Learning needs and barriers in the physiotherapeutic care in Parkinson Disease –

A starting point for a European guideline

An interim report

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Abstract

Objectives:
(1) To develop an online-questionnaire and (2) use it as a means to gain insight in current physiotherapeutic care in Parkinson’s disease (PD), the barriers of physiotherapists (PTs) perceived in delivering optimal care, and the PTs’ learning needs within Europe.

Methods & Materials:

Questionnaire design: An 88-item questionnaire was developed based on items from existing questionnaires about current care, barriers and unmet needs, measurement tools in the physiotherapeutic care, on the Dutch PD guideline, recent systematic reviews and expert opinion. An online version was made available.

Validation: Content validity was ensured by an European group of 9 PD expert PTs and repeatedly reviewed of PD experts (SK, MM).

Target groups: The questionnaire is addressed to (1) a random sample of physiotherapists of the European Region of the World Confederation for Physical Therapy (ER-WCPT) member organisations (N=600 for each country) and (2) PD expert PTs.

Results:
16 of 39 invited countries were willing to participate in the survey.

No data of the questionnaire has been gathered, yet. In the following an example text is shown how the future results will be presented:

The results show that the mean patient volume is ..., with a SD of ... . Most important barriers perceived to deliver optimal care are ... (n (%)). The choice of measurement tools varies widely/hardly. The most widely used instruments are... n (%). The perceived competence in using these measurement tools is low/high. Scores on quality indicators show that current care of patients with PD is low / high concerning ... .
Discussion:
As no results can be presented, five subjects are discussed which are expected to be relevant for the guideline development: (1) patient volume, (2) measurement tools, (3) barriers in delivering optimal care, (4) quality of care and (5) key questions and implementation.

Conclusion:
A good-quality and valid online-questionnaire was created. No results of the survey can be shown, yet. The survey is expected to be carried out in most of the participating countries in March 2011.

Keywords: Parkinson’s Disease, current physiotherapeutic care, unmet needs and barriers, United Kingdom

Introduction

Parkinson’s disease (PD) is a common progressive neurodegenerative disorder with a wide variety of motor and non-motor impairments and limitations, causing a significant social and financial burden (Gage et al. 2003, Lindgren et al. 2004). The number of individuals with PD over the age of 50 ranged in the 15 most populous nations from 4.1 to 4.6 million in 2005 and will double to a range from 8.7 to 9.3 million by 2030 (Dorsey et al. 2007).

Even with the best medical and neurosurgical treatment (Horstink et al. 2006), patients with PD will experience a deterioration in all three domains of the International Classification of Functioning (ICF), namely in body structures and functions, activities and participation (Keus et al. 2009, Keus et al. 2004a, Nijkrake et al. 2007). This deterioration leads to an increasing disability as well as dependency during daily life (NICE 2006, Crizzle et al. 2006, Giladi et al. 2006, Poewe et al. 2006, Rascol et al. 2002). For parts of the remaining impairments and limitations, physiotherapy is beneficial (Smidt et al. 2005; Taylor et al. 2007; Kwakkel et al. 2007).

In 2004, the guideline ‘Parkinson’s disease’ of the Royal Dutch Society for Physical Therapy (KNGF) was published (Keus et al. 2007a). The guideline provides evidence-based practice recommendations. It is available online in Dutch and in English (www.kngf.nl). Currently, it is still the only guideline available worldwide in its field. It is being implemented in the Netherlands through ParkinsonNet (Munneke et al. 2009). Within Europe, implementation plans for the guideline are being developed in three countries now (i.e. Italy, Switzerland and Sweden) (EPDA 2010).

As the guideline is developed according to standardized international criteria for guideline development (AGREE 2001), it needs to be updated every five years. This is supported by the KNGF. However, a Guideline implementation Workshop for the KNGF-guideline was initiated by the Association of Physiotherapists in PD Europe (APPDE) in June 2010. Participants expressed the need for a European PD guideline. Therefore, the guideline developers (S. Keus and M. Munneke) agreed upon extending the update of the Dutch PD guideline to European level. The development of the European guideline is endorsed by the KNGF, the APPDE and the European Region of the World Confederation of Physical Therapy (ER-WCPT).

As a first step in the European guideline development process, we aim to gain insights into:
• current physiotherapeutic care in PD within Europe;
• barriers in delivering optimal care;
• learning needs of the PTs.

This information will be used to develop key questions to be answered in the European guideline. In addition, it is required for the development of the guideline implementation plans.

To gather this information, we (1) developed a questionnaire and (2) will use it as a means to gain insight in current physiotherapeutic care in PD, the barriers PTs perceive in delivering
optimal care, and the PTs’ learning needs therein, in several European countries.

Methods

Questionnaire design

We developed a questionnaire by selecting items from existing questionnaires. First, items were selected from questionnaires used to gain insight in physiotherapeutic care in PD (Keus et al. 2004(a); Nijkrake et al. 2009(a)). Second, the most relevant items were extracted from a questionnaire aiming to gain insight into barriers for PTs perceived in using outcome measures (V. Peppen et al. 2008). Third, all recommendations of the Dutch PD guideline (Keus et al. 2004(b)) were addressed to develop questions to gain insight in the quality of physiotherapeutic PD care delivered (e.g. using quality indicators). Fourth, a questionnaire about unmet educational needs was used to gather items about learning needs (McDonagh et al. 2004).

Further, in order to collect items about used measurement tools recent systematic reviews (e.g. Dibble et al. 2009, Goodwin et al. 2008) and the Dutch PD guideline were addressed (Keus et al. 2004(b)). In addition, items evolving during discussions between the authors and expert opinions were incorporated.

To ensure face and content validity of the questionnaire the developed items were repeatedly reviewed by two PD (PhD) experts (SHJK, MM) and adjusted accordingly by two authors (JW, FRMB). To ensure European content validity a first draft was discussed during a Guideline Implementation Meeting at the World PD Congress in Glasgow by a group of PD experts, all being APPDE members (Sept 30th, 2010). The participating countries (N=10) are listed in Table 1. The PD experts were asked to give feedback about its relevance and completeness with a structured web-based feedback form using google.docs (see appendix 1).

The feedback outcome was evaluated and the questionnaire adjusted accordingly by two authors (JW, FRMB) and reviewed by two PD experts (SHJK, MM). Of the same expert group, which reviewed the first draft, only one member (Switzerland) suggested a change in the questionnaire in a second draft.

Table 1: Countries of participating APPDE members involved in European validation

<table>
<thead>
<tr>
<th>Countries (n=10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
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<td>Czech Republic</td>
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<tr>
<td>Denmark</td>
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<td>Germany</td>
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<td>Italy¹</td>
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<td>Luxembourg</td>
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<tr>
<td>Portugal</td>
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<tr>
<td>Sweden</td>
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<tr>
<td>Switzerland</td>
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<tr>
<td>United Kingdom</td>
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</tbody>
</table>

¹no PD-specific expertise

The correctness of the English language used, was evaluated twice by native English-speaking persons: the 1st draft in September 2010 by a board member of the APPDE; the final draft by the president of the ER-WCPT in January 2011.

The questionnaire was translated into German by the authors and sent to a German-speaking APPDE member for evaluation. The feedback was adjusted accordingly and sent back for a second evaluation.

Finally, the questionnaire was made available online, using GoogleDocs.com and FormDesk.com. The technical functionality of the online-questionnaire was piloted by sending it to email users (N=26) with different email account providers from different countries. Recipients were asked to give feedback about the functionality of the link leading to the questionnaire, the contingency questions, the layout, the time to fill in the questionnaire and the general impression. All
responders (N=6) had no problems opening the link. Minor changes had to be undertaken to adjust the layout, the general impression and the contingency questions.

In the end of January, a final questionnaire (in English) will be made available online, in two identical versions: a ‘random selection questionnaire’ and an ‘expert questionnaire’.

**Questionnaire contents**
(1) The developed questionnaire contains two parts, 88-item in total.

**Part 1.**
The 1\textsuperscript{st} part is targeted at all PTs irrespective of PD-specific expertise or experience in order to gain insight into the current physiotherapeutic care in PD of all PTs in Europe.
It contains:
- Relevant demographic and professional characteristics of the PT;
- the PT’s general physiotherapeutic care and PD expertise;
- a set of potential learning needs or barriers for PTs in the care of PD.

**Part 2.**
The 2\textsuperscript{nd} part is targeted at PTs with PD-specific expertise, having treated >4 patients in the past 12 months to discover the learning needs in PD in Europe.
It contains:
- questions about the content of their treatment (diagnostic and therapeutic process, evaluation, after-care);
- questions about the use of measurement tools;
- questions about the knowledge and use of the Dutch PD guideline.

The reason for choosing ‘4 patients’ as a threshold for expertise was based on a survey of Nijkrake et al. (2009b) which showed that PTs treating on average 7 PD patients per year reported more competence in the treatment compared to PTs treating on average 3 patients with PD per year. The middle value was taken to ensure that most of the PD experts would be included.

**Types of questions**
Closed questions (e.g. dichotomies, multiple choice, check-boxes) were used to find out about relevant demographic and professional characteristics of the PT, the PT’s general physiotherapeutic care and PD expertise, and the use of the Dutch PD guideline.
A 5-point-Likert scale was used to grade barriers in the use of measurement tools (1. strongly disagree – 5. strongly agree).
A 5-point rating scale was used to grade the usage in terms of frequency (1. almost always – 5. never) and perceived competence level (1. very high – 5. very low) of using specific strategies in the diagnostic and therapeutic process; further, to find out about the frequency of using the different parts of the Dutch PD guideline (1. almost always – 5. never).
A 4-point-rating scale was used to find out how frequently evidence-based measurement tools were used (1. always – 4. never).
Open questions were included to avoid missing any information (e.g. not mentioned strategies and measurement tools; missing items in the current Dutch PD guideline).
In addition, contingency questions were used, in order to e.g. lead non-expert PTs to the end of the questionnaire after the 1\textsuperscript{st} part.

**Target groups**
The participating ER-WCPT member organisations invited their members (national physiotherapy organisations) to participate in the development of a European guideline for PD. As part of this development they are required to support the survey in their country. The first target group to whom the questionnaire is addressed are working PTs being members of the ER-WCPT member organisation who agreed upon participation. A random sample (N=600) was taken in order to gather most reliable information about the current care in PD of all PTs in each country. The method for randomization was discussed
with each participating ER-WCPT organisation individually.

A second target group are PTs specialized in neurology in order to gain as much as possible insight into the barriers and learning needs in the physiotherapeutic care of PTs specialised in PD. These were contacted with an open invitation link e.g. on the ER-WCPT webpage or via a newsletter sent by the ER-WCPT.

Invitation letter
An invitation email was sent to the selected members. They were asked to fill in the questionnaire. Besides the answer options ‘Yes’ (linking them to the questionnaire in FormDesk) and ‘No’ (end of questionnaire), they could choose ‘No, but I am willing to fill in one question’. This last option linked them to a questionnaire (google.docs) containing solely one question asking about the amount of patients with PD treated in the past 12 months. This last option was offered in order to increase response rate, to prevent a loss of valuable information which is important for the generalizability of the outcome of the current care to all PTs in the country.

Reminder
Two weeks later a reminder was sent to the randomized sample to get the highest possible number of filled in questionnaires back.

RESULTS
No results of the survey can be presented, yet. All data is expected to be carried out in most of the participating countries till the end of March 2011.

In the following, we provide example tables and formulations which might be used to present the future results. Both, tables and formulations will be adjusted according to the future data outcome (e.g. a table for interesting differences between countries might be added).

**Table 2: Participating Countries, Randomization Method and Response**

<table>
<thead>
<tr>
<th>Country (n=16)</th>
<th>Randomization Method</th>
<th>Response (%)</th>
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</thead>
<tbody>
<tr>
<td>Switzerland</td>
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<tr>
<td>Spain</td>
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<tr>
<td>Portugal</td>
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<td>Norway</td>
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<td>Luxembourg</td>
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<td>Italy</td>
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<tr>
<td>Ireland</td>
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<td>Germany</td>
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<tr>
<td>Finland</td>
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<tr>
<td>Denmark</td>
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<td>Cyprus</td>
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<td>Belgium</td>
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<tr>
<td>Austria</td>
<td></td>
<td></td>
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<tr>
<td>Czech Republic</td>
<td></td>
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</tbody>
</table>

Response to survey invitation:
16 of 39 invited countries were willing to participate in the survey. The randomization method and response for each country is shown in table 2.

Response to the questionnaire:
A total number of ...N (%) of 600 sent questionnaires were returned. ...n (%) questionnaires were filled in by PTs without expertise in PD care (having treated less than 5 patients with PD in the last 12 months) and ...n (%) questionnaires by PTs with expertise (having treated more than 4 patients with PD in the last 12 months). See table 3.

Demographic and professional characteristics:
More / less female PTs participated in the survey ...n (%).
The perceived PD-specific competence level of the PTs was ... [very low / low / intermediate / high, very high] ...n (%).
...n (....%) PTs participated in a network of
experts specialized in PD. See Table 4.

**Current care, barriers and learning needs:**
Most important barriers perceived to deliver optimal care were ...n (%).

**Use of measurement tools:**
The mean number of measurement tools used by PTs is ...(mean±SD)). The choice of measurement tools varied widely. Most used instruments were the ...n (%), ...n (%) and ....n (%).
The perceived competence in using these measurement tools was low/high (...n (%)).

**Barriers and facilitators for using measurement tools:**
Perceived barriers in using measurement tools were ... n (%).
Facilitators for using measurement tools were ... n (%).

**Barriers and learning needs in the diagnostic and therapeutic process:**
The most used strategies during the diagnostic/therapeutic process were ...n (%).
The perceived competence in using these strategies is low/high (....n (%)).
The following not listed strategies were used, namely ...n (%). Perceived barriers in using these strategies were ...n (%).

The highest scores on quality indicators were found for ...n (%).
The lowest scores on the quality indicators were found for ...n (%).
See Table 7 for an overview of all scores for quality indicators.

**Use of protocols and guidelines:**
...n (%) PTs used a guideline or protocol in the care of patients with PD.
Thereof, ...n (%) PTs used the KNGF Parkinson guideline.
...n (%) have never heard of the KNGF guideline before.

**Use of recommendations of the KNGF PD guideline:**
...n (%) PTs used some, ...(n (n) used most and ...
...n (%) used all recommendations of the KNGF PD guideline.

**Reasons for not using all recommendations:**
Reasons for not using all recommendations included ... n (%).

**Use of the individual parts of the KNGF PD guideline:**
The main parts used from the guideline were... n (%).

**Utilisation of KNGF guideline in practice:**
The guideline was mainly used for ... n (%).

### Table 3: Response to the questionnaire

<table>
<thead>
<tr>
<th></th>
<th>Response, n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All PTs &lt;5 pts/yr* &gt;4 pts/yr*</td>
</tr>
<tr>
<td>Total (n=600)</td>
<td>e.g. 450(75%)</td>
</tr>
<tr>
<td>Question on patient volume</td>
<td></td>
</tr>
<tr>
<td>Part 1</td>
<td></td>
</tr>
<tr>
<td>Part 2</td>
<td></td>
</tr>
</tbody>
</table>

*Amount of patients with PD treated by PTs
### Table 4: Demographic & Professional PT characteristics

<table>
<thead>
<tr>
<th>Details</th>
<th>n (%)</th>
<th>mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td>e.g. 43 (3.2)</td>
</tr>
<tr>
<td>Gender (female)</td>
<td>e.g. 300 (75%)</td>
<td></td>
</tr>
<tr>
<td>Country of working place</td>
<td></td>
<td>e.g. 10 (10%) 80 (20%)</td>
</tr>
<tr>
<td>Highest level of PT qualification</td>
<td></td>
<td>e.g. 250 300 (75%)</td>
</tr>
<tr>
<td>Country of qualification achieved</td>
<td></td>
<td>e.g. 40 (10%)</td>
</tr>
<tr>
<td>Years since qualification achieved</td>
<td></td>
<td>12 (±8)</td>
</tr>
<tr>
<td>Subjectively perceived level of PD specific competence</td>
<td></td>
<td>e.g. 50 (12.5%) 50 (12.5%) 50 (12.5%) 50 (12.5%) 200 (50%)</td>
</tr>
<tr>
<td>Taking part in PD network</td>
<td></td>
<td>e.g. 4 (1%) 396 (99%)</td>
</tr>
<tr>
<td>Number of patients with PD treated in last 12 months</td>
<td></td>
<td>3 (±3)</td>
</tr>
</tbody>
</table>

### Table 5: Perceived barriers in optimal care

<table>
<thead>
<tr>
<th>Perceived barriers in optimal care</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Limited knowledge about possibilities of physiotherapy in Parkinson’s disease</td>
<td>e.g.: 105 (80%)*</td>
</tr>
<tr>
<td>Limited experience in treating patients with Parkinson’s disease</td>
<td></td>
</tr>
<tr>
<td>Limited time available in each (single) physiotherapy session</td>
<td></td>
</tr>
<tr>
<td>Limited number of sessions covered by insurance (on a yearly basis)</td>
<td></td>
</tr>
<tr>
<td>Limited availability of Parkinson’s disease exercise groups close to the patient’s home</td>
<td></td>
</tr>
<tr>
<td>Limited information about comorbidities provided by the physician</td>
<td></td>
</tr>
<tr>
<td>Limited opportunity to discuss issues with physiotherapy colleagues</td>
<td></td>
</tr>
<tr>
<td>Limited opportunity to discuss issues with other health care professionals</td>
<td></td>
</tr>
<tr>
<td>Limited insight into the roles of other care providers in Parkinson’s disease (e.g. occupational therapist, Parkinson’s disease nurse specialist)</td>
<td></td>
</tr>
<tr>
<td>Unavailability of an evidence-based clinical practice guideline</td>
<td></td>
</tr>
<tr>
<td>Patients are referred for physiotherapy by a doctor at a too late stage of their disease</td>
<td></td>
</tr>
</tbody>
</table>

%: percentage; n: number; *considered as an important barrier (Criteria for an item to be considered as an important barrier: > 75% of the PTs voted for the item)
Table 7: Quality indicators of the diagnostic process and therapeutic process

<table>
<thead>
<tr>
<th>Quality indicator*</th>
<th>‘how often’ n (%)</th>
<th>‘how competent’ n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>almost always</td>
<td>often</td>
</tr>
<tr>
<td><strong>Therapeutic Process:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treating patients with limitations in ADLs at least once in their home environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing instructions concerning arm swing, wide base of support, heel contact</td>
<td></td>
<td></td>
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<tr>
<td>and size of the turning cycle, when gait is limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of cueing strategies, when gait is limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Providing information about the importance of avoiding double tasks when the</td>
<td></td>
<td></td>
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<tr>
<td>patient’s safety is threatened</td>
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<tr>
<td>Application of active balance and strength training exercises of the lower</td>
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<tr>
<td>extremities when balance is limited</td>
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<td></td>
</tr>
<tr>
<td>Application of cueing strategies when the initiation of transfers is limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of cognitive movement strategies when transfers are limited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of an at least 8 weeks lasting active exercise program when physical</td>
<td></td>
<td></td>
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<tr>
<td>capacity is insufficient</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application of an home exercise program which is evaluated with a low frequency,</td>
<td></td>
<td></td>
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<tr>
<td>when physical capacity is insufficient</td>
<td></td>
<td></td>
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<tr>
<td>Evaluating the effectiveness of an exercise programme after 8 weeks, when</td>
<td></td>
<td></td>
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<tr>
<td>physical capacity is limited</td>
<td></td>
<td></td>
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<tr>
<td>Sending an adequate report of treatment goals, strategies and results to the</td>
<td></td>
<td></td>
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<tr>
<td>referring physician, when treatment is discontinued</td>
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</tr>
</tbody>
</table>

*based on Nijkrake et al. 2009a
DISCUSSION

Our aims were (1) to develop a questionnaire and (2) use it as a means to gain insight in current physiotherapeutic care in PD, the barriers PTs perceive in delivering optimal care, and the PTs’ learning needs therein, in several European countries. We succeeded in developing a valid questionnaire, translated it into German and made the English version available online. Results of the questionnaire are not available, yet.

In the following, we discuss five subjects which are expected to be discussed when all the data is gathered:

Treatment volume
In our survey, we found that the average number of patients with PD treated by PTs over the past 12 months was ... . This number is higher/the same/lower than the numbers reported before.

In the UK it exists a poor access to allied therapy services for patients with PD. The chance of being referred for physiotherapy is currently between 7% and 38% (Keus et al. 2004a, APPG 2009). According to Keus et al. (2004a) 48% of patients with PD disease are referred to a PT over a period of 6 months in the Netherlands. Thus, we also expect a low referral rate and a low amount of patients with PD treated by one PT a year in other European countries.

Further Nijkrake et al. (2009a) identified in a survey that non-PD expert PTs had an average working experience of 18.6 years compared to PTs with expertise in the treatment of patients with PD who had an average of 21.2 years.

Measurement tools
Outcome measures are an important tool to evaluate the effect of an intervention (Haigh et al. 2001, Van Peppen et al. 2008). But within Europe is a broad range of outcome measures used to identify patient’s limitations and impairments of one category (Haigh et al. 2001, Torenbeek et al. 2001). According to Jette et al. (2008) the following benefits of the effect of using standardised outcome measures include transparency of care, facilitating improved continuity of care for patients and transitioning from one health care setting to another.

In a study about the use of outcome measures for patients with stroke and low back pain among rehabilitation professionals in 5 European countries Torenbeek et al. (2001) reported little consensus about which outcome measures to use. We expect a similar situation in Europe in the use of outcome measures in PD. In order to contribute to a standardised use of outcome measures in the treatment of PD we need to identify which outcome measures are currently used in Europe.

Barriers in delivering optimal care
Many PTs reported barriers in the usage of standardised outcome measures which included lack of time and inconvenience; lack of familiarity, know-how, and training; and lack of resources such as staffing and automation (Jette et al. 2008). Beside these barriers recent studies have identified more barriers in the delivery of optimal physiotherapeutic care (Jette et al. 2008, Bekkering et al. 2003, Salbach et al. 2007, McDonagh et al. 2004).

In the survey of Bekkering et al. (2003) Dutch PTs frequently stated a lack of knowledge or skills in the diagnostic and treatment process of patients with lower back pain even though the existence of a guideline. The author states that guidelines need to be implemented in order to facilitate evidence-based practice (EBP). The guidelines should help PTs to realise which type of education they need in order to keep their knowledge and skills up to date (Bekkering et al. 2003).

Additionally a Canadian survey (Salbach et al. 2007) identified barriers to PTs’ implementation of EBP for people with stroke and revealed the three most common barriers: 1. Insufficient time, 2. Lack of generalizability of research findings, 3. Lack of research skills. Other barriers than learning needs have been identified in transitional care delivered by rheumatology health professionals. These barriers included limited clinic time and lack of institutional support (McDonagh et al. 2004).

Nijkrake et al. (2009a) identified barriers especially in the physiotherapeutic care of
patients with PD which included limited adherence to the PD guidelines in Netherlands. Also the 'All Party Parliamentary Group for Parkinson’s Disease' (APPG 2009) reported 'patchy guideline adherence and implementation' in UK.

Quality of care
Our data showed that looking at the quality indicators developed with the Dutch PT guideline, some/most of the PTs scored high on frequency of ... and low on frequency of ... . However, when looking at reported competences it showed that ... . Comparing these outcomes to the results found by Nijkrake et al. (2009a) in groups of PD expert and non-PD expert PTs it becomes obvious that ... . (the text on the quality of care depends on the results found)

Key questions & implementation
The survey has provided us insight in the current care, learning needs and barriers for optimal care. Several results can be transformed into key questions for the future PD guideline. Examples of these are ... . In addition, lessons are learned which are important for the development of implementation plans. For example, ... .

CONCLUSION
We succeeded in creating a good-quality and valid online-questionnaire (good face and content validity). The results of the survey are not available, yet. The results are expected to be gathered in the end of March 2011.

REFERENCES


- Smidt N, de Vet HCW, Bouter LM, Dekker J. Effectiveness of exercise therapy: A


Appendix 1: Feedback form to improve the concept questionnaire: Physiotherapy in Parkinson’s Disease within Europe Current care and unmet needs

- What is your nationality:

- Are you a physiotherapist with PD specific expertise?
  O Yes
  O No; I am ................

- Are there topics/questions/items that you think are missing from the questionnaire?
  O No
  O Yes; I missed:

- Are there questions or items which you could not understand?
  O No
  O Yes; I did not understand (please explain if possible):

- Are there questions or items you would remove from the questionnaires?
  O No
  O Yes; I would remove (please explain if possible):

  Question or item number .................., because:

  Question or item number .................., because:

  Question or item number .................., because:

- Are there rating options for answers which you would change?
  O No
  O Yes; I would change (please explain if possible):

- Do you have you have any other comments to improve this questionnaire which aims to gain insight into current care and unmet needs of therapists for physiotherapy in Parkinson’s disease in Europe?