Determinants of guideline use in primary care physical therapy
- a cross-sectional survey of attitudes, knowledge, and behavior

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GIN 2013
San Francisco

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Disclosure of interest (last 3 years)

Susanne Bernhardsson

I certify that, to the best of my knowledge, no aspect of my current personal or professional situation might reasonably be expected to affect significantly my views on the subject on which I am presenting, other than the following:

Am currently employed by the Region Västra Götaland as physical therapist/process manager rehabilitation guidelines

Am currently registered as PhD student at Linköping University, Dept of Medical Health and Sciences
Evidence-based?

Photo courtesy of the library at The Swedish School of Sport and Health Sciences
Evidence-based!
Cumulative number of randomized controlled trials, systematic reviews, and evidence-based clinical practice guidelines in physical therapy, by year.

Maher 2008/PEDro
Background

• Guidelines are an increasingly used means to bridge the research-to-practice gap and to facilitate EBP
  
  Grol 1999

• Use of guidelines in physical therapy contributes to EBP
  
  Overmeer 2005, Liddle 2009

• … and yields both better treatment outcomes and reduced costs
  
  Fritz 2007, Rutten 2010

• … but availability of and access to guidelines vary
  

• … use/adherence to guidelines also varies
  
Study aims

• To investigate self-reported attitudes, knowledge, behavior, prerequisites, and barriers related to EBP and, in particular, guidelines among PTs in primary care in western Sweden

• To explore associations between these factors and the use of guidelines

A better understanding of these factors can form the basis for the development of a strategy for the implementation of guidelines in primary care physiotherapy
Methods, summary

- **Study design:** Cross-sectional survey
- **Participants:** 271 primary care PTs
- **Setting:** Primary care in Region Västra Götaland
- **Outcomes:** Attitudes, knowledge, behavior, prerequisites and barriers related to EBP and, in particular, guidelines
- **Measurement instrument:** Web-based questionnaire/survey software
- **Data analysis:** Descriptive statistics and logistic regression analysis
Questionnaire development

- Literature search
- Selection of questionnaire
- Forward and backward translation and cross-cultural adaptation
- Further development to suit the purposes of this study
- Test of content and face validity (n=10)
- Transfer to web/survey software
- Test of reliability (n=42)

Bernhardsson & Larsson, Phys Ther 2013
Questionnaire design

- 34 items in 4 sections:
  - Demographic variables
  - Variables related to EBP
  - Variables related to guidelines
  - Treatment methods used for LBP, neck pain and shoulder pain
- 5-point or 3-point Likert scales
- Open and m/c questions
Response rate and demographic data

- Response rate 67.8% (n=271)
- 75% women, 25% men
Attitudes to EBP

- EBP necessary to practice: 89%
- EBP helps decision making: 82%
- Want to learn/improve skills: 90%
- Creates unreasonable demands: 55%
- Strong evidence is lacking for most interventions: 54%

Percentage:
- strongly disagree
- disagree
- neutral
- agree
- strongly agree
• 96% considered guidelines important

• 33% were aware of relevant guidelines
  61% were aware to some extent

• 13% knew where to find guidelines
  65% knew to some extent

• 9% perceived easy access to guidelines at their place of work
  51% had access to some extent, 37% did not have access
Use of guidelines

- Almost never: 12%
- Rarely: 47%
- Sometimes: 47%
- Frequently: 12%
- Almost always: 0%
Comparison to other studies

- United States: 40%
- Australia: 45%
- The Netherlands: 61%
- Sweden, hospital-based: 75%

Barriers to using guidelines

- Lack of time
- Don't know where to find
- Are too general
- Take too long to read
- No/too few guidelines exist
- Too much "recipe"
- Lack of support from colleagues
- Lack of interest
- Other

The graph shows the percentage of respondents facing each barrier.
Associations between EBP and demographic variables

- <5 yrs experience – EBP is necessary (OR 3.1)
- 20-29 yrs, <5 yrs experience – EBP creates unreasonable demands (OR 0.3)
- <5 yrs experience – confident to find relev. research (OR 1.9)
- Men – EBP helps in decision making (OR 2.0)
- Postgrad degree – read articles (OR 6.4), search databases (OR 20.6), confident to find relev. research (OR 11.1)

OR=Odds ratio
## Associations between guideline use and EBP variables

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Level</th>
<th>Odds Ratio (95% CI)</th>
<th>Model P</th>
<th>Model R²</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBP is necessary</td>
<td>Agree</td>
<td>2.44 (1.03–5.75)</td>
<td>0.034</td>
<td>0.02</td>
<td>267</td>
</tr>
<tr>
<td>EBP helps decision making</td>
<td>Agree</td>
<td>2.07 (1.06–4.04)</td>
<td>0.030</td>
<td>0.02</td>
<td>268</td>
</tr>
<tr>
<td>EBP places unreasonable demands</td>
<td>Disagree</td>
<td>3.28 (1.97–5.47)</td>
<td>&lt;0.001</td>
<td>0.10</td>
<td>267</td>
</tr>
<tr>
<td>Most treatments lack strong evidence</td>
<td>Disagree</td>
<td>3.44 (2.06–5.74)</td>
<td>&lt;0.001</td>
<td>0.11</td>
<td>266</td>
</tr>
<tr>
<td>Important that guidelines exist</td>
<td>Agree</td>
<td>7.87 (1.77–34.96)</td>
<td>0.001</td>
<td>0.06</td>
<td>268</td>
</tr>
<tr>
<td>Self-efficacy to treat according to evidence</td>
<td>Agree</td>
<td>3.53 (2.00–6.22)</td>
<td>&lt;0.001</td>
<td>0.10</td>
<td>267</td>
</tr>
<tr>
<td>Self-efficacy to find research</td>
<td>Agree</td>
<td>2.46 (1.47–4.11)</td>
<td>0.001</td>
<td>0.06</td>
<td>265</td>
</tr>
<tr>
<td>Knowledge how to integrate patient preferences</td>
<td>Agree</td>
<td>7.89 (4.14–15.04)</td>
<td>&lt;0.001</td>
<td>0.22</td>
<td>269</td>
</tr>
<tr>
<td>Awareness that guidelines exist</td>
<td>Yes</td>
<td>3.32 (1.95–5.65)</td>
<td>&lt;0.001</td>
<td>0.10</td>
<td>269</td>
</tr>
<tr>
<td>Knowledge where to find guidelines</td>
<td>Yes</td>
<td>4.48 (1.94–10.31)</td>
<td>&lt;0.001</td>
<td>0.07</td>
<td>269</td>
</tr>
<tr>
<td>EBP is encouraged in the workplace</td>
<td>Agree</td>
<td>1.86 (1.12–3.07)</td>
<td>0.015</td>
<td>0.03</td>
<td>268</td>
</tr>
<tr>
<td>Easy access to guidelines</td>
<td>Yes</td>
<td>3.78 (1.45–9.84)</td>
<td>0.003</td>
<td>0.04</td>
<td>268</td>
</tr>
<tr>
<td>Guidelines are important to facilitate practice</td>
<td>Agree</td>
<td>11.17 (3.32–37.57)</td>
<td>&lt;0.001</td>
<td>0.12</td>
<td>265</td>
</tr>
<tr>
<td>Guidelines are important to provide best treatment</td>
<td>Agree</td>
<td>4.15 (1.36–12.68)</td>
<td>0.005</td>
<td>0.04</td>
<td>266</td>
</tr>
<tr>
<td>Guidelines are important to provide equal treatment</td>
<td>Agree</td>
<td>3.25 (1.41–7.48)</td>
<td>0.003</td>
<td>0.04</td>
<td>266</td>
</tr>
</tbody>
</table>
## Determinants of guideline use

**final multiple logistic regression model (n=258)**

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Level</th>
<th>B (SE)</th>
<th>Odds Ratio (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidelines are important to facilitate practice</td>
<td>Agree</td>
<td>2.31 (0.72)</td>
<td>10.11 (2.47–41.33)</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge how to integrate patient preferences</td>
<td>Agree</td>
<td>1.72 (0.42)</td>
<td>5.58 (2.47–12.58)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Disagree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBP places unreasonable demands</td>
<td>Disagree</td>
<td>1.18 (0.34)</td>
<td>3.25 (1.68–6.28)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness that guidelines exist</td>
<td>Yes</td>
<td>1.08 (0.35)</td>
<td>2.95 (1.49–5.86)</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most treatments lack strong evidence</td>
<td>Disagree</td>
<td>1.06 (0.32)</td>
<td>2.89 (1.53–5.46)</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Agree</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Model P =<0.001, Nagelkerke R² =0.46, Overall percentage correctly predicted 75.6%*
Implications for guideline developers and implementers

• The positive attitudes found toward EBP and guidelines are an important prerequisite for EBP in primary care physical therapy, but need to be accompanied by increased availability of and access to clinical guidelines.

• Identified barriers and facilitators can be used both in guideline development and to tailor a guideline implementation strategy.
Conclusions

• Attitudes to EBP and guidelines were very positive

• Use of guidelines was not as frequent as could be expected in view of highly positive attitudes

• Awareness of and perceived access to guidelines were rather limited

• The identified barriers and facilitators should be addressed when developing guideline implementation strategies