Effectiveness of a multifaceted approach to implement a fall prevention guideline into nursing practice in a hospital setting.

A before and in-between assessment

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Background

- Increasing (inter-)national expectations for nurses to use research findings

- Use of research findings in daily nursing practice:
  - as a basis for decision-making
  - to achieve evidence-based care
  - to promote and to predict positive patient outcomes
  - to save costs

- Legal regulations:
  - Health Care Quality Act, § 3 Scope of Applicability, Fed. Law Gaz I no. 179/2004
  - Nursing Act, GuKG § 4 (1 & 2) Allgemeine Berufspflichten, BGBI. I Nr. 74/2011

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Clinical practice guidelines (CPGs) ...
- help to meet certain standards
- provide recommendations
- guide towards the best behaviour in a particular area
Publication of CPGs does not ensure their use

The most effective means of implementing a CPG is still unclear

Translating research remains a considerable challenge

Whole systems approaches and multifaceted strategies are recommended
Assessing the effectiveness of a multifaceted approach to implement a fall prevention clinical practice guideline into nursing practice in a hospital setting
Methods

» Design: participatory action research approach including working-group meetings

» Setting: ophthalmologic hospital department

» Sample: nurses and nursing aides

» Ethical approval: obtained from the university’s ethical committee
  informed consent obtained
Time frame

Implementation phase

- Jan. 2011: Monthly working-group meetings
- July 2011: 2nd data collection & group discussion (3x)
- Autumn 2011: 3rd data collection & group discussion (3x)
- Febr.- March 2012

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Data collection

<table>
<thead>
<tr>
<th>T1 / T2: questionnaire</th>
<th>T1: interviews (12) &amp; group discussions (4)</th>
<th>T1: interviews (11) &amp; group discussions (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>– demographic data</td>
<td>– perceived problems</td>
<td>– availability of necessary devices</td>
</tr>
<tr>
<td>– fall prevention</td>
<td>– participants’ aims</td>
<td>– satisfaction with obtained achievement</td>
</tr>
<tr>
<td>knowledge</td>
<td>– measures undertaken to prevent falls</td>
<td>– perceived differences in daily nursing practice</td>
</tr>
<tr>
<td>– attitudes towards</td>
<td>– measures used to introduce sth. new</td>
<td></td>
</tr>
<tr>
<td>guidelines</td>
<td>– influencing factors</td>
<td></td>
</tr>
<tr>
<td>– organisational culture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>– self-efficacy</td>
<td></td>
<td></td>
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<tr>
<td>– organisational learning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4-5-point Likert-type scales
Data analysis

- Descriptive analysis: SPSS 18, IBM SPSS 19
- Content analysis: MAXQDA
  Consolidated Framework of Implementation Research (CFIR)
  - intervention characteristics
  - outer setting
  - inner setting
  - characteristics of individuals
  - implementation process
Procedure

Results of first data collection period

Base for further action in working group meetings

8 representatives: 3 wards, outpatient department, surgery department

- Defining underlying problem
- Defining nurses' aims & criteria to measure their achievement
- Determining necessary devices
- Development of information material
- Determining appropriate implementation strategies:
  - internal lectures, internal written materials, opinion leaders, audit & feedback, changes in patient record systems, acquisition of necessary devices

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Results

Participants 2010 / 2011: 69 (75.8%) / 81 (93.1%)

Demographic data:

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>p</th>
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<tbody>
<tr>
<td>Female:</td>
<td>95.6%</td>
<td>93.7%</td>
<td>.609</td>
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<tr>
<td></td>
<td>n=68</td>
<td>n=79</td>
<td></td>
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<tr>
<td>Nurses:</td>
<td>67.2%</td>
<td>65.8%</td>
<td>.907</td>
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<tr>
<td></td>
<td>n=67</td>
<td>n=80</td>
<td></td>
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<tr>
<td>Work experience ≥ 10 years:</td>
<td>67.2%</td>
<td>48.1%</td>
<td>.096</td>
</tr>
<tr>
<td></td>
<td>n=64</td>
<td>n=78</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td>41.6 y</td>
<td>39.6 y</td>
<td>.268</td>
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<tr>
<td></td>
<td>n=65</td>
<td>n=71</td>
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</table>
Knowledge regarding access to CPG:

- **Baseline (n=68)**
  - Yes: 40%
  - No: 59%

- **In-between (n=78)**
  - Yes: 78%
  - No: 22%

*p = .001*
## Knowledge:

<table>
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<tr>
<th></th>
<th>n</th>
<th>mean*</th>
<th>Standard deviation</th>
<th>p</th>
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<tbody>
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<td>baseline</td>
<td>69</td>
<td>52.6</td>
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<td>81</td>
<td>54.0</td>
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</table>

*maximum 81

## Attitudes: 4-point Likert-scale

<table>
<thead>
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<th>n</th>
<th>mean*</th>
<th>Standard deviation</th>
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<tr>
<td>in-between</td>
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<td>3.079</td>
<td>.411</td>
<td>.387</td>
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</table>

*1 = I don’t agree, 4 = I agree
Qualitative data:

- Participants’ raised awareness regarding fall prevention
- Availability of new devices e.g.
  - “baby phone”
  - additional walking aids
  - material for safe patient transfer
- Satisfaction with achievements

Compilation of supporting information material e.g.

- Assessment
- Patient information
Discussion

- Positive effects
  - of tailored interventions
  - of multifaceted interventions
  support/confirm existing literature

Limitation:

Time to conduct the project
Conclusion

Positive effects of multifaceted strategies within a participatory action research approach
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References


