.8</td>
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<tr>
<td>Qualitative</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>7</td>
<td>12</td>
<td>3.9</td>
</tr>
</tbody>
</table>

503 articles
50% on clinical nursing issues
Italy, nursing education and research (5)

Nurses aptitudes and knowledge regarding research

Nursing research accessibility to practitioners

Quality of nursing research

Nursing research credibility

(Malone, 2006)
Italy, nursing education and research (6)
1) Research questions should be mainly based upon the need of the nurses working at the bedside
   focus groups, in – depth interviews, analysis of incident reports

2) Study designs should be more complex and with increased methodological rigour
   longitudinal, quasi experimental, mixed methods studies
3) More attention should be devoted to cumulative research
   the same research question developed in a continuum

4) More emphasis to findings implementation and diffusion has been given
   returning data the nurses has become a priority
Linking nursing research and clinical practice

Systematic review

Quality of life in patients with right- or left-sided brain tumours: literature review

Aims. To determine if patients with left- or right-sided hemisphere neoplasm perceive their quality of life (QoL) differently.

Background. It is not clear whether patients with a lesion in the left hemisphere have a different QoL than those with a lesion in the right hemisphere. (1) In the preoperative period, patients with a left-sided lesion may have different symptoms according to the position of the tumour. (2) Studies on patients with brain injury demonstrate an association between left frontal lesions and depression: depression can alter the patients’ perception of QoL. (3) In the postoperative period, right-handed patients may be disadvantaged by surgical trauma to the motor cortex in the left hemisphere. (4) During the different phases of the disease, the various functions of the two hemispheres may influence the patient’s capacity to control QoL; also, as suggested by authors, both the ego and the conscience are mostly located in the left hemisphere. This is the reason that patients with a left-sided lesion may perceive a worse QoL.
Linking nursing research and clinical practice (4)

Phenomenology study

Table 2 • Awake Craniotomy Experience: Themes

- Preoperative concerns
  - Self-preservation
  - Working out their intraoperative role
- Intraoperative concerns
  - Having the situation under control
- Postoperative concerns
  - Seeking reassurance themselves and others

The Experience of Pa
Awake Craniotomy
In the Patients’ Own Words. A
Linking nursing research and clinical practice

Critical Incident Technique study

**Nursing care factors**
- 1) Misclassifying patients: over-perceiving risks
- 2) Shifting the tasks
- 3) Lowering potential threats

**Environmental factors**
- 1) Positioning the patient
- 2) Managing time pressure
- 3) Distractions while eating
- 4) Dealing with food consistency
- 5) Irritating oral medication

**Family care factors**
- 1) Misclassifying patients: under-perceiving risks
- 2) Dealing with the cultural relevance of eating

A potential source of tension
- Interactions between nurse- and family-related factors
Linking nursing research and clinical practice (6)

Quasi Exp study

### TABLE 3. Type, Duration, Context, and Characteristics of DV

<table>
<thead>
<tr>
<th>DV</th>
<th>n</th>
<th>%</th>
<th>Duration, (M \pm SD) (minutes)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morning (7:00–1:59)</td>
<td>604</td>
<td>100.0</td>
<td>12.9 ± 16.0</td>
<td>(t = -1.46, p = .14)</td>
</tr>
<tr>
<td>Afternoon (14:00–20:59)</td>
<td>302</td>
<td>50.0</td>
<td>15.7 ± 29.1</td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Randomized shifts</td>
<td>87</td>
<td>100</td>
<td>36,540 (609 hours)</td>
<td></td>
</tr>
<tr>
<td>Total duration of DV</td>
<td>–</td>
<td>–</td>
<td>8,653 (144.21 hours)</td>
<td></td>
</tr>
<tr>
<td>Average duration of DV</td>
<td>–</td>
<td>–</td>
<td>14.4 (1-420 ± 23.5 minutes)</td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 4. Effectiveness of Nursing Care Interventions Used to Manage DV

<table>
<thead>
<tr>
<th>Intervention</th>
<th>(n)</th>
<th>%</th>
<th>Duration of DV,(^a) Average Minutes (95% CI)</th>
<th>Effectiveness Perceived by Nurses, NRS (0 Minimum–10 Maximum,(^b) Average (95% CI))</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Single strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Speaking with patient or physical touch</td>
<td>245</td>
<td>40.5</td>
<td>15.13 (11.02–19.24)</td>
<td>6.31 (5.99–6.64)</td>
</tr>
<tr>
<td>b. Mobilization or hygiene or feeding</td>
<td>118</td>
<td>19.5</td>
<td>13.12 (11.48–14.76)</td>
<td>8.49 (8.12–8.86)</td>
</tr>
<tr>
<td>2. Multiple strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pharmacological strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Sedative or tranquilizer</td>
<td>18</td>
<td>3.0</td>
<td>29.72 (12.17–47.27)</td>
<td>6.89 (5.50–8.27)</td>
</tr>
<tr>
<td>b. Analgesic</td>
<td>10</td>
<td>1.7</td>
<td>12.10 (7.72–16.48)</td>
<td>7.90 (7.04–8.76)</td>
</tr>
<tr>
<td>4. No intervention</td>
<td>30</td>
<td>5.0</td>
<td>22.86 (15.79–29.93)</td>
<td>2.47 (0.96–3.97)</td>
</tr>
<tr>
<td>Total</td>
<td>604</td>
<td>100.0</td>
<td>14.37 (12.49–16.26)</td>
<td>6.87 (6.65–7.09)</td>
</tr>
</tbody>
</table>

Note: DV = disruptive vocalization; CI = confidence interval.  
\(^a\)F = 2.994, p = .01.  
\(^b\)F = 34.967, p = .00.
## Comparative study

### Table 1: Differences between the triturating devices adopted by nurses in their clinical practice

<table>
<thead>
<tr>
<th></th>
<th>Total no = 100 (%)</th>
<th>Pill crusher no = 50 (%)</th>
<th>Mortar no = 50 (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pills to administer (average number)</td>
<td>3.7 SD 1.7</td>
<td>4.1 SD 1.8</td>
<td>3.4 SD 1.7</td>
<td>0.058</td>
</tr>
<tr>
<td>Pills/patient (number)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>8 (8)</td>
<td>4 (8)</td>
<td>4 (8)</td>
<td>0.46</td>
</tr>
<tr>
<td>Two</td>
<td>28 (28)</td>
<td>10 (20)</td>
<td>18 (36)</td>
<td></td>
</tr>
<tr>
<td>Three</td>
<td>11 (11)</td>
<td>4 (8)</td>
<td>7 (14)</td>
<td></td>
</tr>
<tr>
<td>Four</td>
<td>12 (12)</td>
<td>8 (16)</td>
<td>5 (10)</td>
<td></td>
</tr>
<tr>
<td>Five</td>
<td>18 (18)</td>
<td>11 (22)</td>
<td>7 (14)</td>
<td></td>
</tr>
<tr>
<td>Six</td>
<td>16 (16)</td>
<td>9 (18)</td>
<td>8 (16)</td>
<td></td>
</tr>
<tr>
<td>Seven</td>
<td>5 (5)</td>
<td>4 (8)</td>
<td>1 (2)</td>
<td></td>
</tr>
<tr>
<td>Drug expected to be administered to patient each administration (grams average)</td>
<td>1.132 SD 0.823</td>
<td>1.364 SD 0.975</td>
<td>0.899 SD 0.555</td>
<td>0.004</td>
</tr>
<tr>
<td>Drug remaining adherent in the device at the end of the titration (grams average)</td>
<td>0.005 SD 0.823</td>
<td>0.006 SD 0.009</td>
<td>0.004 SD 0.008</td>
<td>0.254</td>
</tr>
<tr>
<td>Drug not administered to patient each administration [% average (% range) percentiles]</td>
<td>0.63% (0.00–4.81%)</td>
<td>0.61% (0.00–4.64%)</td>
<td>0.66% (0.00–4.81%)</td>
<td>0.230</td>
</tr>
<tr>
<td>25%</td>
<td>0.00%</td>
<td>0.04%</td>
<td>0.00%</td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td>0.16%</td>
<td>0.22%</td>
<td>0.74%</td>
<td></td>
</tr>
<tr>
<td>75%</td>
<td>0.76%</td>
<td>0.80%</td>
<td>0.61%</td>
<td></td>
</tr>
<tr>
<td>Devices cleaned at the end of the procedure (number)</td>
<td>72 (72%)</td>
<td>42 (58.3%)</td>
<td>30 (41.7%)</td>
<td>0.008</td>
</tr>
</tbody>
</table>
Guidelines for the Prevention of Intravascular Catheter-Related Infections

D. Replace peripheral venous catheters at least every 72–96 hours in adults to prevent phlebitis (128). Category IB

Nursing care as a predictor of phlebitis related to insertion of a peripheral venous cannula in emergency departments: findings from a prospective study

A. Palese a,⁎, E. Ambrosi b, F. Fabris a, A. Guarnier c, P. Barelli c, P. Zambiasi c, E. Allegrini d, L. Bazoli e, P. Casson f, M. Marin a, M. Padovan b, M. Picona a, P. Taddia i, D. Salmaso k, P. Chiari l, O. Marognolli b, F. Canzan b, L. Saiani b on behalf of the ESAMED Group

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f Azienda ULSS n. 9, Treviso, Italy
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h Azienda ULSS n. 6, Vicenza, Italy
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k Fondazione Zancan, Padua, Italy
l Bologna University, Italy

Manuscript Number: JIN-D-10-00037R1

Title: Factors influencing nurses’ decision making process on leaving the Peripheral Catheter after 96 hours: a longitudinal study.
Linking nursing research and clinical practice (9)

Methodological study
Hospital-acquired functional decline in older patients cared for in acute medical wards and predictors: Findings from a multicentre longitudinal study

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Health service research
The strengths

The number of nurses and groups actively producing research has been increased and it is steadily increasing.

Italian nurses are becoming more visible in the international arena with publications in international journals.

Several permanent research networks led by nurses (of hospitals, nursing homes, degree courses) have been established.

A large number of studies focused on patient problems vs nurses problems have been established.
Future strategies

- Increasing opportunity for clinical nurses to access advanced education
- Increasing involvement of clinical nurses in different stages of the research process
- Increasing education on evidence based nursing and research at the undergraduate levels
- Supporting nursing attempts/projects/ideas
- Offering libraries and accessibility to open access journals at the unit levels
- Developing English proficiency
- Involving nurses and students in research projects