

# The use and perceived usefulness of a patient-specific measurement instrument in physiotherapy goal setting. A qualitative study

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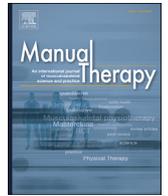
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## Original article

# The use and perceived usefulness of a patient-specific measurement instrument in physiotherapy goal setting. A qualitative study



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## A B S T R A C T

### Keywords:

Goal setting  
Physiotherapy  
Patient-specific measurement instruments  
Client-centred care

**Objectives:** Physiotherapists are encouraged to set goals together with their patients to deliver client-centred care. In practice however, this goal-setting process is poorly specified, with limited patient involvement. The Patient-Specific Complaints instrument (PSC) can support the goal-setting process. Despite its being frequently used by Dutch physiotherapists, its actual role in goal setting is unknown. The objective was to examine physiotherapy goal-setting and the use of the PSC within this process, as well as the physiotherapists' perception of the usefulness of the PSC.

**Methods:** Consultations between physiotherapists and patients were observed and physiotherapists were interviewed. Data were analysed by directed content analysis, using a goal-setting framework as the coding scheme whose phases include: goal negotiation, goal setting, planning, and appraisal and feedback.

**Results:** The patients' problems were comprehensively explored, with the PSC focussing on activity problems. Goal-setting and planning phases were poorly specified and mainly physiotherapist-led. The physiotherapists appreciated the PSC for patient involvement during goal negotiation and evaluation. Its perceived usefulness for goal setting and planning ranged from useful for tailoring goals to the patient's needs to not useful at all. One major reason to use it was meeting external audit obligations.

**Conclusions:** There are some discrepancies between how physiotherapists use the PSC and how they perceived its usefulness. Physiotherapists did use the PSC in a goal-setting process, though often as a standalone tool without integration in the whole physiotherapy process, and with limited patient involvement. In this way, its full potential for goal setting is not utilized.

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## 1. Introduction

Goal setting is important in delivering client-centred care, especially for patients with chronic disorders who often face multiple problems and long-term treatment. Professional standards encourage physiotherapists to set goals together with their patients (de Vries et al., 2014), so patients should be actively engaged in goal setting and therapy planning in order to participate in the treatment and to facilitate self-management (Lenzen et al., 2015). This is

in line with the new definition of health, where patients are encouraged to self-manage their lives (Huber et al., 2011).

Patient participation in general, and goal setting in particular, is considered to improve patients' treatment adherence, motivation, and satisfaction, resulting in better outcomes (Arnetz et al., 2004; Hazard et al., 2009; Ponte-Allan and Giles, 1999). Despite these recommendations and the apparent benefits, goal setting occurs infrequently, with minimal patient involvement (Baker et al., 2001; Leach et al., 2010; Levack et al., 2011; Lloyd et al., 2014; Parry, 2004; Playford et al., 2000; Rosewilliam et al., 2011; Schoeb, 2009).

A structured approach to the goal-setting process appears to have a positive impact on patient participation, and on the health professionals' perceived patient-centeredness, goal orientation and efficiency (Arnetz et al., 2004; Hazard et al., 2009; Holliday et al.,

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2007; Scobbie et al., 2013; Wressle et al., 2002a,b). Such structured approaches or methods can be supported by various tools (Holliday et al., 2007; Rosewilliam et al., 2011; Van De Weyer et al., 2010; Wressle et al., 2002a,b).

A recent literature review identified and proposed several patient-specific instruments to support patient involvement in the goal-setting process (Stevens et al., 2013). Patient-specific or individualized instruments are especially helpful in clarifying the patients' perspective, specifying their individual problems and monitoring these problems during treatment (Donnelly and Carswell, 2002; Hurn et al., 2006). The review by Stevens et al. emphasizes the integration of these instruments as part of the complete goal-setting process rather than as a separate tool to be administered (Stevens et al., 2013). This can make the therapy more goal-orientated and efficient. One of the instruments identified is the Patient-Specific Complaint Instrument (PSC) (Beurskens et al., 1999), which is similar to the Patient Specific Functional Scale (PSFS) (Stratford et al., 1995). The PSC is one of the most frequently used measurement instruments in Dutch community-based physiotherapy practices, and is recommended in 70% of the Dutch physiotherapy guidelines (Swinkels et al., 2011). It is used to clarify the patients' activity problems in order to determine the treatment goals and plan.

Although the PSC is extensively used, there has so far been no empirical study on how it is actually used in routine practice, and how it is perceived to support the goal-setting process. In order to improve goal setting in physiotherapy, we wanted to gain insight into the physiotherapy goal-setting process and whether physiotherapists perceive the PSC as useful within this process. To this end, the following questions were formulated: 1. How is the goal-setting process performed in physiotherapy, and how is the PSC used within this process? 2. What is the usefulness of the PSC for goal setting as perceived by the physiotherapists?

## 2. Methods

### 2.1. Design

The study was carried out in the natural setting of routine physiotherapy practice, using a descriptive qualitative study design (Kahlke and Hon, 2014) based on observations from physiotherapy consultations and interviews with physiotherapists.

### 2.2. Theoretical orientation

We based our study on the goal-setting and action-planning practice framework (G-AP framework) (Scobbie et al., 2011) and the stepwise process of the PSC (Beurskens et al., 1996, 1999). The G-AP framework describes a cyclic process of goal setting comprising several phases. The essential intervention elements in each phase are as follows. [1] Goal negotiation: patients are encouraged to appraise their current situation and to identify the main problems they want to address. [2] Goal setting: the identified problems are specified into treatment goals. Goal attributes should be specific, and not too easy to achieve, yet not so difficult as to present an impossible challenge to the patient. Patients should be involved in goal setting, which means that goals should be set and agreed upon by the patient and the health professional. [3] Planning: an action plan details 'what' has to be done, 'how', 'where' and 'when'. [4] Appraisal and Feedback: the performance is appraised and progress is measured.

The Patient Specific Complaints (PSC) (Beurskens et al., 1996, 1999) is a stepwise instrument for selecting and evaluating patient's main problems. In step one, the physiotherapist identifies which of the patient's daily activities are difficult to perform. A list

of activities can be provided to support recall. Steps two and three involve prioritizing the activities and scoring them on a Numeric Rating Scale (NRS) (0 = easy to perform, 10 = impossible to perform). The patient's PSC activities can support the setting of personal treatment goals. The PSC can be reassessed during the treatment programme, according to the physiotherapist's clinical judgement, but this should at least be done at the end of the treatment programme. To combine the strength of both the framework and the PSC in goal setting, a previous review proposed to integrate the PSC steps into the G-AP framework (Fig. 1) (Stevens et al., 2013).

### 2.3. Setting and participants

The study was conducted in physiotherapy practices in community-based healthcare in the Netherlands. The practices were recruited from the database of internship supervisors from the School for Physiotherapy at Zuyd University of Applied Science, Heerlen, the Netherlands. Twenty practices were purposively sampled: they had to use the PSC and treat adults with chronic conditions. They were approached by email and contacted by phone after one week. Seventeen practices agreed to participate, and twelve of them were able to select patients who met the inclusion criteria during the research period (Fig. 2).

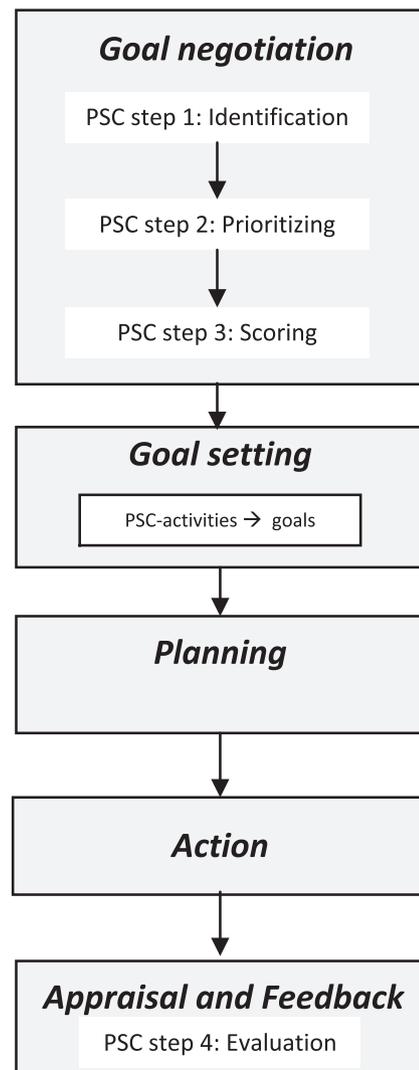


Fig. 1. G-AP framework with the integrated steps of the PSC.

The physiotherapists approached their patients for participation. Inclusion criteria for the patients were: suffering from chronic conditions and consulting the physiotherapist for a new episode. Patients were sampled purposively to ensure a broad range of patients in terms of age, sex and disorders (Creswell, 2013). During the research period, 23 consultations were included for observation. Fourteen were first consultations and gave a picture of the whole goal-setting procedure, while nine were second consultations that only focussed on the use of the PSC. A total of 18 physiotherapists participated in the observations, ten of whom (5 male, 5 female) were approached for an interview. Purposive sampling was used to capture a variety of ages and working experience (Creswell, 2013). Patient and physiotherapist characteristics are presented in Tables 1 and 2.

All participants were informed and gave their informed consent prior to the observations and interviews. Ethical approval of the study was obtained from the ethics commission of Atrium-Orbis-Zuyd, Heerlen, the Netherlands (number: 13-N-18).

#### 2.4. Data collection

Two different methods of data collection were used: audiotapes of the observed consultations and semi-structured interviews. Research question 1 was answered with data from the observed consultations and focussed on the first three phases of the G-AP framework and the PSC. Research question 2 was answered with data from the interviews. The interview guide consisted of open-ended questions about 'How useful the physiotherapist perceived the PSC to be for: [1] identifying patients' problems, [2] setting treatment goals, [3] drawing up a therapy plan, and [4] evaluating the outcome. The observations and interviews were conducted by one researcher (AS), the interviews were conducted four to six weeks after the consultations. They were audiotaped and transcribed verbatim.

The rationale for the number of consultations and interviews was based on data saturation. After fifteen observations and seven interviews had been analysed, analytical data saturation had been reached. We analysed seven more observations and three additional interviews to validate the findings.

#### 2.5. Data analysis

For the data-analysis both deductive and inductive reasoning was used (Creswell, 2013). Directed content analysis (Hsieh and Shannon, 2005), using deductive reasoning, was conducted with



Fig. 2. Selection of participants.

**Table 1**  
Characteristics of participating patients.

Consult	Sex	Age (y)	Disorder
1	F	65	Low back pain
2	F	76	Arthrosis of hip, tendinopathy
3	F	78	Arthrosis of neck-shoulder
4	F	55	Neck-shoulder complaints, headache
5	M	69	Arthrosis of knee, intestinal disorder, cardiac disorder
6	M	56	Arthrosis of knee
7	M	69	Arthrosis of hip, knee
8	F	65	Arthrosis of knee
9	M	68	Prostate cancer
10	M	74	Stomach cancer
11	F	78	Parkinson's disease, osteoporosis
12	F	28	Neck-shoulder complaints
13	F	22	Cruciate ligament injury
14	M	51	Frozen shoulder, diabetes
15	F	56	Low back pain
16	F	48	Breast cancer
17	F	46	Neck-shoulder complaints, asthma
18	M	35	Lung disorder
19	M	56	Low back pain, arthrosis of knee
20	F	47	Frozen shoulder
21	M	64	Stroke
22	F	63	Low back pain
23	F	80	Parkinson's disease

**Table 2**  
Characteristics of participating physiotherapists.

Physiotherapist	Sex	Age (y)	Work experience (y)
1	M	45	17
2	F	54	32
3	F	47	26
4	F	32	10
5	M	44	20
6	F	28	5
7	M	49	23
8	M	46	22
9	F	26	4
10	M	34	12

the G-AP framework (Scobbie et al., 2011) as the coding framework. The observations were analysed by identifying the different G-AP phases from the transcripts and deductively coding the essential elements from the framework. Any piece of text that could not be categorized within the coding scheme was inductively coded and added. The observed use of the PSC was analysed by identifying PSC steps and inductively coding them. The interviews were analysed by reading the transcripts and identifying relevant issues for each phase. The perceived usefulness in each of these phases was inductively coded. Two authors (AS, AM) independently coded the first three consultations and interviews. After discussion, they agreed on the main themes and subthemes, and potential new themes and subthemes were added. The resulting themes were subsequently discussed and validated in two additional sessions with all other co-authors. Care was taken that the themes and subthemes were supported by the observation and interview data. Qualitative data analysis software (NVivo Version 10; QSR International Pty Ltd, Victoria, Australia) was used during the entire analysis process.

#### 2.6. Trustworthiness

Proving trustworthiness requires four criteria to be met: credibility, transferability, dependability and confirmability (Lincoln and Guba, 1985). 'Credibility' was met by data and investigator triangulation (Sim and Sharp, 1998). Data triangulation was secured by

using various data sources for the same information (audit recordings, transcripts, codes, concepts and conceptual saturation), i.e. multiple observations and interviews throughout the analysis process. Investigator triangulation was achieved by involving five researchers in the research team. Persistent observation, e.g. identifying the most relevant themes, was secured by going back and forth between reading the data, analysing it and (re)coding the themes, during the stepwise analysis process. All interview transcripts were sent to the respondents for member checking. The description of the data on setting, study population, interview topics etc. enables the reader to make a 'transferability' judgment. 'Dependability' was ensured by having an experienced qualitative researcher of the team check the consistency of the analysis process. The criterion of 'confirmability', meaning neutrality, was ensured by checking whether the results emerged from the data. This was done in the analytical sessions with the researchers with different backgrounds (physiotherapist, nurse, physician).

### 3. Results

The results of the analysis are presented for each research question.

#### 3.1. How is the goal-setting process performed in physiotherapy and how is the PSC used in this process?

The main findings are summarized in Table 3.

**Goal negotiation** took place during history taking, and the majority of the consultations included 'discussion of main problems and potential goals'. The patients' complaints and resulting problems were comprehensively explored. The physiotherapists asked various questions to examine the consequences of the complaints for daily activities, e.g. their influence on daily life, how they coped with it and how they felt about it.

The **PSC** was used to identify the patient's main activity problems, and varied in terms of patient involvement and procedure. Some physiotherapists started by introducing the PSC and informing the patient about its purpose, for example its relation with the treatment, goal setting or evaluation. Other

physiotherapists did not inform the patient and applied the PSC without any further clarification. In the first step, the identification was based on an activity list, or used open-ended questions about things the patients were unable to do anymore or the problems they experienced. In some cases, the patients were given some reflection time to think about activities or to read the list. They were generally asked to select the activities themselves, but sometimes the physiotherapists preselected for the patient.

#### Consultation (Con) 23

*Physiotherapist (Phy): I'm now going to write down three activities. Which one you find the most difficult? Standing up I think, right? because you mentioned this first.*

The second step varied in terms of the subject of prioritization, which could be perceived burden, importance, or future wishes. The third step varied in terms of what was scored: the difficulty to perform the activity, or the amount of pain.

**Goal Setting** took place at the end of history taking and after the physical examination, when the findings were reported to the patient. In many cases, elements of goal negotiation, goal setting and planning occurred simultaneously. The G-AP element of 'refining the identified problems into specific goals' was observed and unfolded as a mostly vague discussion about problems and goals. The process varied, especially as regards the introduction of the instrument. Physiotherapists asked patients about their expectations, what they would like to be able to do again, or how they could help them. The discussion about potential goals was often non-specific, and patients were unable to give a straight answer to the questions about goals they wanted to achieve.

#### Con 19

*Phy: What exactly is your question for me?*

*Patient (Pat): Well, whether you can do anything about it*

*Phy: You mean about your back?*

*Pat: Yes*

**Table 3**  
Physiotherapy goal setting and the use of the PSC.

Phases of G-AP framework (essential elements)	Consultations	
	Goal-setting process (in general)	Use of the PSC (in goal-setting process)
<b>Goal negotiation</b>		
Discussion of main problems and potential goals	Comprehensive problem exploration	<ul style="list-style-type: none"> <li>• Patient involvement varies regarding introduction, information provision and reflection time</li> <li>• PSC procedure:               <ul style="list-style-type: none"> <li>– Step 1: Identification takes place in various ways</li> <li>– Step 2: Prioritizing differs regarding subject of prioritization</li> <li>– Step 3: Scoring differs: on 'difficulty to perform' or 'pain'</li> </ul> </li> </ul>
<b>Goal Setting</b>		
Refining problems into goals	<ul style="list-style-type: none"> <li>• Various introductions</li> <li>• Unclear discussion about goals</li> <li>• Sometimes not present</li> </ul>	The PSC activities are sometimes used to formulate treatment goals
Goal attributes	Goals are poorly defined, lack specificity, mostly at ICF-level of body function	Goals are quantitative and set as a future PSC score
Patient involvement	Goals are set by PT and agreed on by patients	–
Increase self-efficacy	–	–
<b>Planning</b>		
Action plan	<ul style="list-style-type: none"> <li>• Not well-defined</li> <li>• Lack of introduction</li> <li>• Goals often included</li> </ul>	–
Coping plan	–	–
Measuring confidence	–	–
New element: decision making	<ul style="list-style-type: none"> <li>• Patient information is one-way process</li> <li>• Patients are encouraged to have a say</li> </ul>	–

G-AP framework: goal-setting and action-planning practice framework; PT: physiotherapist; -: not observed.

Phy: Right, and what do you mean by doing something about it?

Pat: I don't know what you can do. I hope anyhow that I'll be a bit better.

Phy: Okay

In various cases, goal-setting did not take place as such, and the word 'goal' was not explicitly mentioned. The 'goal attributes' were often poorly specified, for instance 'improving physical condition' or 'seeing how far we can get'. Goals were mostly set at the level of body functions, such as reducing pain or increasing muscle power. Discussions about whether goals were achievable or challenging enough for the patient were not identified. Few attempts were made by the physiotherapists to make the goals more concrete, and they seemed content with poorly defined goals in terms of any improvement.

Con 2

Phy: What would you want to happen?

Pat: Well, erm, that it changes?

Phy: Yes, so we have the feeling that it's getting better

Pat: Yes, that it gets better, yes exactly

The actual goal setting differed in terms of the level of 'patient involvement'. Most physiotherapists mainly informed the patients about the physiotherapist's goals in a one-way communication process, and patient involvement was restricted to agreeing with the physiotherapist's proposal.

Con 3

Phy: What I would do, is (...) I'd just ensure that the knee is relieved, that you'll be mobile again and the pain goes away more quickly.

Pat: Fine.

Other physiotherapists made more effort to encourage patients to set their own specific goals, and challenged them by continued questioning.

The PSC activities were sometimes used to formulate treatment goals and to set quantitative goals. Patients were asked to give a desirable future score 'from 0 to 10' and this was used as the treatment goal.

Con 19

Phy: And what would you be satisfied with at the end of the treatment? What should be the score?

Pat: Well, let's see, the best score: '0', I would say. But I would also be satisfied with any progress.

In other cases, PSC activities were selected and scored, but they were not discussed any further during the consultation and thus not used for goal setting.

Planning took place after the physical examination. It was a not well-defined phase, however, and also lacked a clear introduction. Elements of an 'action plan' were identified, comprising practical issues of 'what' (including treatment goals), 'where' and 'when'.

Con 19

Phy: Okay, I'll tell you what I think we can do in this case

Pat: Making me stronger?

Phy: For the muscles (...) But you need more muscle strength in your hips and back, in order to be able to walk (...) so the only thing I can offer you is a ...

Pat: A training programme?

Phy: Building up muscle strength and a training programme to increase your capacity. That's what I can offer you. Are there any questions? Or perhaps you think: I don't agree, I'm not convinced?

Pat: Yes, I agree, if it helps, go ahead

A new theme that emerged was the 'decision making' about the plan. This mostly occurred in a one-way manner: the physiotherapists informed the patient about what he/she was going to do. Patients were never explicitly asked to give their own ideas or preferences, nor to state their agreement.

Con 4

Phy: I think it's important to stretch your muscles (...) We're going to look at your shoulder to get more space in the shoulder joint. And we're going to do relaxation exercises to learn the difference between tightening and relaxing the muscles (...) In between, we'll try to do some muscle strength exercises (...) I think we'll be working on that for about two to three months (...)

Pat: Yes that's fine

### 3.2. What is the usefulness of the PSC for goal-setting as perceived by the physiotherapists?

The majority of the physiotherapists found the PSC mostly useful for goal negotiation and evaluation, but less so for goal setting and hardly for planning purposes. One new theme emerged: the usefulness to meet external obligations. However, some physiotherapists perceived no usefulness of the PSC at all. [Table 4](#) only summarizes the positive perceptions.

#### Goal negotiation

Most physiotherapists found the PSC useful to 'involve patients in therapy'. They stated that patients were encouraged to appraise their own situation and became aware of their own functioning. In addition, patients were prepared to think about the goals they wanted to achieve.

Phy 9: With the PSC, you make people think for themselves about what activities they have problems with (...). 'Which activities would you want to improve' (...). Patients become aware of what they want to change and why they come for therapy.

They also indicated that the PSC makes patients more aware of their participative role in therapy by giving them a voice and responsibility.

Phy 5: It helps me that I don't decide for myself what I think the patient wants. By explicitly asking them, it becomes their choice and not mine.

The PSC was regarded as useful to 'support problem identification' as it structures the questioning and focuses on activities. Prioritizing and scoring were regarded as useful for gaining insight into the patient's perception of their burden. Some physiotherapists experienced 'no additional value', however, because all relevant information had already been obtained from the history taking and the physical examination.

**Table 4**  
Perceived usefulness of the PSC.

Phases G-AP framework	Usefulness
Goal negotiation	<ul style="list-style-type: none"> <li>• Involves the patient in therapy               <ul style="list-style-type: none"> <li>- encourages appraisal of their own situation</li> <li>- stimulates awareness of their own functioning</li> <li>- prepares them to think about their goals</li> <li>- increases their awareness of their participative role</li> </ul> </li> <li>• Supports the PT's problem assessment               <ul style="list-style-type: none"> <li>- structures questioning</li> <li>- focusses on activity and participation</li> <li>- provides insight into patient's perception</li> </ul> </li> </ul>
Goal Setting	<ul style="list-style-type: none"> <li>• Structures goal setting, translates PSC activities into goals</li> <li>• Supports setting patient-specific goals</li> <li>• Helps quantify goals</li> </ul>
Planning	<p>Yet: goal setting is perceived as difficult</p> <ul style="list-style-type: none"> <li>• Tailors treatment to patient-specific problems</li> <li>• Focusses on activity-directed treatment</li> </ul>
Appraisal and Feedback	<ul style="list-style-type: none"> <li>• Shows patient their improvement</li> <li>• Gives PT insight into the patient's perceived improvement</li> <li>• Increases motivation of patient and PT</li> </ul>
New theme	<ul style="list-style-type: none"> <li>• Stimulates goal-orientated care</li> <li>• Meets external obligations</li> </ul>

G-AP framework: goal-setting and action-planning practice framework; PT: physiotherapist.

*Interviewer (Int): How does the PSC help you identify and discuss the patients' problems?*

*Phy 1: Erm. Not, because I've already got this information from the history taking stage. I always ask, 'How are you and what about your activities at home'? And when I fill in the PSC afterwards, everything is already clear to me.*

#### Goal Setting

Most physiotherapists found the PSC useful to 'structure goal setting' by translating the PSC activities into treatment goals. Furthermore, they felt stimulated, or even forced, to take the patient's perspective into account and 'set patient-specific goals', instead of simply pursuing their own perspective and goals.

*Phy 10: What's in it for me? I think (...) I became a better physiotherapist, because I had to change my attitude. You have to give the patient some space and consciously take a step back yourself. Don't keep suggesting to them everything that might still be done, which might be irrelevant for the patient.*

They also appreciated the PSC score for 'quantifying goals' for evaluation purposes, because they are obliged to quantify treatment goals in their electronic patient file.

*Phy 1: It's nice that you express it in a score. For example, (...) he scores a 9 at the beginning and so I want him to score a 5 after three months.*

Additionally, all physiotherapists perceived goal-setting as difficult, and found themselves not fully prepared for this task by their training. They admitted that they were used to focussing on problems at the ICF-level of body functions, instead of activities and participation.

#### Planning

A minority of the physiotherapists found the PSC useful for planning because they felt that their plan became more 'patient-specific' and 'activity-directed' instead of focussing on body functions.

*Phy 8: Well, this patient we saw together, he had problems bending over and lifting heavy things. In my therapy we worked on these*

*activities and of course also strengthened his muscles. But we explicitly worked on these activities during the therapy.*

The majority of the physiotherapists found the PSC 'not useful for planning' and could not imagine how they could use the PSC for treatment planning. Instead, they preferred to work according to the physiotherapy guidelines, which were perceived as being more suitable for planning.

*Phy 1: Setting up the therapy plan? No. When the person arrives, then the plan is already ... it's there.*

*Int: You mean that you make the plan based on their diagnosis?*

*Phy 1: Yes, there are certain guidelines we have to stick to, don't we?*

#### Evaluation

All physiotherapists found the PSC useful for treatment evaluation, for 'showing the patients their improvement', especially when there was a discrepancy between their PSC score and their perceived improvement.

*Phy 7: Especially with patients with long-term problems where they have forgotten the state at the beginning, you can evaluate: listen, six months ago, you scored an 8 for 'walking' and now you score a 4, which is a big improvement. In order to bring someone back to reality and give insight into the treatment progress, I think it [the PSC] is valuable.*

Repeatedly scoring the PSC also gave the physiotherapists 'insight into the patients' perceived improvement'.

*Phy 2: Well, I can measure something at a particular time and tell the patient: your quadriceps have improved by 30%. But if that does not mean that, in her perception, going shopping for groceries - which was very important to her - has improved, then, there's nothing in it for her. So in that sense I think the PSC is very important for the patient.*

They also reported that an improved PSC score 'increased the patients' motivation' as well as their own. Using the PSC for

evaluation during the therapy 'stimulated goal-orientated care', because it forced them to look back at what they had done so far and reflect on their plan.

*Phy 6: It sometimes has made me adjust my plan. Because when you notice that it doesn't work or you don't achieve your goals, then you have to change your plan. So I would certainly say that it [the PSC] is useful.*

#### New theme: meeting external obligations

All physiotherapists admitted that the main reason for using the PSC was to meet external obligations from health insurance companies and quality audits. The PSC was regarded as perfectly suited to this task, because it is an easily and quickly applied instrument.

*Phy 6: We are obliged to report two sub-goals per patient, which have to be measurable. It is practical to report the range of motion, but this is not possible for every patient. So we often use the PSC to make things measurable.*

## 4. Discussion

This study has investigated the goal-setting process in physiotherapy and the actual use and perceived usefulness of the PSC within this process. The first phases of the G-AP framework were applied in the goal-setting process, though their use was not optimal. Patients' problems were comprehensively explored during the goal negotiation phase, but the actual goal-setting and planning phases were less commonly observed and were poorly specified. We observed that the PSC was mainly used during goal negotiation, where it focussed on the identification and appraisal of activity problems. It was less used to set goals and to plan therapy. The physiotherapists stated in the interviews that they perceived the PSC to be very useful for goal negotiation and more or less useful for goal setting and planning purposes. However, there were some discrepancies. The use of the PSC for goal setting and planning that was reported in the interviews was only partly confirmed in the observations. In the interviews, the physiotherapists said they appreciated the PSC for involving patients in their therapy. However, we observed that patient involvement varied considerably, as the patients were scarcely informed about the purpose of using the PSC, and the decision-making process was mostly led by the physiotherapist. All physiotherapists indicated that their main reason for using the PSC was to meet external obligations required by healthcare insurance companies and quality audits. This was reflected in the observations, where we saw that the PSC was often used as a standalone tool, without any integration in the rest of the physiotherapy process. This extrinsic motivation illustrates the regulatory constraints that community-based physiotherapists feel they are subject to. They are particularly focused on completing the electronic patient file, and this distracts from setting goals together with their patients.

### 4.1. Strength and weaknesses

One strength of this study is that we studied the goal-setting process and the use of the PSC in a natural setting, meaning that we did not impose information about the G-AP framework or a PSC instruction on the physiotherapists beforehand. This resulted in a considerable variety of goal-setting processes and PSC use, and provided rich data, which was also promoted by the variety of patients and physiotherapists involved. The combination of observations and interviews was a major strength of this study.

Combining these two methods made it possible to compare the actual performance with the perceived experiences. The fact that the same researcher conducted both the observations and the interviews made it possible to discuss certain situations in depth during the interview.

A weakness might be that we only observed initial and second consultations, so we did not gather information about the actual use of the PSC for evaluation. This was compensated for by the interviews, where the physiotherapists were asked to reflect on the entire goal-setting process. Having the researcher present during the consultations might have influenced the physiotherapists' natural performance. Another limitation would seem to be the sampling of physiotherapists from a group of early innovators (internship supervisors), meaning that their performance may not be representative of the whole profession. One could also consider the number of 10 physiotherapists, not covering the perspective of all observed physiotherapists, as a weakness. However, we analysed until data saturation occurred and confirmed this saturation in the additional interviews.

### 4.2. Comparison with other studies

We used the G-AP framework (Scobbie et al., 2011) as our coding framework because we considered this model to be useful for physiotherapy practice. Using it was a novelty in community-based physiotherapy because it had previously only been used in stroke rehabilitation (Scobbie et al., 2011, 2013, 2014). However, the analysis appeared to be in agreement with this framework and therefore might broaden the application of the G-AP framework. Planning was rarely observed, which is in agreement with the study by Scobbie et al. where planning was also inconsistently observed (Scobbie et al., 2013).

Comparing our findings with other studies of the PSC or PSFS is difficult, as previous studies have focussed on their implementation (Stevens and Beurskens, 2010) and psychometric properties (Barten et al., 2012; Berghmans et al., 2015; Beurskens et al., 1996, 1999; Nijkrake et al., 2009), and not on their actual use in practice. Therefore we compared our findings with studies of a similar patient-specific instrument, the Canadian Occupational Performance Measure (COPM) (Law et al., 1990). The COPM studies found benefits that were similar to those we observed in the PSC, such as gaining insight into the patient's perceptions and focussing on personally important issues (Chen et al., 2002; Colquhoun et al., 2010; Enemark Larsen and Carlsson, 2012; Kjekken et al., 2004; McColl et al., 2000; Wressle et al., 2003). But this is of course an advantage of all patient-specific instruments.

The fact that the actual goal setting was rather poorly specified or even absent was in line with the findings of previous research (Parry, 2004; Rosewilliam et al., 2011; Schoeb, 2009; Schoeb et al., 2014; Scobbie et al., 2013) and was reflected in the interviews, where the physiotherapist mentioned the difficulty of goal setting, as has also been confirmed by others (Levack et al., 2011). The lack of alignment and mutual understanding in the interactive process between patient and physiotherapist, which was reported in other studies by means of observations (Parry, 2004; Schoeb, 2009) and patient interviews (Stevens et al., 2016), was also confirmed by this study. The fact that the PSC was hardly, if at all, introduced and clarified might have contributed to the observed vague discussions and unclear answers of the patients.

Despite the instrument's potential to involve patients, the goal-setting process observed in this study appeared to be mainly directed by the physiotherapist. Although patients in our study were informed about goals and plan, they were not fully involved, as has also been reported by others (Baker et al., 2001; Barnard et al., 2010; Leach et al., 2010; Playford et al., 2000; Schoeb,

2009; Stevens et al., 2016). The physiotherapists in our study stated that the PSC increased the patients' awareness and participative role in therapy. The COPM has also been experienced as useful for increasing patients' readiness for goal setting (Chen et al., 2002; Colquhoun et al., 2010). Some of the physiotherapists in our study said that the PSC had a role to play in focussing the therapy plan on patient-specific activities, which has also been reported about the COPM (Colquhoun et al., 2010; Wressle et al., 2002a,b).

## 5. Conclusion

This study revealed some discrepancies between the way physiotherapists actually used the PSC in practice and how they perceived its usefulness within the goal-setting process and for patient involvement. Physiotherapists did use the PSC, although its use was not optimal, and patients were involved to a limited extent. While previous studies focused on the goal-setting process and on the psychometric properties of instruments, this study examines the use of a patient-specific instrument within the goal-setting process. The new knowledge that this study adds is that instruments like the PSC, are often used as a standalone tool, without integration in the whole physiotherapy process. In this way its full potential for goal setting cannot be utilized, but there is room for improvement.

Increasing the physiotherapists' awareness of the potential role of patient-specific instruments like the PSC might lead to a shift in their perception, from using it to meet obligations to using it as an opportunity to improve shared goal setting. Simultaneously, healthcare professionals should debate the current measurement obligations for quality assignment.

Future research should focus on ways to integrate the G-AP framework and patient-specific instruments such as the PSC in the physiotherapy goal-setting process. Furthermore, patient involvement requires a client-centred attitude and good communication skills from the physiotherapist and can be inspired by elements of shared decision making and motivational interviewing. This should create an opportunity to make physiotherapy more goal-orientated and client-centred and thereby facilitating the patients' self-management.

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