A Grounded Theory Approach: Exploring why patients with low back pain choose not to engage with Physiotherapy following assessment using semi structured interviews.

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Abstract

Introduction
This research explored the reasons why patients with low back pain (LBP) chose not to return to physiotherapy following an assessment.

Methods
Qualitative, semi-structured interviews were conducted using five participants with LBP. Data was analysed to produce codes, categories and themes.

Findings
Data analysis produced expectations, communication and satisfaction as key themes. Findings suggest that expectations may and may not be linked to previous physiotherapy experience, with no clear link between expectations and satisfaction. Communication including: sufficient time, listening skills, empathy and caring qualities were regarded highly. Satisfaction levels were rated highly, despite not returning to physiotherapy. Participants reported pain resolution and personal choice as reasons for not returning.

Conclusions
Findings support previous research suggesting expectations are multifaceted and individualized and not always linked to previous experience. Findings suggest the physiotherapist’s excellent communication skills ensured an overall positive patient experience, maintaining high satisfaction levels.

Keywords
Physiotherapy, low back pain, expectation, communication, satisfaction

Introduction
At the host trust approximately 20% of all patients who attend physiotherapy for an assessment choose not to book any further appointments, and reasons for this are unknown. Following the publication of High Quality Care For All (Darzi 2008) and the more recent report by Keogh (2013), patient involvement in care and service development is imperative (CSP 2011). Research suggests expectations and poor satisfaction levels can influence non-attendance, although this may not be truly reflective of the current patient group (Hills and Kitchen 2007).
The largest patient group failing to rebook physiotherapy appointments at the host trust are patients with low back pain (LBP). This is representative of population statistics within physiotherapy, with LBP being the most commonly presenting condition (French 2006).

A literature search was conducted to explore the evidence base into one-off attendance in physiotherapy and found no research had previously been conducted. Furthermore, a second literature search was conducted to explore expectations of physiotherapy and satisfaction levels. Databases used, including details of key words and limitations are listed in Table One. Research was reviewed using the critical appraisal skills programme (CASP) for systematic reviews, cohort studies and qualitative research (Critical Appraisal Skills programme 2013).

**TABLE ONE IN HERE.**

**Expectations**

Expectation and satisfaction have been shown to be a predictor of health improvements, and are linked to compliance and appointment keeping (Hills and Kitchen 2007).

Bowling et al. (2012) reported satisfaction levels are influenced by expectations. Using a narrative review of literature, alongside semi-structured interviews, the authors assessed expectations and satisfaction of patients attending GP and Consultant appointments. Using 833 patients, they found that the most significant factors influencing satisfaction were realistic expectations, the expectations being met and good communication skills. However, GP and Consultant appointments differ greatly to that of physiotherapy and findings cannot be transferred to the population of interest.

For example, a typical GP appointment will last 10 minutes and conversational opportunity may be limited, compared with physiotherapy appointments lasting 40 minutes (Kid et al. 2011). Additionally, the survey was quite lengthy; 27 questions, and didn’t state the length of time taken to complete the questionnaire, which may well have influenced participation and response rates (Bowling 2014). Haggerty et al. (2010) reported lengthy questionnaires using rating scales will often result in patients providing neutral and positive ratings even if the experience was unsatisfactory, due to ease of completion, an acquiescent bias (Gerrish and Lathlean 2015).
Nonetheless, Hills and Kitchen (2007) used focus groups to explore pre-treatment expectations, treatment outcome and satisfaction levels and their findings also support Bowling et al. (2012). Using a purposive sampling technique, 84 physiotherapy patients were invited to participate and found expectations, communication, and treatment outcome were all linked to satisfaction. Despite these links, the methodology is flawed due to a lack of inclusion criteria detail, reducing replicability of the study.

In contrast, Soroceanu et al. (2012) disputes the link between expectations and satisfaction levels. A study involving 402 patients undergoing spinal surgery found a poor consensus between expectations and satisfaction.

Patients reported:

- high expectations with high satisfaction levels
- low expectations with low satisfaction levels
- high expectations with low satisfaction levels
- expectation fulfilment, rather than high or low expectations, resulted in satisfaction.

Nonetheless, Balbaatar et al. (2015) conducted a systematic narrative review of literature into expectations and satisfaction within physiotherapy, and dispute these findings, stating that there is no clear link. Using databases to search for articles from 1980 – 2014, they found 36 quality studies and reported that expectation is individualised and multifaceted.

Communication


Kid et al. (2011) interviewed eight patients who had completed MSK physiotherapy to explore patient perspectives on patient centred approaches. Five categories were generated, with communication linking to confidence in professional knowledge, understanding patients, and treatment planning. Although using a relatively small sample size, data gathered from semi-structured interviews can be rich and detailed and is acknowledged that smaller sample sizes will be used with qualitative interviewing methods due data transcription and analysis time (Gerrish and Lathlean 2015). However, of the eight participants, detail is lacking with regard to their presenting condition, only that they attended physiotherapy, reducing the transferability of results to the current population of interest.
Nevertheless, Cooper et al. (2008) used semi-structured interviews with 25 specific LBP patients, and also found communication to be the key link between patient centeredness and satisfaction. All patients had completed at least two physiotherapy appointments within the last six months, but not necessarily completed their course of physiotherapy by either failing to attend or not booking further appointments. Participants were contacted via the post, and accepted participation by returning a form to the researcher. 140 letters were sent out, with only 23 responding reducing the reliability of results.

Furthermore, May (2001) conducted semi-structured interviews using open questions to explore communication and patient satisfaction and found five key themes, including personal and professional manner. The sample population was MSK physiotherapy patients with LBP, with 34 volunteers participating. Participants reported a friendly and empathetic nature was valued, alongside feeling listened to. They were more satisfied and more likely to engage if they felt confident in the physiotherapist’s knowledge and skills. Participants reported valuing the education process, aiding understanding and empowerment to self-manage. Although this study is dated, it was conducted with consideration to data collection methods to establish key themes on patient satisfaction. It does not however, detail the amount of physiotherapy input, and does not specifically investigate patients who attend for an assessment and do not return.

In conclusion, research is lacking with regard to patients experience of a one off physiotherapy assessment. For unknown reasons, this can result in a decision to discontinue further intervention by not booking follow up appointments.

Research may suggest a link between expectations, satisfaction and engagement, but conclusions are limited due to methodological weaknesses. There is limited up-to-date qualitative research exploring patient expectations and satisfaction and reasons for not returning to physiotherapy following an assessment, forming the basis for this investigation.

**Methodology**

A qualitative grounded theory approach was chosen as the best method to explore patient experience, to allow for the gathering of in depth subjective information to explore meaning and participant perspective (Offredy and Vickers 2010).

An open questioned, telephone interview was chosen to increase participation and reduce time and travel costs (Gerrish and Lathlean 2015).
Research suggests patients have an improved level of autonomy over the phone especially when asking patients potentially sensitive questions, improving dependability of results (Novick 2008; Irvine 2010).

A 20 minute semi-structured interview was developed to provide structure, ensuring relevant topics were discussed, but allowing for variation and exploration within the participant response (Gerrish and Lathlean 2015). The telephone interview was designed to last approximately 20 minutes, based on recommendation of previous research to maintain participant attention and enhance engagement (Robson 2011). A pilot study was conducted using service user volunteers to help modify the interview process. The interview questions contained prompts for the participant and researcher: clarifying and reflecting, ensuring transparency, increasing credibility (Gerrish and Lathlean 2015).

**Setting and timescales**

The research was conducted within physiotherapy at the host trust. The recruitment process commenced in March 2016, the interviews were conducted in April 2016, and data analysis was completed by the end of July 2016.

**Participants**

The study population included all adult LBP patients who attended a physiotherapy assessment between July and September 2015 and chose not to book any further appointments. Data was extracted using a patient database, SystmOne.

A purposive sample was made up of 21 patients with LBP. See Table Two for inclusion and exclusion criteria.

Patients assessed by the researcher were excluded due to the impact of power relationships and to reduce the Hawthorne effect; providing answers to aid the research aims (Gerrish and Lathlean 2015; Green and Thorogood 2014). Vulnerable groups and patients lacking capacity were also excluded; it was deemed unnecessary for a new piece of research to access these clients (Gerrish and Lacey 2015). Patients requiring a translator were excluded from this study due to translation information loss (Bowling 2014).

Flow Chart One, displays the recruitment process with the green arrows signalling inclusion and the red, exclusion.

An estimated ideal number of between four and ten participants was predicted, due to transcription time for a single researcher, approximately two hours per twenty minute interview (Gerrish and Lathlean 2015).
Participants were sent a participant information letter via the post, including a declination form and a prepaid envelope. To improve response rates a further mobile phone text message invitation was utilised. At this stage, one participant rang the mobile, and was excluded due language barriers. The researcher then rang each of the remaining participants a maximum of three times over a two week period. The researcher rang between the hours of 17.00 – 19.00 to increase the likelihood of participant availability; this was based on prior experience in service development using telephone calls and feedback from the volunteers, enhancing participation rates (Bowling 2014).

**TABLE TWO IN HERE.**

**Ethical approval for the study**

Ethical approval was given from East of Scotland Ethics Service using the Integrated Research Application System, 26th February 2016, The University of Bradford Ethics Panel, 1st March 2016, and the Research and Development Team within the host trust, 17th March 2016.

**Informed consent and right to withdraw**

Participants were provided with details of the study via an information leaflet that stated;

- participation was on a voluntary basis,
- they had the right to withdraw without reason or consequence
- future care would not be affected.

**Consent Process**

Patients were asked to verbally agree or disagree to six consenting statements with regard to accepting participation.

**TABLE THREE IN HERE.**
Risks and Burdens

The study was exploring why patients chose not to book further appointments in physiotherapy, if this was for a negative reason, there was potential to feel uncomfortable.

Confidentiality and Data Protection

The Caldicott principles and Trust confidentiality policy was adhered to throughout. Only the researcher extracted the required information. Participants were anonymised at the earliest opportunity using a unique identifier code.

Electronic data was stored using a password protected computer and mobile phone, and hard data and transcripts were stored in a locked cabinet in a locked room.

Interventions

Data was transcribed verbatim, and then analysed. Data analysis involved: transcript familiarisation, the generation of codes, categories and themes.

Hand written field notes were also typed up at the bottom of the interview, and considered within data analysis.

To increase objectivity and reduce researcher bias, a peer analyst was used, improving dependability of results (Gerrish and Lathlean 2015).

A reflexive journal was completed prior to and during data collection, and during data analysis, to reduce bias and increase credibility of results (Tong 2007).

FLOW CHART ONE IN HERE

Findings

Table Three represents basic demographic information for each participant. The table highlights that from the four participants who had previously attended physiotherapy, only one participant had been assessed for LBP.

TABLE FOUR IN HERE.
Data Analysis

The following data coding tree visually displays this process using the commonly presenting codes, (Diagram One).

Expectations

The data coding tree (Diagram One) shows that three participants expected to be questioned during the assessment, to discuss their symptoms and receive a diagnosis. Two participants assumed a physical examination would occur and three participants expected to receive some advice and treatment.

- “I was expecting, sort of, to, sort of, have a chat, be examined, and sort of almost be prodded and poked and see what was going on, erm, and then sort of get some advice really” (Participant 003).

Two participants reported their expectations had been met, whilst one participant reported her expectations had not been met with regard to her agenda and goal, but had with regard to the assessment procedure. Another participant reported their expectations had not been met, and the fifth participant had no expectations to meet.

Communication

Three participants reported having sufficient time with their physiotherapist to complete the assessment, and stated that they did not feel rushed.

Participant 003 was surprised by the length of the assessment in comparison to her experience with GP appointments;

- “I was in, actually in for quite a long, well, longer that I thought I would, you go to the doctors you expect sort of maybe like ten fifteen minutes but I think I was in for like 30 - 40 minutes”

Four participants stated they felt listened to and understood, with the physiotherapist showing empathy and care. Three participants reported their physiotherapist was knowledgeable, providing a clear explanation and treatment plan and felt involved in their care plan (Diagram One).

Throughout the interviews participants reported ways in which the physiotherapist had provided reassurance and methods to empower them towards self-management.
“when I came away I felt like I knew what I needed to do to improve” (participant 003).

**Satisfaction**

All five participants reported being satisfied with their physiotherapy experience, scoring more than 8/10 on a rating scale.

Participant 003 scored 10/10;

- “I would go for a ten, I was really really happy, especially with the speed I was seen, the outcome and the help I was given I was really happy…… it as a really positive experience for me”

Participant 008 stated that despite a long waiting list, and her expectations not being met due to a lack of diagnosis, a score of 10/10 was given. This was due to the high quality service she received on the day.

**Pain Resolution/ Outcome**

Three participants did not return to physiotherapy due to pain resolution and effective self-management.

Participant 011 also reported her absence was due to personal choice;

- “It’s my laziness that’s prevented me from going back ……… it wasn’t the physiotherapy that was at fault ……… just busy lifestyle and things like that.”

Nonetheless, all five participants reported they would return to physiotherapy in the future, if so required.

**Discussion**

**Expectations**

Two participants had previous experience of physiotherapy and were able to describe a typical appointment and reported that their expectations had been met.

The third participant had previously attended physiotherapy, specifically for her LBP, and was able to offer the most detailed report of her expectations for the assessment.
The same participant also acknowledged she was an NHS employee, reporting her assessment format and system procedures were similar to that of physiotherapy, which may have influenced her expectations and ability to describe the assessment upon interview. This suggests expectations of a physiotherapy assessment may be influenced by previous experience alongside knowledge of the healthcare system in general, in keeping with Bowling et al. (2012).

Furthermore, the fourth participant had no previous experience in physiotherapy and was still able to accurately describe a typical assessment.

This is consistent with previous findings that media, family, friends and alternative sources can influence a patient's expectations (Bowling et al. 2012).

The final participant was unable to predict expectations or describe the assessment despite previous attendance to physiotherapy despite prompts used in the interview process.

**Communication**

Raine et al. (2010) found, in a study involving fifteen, face to face interviews, patients heavily emphasised the need for adequate time with their physiotherapist. In the current study, three participants reported the time spent with the physiotherapist was sufficient, with the length of time vastly exceeding one participant's expectations. Raine et al. (2010) also reported poor listening skills were found to reduce satisfaction. In the current study, four participants reported feeling listened to, understood and that the physiotherapist was empathetic and caring. Although the study by Raine et al (2010) and the present study differ in terms of the population used and type of physiotherapy provided, they highlight a need for high quality communication throughout.

Furthermore, May (2001) conducted semi-structured interviews using LBP patients from physiotherapy, and reported communication as a key factor in engagement and satisfaction. This study also highlighted the importance of patient empowerment. In the current study, one participant highlighted the physiotherapist’s ability to adapt the assessment to ascertain all relevant information, and aided a light bulb moment in finding the triggers to their own back pain.
Satisfaction

Satisfaction Scores

All five participants reported high satisfaction levels with regard to their physiotherapy experience, regardless of their expectations being met, and reported they would return to physiotherapy in the future.

One participant rated her experience 8/10, but also stated the physiotherapist could not have done more.

On further prompting to explore why the score was not 10/10 the participant acknowledged her own misgivings not the physiotherapist, and no further insight was disclosed. In reviewing the transcript, with more experience, the researcher could have probed further to gain such information. Moreover, the verbal rating and verbal response, i.e. the physiotherapist could not have done more, do not correlate, and drawing generic conclusions based on the verbal satisfaction score only, should be done so with caution.

On the other hand, one participant rated her experience as 10/10, despite her expectations having not been met. This further disputes the findings of Bowling et al (2012) and supports the findings of Balbaatar et al. (2015) that there is no clear link between expectations and satisfaction levels.

Pain Resolution/ Outcome

Three participants reported they were satisfied and didn’t need to return to physiotherapy due to pain resolution and effective self-management. This supports the findings of Hills and Kitchen (2007) who found treatment outcome to be one of the main factors for satisfaction.

In contrast, one participant reported she had not returned due to a lack of engagement and personal choice, but her experience and satisfaction levels remained high. This also supports the findings of Jack et al. (2010) who found one of the main reasons for non-adherence was a lack of prior exercise engagement. The fifth participant reported returning for further treatment, despite conflicting information on the patient database.
**Recommendations**

Recommendations for future research include using a larger sample size, alongside a larger research team, enabling true saturation of data, a key aspect of grounded theory methodology (Gerrish and Lathlean 2015).

**Limitations**

A limiting factor was the researcher was a novice in conducting interviews and qualitative data analysis. Although the researcher had interview experience in a clinical setting, conducting a research interview, and the skills required within this process were developed throughout the interview conduction and through reflexivity.

**Conclusion**

The current study found previous experience in physiotherapy may influence expectations of an assessment, but these findings were not consistent.

The current study found the physiotherapists’ communication skills were consistently praised, resulting in high levels of satisfaction.

All five participants reported high levels of satisfaction with regard to their physiotherapy experience, despite not returning. The participants reported pain resolution, or personal choice as reasons for not returning to physiotherapy in this instance.

This may suggest the physiotherapist’s excellent communication skills ensured an overall positive patient experience, maintaining satisfaction, in line with previous research investigating satisfaction (Bowling et al. 2012).
References

- Green, J. Thorogood, N (2014) *Qualitative methods for health research*. 3rd Ed. SAGE.
Table One. Literature Search Two – Databases, Key Words, Limitations

<table>
<thead>
<tr>
<th>Database</th>
<th>Key words</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Ahmed</td>
<td>• Physiotherapy, MSK, Outpatient, physical therapy</td>
<td>• Written in English</td>
</tr>
<tr>
<td>• CINAHL</td>
<td>• Patient expectations, assumptions, prediction,</td>
<td>• Dated in the last ten years unless frequently cited within references</td>
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<tr>
<td>• Medline</td>
<td>• Experience, perspective</td>
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<tr>
<td>• The Cochrane Database of Systematic Reviews</td>
<td>• satisfaction</td>
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<td>• PubMed</td>
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<td>• Free hand search on Nice Evidence</td>
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<td>• British Library Ethos</td>
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<td>• UK clinical trials gateway</td>
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<td>• Reference lists</td>
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Table Two. Inclusion and Exclusion Criteria

<table>
<thead>
<tr>
<th>Inclusion Criteria</th>
<th>Exclusion Criteria</th>
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<tbody>
<tr>
<td>• LBP patients attending for a physiotherapy assessment only,</td>
<td>• LBP patients with a planned discharge or open appointment following an assessment only</td>
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<tr>
<td>whereby the physiotherapist expected the patient to return for treatment</td>
<td>• LBP patients attending for further treatment</td>
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<td>• Adults – aged 16 and older</td>
<td>• Patient seen by the researcher</td>
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<td>• Male and female</td>
<td>• Any other MSK disorder</td>
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<td>• All ethnic groups</td>
<td>• Vulnerable groups or those lacking capacity</td>
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<tr>
<td>• English speaking</td>
<td>• Patients requiring a translator</td>
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<td></td>
<td>• Patients without telephone access – landline and mobile</td>
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MSK = Musculoskeletal
LBP = low back pain
Table Three, Consent Statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Initial Boxes</th>
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<tr>
<td>Can you confirm you have received, read and understood the participant information letter, stating the study aims, requirements, risks and your rights?</td>
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<td>Can you confirm any questions you had, have been answered to a satisfactory level?</td>
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<tr>
<td>Can you confirm you understand the interview will be recorded, transcribed and analysed, and be presented in the form of a dissertation and a journal article? Do you understand your personal details will not be stated in this dissertation to protect your confidentiality?</td>
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<tr>
<td>Can you confirm you understand this study is on a voluntary basis, you are not obliged to take part, and care will not be affected if you do not take part?</td>
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<td>Can you confirm you understand you are free to withdraw at any time, without giving a reason, and without future impact on any treatment which you may require?</td>
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<td>Participant</td>
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Flow Chart One: Recruitment Process

Recruitment Process

All MSK Physiotherapy patients at CHT assessed between July – September 2015 (n = 1776)

- Patients who only attended once (n = 325)
- Excluded patients (n = 1451)

Inclusion Criteria (n=21)
- LBP patients attending assessment only
- Adults (16 and older)
- Male and female
- All ethnic groups
- English speaking

Exclusion Criteria Screen (n = 304)
- LBP with planned discharge (n=12)
- LBP did not attend (n=10)
- Returned to physiotherapy (n=4)
- Other MSK problems (n=275) *
- Vulnerable patient groups (n=9)
- Language Barriers (n=0)
- Patient without telephone (n=0)
- Researcher’s patient (n=3)

* Other MSK Pathologies (n = 275)
  - Upper back (n = 23)
  - Upper limb (n = 116)
  - Lower limb (n = 96)
  - Rheumatology and chronic pain (n = 14)
  - Obstetrics (n = 26)

Declined Participation (n = 15)
- Level One Upon assessment (n=0)
- Returned to Physiotherapy at time of Invitation (n=3)
- Level Two Postal response (n=2)
- Level Three Text message response (n=3)
- Language barrier incorrectly recorded (n= 1)
- Level Four Phone call response (n=6)

Level Four - Excluded at phone call (n = 6)
- First call (n = 1)
  - 1 x no time to participate
- Second call (n = 0)
- Third call or no answer (n=4)
- Incorrect data (n=1)
  - 1 x telephone number rejected

Total Number for Interview (n = 6)

- Completed Interviews (n = 5)

Unsuitable at Interview - Unable to recall physiotherapy due to ill health (n = 1)

Total Patients Included (n = 5)

Total Patients Excluded (n = 1771)
Diagram One – Data Coding Tree

**Themes**

- **Expectations**
  - Previous Physiotherapy Experience
    - Questions
      - Exam/Physical assessment
      - Diagnosis
      - Advice
      - Difficulty remembering instructions
    - No previous physiotherapy experience
    - Knee
    - Low back
  - Meeting Expectations
  - Expectations of physiotherapy met
    - Not met
    - Met
  - Expectations of treatment plan met
    - Met
    - Not met
  - Expectations of massage met
    - Met
  - Expectations of procedure met
    - Met

- **Communication**
  - Written Communication
  - Physiotherapy communication
  - Privacy and communication
  - Written communication
  - Physiotherapy communication
  - Privacy and communication
  - No privacy
  - Written communication
  - Physiotherapy communication
  - Privacy and communication
  - No privacy

- **Satisfaction**
  - Satisfaction Scores and Returning to Physiotherapy
    - Satisfied
    - Unsatisfied
  - Access and Waiting Times
    - Satisfied
    - Unsatisfied
  - Pain Resolution/Outcome
    - Satisfied
    - Unsatisfied

**Codes**

- Previous physiotherapy experience
- No previous physiotherapy experience
- Knee
- Low back
- Treatment plan
- Massage
- Procedure met