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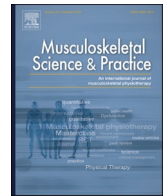
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Original article

Self-management support for people with non-specific low back pain: A qualitative survey among physiotherapists and exercise therapists

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ABSTRACT

Background: Low back pain (LBP) is a major problem across the globe and is the leading cause worldwide of years lost to disability. Self-management is considered an important component the treatment of people with non-specific LBP. However, it seems that the self-management support for people with non-specific LBP provided by physiotherapists can be improved. Moreover, the way exercise therapists (ET) address self-management in practice is unknown. The aim of this study was to investigate the ideas, opinions and methods used by physiotherapists and ET with regard to self-management and providing self-management support to patients with non-specific LBP.

Methods: This study was a qualitative survey. An online questionnaire with open-ended questions was developed. The survey was conducted among physiotherapists and ET working in the Netherlands. Data was analysed using thematic analysis.

Results: Respondents considered self-management support an important topic in physiotherapy and exercise therapy for people with non-specific LBP. In the self-management support provided by the respondents, providing information and advice were frequently mentioned. The topics included in the support given by the respondents covered a broad range of important factors. The topics frequently focused on biomechanical factors. The majority of respondents had a need with regard to self-management or providing self-management support. These needs include having more knowledge, skills and tools aimed at facilitating self-management.

Conclusion: The way physiotherapists and ET address self-management in people with non-specific LBP is not optimal and should be improved.

1. Introduction

Low back pain (LBP) is a major problem across the globe and is the leading cause worldwide of years lost to disability (Buchbinder et al., 2018). The burden of LBP is growing and affects 9–17% of the global population annually (GBD, 2017; Hoy et al., 2014). LBP without a known cause is referred to as non-specific LBP (Buchbinder et al., 2018), which accounts for about 90% of all patients with LBP (Koes et al., 2006).

A person-centred, biopsychosocial approach focusing on self-management and a healthy lifestyle aimed at restoring and optimising function is recommended in the treatment of people with LBP (Buchbinder et al., 2018; Foster et al., 2018). Self-management is defined as:

‘The ability to manage the symptoms, treatment, physical and psychosocial consequences, and lifestyle changes inherent in living with a chronic condition’ (Barlow et al., 2002).

Important self-management skills include problem-solving, decision-making, using resources, forming a patient-healthcare provider partnership, action planning, and goalsetting (Barlow et al., 2002; Hutting et al., 2019; Jonkman et al., 2016; van de Velde et al., 2019). Moreover, monitoring and evaluating activities and the condition, and adapting and tailoring activities are considered important (Barlow et al., 2002; Hutting et al., 2020; Jonkman et al., 2016). Ultimately, self-management is based on increased self-efficacy, while patient education is based on providing disease specific knowledge (McGowan, 2012).

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Self-management advice is frequently given by physiotherapists, but the use of self-management strategies was not optimal in patients with LBP after discharge (Cooper et al., 2009). Patients reported a need for self-management support, suggesting that patients could be better supported in managing their condition (Cooper et al., 2009).

Empowering patients with LBP to self-manage using active strategies often requires specific communication skills to merge patient and therapist perspectives (Cowell et al., 2018). In self-management, managing the biopsychosocial impact of a condition is an important component (Monaghan et al., 2016). However, a failure to integrate the psychosocial component is reported to be present among physiotherapists (Monaghan et al., 2016). It also appears that physiotherapists are unsuccessful in reaching the level of self-management in their treatment that is needed in a person-centred approach (Solvang and Fougner, 2016).

Postural exercise therapists (ET) (according to the Mensendieck or Cesar methods) also treat people with LBP. ET are independent allied health professionals. Exercise therapy is used in the Netherlands, Scandinavian countries, and France and involves exercise and education aimed at improving posture and movement habits in relation to daily activities (van Eijsden-Besseling et al., 2008). ET analyse the patient's posture and the way patients move in relation to their complaints. Improving posture, making adaptations in movement and exercises are the treatment modalities used by exercise therapists. At this moment, the way ET address self-management in practice is unknown.

Although some qualitative research (Monaghan et al., 2016) has been conducted among physiotherapists who treat patients with LBP, the ideas and opinions of physiotherapists and ET about person-centred self-management support are largely unknown or not published in scientific journals. Moreover, there is a need for insight into the way in which physiotherapists and ET provide self-management support to people with non-specific LBP. Therefore, the aim of this study was to investigate the ideas, opinions and methods used by physiotherapists and ET with regard to self-management and providing self-management support to patients with non-specific LBP.

2. Methods

2.1. Study design

A qualitative survey was conducted among physiotherapists and ET to address the aim of this study. This paper discusses the findings of the thematic analysis of the respondents' answers to the survey questions.

2.2. Respondents and recruitment

Respondents were physiotherapists and ET working in the Netherlands. Inclusion criteria were being a physiotherapist or ET currently working in the Netherlands and having experience in treating patients with non-specific LBP. Respondents were recruited via calls in digital newsletters from the Dutch Association for Manual Therapy (NVMT) and the Dutch association for ET (VvOCM) and via social media (LinkedIn, Facebook, Twitter). The calls mentioned that the aim of the qualitative survey was to obtain insight into the treatment components for patients with non-specific LBP and how therapists support patients with non-specific LBP in coping with complaints and taking ownership of their own care.

2.3. Data collection and procedures

An online questionnaire was developed by the first author and reviewed by the other authors. The questionnaire was pre-tested by four therapists and no major modifications were found to be necessary. A translation of the questionnaire can be found in Appendix 1. With the exception of the respondents' demographics, all questions were open-ended. A survey was conducted from 20 February to March 22, 2020.

Informed consent with regard to participation in the study and approval for publishing anonymised data was requested before respondents could participate in the survey. To encourage participation, all therapists who filled in the survey had the option to provide their email address in order to have the chance of winning one of two gift cards valued at 50 euros. The email addresses were not used for any other purposes.

2.4. Data analysis

The data was analysed using thematic analysis, a method which can be used for identifying, analysing and reporting themes within qualitative data (Braun and Clarke, 2006; Lacey and Luff, 2017). Data analysis was carried out by the first author (NH), trained and experienced in qualitative research methods. Initial codes were generated with an open-coding system, after reading each survey multiple times (Braun and Clarke, 2006). If deemed necessary, new codes were added. Once all the answers had been coded, the codes were divided into themes according to their relationship to one another and how they were linked to the data (Braun and Clarke, 2006). The themes that emerged were then used to classify the data into main categories (Braun and Clarke, 2006). Moreover, illustrative quotes were extracted. Verification of all the themes in the main categories and the final report was assured by having another author (WO) read all the surveys. This author has also been trained in qualitative research methods. The main themes and the illustrative quotes related to each theme were discussed by all authors. Only completed surveys were included in the analysis. Surveys were coded until data saturation was reached. Data saturation was considered to be reached in cases where no new codes were added during three consecutive surveys. The survey was closed at the moment that data saturation was reached. When data saturation was not reached after the analysis of the last questionnaire, the survey was opened again until data saturation was reached. The Atlas.ti (version 8.4) program was used for coding and managing the analysis. This study fulfils the Consolidated Criteria for Reporting Qualitative Research (COREQ) (Tong et al., 2007).

2.5. Ethics

This survey did not fall within the remit of the Medical Research Involving Human Subjects Act (abbreviated as WMO in Dutch) in the Netherlands and could be carried out without the formal assessment of a medical ethics committee. All participants gave informed consent for participating in this study.

3. Results

In total, 67 therapists started to fill in the questionnaire. Forty therapists completed the questionnaire and agreed to the informed consent. During analysis, data saturation occurred after coding 38 questionnaires. These 38 questionnaires were therefore used in the analysis and the survey was closed. The mean age of the 38 respondents was 38.7 (range: 22–65 years). Most of the respondents were male (55.3%) and physiotherapists (81.6%). The mean number of years of experience in treating patients with non-specific LBP was 17.4 (range: 1–41 years). On average, the respondents indicated that 39.1 percent of their patients are treated for non-specific LBP (range: 5–90%). The demographic profile of the individual respondents is presented in Table 2. The results of the data analysis are presented below. Supporting quotes of the respondents are presented in Table 1). Respondents are identified by unique numbers.

3.1. Treatment of people with non-specific LBP

About half of the therapists reported using both active and passive treatment approaches and more than half of them reported they included patient education. The combination of patient education and active or passive approaches was frequently mentioned (*Quotation 1*).

Table 1
Demographic profile of the participants.

Participant number	Gender	Age	Profession	Recognised Specialisation	Years' experience with LBP patients	% of low back patients
1	Male	42	PT	OHPT, MPT	19	60
2	Male	30	PT	MPT	4	30
3	Female	28	PT	RPT	5	15
4	Male	49	PT	OHPT, MPT	25	50
5	Female	31	PT	MPT	3	10
6	Male	32	PT	MPT	9	40
7	Male	37	PT	MPT	10	60
8	Female	27	PT	MPT	6	50
9	Female	36	PT	HVLPT	13	5
10	Male	29	PT	SPT	8	15
11	Female	23	PT		2	75
12	Male	22	PT		1	25
13	Female	27	PT		6	20
14	Male	58	PT	PT	30	15
15	Female	32	PT	MPT	8	60
16	Male	51	PT		25	70
17	Female	42	PT	MPT	20	15
18	Female	29	PT	MPT	8	30
19	Male	28	PT	MPT	8	50
20	Male	30	PT		6	25
21	Male	33	PT	MPT	11	30
22	Male	45	PT	SPT	19	50
23	Male	57	PT	SPT	30	20
24	Female	56	PT		30	30
25	Male	65	PT	MPT	40	35
26	Female	25	PT		4	30
27	Male	61	ET		37	40
28	Male	55	ET		34	80
29	Female	62	ET		41	20
30	Female	54	ET	PET	30	30
31	Male	64	ET		35	30
32	Female	51	ET		31	30
33	Male	52	ET	OHET, PSET	31	20
34	Female	23	PT		2	30
35	Male	24	PT	OPT	3	70
36	Female	54	PT	PVPT, PSET	30	50
37	Male	52	PT	PDFT, MPT	30	80
38	Female	33	PT	MPT	7	90

PT = physical therapist, ET = exercise therapist, OHPT = occupational health physical therapist, MPT = manual physical therapist, HVLPT = heart-vessel-lung physical therapist, SPT = sport physical therapist, RPT = rehabilitation physical therapist, PET = pediatric exercise therapist, PSET = psychosomatic exercise therapist, OHET = occupational health exercise therapist, OPT = orofacial physical therapist, PPT = psychosomatic physical therapist, PVPT = pelvic physical therapist, PDFT = pediatric physical therapist.

Only a few therapists reported using a passive approach without the use of active components or patient education. Some therapists mentioned that the treatment approach depended on the patient's characteristics, including prognostic factors. One therapist questioned the existence of non-specific LBP (*Quotation 2*). The patient interview was mentioned several times as important to identify treatment goals. One respondent mentioned a therapeutic alliance as important, as this could be beneficial in the treatment phase. A few respondents also mentioned reassurance and emotional wellbeing as important (*Quotation 3*).

3.2. Patient education

Providing information, education and advice were frequently mentioned. Information and education about pain (for example: pain does not mean injury), possible causes of the complaints, the natural course and prognosis of non-specific LBP, explaining the complaints and pathophysiology were mentioned by the respondents. Moreover, advice with regard to the prevention of recurrent problems, mechanical load and tissue capacity, and physical activity was provided. Some respondents explicitly mentioned providing self-management support or wrote about the role of the patient (*Quotations 4, 5, and 6*).

3.3. Passive approaches

Frequently mentioned passive treatment approaches were spinal

manipulation, mobilisation, dry needling, taping, trigger point release techniques, soft tissue mobilisation, and massage. With regard to manual therapy, some respondents mentioned that they only use manual therapy if indicated in the physical examination, or prefer to use an active treatment approach or self-treatment but include manual therapy if needed (*Quotation 7*). Some other therapists reported an approach starting with a passive approach aimed at pain reduction, followed by using an active approach, including exercises aimed at mobilisation and strengthening.

3.4. Active approaches

Active approaches included providing advice with regard to an active lifestyle, stretching exercises, strength training, relaxation exercises, exercises to reduce kinesiophobia, and posture exercises. Two therapists also mentioned breathing exercises as part of their approach. Sometimes, exercise was specifically aimed at pain reduction. However, most respondents neither explicitly mentioned the purpose of the exercises nor provided detailed information about their approach. Sometimes the reported approach was rather general (*Quotation 8*), whereas some respondents reported a very specific approach (for example *Quotation 9*).

3.5. Person-centred care

Ideas about person-centred care varied widely among the

Table 2
Illustrative quotations of physiotherapists and exercise therapists.

Quotation ID	Quotation
1	Providing information, spinal manipulations, mobilisations, dry needling and exercises. (R1)
2	I do not believe that non-specific low back pain exists. Low back pain is always specific and should be treated as such. (R14)
3	Providing reassurance and providing information about the positive course. (R12)
4	Advice about patients' own role in the process of recovery. (R8)
5	Education about the generally positive normal course of low back pain, the prognostic factors involved and how patients can influence these factors themselves. (R7)
6	Coaching, motivating and instructing patients to facilitate ownership of their own care. (R6)
7	Firstly, I put emphasis on self-treatment, but if needed I use manual therapy. (R 16)
8	Activation in physical activity, gradually increase walking, thereafter, helping to identify a personal sports activity. (R3)
9	Recovery of muscle balance, i.e. enhancing muscle length and tonus, thereafter, increasing strength of abdominal – and if needed – vertebral muscles. In addition, stabilising pelvis and lower spine. (R33)
10	I identify to the location of the patient's complaint (...), thereafter, I treat the patient with my specialised muscular treatment. (R28)
11	Make sure that exercises and therapy fit the request for help. (R2)
12	I will fulfil the request for help, if possible. For example, I do not use massage or other hands-on treatments, so if that is the request from the patient, I will ask them what their expectations are, and I will educate them. If they still want massage after that, I will advise them to consult a massage therapist. (R32)
13	For me, patient-centred care means that the patient has the central position in the care process. All choices are made in cooperation with the patient (...). (R15)
14	Patients have different considerations to therapists. Since I started using shared decision-making, my treatment approach is different. (R6)
15	What you can do yourself to prevent complaints and when to take action. Your own ideas about low back pain and how you can solve this yourself. Being in control of your own body. (R1)
16	The patient is able to take the measures needed to make sure that the complaints (at this moment and in the future) reduce/disappear and knows the risk factors for recurrent problems and is able to influence these risk factors, so that no or limited recurrences will occur. (R32)
17	That patients understand the underlying reasons for their complaints and how they can take action to reduce low back complaints and, eventually, have the confidence in their own actions and movement skills (although pain can still be present). (R31)
18	Self-control about what you do and what the consequences are, and to prevent or solve these consequences. (R3)
19	Ownership in their own care, making their own decisions and choices. The capacity to have control of their situation. (R5)
20	Is able to reduce pain themselves using posture and exercises. Is able to deal with pain in daily life. Is not afraid of pain. Has an active coping style. (R16)
21	Completely independent, without interference from others or using pain medication, able to solve or deal with the pain or discomfort in the short and long term. (R28)
22	That the patient has an active role in the treatment of the complaints, in cooperation with a professional, and is able to deal with the consequences of the complaints in daily activities, work and sports. (R22)
23	A human is a very powerful being, who only needs support, reinforcement and guidance if provided correctly. (R7)
24	Coping is important. Patients are often medicalised and made dependent on passive treatments, it all starts with insight into the complaints and what patients can do themselves. (R24)
25	Giving the patient confidence that they can do this themselves. (R38)
26	If someone is looking for an external solution outside themselves, their chances of having good self-management skills reduce (...) (R7)
27	I always start with the question: Did you perform your exercises? And if people answer with 'yes': okay, show me what you have done. Often people have to own up that they do not remember the exercises exactly ... (R18)
28	Yes, of course! This ensures that patients will not become dependent on therapy, but will be in control of their complaints themselves. (R15)
29	Yes, you have to make sure that every patient is able to have an influence on their complaints, so that the complaints will stay away. Otherwise, they will keep coming back. That is not the intention. (R20)

Table 2 (continued)

Quotation ID	Quotation
30	People are responsible for their own body, that means they are also responsible for their complaints. If you do not provide self-management support, you are only treating symptoms. (R33)
31	Searching for a solution together, explaining why some aspects are important, so that patients understand the importance of a change. Listening to a patient and (...) providing the insight that the patient themselves should change, and that I am not the person who can change them. But that I am the person who can provide them with support (...). (R5)
32	I always start with mobilisation exercises for the lower back (...). I do not let them do strengthening exercises at home, my experience is that patients always exaggerate this, or they do not perform these exercises at all. So, I prefer doing that in my practice (...). (R36)
33	I think that we are very capable in terms of connecting the self-management theories to physical functioning, in order to support the patient to apply this in daily life. (R7)
34	I heal nobody, I help patients heal themselves. (R26)
35	I think that every educational programme falls short with regard to this topic, and this is not limited to people with low back pain. We all have people who come back to us frequently, who do not want to exercise and lay their problems in the hands of the therapist and do not try to find the solution within themselves. I think we should be better trained in this topic in educational programmes. (R18)
36	Yes, (...) I want to help quickly and think of solutions myself for the patient, but I am aware that this should be done in more cooperation with the patient, with the patient taking the lead. More knowledge and skills with regard to self-management support would be valuable for me. (R5)
37	Yes, more knowledge and skills about this topic. (R15)
38	Personally, I find it difficult to facilitate self-management in less educated people with low back pain. They have often visited other therapists or are very passive. (R3)
39	(...) I feel the urgency to broadly include self-management in physical therapy. Colleagues who, despite the available evidence (...) continue to use passive treatments or have a purely biomedical approach, are a barrier to efficient patient-centred care in the future (...). (R7)
40	No, I have many years of experience and followed many courses in which this topic was included. (R1)

respondents. One respondent had no idea what person-centred care means. Some of the respondents indicated that, for them, person-centred care means providing an individualised treatment, based on the results of the patient interview and physical examination. However, sometimes, this individualisation was limited to the treatment area (*Quotations 10 and 11*). For some of the therapists, fulfilling a patient's request for help is not without conditions, as they will not provide passive treatments, even if this is the patient's request for help (*Quotation 12*). For other respondents, person-centred care entails more than fulfilling a patient's request for help, and also includes fulfilling the patient's needs and expectations or working closely with the patient (*Quotation 13*). One therapist wrote that integrating person-centred care can provide new insights (*Quotation 14*).

3.6. Self-management

Ideas about self-management varied among the respondents. Many respondents wrote that, for them, self-management is about the things that patients can do (and actually do) themselves, and actions that they can take themselves in order to prevent, influence or control complaints, or facilitate recovery (*Quotation 15*). This was mostly focused on exercises and physical activities. Some respondents mentioned that several options to take action should be available. Patients taking responsibility for reducing their complaints was also mentioned. To take action, some respondents mentioned that having insight into the underlying causes of the complaint is important. Taking care of yourself was also considered important. Taking action can be focused on preventing recurrences or flare-ups (*Quotation 16*). One respondent also mentioned the importance of patients having confidence in their own actions (*Quotation 17*).

Being in control or self-control was mentioned by several

respondents. Patients' own requests for help to control pain and complaints were mentioned. One respondent also mentioned control of actions and consequences (*Quotation 18*). Being in control was also related to making decisions. A few respondents mentioned that patients should be able to make the right decision at the right time (*Quotation 19*).

Most respondents indicated that self-management is about adequately dealing with pain, complaints and limitations in daily life. Exercises were mentioned as important to achieve this (*Quotation 20*). In dealing with complaints, functioning independently (without the interference of a therapist) was written several times. It was also mentioned that self-management entails patients trying to solve their problems themselves, before visiting a therapist. Sometimes, functioning independently was also expanded to include functioning completely independently, also without medication (*Quotation 21*). Other respondents emphasised that cooperation with professionals, for example a physiotherapist, is important. One respondent mentioned that being able to obtain professional support is very important (*Quotation 22*).

3.7. Patients' self-management skills

About a third of the respondents mentioned exercise and physical activity as important self-management skills. This included stretching and strengthening exercises, home exercise, exercises for pain relief in the case of recurrent complaints, posture exercises, and general exercises like walking or cycling. Active involvement in the recovery process, and the choice to be involved in this process and to choose for your own health regardless of the costs (financially, but also time, energy, and pain), also were mentioned as self-management skills (*Quotation 23*).

Other self-management skills mentioned were: having knowledge about pain (pain does not mean injury), exercise, the complaints or condition, and how to manage complaints. Also, insight into the causes of the complaints and recovery-hindering factors were mentioned. Skills to implement healthy behaviour in daily life, to relax, to breathe correctly, to follow up on advice, to control pain, to take the initiative, and to strengthen the immune system were also mentioned by the respondents. Moreover, keeping a balance between mechanical load and tissue capacity, listening to the body and being positive were also considered important skills. Coping skills were mentioned several times (*Quotation 24*).

Knowing what to do without the interference of a therapist, medication or a physician was mentioned by one respondent. Another respondent mentioned self-reflection as an important skill. Another person also mentioned resilience and four respondents mentioned self-confidence or increasing self-confidence, or confidence in being able to move, as important self-management skills (*Quotation 25*).

Self-treatment was also mentioned by several respondents. This included performing exercises, but also self-treatment of trigger points, and self-massage. Being able to self-adapt, aimed at the reduction of complaints, was mentioned by two respondents.

3.8. Assessment of self-management skills

Assessment during the patient interview

Most respondents mentioned that they assess patients' self-management skills during the patient interview. One respondent said that in the patient interview, it often becomes clear if a patient has an internal or external locus of control. Assessing coping strategies was mentioned by a few respondents, because the way people cope with their problem can be indicative of their self-management skills (*Quotation 26*). The question 'What did you do yourself to decrease your pain or complaints?' was mentioned several times. Observation by the therapist during the patient interview was also mentioned. For example, observing posture while sitting or how people move. Asking about the problems in daily life that had already been solved, was also mentioned by some respondents. Listening to the patient's story was considered

important to assess the patient's self-management skills.

Assessment during follow-up treatments

A substantial number of therapists assess patients in follow-up treatments with regard to self-management skills. They question the patient about the advice provided and check performance of exercises prescribed by asking the patient to demonstrate them (*Quotation 27*). So, demonstrating exercises was considered important. Moreover, continuing to ask questions was also considered important, for example, questions about how patients are gradually increasing their daily activities. One therapist said that the perceived new insights of the patient and their increased confidence in their functioning were very important.

Assessment using questionnaires

A few respondents mentioned that they use questionnaires to assess self-management skills. However, most of these respondents did not specify the exact questionnaire that they use. Questionnaires which were mentioned were the Visual Analogue Scale, the Patient-specific Functional Scale, and the Pain Self-Efficacy Questionnaire. A few respondents answered that they were not aware of exactly how they assess their patients' self-management skills.

3.9. Importance of self-management support

All respondents wrote that they consider self-management support an important topic. For many respondents, this was obvious and some mentioned that it is important to prevent dependency on the therapist (*Quotation 28*). Especially in chronic LBP, self-management support was considered important by some respondents. Some respondents considered self-management support to be part of high-quality care and crucial to the success of the treatment. It was also generally considered important with regard to the prevention of recurrent complaints. Several respondents mentioned that patients are often made dependent on treatment because they are treated with passive interventions (*Quotation 29*).

One respondent wrote that people with recurrent complaints visit therapist after therapist and eventually lose confidence in their own body. Another respondent mentioned that patients sometimes expect the therapist to solve their problem, and do not realise that they themselves are in control. Many respondents considered providing self-management support to be a very important component in the treatment of people with non-specific LBP (*Quotation 30*).

3.10. Providing self-management support

Providing information, advice and insight were frequently mentioned as part of self-management support. Some of the respondents explicitly mentioned working together with the patient as part of self-management support (*Quotation 31*). Some respondents mentioned that the topics that fall under self-management support varied widely and that they address all topics that are relevant for the individual patient. Topics mentioned were exercise, physical activity, recovery, pain education, information about the complaints, healthy behaviour, mechanical load and tissue capacity, posture, rest, and instruction with regard to patients' work, breaks, recovery-hindering factors, prognostic factors, risk factors, and stress management. The prevention of recurrent problems and what action to take in the event of recurrences was mentioned by a few respondents. One respondent mentioned learning from positive experiences, setting goals, and self-confidence.

Exercises were frequently mentioned by the respondents as a method to provide self-management support. An approach involving supervised exercises aimed at being able to perform sports activities, and exercise without a therapist were mentioned by several respondents. However, some respondents preferred exercises to be performed under supervision (*Quotation 32*).

Interdisciplinary collaboration was mentioned by one respondent.

Including motivational interviewing which was mentioned by several respondents. Several respondents also mentioned that they use digital sources to support patients in self-management. These included digital information about the condition, eHealth applications focused on providing information and exercises, and relevant knowledge clips or videos on YouTube.

3.11. Role of therapists

Most respondents see an important role for physiotherapists and ET in providing self-management support for people with non-specific LBP (*Quotation 33*). Some therapists mentioned that this is especially important for people with persistent complaints. It was also mentioned that the importance of providing self-management support is not dependent on subgroups and it is important to provide this support at an early stage. Some respondents said that it the physiotherapist's primary role to provide self-management support. A substantial number of respondents mentioned providing knowledge and insight as an important role of therapists. Some respondents explicitly mentioned providing advice focused on the physical dimension. One respondent mentioned that through increased knowledge and insight, patients will be motivated to apply self-management in practice. About a quarter of the respondents mentioned that the therapist can have a coaching role with regard to providing self-management support for people with non-specific LBP and about a third mentioned a more supportive advisory role (*Quotation 34*). Providing tools that can be used in daily life was mentioned by one respondent as being an important role. Stimulating and providing support were considered important. A few respondents mentioned the importance of shared decision-making.

3.12. Respondents' need for additional knowledge or skills

The majority of the respondents indicated that they have a need for additional knowledge or skills with regard to self-management (*Quotation 35*). These respondents need more knowledge about self-management and providing self-management support. Some also have a need for more background information, the latest scientific evidence about self-management, or training in conversation skills. Some respondents indicated that they have limited knowledge of self-management, but nonetheless think it is an important topic (*Quotation 36*).

The need for tools and methods to facilitate self-management was mentioned by most of the respondents (*Quotation 37*). Also, there is a need for methods to facilitate behavioural change and self-management in different people and subgroups (*Quotation 38*). A few respondents also wanted to have an additional app, or other form of digital support, for patients to facilitate self-management. One respondent specified having no personal need for additional knowledge, but found it to be an important point for attention for other therapists (*Quotation 39*).

About a third of the respondents answered that they have no need for additional knowledge or skills. Some of them indicated that their current approach delivers excellent treatment results, so no change is needed. Some of the respondents with no additional needs wrote that they have already followed a course or plan to follow a course related to self-management, or consider self-management support to be their core business (*Quotation 40*).

4. Discussion

As far as we know, this is the first published qualitative study that investigated the ideas, opinions and methods used by physiotherapists and ET with regard to self-management and providing self-management support to patients with non-specific LBP. Respondents to this qualitative questionnaire consider self-management support an important topic in physiotherapy and exercise therapy for people with non-specific LBP. Respondents generally recognise an important coaching role for

therapists in providing this support, which could have a place in the treatment of people with non-specific LBP.

Many of the respondents mentioned exercise and physical activity as important self-management skills. Moreover, an active involvement in recovery and treatment was also mentioned. Coping skills and self-confidence were mentioned several times. In self-management, the patient must actively take part in the care process, must take responsibility for the care process, and must have a positive way of coping with adversity (*van de Velde et al., 2019*). Teaching skills that can be generalised and which patients can use themselves to manage their complaint or condition, should form part of self-management support (*McGowan, 2012*). This is different to providing patient education, which generally entails providing information that is relevant to a specific complaint, giving specific condition-related information, and making specific contingency plans (*McGowan, 2012*). The results of this qualitative study indicate that therapists mainly provide patient education rather than self-management support. Moreover, important self-management skills are generally not addressed sufficiently.

In the self-management support provided by the respondents, providing information and advice were frequently mentioned. Moreover, this was mentioned several times to be dependent on the individual person, which addresses the attribute that self-management is individually defined (*van de Velde et al., 2019*). The topics included in the support given by the respondents covered a broad range of important factors. However, the topics frequently focused on biomechanical factors. This is in line with several other studies indicating that the integration of psychosocial factors is inadequately covered within physiotherapy (*Alexanders et al., 2015; Brunner et al., 2018; Gardner et al., 2017; Mudge et al., 2014; Oostendorp et al., 2015; Setchell et al., 2017; Singla et al., 2015*), which limits the adoption of person-centred practice (*Mudge et al., 2014*).

There are many definitions of person-centred or patient-centred care, but four dimensions are frequently included in most definitions: 1) patient-as-person, 2) biopsychosocial perspective, 3) sharing power and responsibility, and 4) therapeutic alliance (*Paul-Savoie et al., 2018*). Moreover, individualised treatment, working with patient-defined goals and decision-making are important characteristics of person-centred care in physiotherapy (*Dukhu et al., 2018; Wijma et al., 2017*). In this study, most of the respondents indicated that, for them, patient-centred care entails working from the patient's request for help and adapting their approach to this request for help. Although approaches included individualised treatment, the other aspects of patient-centred care were less frequently included by the respondents. This is in accordance with other studies, indicating that physiotherapists experience difficulties with integrating person-centred care principles into their treatment (*Dukhu et al., 2018; Hall et al., 2018; Mudge et al., 2014*). This study shows that the majority of respondents have a need with regard to self-management or providing self-management support. These needs include having more knowledge, skills and tools aimed at facilitating self-management and tools to assess the patient's self-management status.

6. Methodological considerations

The qualitative approach with open-ended questions used in this study allowed therapists' own ideas about this topic to be investigated, and allowed them to use their own words, which is not possible in a quantitative questionnaire. Therefore, this study provides good insight into the ideas about self-management of physiotherapists and ET. The results of this study represent the opinions of 38 therapists in the Netherlands. Generally, our results provide in-depth insight into the studied topic. However, regarding some points, asking additional questions could have been valuable, but this was not possible in this survey. Combining a qualitative survey with qualitative interviews could be valuable. In this study, we included not only physiotherapists but also ET. Since only seven ET were included, they are

underrepresented in this study. We did not identify major differences between the two professions with regard to the answers provided. Fifteen (39.5%) of the participants had a specialisation in manual therapy most likely due to the recruitment method which could have influenced the results of this study. Although we used an inductive approach (i.e. thematic analysis with an open-coding system) to analyse our data, our main themes largely corresponded to the topics of the original questionnaire, which could be due to the design of the questionnaire or author bias. Data saturation occurred after analysing 38 questionnaires. It seems that the number of respondents needed to achieve data saturation in this qualitative study using a questionnaire, is higher than in studies using interviews (Guest et al., 2006), but lower compared to another study that used a qualitative questionnaire (Tan et al., 2019).

6.1. Clinical implications and future research

The respondents in this study mainly provided patient education rather than self-management support. In providing self-management support, physiotherapists and ET should focus on important self-management skills. Moreover, incorporating a biopsychosocial orientation in self-management support would be valuable for physiotherapists and ET and self-management-support should focus on skills that can be generalised (McGowan, 2012). A general training programme for physiotherapists and ET in providing self-management support could be offered for a broad range of musculoskeletal conditions and included in educational programmes. Future research should investigate the effects of individualised self-management support as part of the regular treatment programmes provided by physiotherapists, ET and other healthcare providers. Future research should also include developing tools to assist healthcare providers to assess patient's self-management skills.

In conclusion, self-management and self-management support are considered important topics in providing therapy for people with non-specific LBP, but the way physiotherapists and ET address this in practice is not optimal and should be improved.

Ethical approval

This survey did not fall within the remit of the Medical Research Involving Human Subjects Act (abbreviated as WMO in Dutch) in the Netherlands and could be carried out without the formal assessment of a medical ethics committee.

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Declaration of competing interest

None declared.

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Appendix 1 Survey

1. What is your gender?
2. How old are you?
3. Are you a physiotherapist or exercise therapist?
4. What are your recognised specialisations?
5. How many years of experience do you have in treating people with non-specific LBP?
6. What percentage of the people you treat experience non-specific LBP?

7. Generally, what are the most important components of your treatment of people with non-specific LBP?
8. What does patient-centred/person-centred care mean to you and how do you address this in your treatment of people with non-specific LBP?
9. In your opinion, what self-management skills are important for people with non-specific LBP?
10. How do you assess the self-management skills of people?
11. What does the term "self-management" mean to you?
12. How do you provide self-management support to people with non-specific LBP? What methods do you use? For which subcategories?
13. Which topics do you include in your self-management support to people with non-specific LBP?
14. Do you think it is important that physiotherapists/exercise therapists provide self-management support to people with non-specific LBP? Why/Why not?
15. In your opinion, what is the role of physiotherapists/exercise therapists in teaching self-management skills to people with non-specific LBP?
16. Do you need additional knowledge or skills with regard to providing self-management support to people with LBP? If so, what do you need?

References

- Alexanders, J., Anderson, A., Henderson, S., 2015. Musculoskeletal Physiotherapists' Use of Psychological Interventions: A Systematic Review of Therapists' Perceptions and Practice. *Physiotherapy (United Kingdom)*. <https://doi.org/10.1016/j.physio.2014.03.008>.
- Barlow, J., Wright, C., Sheasby, J., Turner, A., Hainsworth, J., 2002. Self-management approaches for people with chronic conditions: a review. *Patient Educ. Counsel.* 48, 177–187. [https://doi.org/10.1016/S0738-3991\(02\)00032-0](https://doi.org/10.1016/S0738-3991(02)00032-0).
- Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. *Qual. Res. Psychol.* 3, 77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- Brunner, E., Dankaerts, W., Meichtry, A., O'Sullivan, K., Probst, M., 2018. Physical therapists' ability to identify psychological factors and their self-reported competence to manage chronic low back pain. *Phys. Ther.* 98, 471–479. <https://doi.org/10.1093/ptj/pzy012>.
- Buchbinder, R., van Tulder, M., Öberg, B., Costa, L.M., Woolf, A., Schoene, M., Croft, P., Buchbinder, R., Hartvigsen, J., Cherkin, D., Foster, N.E., Maher, C.G., Underwood, M., van Tulder, M., Anema, J.R., Chou, R., Cohen, S.P., Menezes Costa, L., Croft, P., Ferreira, M., Ferreira, P.H., Fritz, J.M., Genevay, S., Gross, D.P., Hancock, M.J., Hoy, D., Karppinen, J., Koes, B.W., Kongsted, A., Louw, Q., Öberg, B., Peul, W.C., Pransky, G., Schoene, M., Sieper, J., Smeets, R.J., Turner, J.A., Woolf, A., 2018. Low back pain: a call for action. *Lancet* June 9;391 (10137), 2384–2388. [https://doi.org/10.1016/S0140-6736\(18\)30488-4](https://doi.org/10.1016/S0140-6736(18)30488-4).
- Cooper, K., Smith, B.H., Hancock, E., 2009. Patients' perceptions of self-management of chronic low back pain: evidence for enhancing patient education and support. *Physiotherapy* 95, 43–50. <https://doi.org/10.1016/j.physio.2008.08.005>.
- Cowell, I., O'Sullivan, P., O'Sullivan, K., Poyton, R., McGregor, A., Murtagh, G., 2018. Perceptions of physiotherapists towards the management of non-specific chronic low back pain from a biopsychosocial perspective: a qualitative study. *Musculoskeletal Science and Practice* 38, 113–119. <https://doi.org/10.1016/j.msksp.2018.10.006>.
- Dukhu, S., Purcell, C., Bulley, C., 2018. Person-centred care in the physiotherapeutic management of long-term conditions: a critical review of components, barriers and facilitators. *International Practice Development Journal* 8, 1–27. <https://doi.org/10.19043/ipdj.82.002>.
- Foster, N.E., Anema, J.R., Cherkin, D., Chou, R., Cohen, S.P., Gross, D.P., Ferreira, P.H., Fritz, J.M., Koes, B.W., Peul, W., Turner, J.A., Maher, C.G., Buchbinder, R., Hartvigsen, J., Underwood, M., van Tulder, M., Menezes Costa, L., Croft, P., Ferreira, M., Genevay, S., Hancock, M.J., Hoy, D., Karppinen, J., Kongsted, A., Louw, Q., Öberg, B., Pransky, G., Schoene, M., Sieper, J., Smeets, R.J., Woolf, A., 2018. Prevention and treatment of low back pain: evidence, challenges, and promising directions. *Lancet*. [https://doi.org/10.1016/S0140-6736\(18\)30489-6](https://doi.org/10.1016/S0140-6736(18)30489-6).
- Gardner, T., Refshauge, K., Smith, L., McAuley, J., Hübscher, M., Goodall, S., 2017. Physiotherapists' beliefs and attitudes influence clinical practice in chronic low back pain: a systematic review of quantitative and qualitative studies. *J. Physiother.* 63, 132–143. <https://doi.org/10.1016/j.jphys.2017.05.017>.
- GBD 2016 Disease and Injury Incidence and Prevalence Collaborators, 2017. Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 390, 1211–1259. [https://doi.org/10.1016/S0140-6736\(17\)32154-2](https://doi.org/10.1016/S0140-6736(17)32154-2).
- Guest, G., Bunce, A., Johnson, L., 2006. How many interviews are enough? *Field Methods* 18, 59–82. <https://doi.org/10.1177/1525822X05279903>.

- Hall, A.J., Burrows, L., Lang, I.A., Endacott, R., Goodwin, V.A., 2018. Are physiotherapists employing person-centred care for people with dementia? An exploratory qualitative study examining the experiences of people with dementia and their carers. *BMC Geriatr.* 18, 63. <https://doi.org/10.1186/s12877-018-0756-9>.
- Hoy, D., March, L., Brooks, P., Blyth, F., Woolf, A., Bain, C., Williams, G., Smith, E., Vos, T., Barendregt, J., Murray, C., Burstein, R., Buchbinder, R., 2014. The global burden of low back pain: estimates from the Global Burden of Disease 2010 study. *Ann. Rheum. Dis.* 73, 968–974. <https://doi.org/10.1136/annrheumdis-2013-204428>.
- Hutting, N., Johnston, V., Staal, J.B., Heerkens, Y.F., 2019. Promoting the use of self-management strategies for people with persistent musculoskeletal disorders: the role of physical therapists. *J. Orthop. Sports Phys. Ther.* <https://doi.org/10.2519/jospt.2019.0605>.
- Hutting, N., Oswald, W., Staal, J., Filart, M., Raaijmakers, T., Bieleman, A., Nijhuis-van der Sanden, M., Heerkens, Y., 2020. The effects of integrating work-related factors and improving cooperation in musculoskeletal physical therapy practice: protocol for the 'WORK TO BE DONE' cluster randomized trial. *BMC Musculoskel. Disord.* 21, 360. <https://doi.org/10.1186/s12891-020-03375-2>.
- Jonkman, N.H., Schuurmans, M.J., Jaarsma, T., Shortridge-Baggett, L.M., Hoes, A.W., Trappenburg, J.C.A., 2016. Self-management interventions: proposal and validation of a new operational definition. *J. Clin. Epidemiol.* <https://doi.org/10.1016/j.jclinepi.2016.08.001>.
- Koes, B.W., Tulder, M.W. van, Thomas, S., 2006. Who gets it? How is it diagnosed? *BMJ Br. Med. J. (Clin. Res. Ed.)* 332, 1430–1434. <https://doi.org/10.1136/bmj.332.7555.1430>.
- Lacey, A., Luff, D., 2017. *Qualitative Data Analysis*.
- McGowan, P.T., 2012. Self-management education and support in chronic disease management. *Primary Care - Clinics in Office Practice.* <https://doi.org/10.1016/j.pop.2012.03.005>.
- Monaghan, J., Fothergill, M., Adams, N., 2016. The challenges of self-management of low back pain from the physiotherapist perspective. *Physiotherapy* 102, e177. <https://doi.org/10.1016/j.physio.2016.10.211>.
- Mudge, S., Stretton, C., Kayes, N., 2014. Are physiotherapists comfortable with person-centred practice? An autoethnographic insight. *Disabil. Rehabil.* 36, 457–463. <https://doi.org/10.3109/09638288.2013.797515>.
- Oostendorp, R.A.B., Elvers, H., Mikolajewska, E., Laekeman, M., van Trijffel, E., Samwel, H., Duquet, W., 2015. Manual physical therapists' use of biopsychosocial history taking in the management of patients with back or neck pain in clinical practice. *Sci. World J.* 1–8. <https://doi.org/10.1155/2015/170463>, 2015.
- Paul-Savoie, E., Bourgault, P., Potvin, S., Gosselin, E., Lafrenaye, S., 2018. The impact of pain invisibility on patient-centered care and empathetic attitude in chronic pain management. *Pain Res. Manag.* 1–8. <https://doi.org/10.1155/2018/6375713>, 2018.
- Setchell, J., Costa, N., Ferreira, M., Makovey, J., Nielsen, M., Hodges, P.W., 2017. Individuals' explanations for their persistent or recurrent low back pain: a cross-sectional survey. *BMC Musculoskel. Disord.* <https://doi.org/10.1186/s12891-017-1831-7>.
- Singla, M., Jones, M., Edwards, I., Kumar, S., 2015. Physiotherapists' assessment of patients' psychosocial status: are we standing on thin ice? A qualitative descriptive study. *Man. Ther.* 20, 328–334. <https://doi.org/10.1016/j.math.2014.10.004>.
- Solvang, P.K., Fougner, M., 2016. Professional roles in physiotherapy practice: educating for self-management, relational matching, and coaching for everyday life. *Physiother. Theory Pract.* 32, 591–602. <https://doi.org/10.1080/09593985.2016.1228018>.
- Tan, D., Hodges, P.W., Costa, N., Ferreira, M., Setchell, J., 2019. Impact of flare-ups on the lives of individuals with low back pain: a qualitative investigation. *Musculoskeletal Science and Practice* 43, 52–57. <https://doi.org/10.1016/j.msksp.2019.06.003>.
- Tong, A., Sainsbury, P., Craig, J., 2007. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int. J. Qual. Health Care* 19, 349–357. <https://doi.org/10.1093/intqhc/mzm042>.
- van de Velde, D., de Zutter, F., Satink, T., Costa, U., Janquart, S., Senn, D., de Vriendt, P., 2019. Delineating the concept of self-management in chronic conditions: a concept analysis. *BMJ Open* 9, e027775. <https://doi.org/10.1136/bmjopen-2018-027775>.
- van Eijsden-Besseling, M.D., Staal, J.B., van Attekum, A., de Bie, R.A., van den Heuvel, W.J.A., 2008. No difference between postural exercises and strength and fitness exercises for early, non-specific, work-related upper limb disorders in visual display unit workers: a randomised trial. *Aust. J. Physiother.* 54, 95–101. [https://doi.org/10.1016/S0004-9514\(08\)70042-4](https://doi.org/10.1016/S0004-9514(08)70042-4).
- Wijma, A.J., Bletterman, A.N., Clark, J.R., Vervoort, S.C.J.M., Beetsma, A., Keizer, D., Nijs, J., van Wilgen, C.P., 2017. Patient-centeredness in physiotherapy: what does it entail? A systematic review of qualitative studies. *Physiother. Theory Pract.* 33, 825–840. <https://doi.org/10.1080/09593985.2017.1357151>.