

This is a self-archived version of an original article. This version may differ from the original in pagination and typographic details.

Author(s): Sullivan, Nick; Hebron, Clair; Vuoskoski, Pirjo

Title: "Selling" chronic pain : physiotherapists' lived experiences of communicating the diagnosis of chronic nonspecific lower back pain to their patients

Year: 2021

Version: Accepted version (Final draft)

Copyright: © 2019 Informa UK Limited, trading as Taylor & Francis Group

Rights: In Copyright

Rights url: <http://rightsstatements.org/page/InC/1.0/?language=en>

Please cite the original version:

Sullivan, N., Hebron, C., & Vuoskoski, P. (2021). "Selling" chronic pain : physiotherapists' lived experiences of communicating the diagnosis of chronic nonspecific lower back pain to their patients. *Physiotherapy Theory and Practice*, 37(9), 973-992.

<https://doi.org/10.1080/09593985.2019.1672227>

**“SELLING” CHRONIC PAIN: PHYSIOTHERAPISTS’ LIVED EXPERIENCES OF
COMMUNICATING THE DIAGNOSIS OF CHRONIC NON-SPECIFIC LOWER BACK
PAIN TO THEIR PATIENTS.**

ABSTRACT

Introduction: Chronic non-specific lower back pain (CNSLBP) is a common musculoskeletal condition which can be a source of significant distress and disability for patients. Approaches to managing CNSLBP have been explored in healthcare literature, as has the importance of communication in physiotherapy practice. However, no previous studies have explored clinicians’ experiences of communicating their understanding of this diagnosis to their patients.

Methods: A qualitative research design, using hermeneutic phenomenological methodology, was employed. Five participants were purposively recruited for the research and data collected via semi-structured interviews. Interpretative phenomenological analysis (IPA) methods were used to analyse the data. Emergent, super-ordinate and master themes were developed to help convey the qualitative significant meanings of the lived-through experiences.

Findings: Three master themes were identified, with each comprising two sub-themes. These were: 1) Patient-centeredness (1a. Understanding the patient, 1b. Emotional awareness and adaptability), 2) Getting patients “on board” (2a. The “selling” process, 2b. Paternalism and the clinician’s perspective), 3) Dealing with conflict and uncertainty (3a. Fear of interpersonal conflict, 3b. Personal doubts and uncertainty).

Conclusions: Personal conflicts were identified between clinicians’ descriptions of their wishes to “sell” their own perspectives to patients whilst simultaneously wanting to demonstrate a patient-focused approach and avoid the interpersonal conflicts which arose from clashes with patients’ beliefs. Building a good initial rapport, showing empathy and adapting approaches in response to perceptions of patients’ reactions were perceived as strategies to help mitigate the risks of failed communication, but this was something for which participants felt unprepared by their prior training.

INTRODUCTION

Chronic non-specific lower back pain

Lower back pain (LBP) is a common musculoskeletal condition and in many cases can resolve quickly with simple self-management advice and general exercise (Balague *et al*, 2012; Koes *et al*, 2010; van Tulder *et al*, 2006). When symptoms however persist beyond the period of time expected for normal tissue healing, this is considered to have become what is commonly termed ‘chronic pain’ (Lumley *et al*, 2011; Furlan *et al*, 2009; van Tulder and Waddell, 2005). This can cause emotional and psychological distress for sufferers, has been cited as causing more years lived with disability than any other health condition and is considered a cause of significant socioeconomic strain on health and social services across the western world (Vos *et al*, 2012; Lambeek *et al*, 2011; Turk *et al*, 2008; De Souza and Frank, 2007; Walker, Sofaer and Holloway, 2006; Luo *et al*, 2004; Walker, Muller and Grant, 2003).

LBP can also be classified as either ‘specific’ or ‘non-specific’, with specific LBP defined as cases caused by identifiable structural tissue sources of pain or aggressive, infectious or inflammatory pathology (Balague *et al*, 2012; Krismer and van Tulder, 2007; van Tulder and Waddell, 2005). In contrast, non-specific LBP describes the majority of cases where no specific tissue source of symptoms can be identified and, in cases of persistent symptoms, the term chronic non-specific lower back pain (CNSLBP) is frequently used (Koes *et al*, 2010; Machado *et al*, 2009; van Tulder *et al*, 2006). These broad classifications of LBP have attracted common usage within healthcare literature and have been adopted by European and United Kingdom clinical guidelines (NICE, 2016; O’Sullivan, 2012; Koes *et al*, 2010; Airaksinen *et al*, 2006; Waddell, 2006). These guidelines recommend a multidimensional approach to managing CNSLBP, which may reflect the growing popularity of novel biopsychosocial approaches to understanding persistent pain (Kamper *et al*, 2015; Patel *et al*, 2013; Pransky, Buchbinder and Hayden, 2010; Moseley, 2007).

The biopsychosocial model has been defined as a way to view illness as the interaction of cellular, tissue, cognitive and interpersonal factors, requiring individuals to be considered in the context of their surrounding environment in order to fully understand their symptoms (Fava *et al*, 2012). Although the role of these factors in the persistence of pain is not clearly defined in the literature, studies have demonstrated a correlation between pain cognitions and disruption of daily activities (Goubert, Crombez and Danneels, 2005). Several authors have

also linked the presence of emotional and psychological factors such as anxiety, depression, catastrophisation and pain-related fear behaviours to poor prognosis in CNSLBP populations (Laisne, Lecomte and Corbiere, 2012; O’Sullivan, 2012; Raymond *et al*, 2011; Koes, van Tulder and Thomas, 2006; Waddell, 2006). It may be these observations, which have led to a recent focus within the physiotherapy community on effective patient education regarding the multidimensional causes of persistent pain (Nijs *et al*, 2014; Louw *et al*, 2011; Moseley, 2003). In two separate clinical trials, Lowe *et al* (2011) and Moseley, Nicholas and Hodges (2004) demonstrated improved patient engagement, reduced maladaptive pain-related cognitions and improved physical outcomes in patient cohorts receiving structured educational content on pain neurophysiology. These perspectives may be seen to support the view that effective communication of the nature of persistent pain is an important tool in physiotherapists’ clinical practice.

While clinicians’ understanding of CNSLBP may be seen to have evolved in recent years, evidence exists that this may contrast with some patients’ expectations of a structural diagnosis when seeking to understand their pain (Hopayian and Notley, 2014; Snelgrove, Edwards and Lioffi, 2013; Verbeek *et al*, 2004; McIntosh and Shaw, 2003). In their mega-ethnography of qualitative evidence syntheses exploring patients’ experiences of living with persistent pain, Toye *et al* (2017) identified a key theme they termed ‘the quest for the diagnostic holy grail’. Failure in this quest was associated with feelings of loss of personal credibility and patients’ understandable reluctance to abandon the diagnostic search may be considered at odds with clinicians’ use of ‘non-specific’ or ‘biopsychosocial’ models of pain.

Although it is beyond the scope of this research to explore the evidence underpinning the clinical diagnosis of CNSLBP, its debated and perhaps contentious nature has led the authors to question how clinicians approach the communication of this diagnosis with their patients. Indeed, in their study exploring patients’ experiences of primary care management of LBP, McIntosh and Shaw (2003) identified poor communication of diagnosis to be a frequent cause of dissatisfaction.

Communication in physiotherapy practice

Meaningful communication is considered to be integral to good clinical practice has been associated with the building of successful therapeutic relationships in healthcare settings (Leach, 2005; Ackerman and Hilsenroth, 2003; Cole and McLean, 2003; Paley and Lawton, 2001). Within the physiotherapy community, good communication has been encouraged as

part of a patient-centred approach that focuses on collaborative working and shared decision-making (Coulter and Collins, 2011; Edwards *et al*, 2004). This approach has been claimed to improve rapport-building, clinical outcomes and patient satisfaction (Ferreira *et al*, 2013; Oliveira *et al*, 2012; Hall *et al*, 2010; Casserley-Feeney *et al*, 2008). In a systematic review of nineteen randomised controlled trials investigating the impact of communication skills training for clinicians working in primary care and rehabilitation settings on clinical outcomes, Oliveira *et al* (2015) concluded that small but statistically significant improvements were demonstrable in patient-reported pain, disability and satisfaction. Evidence to explain the influence of communication on clinical outcomes seems lacking in the literature, but some authors have hypothesised that improved treatment compliance and appointment attendance rates seen in patients with whom a good rapport has been built may explain this phenomenon (Jesus and Silva, 2016; Ferreira *et al*, 2013; Oliveira *et al*, 2012). In a survey of one hundred and eighty patients, Hirsh *et al* (2005) identified clear links between patient satisfaction with the therapeutic relationship and treatment compliance in a chronic pain population. In another study, Josephson *et al* (2015) undertook a discourse analysis of eighteen physiotherapy consultations and concluded that communication and interpersonal skills were integral to the processes of clinical assessment, patient engagement, agreeing management plans and satisfaction with outcomes. The findings of these studies may be argued to address the significance of communication with such a heterogenous group as the CNSLBP population.

Communication may be considered to have significant implications for patients' experience of musculoskeletal care, but there has been surprisingly little exploration of this aspect of the therapeutic relationship (Hopayian and Notley, 2014; Moore and Jull, 2013). Furthermore, several large observational studies identified that, whilst physiotherapists recognised the importance of engaging their patients in collaborative decision-making, this was something with which they experienced difficulty in their clinical practice (Stenner *et al*, 2016; Dierckx *et al*, 2013). There are further dichotomies within existing research, with evidence suggesting some patients may prefer that their clinician demonstrates expertise by providing opinions and answers rather than be actively engaged in their own decision-making (Peersman *et al*, 2013; Liddle, Baxter and Gracey, 2007). The findings of these studies do however conflict with the consensus of the wider literature, with a systematic review of CNSLBP patients' experiences of care concluding that personalised communication approaches are highly valued (Hopayian and Notley, 2014). Interestingly, the dichotomies identified in the literature could be argued

to actually reinforce the need for meaningful, personalised communication in order to fully understand each individual's needs and preferences.

Some exploration of healthcare professionals' experiences with chronic pain populations has been undertaken in the research. A recent qualitative evidence synthesis of 77 published studies highlighting clinicians' perceived challenges in navigating juxtaposed biomedical and biopsychosocial models of pain, along with the communicative challenge of building trust and a meaningful therapeutic relationship (Toye, Seers and Barker, 2017). Existing research however has focused on communication in the context of treatment and management of chronic pain, rather than the specific communication of an individual's musculoskeletal diagnosis.

STUDY AIM

The aim of this study was to explore and understand the lived experiences of physiotherapists communicating the diagnosis of CNSLBP to their patients during the course of their clinical practice.

RESEARCH METHODOLOGY

This study employed qualitative research methodology to embrace the subjectivity considered essential to gaining a deep understanding of human experience and was approached from the authors' epistemological position that there were no correct or incorrect world views, only individuals' varying perspectives (Gringeri, Barusch and Cambron, 2013; Petty, Thomson and Stew, 2012a; Robson, 2011; Nicholls, 2009a; Mason, 2002; Ezzy, 2001; Carpenter, 1997). Phenomenology was implemented as a framework to facilitate exploration of the study participants' individual and potentially contrasting lived experiences (Converse, 2012; Petty, Thompson and Stew, 2012b; Nicholls, 2009b).

Phenomenology aims to understand the lived experiences of individuals by seeking meaning through a detailed exploration of the phenomena through which they live (Petty, Thomson and Stew, 2012b; Mapp, 2008; van Manen, 2007). Its origins are commonly attributed to the early twentieth century work of a German philosopher, Edmund Husserl, who developed phenomenology as a philosophical method of enquiry, with epistemological interest in the description of lived experiences as 'phenomena' to consciousness (Mapp, 2008; Koch, 1995). A protégé of Husserl, Martin Heidegger, developed his own 'hermeneutic' (commonly cited as

‘interpretive’) phenomenology as a method of ontology, in order to understand and interpret the meaning of ‘being’ (Inwood, 2000; Spiegelberg, 1994). Within healthcare research, these two phenomenological approaches have been recognised by empirical researchers and are referred to as ‘descriptive’ or ‘interpretive’ (Flood, 2010; Lopez and Willis, 2004; Cohen and Omery, 1994). In this study a hermeneutic (interpretive) phenomenological approach, drawing on Heidegger’s texts, was employed for the exploration of the research phenomenon: the participants’ lived experiences of communicating the diagnosis of CNSLBP to their patients in the course of their musculoskeletal physiotherapy practice.

RESEARCH METHODS

The process of data collection and analysis was undertaken by the application of interpretative phenomenological analysis (IPA) methods, as developed and described by Smith, Flowers and Larkin (2009). This approach was adopted as it provides a widely accepted framework for the application of interpretive phenomenological principles to the exploration of individuals’ lived experiences within healthcare research (Wilson, 2014; Touhy *et al*, 2013; Cassidy *et al*, 2011; Smith, 2007; Reid, Flowers and Larkin, 2005).

Participant recruitment

Five participant volunteers were purposively recruited for the study. Small cohorts are an accepted part of IPA methodology, which focuses on extensive and prolonged engagement with participants in order to gain rich and meaningful insights into individuals’ lived experiences (Creswell, 2009; Smith, Flowers and Larkin, 2009; Smith and Osborn, 2008). Physiotherapists with at least one year’s post-graduate experience in musculoskeletal practice and who had lived through situations of communicating the diagnosis of CNSLBP to their patients were considered for inclusion. Individuals who had less than one year of musculoskeletal experience, had not experienced the phenomenon of interest or who were not fluent in English were excluded. Volunteer participants were sought via e-mail through university postgraduate and social media networks within the musculoskeletal physiotherapy field. Both mailing lists consisted of physiotherapists who had either completed or were currently enrolled on post-graduate musculoskeletal physiotherapy courses in the United Kingdom and were therefore likely to have lived through the phenomenon of interest. The first five volunteers who fit the inclusion criteria and were available for interview were recruited for the study and their demographic details are included in Appendix 1. All participants were

given a detailed information sheet outlining the nature of the study and provided informed written consent. Ethical approval for the study was granted by a university in the south of England.

Data collection

Individual, face-to-face, semi-structured interviews were undertaken and adopted the format described by Smith, Flowers and Larkin (2009). All interviews were conducted by the first author and commenced with the open question “*can you describe to me, in as much detail as you can, an experience you have had of communicating the diagnosis of CNSLBP to a patient?*” A list of exploratory prompts was used by the researcher to encourage elaboration on any meaningful situations that were brought up by participants or when it was felt that participants’ accounts were deviating from the phenomenon of interest (Kvale and Brinkmann, 2009). The interview guide can be viewed in Appendix 2. Interviews were conducted in private, closed rooms. Audio recording was employed and the researcher made additional contemporaneous written notes. These included initial impressions, non-verbal communication that may influence interpretation, interesting points raised by the participants the researcher wished to explore further and personal reflections on interview technique, interaction with the participants and any precognitions. Interviews drew to natural conclusions when the participants had exhausted their accounts and the researcher felt a deep and rich description of the experiences had been discussed. Each interview finished with a final question asking participants whether they had anything else they wished to add and total duration ranged from 49 to 55 minutes.

Data analysis

Data analysis was conducted by the first author, based on the methods outlined by Smith, Flowers and Larkin (2009), in order to explore thematic meaning structures which best reflected the most essential meanings of the participants’ lived experiences. Analysis began with verbatim transcription and anonymisation of audio recordings by the first author. The same researcher then read and re-read each transcript to immerse himself in the data and get a sense of the whole. A detailed line by line analysis was then undertaken, with reference back to contemporaneous notes. Exploratory comments, reflections and qualitatively significant meanings termed “emergent themes” were recorded on each page, with consideration given to data based on “linguistic”, “conceptual” and “descriptive” notes. An example of this process is shown in Figure 1.

The next stage of the analysis involved grouping the emergent themes for each interview transcript into “super-ordinate” themes. This involved printing each theme onto separate pieces of paper, which were arranged and re-arranged in groups which either resonated or contrasted with each other until patterns of linked themes emerged. Figures 2a and 2b illustrate the result of this process for the first transcript analysis. Lastly, the super-ordinate themes across all five interview transcripts were reviewed as a whole, noting similarities and differences, and collated into the final “master themes” listed in Figure 3.

Trustworthiness

Methodological transparency and trustworthiness were sought throughout the data collection and analysis in the way described by Smith, Flowers and Larkin (2009) as the “independent audit”. This involves recording each step of the research in a manner which could be independently scrutinised and all data was therefore recorded in the steps shown in Figures 1 and 2. In addition, each step was reviewed and discussed with the research team (2nd and 3rd authors). A hermeneutic (interpretive) process was adopted to help make sense of the data, look for patterns both within and between interviews and develop the emergent, super-ordinate and master themes to comprise all the individually varied, significant meanings. This involved a cyclical process during each stage of the analysis of reading the data as a whole, undertaking detailed analysis of the data and then reviewing the researcher’s view of both the whole and the analysis. An example of how this was applied to the development of the super-ordinate themes is illustrated in Figure 4.

Throughout the study the researcher remained sensitive to the importance of considering his own precognitions, his influence on participants and data interpretation, emerging patterns and alternative interpretations. To facilitate this process a reflexive log was kept of his thoughts and reflections. These notes were incorporated into the transcript analyses to help encourage critical thinking and provide transparency to the analytic process (Clancy, 2013; Smith, 2006). Examples of reflexive entries are shown in Figure 5.

Throughout the research process, the other authors facilitated the re-iteration process within the hermeneutic cycle by providing additional perspectives on the interpretations of the data and theme development. For the purpose of the paper, the three authors worked in close co-operation in order to communicate the research methodology and process, as well as the findings and their implications.

FINDINGS

The data analysis illuminated key meaning structures within and between the interview transcripts. This helped explore the participants' experiences of communicating the diagnosis of CNSLBP to their patients and led to the emergence of three master themes, with each comprising two sub-themes. These are illustrated in Figure 6.

Theme 1: Patient-centeredness

Participants described approaching initial communication in a new client encounter in a patient-centred manner, using active listening and questioning. Their descriptions illustrated the experienced importance of understanding their patients, which formed the first sub-theme. Analysis of the data suggested they experienced this as a strategy to help them plan approaches that would be meaningful to the individual.

"...I don't know if I did anything in the first assessment... I'd listened to her, I'd listened to all the story... I just listened to all of the, the things that were going around in her head..."(Participant A, p9)

"...I'd say... how much do you do... and why is that? Why do you then sit down? Does that concern you?... it's kind of really trying to unpeel exactly what happens and whether there's any thoughts or beliefs behind their behaviour... and tapping into that a bit more..."(Participant B, p20-21)

The "unpeeling" process described by Participant B resonated with several participants' accounts and involved encouraging dialogue to help them "see it from the patient's point of view" (Participant C, p21).

Linked to exploration of the patient's perspective, the participant descriptions conveyed the significance of their attempts to communicate the diagnosis in a manner that would be accepted by the individual. Furthermore, their accounts suggested they experienced this as a tentative process that was largely unplanned and involved attempts to monitor or "read" patients' reactions and non-verbal communication.

"...the patient was clearly uncomfortable every time I went near the emotional aspects of pain... whereas every time we talked about the neurophysiology of pain, he was really engaged and really interested... you could sort of feel, OK, this is actually clearly helping..."(Participant C, p12)

"...I might start my little spiel and you can see by their face... if there's no mirroring... they're sitting back in their chair and they're starting to fold their arms... then I think I probably take the foot off the pedal... you just read it, don't you?"(Participant D, p24)

The experienced significance of these non-verbal cues and the adaption of communication approaches in response to the participants' perceptions of patients' reactions illuminated the second sub-theme of 'emotional awareness and adaptability'. All participants addressed the perceived significance of the therapeutic relationship and adopting an adaptable, patient-centred communication style as central to building a good rapport and not losing patient engagement.

"I think when I start talking about neurones and synapses, very quickly I can see the lights go off in people, but, but if I use some examples that pain can be modulated... then people can think 'oh, OK'... they can identify those issues in themselves."(Participant E, p11-12)

"...I just got the impression that something wasn't clicking between us... I kind of stopped asking questions at that stage... just highlighting it so that maybe I can come back to that at a later stage when we've built up a bit more of a rapport and a bit more of a... trust [sic] relationship."(Participant B, p12)

The participants' accounts illuminated that emotional awareness was experienced as central to the process of building trust in the therapeutic relationship. This gave further insight towards understanding the use of adaptability in their communication experiences, as forming a good rapport appeared to be a greater concern to them than communicating a specific understanding of the diagnosis. In addition to adapting their verbal communication, participants also described using non-verbal strategies to build trust. They felt it was important to show empathy and put their patients at ease through the effective use of body language.

"...there was a gap between us and so I moved round and I actually sat next to her... you need to show some empathy, to show some understanding of how difficult that is... you just need to say it's OK..."(Participant A, p9-10)

"...I put my clipboard down, I sit down... I just kind of use a lot of non-verbal skills... so sitting down, arms open, um, not crossing anything..."(Participant B, p12)

Overall, the participants addressed empathy and patient-centred approaches as ways to demonstrate acknowledgement of patients' perspectives and help ensure the patient felt "believed". They felt this was important to build a good rapport, which sometimes led them to abandon theoretical or professional understanding of CNSLBP, illuminating a dichotomy between theory and practice.

"... almost regardless of... the current state of research... links between psychology and physiology of pain... from the patient's point of view it's just pain... so I think it's really important for the patient to feel they are believed..."(Participant C, 18)

“... I took the science out of it... and used personal experience... I remember being taught as a student ‘never use personal experience’, because... you’re not feeling their pain, but sometimes I feel like in order to get that empathy you need to, you need to just say... I know what you’re feeling...” (Participant A, p20)

Further exploration of the experienced significance of building trusting relationships and developing approaches to communication tailored to each individual helped identify the second master theme.

Theme 2: Getting patients “on board”

Several participants’ accounts of utilising patient-centred approaches and building trusting relationships conveyed a perceived significance placed on finding specific communication approaches that could help guide their patients towards the participants’ own perspectives of the CNSLBP diagnosis. They described attempts to tailor communication to the individual in order to “find an angle” and “tap into” the things that would motivate patients to get “on board” with the clinician’s perspectives. Participants B and C illustrated this in their accounts of trying to change a patient’s focus from the need for further imaging and structural diagnosis to the management of the factors they felt were contributing to central sensitisation and physical de-conditioning.

“one particular patient...was still quite fixated on having an MRI scan...there’s absolutely no clinical indication for scanning, and so...I used the car analogy, he quite liked the car analogy, practical bloke, liked fixing cars and all that sort of thing, so he was... quite on board with that.” (Participant C, p7)

“you’re getting pain...but it’s not related to a structural problem...it didn’t seem like..he was really taking on board the advice and things...he was very sedentary, but did... do some weights in his bedroom... so I’ve tried to kind of tap into that a little bit and... go from that angle...” (Participant B, p3-4)

This use of analogies and practical examples as a strategy to get patients “on board” with alternative perspectives of their pain conveyed a sense of pressure to convince patients to “buy” an understanding of the diagnosis that may clash with their pre-existing beliefs. This led to the emergence of the first sub-theme of “selling” CNSLBP.

“...you almost feel like you’ve got to sell... non-specific chronic lower back pain...” (Participant A, p1)

“...the sort of examples that sometimes I, I use... and also through some practical examples... it maybe gets a little bit more of a buy-in...” (Participant E, p5)

Several participants described a reluctance to discuss the diagnosis of CNSLBP at the start of their clinical encounters. Instead they placed significance on their attempts to build “layers” and “foundations” with their initial communication, gradually drip-feeding information that “built” toward the concepts they wished to convey in a manner they felt might be accepted by their patients.

“...so, when you’ve decided there isn’t anything structurally that you can attribute it to... is it about building up the layers of information? Before saying yeah... we’re going to call it non-specific lower back pain.”(Participant A, p1)

“...I suppose I was searching for something to show her, demonstrable, that we... we could build some sort of foundation on...” (Participant E, p8)

The participants’ accounts of their experiences highlighted the perceived significance of this layering process, which commenced early within their clinical encounters. They described using physical assessment and treatment as opportunities to “germinate” or “sow” seeds of a shared understanding that might lead to the patient’s subsequent acceptance of the diagnosis.

“...I think in such a complex subject... it’s unrealistic to expect a patient, on their first occasion... to take on board even a small amount of what you might say...you need to, to.. germinate a seed of something, by talking... and then allow that to blossom... having something that they can refer to themselves allows that to germinate... and take root a bit more.”(Participant E, p17-18)

“...if you do a thorough assessment and also if you do some manual therapy that changes their symptoms in any way, it might not be particularly relevant to, um, what you’re going to talk about in terms of pain theory, but, they’re ever so happy... then I think you’ve sowed [sic] the seeds... after the pain talk, to go, yeah, how did you get on with the pain talk? And see.”(Participant D, p9)

The participants recounted employing such non-verbal strategies to “sow the seeds” required to get patients “on board” when verbal communication alone was perceived to be insufficient. Participant B described using physical props and visual aids in her practice and Participant E used a biofeedback machine in an attempt to help a patient understand how weakness rather than tissue damage might be a contributing factor to her persistent pain.

“I got out a spine... like a prop basically and explained the general anatomy and physiology... how in pain the nerves communicate to the brain... I used pictures, I drew the brain and spinal cord... try and relate that information...”(Participant B, p9)

“...it maybe gets a little bit more of a buy-in when they can see themselves losing control on simple limb-loading activities... I think by seeing that, she was able to perhaps relate it more to our diagnosis.”(Participant E, p5-6)

The participants emphasised their belief of the importance of patients “seeing for themselves” the perspective they sought to convey. Their accounts illustrated that this was perceived to be a more successful approach to communication than “hitting them head on” with conflicting views and a significant aspect of their lived experiences of the “selling” process.

“...if you can show them something that they can see themselves... and allow them to relate it to the real world, it... it gets them on board... they’ve already linked that in their mind to having some relevance to... to them.”(Participant E, p7)

*“...I don’t want to hit them head-on, I kind of want to come alongside and steer...”
(Participant D, p20)*

The participants’ paradoxical descriptions of both attempting to adopt a patient-centred approach and encouraging patients to accept a specific understanding of CNSLBP appeared to belie an over-riding emphasis placed on the experienced need to “sell” their own perspectives. This formed the second sub-theme named as “paternalism and the clinician’s perspective”, illuminating the participants’ perceptions of their own roles and responsibilities. They described seeking to position themselves in a paternalistic position as an ‘educator’ of the patient, with a perceived sense of responsibility to provide answers and advice.

“...and I said... what we know is that exercise helps, evidence has shown us that exercise helps, so that’s what we’ll do... people go ‘OK, you do know what you’re talking about, I’ll try it’.” (Participant A, p21-22)

The implications of participants’ own perspectives in their communication are illustrated in an example discussed with Participant E of talking with a patient about psychological and social influences on their persistent pain. His account manifested his perceived frustration that he felt he could not focus on the aspects of physiotherapy practice that he would have preferred.

“...there’s a service... for people like yourself... although we’ve done some, some of that, at the end of the day we’re a, um, MSK service... we spent so much time talking, but I would have liked to have got him into a, a gym, or into a group where he could... have done some exercise...”(Participant E, p15)

The meaning illuminated by this account contrasts with the patient-centred approach highlighted elsewhere in the data and appears to be more directly related to Participant E’s own opinion and preferences when approaching communication with his patient, rather than a perception of the aspiration of the individual. The sense of frustration in participant E’s account may reflect the dichotomy of his attempts to engage in patient-centered communication whilst also retaining his own perspective of his role within the therapeutic encounter. Several participants specifically addressed this as an area for improvement in their practice and

reflected on the significance of their experiences in helping to improve their confidence and adopt more patient-centred approaches.

“...the more I have become qualified, the more comfortable I am with that diagnosis... when you first graduate... you want to find that thing that is wrong, then I will cure you of your problem... the more that you do this job, the more that you realise there are so many other contributing factors... the more that you are confident with that understanding, the easier it gets.” (Participant A, p1-2)

“...I guess in the past I’ve been guilty of, um, being a bit baffled by this wide barrage of symptoms that don’t really fit any form of mechanical pattern. So going down the route of, you know, massaging, mobilising, um, a very mechanical approach... I think that’s probably something that’s changed more as I’ve got a bit more experienced and, and realised that, to help these people, it’s addressing some of the things which are not quite so easy... to put right.” (Participant E, p20)

These accounts illuminated a sense of uncertainty in the participants’ encounters, expressing beliefs that their clinical practice experience had brought them learning opportunities that not been available to them in their undergraduate training and for which they may have felt unprepared when approaching this patient group. Further exploration of the challenges experienced by participants attempting to balance patient-centred approaches with their more paternalistic views and a desire to “sell” a specific concept led to the emergence of the final theme.

Theme 3: Dealing with conflict and uncertainty

Experiences of dealing with conflict appeared in all five interview transcripts and were described directly inter-related with feelings of anxiety, apprehension and uncertainty. These experiences fell into two distinct sub-themes: the fear of interpersonal conflict with patients and the experience of personal doubts and uncertainty.

Exploration of the significance of building a good rapport and getting patients “on board” in the participants’ experiences uncovered a sense of aversion to engendering any breakdowns of communication that could result from challenging patients’ beliefs. Any such occurrences appeared inter-related with a sense of distress, with failures in communication described as “disaster” scenarios participants wished to avoid.

“...a sharp intake of breath and you’re like, eeee! [mimes screaming and then exhaling to calm herself down], chill yourself out, OK...” (Participant A, p23)

“...he was really quite upset...the rug had been pulled... out from under his feet... it could have been managed a bit more sensitively... and that was just a disaster.”(Participant D, p17)

The experiences of anxiety and uncertainty were further illuminated in participants’ accounts of their perceived responsibility to challenge certain patient beliefs and their wish to avoid any misunderstandings that might cause a breakdown in the therapeutic relationship.

“...the difficulty is... you’re getting across this idea that, yes, you’ve got pain, but no, there’s nothing that anyone can find that’s specifically causing that pain... that does make patients question oh, OK, are they saying my pain isn’t real...”(Participant C, p21)

Participants’ descriptions of the fear of interpersonal clashes in the raw data appeared inter-linked with their approaches to communication, with the previously described process of gradually “layering” information utilised in order to avoid hitting patients “head on”. Several participants recounted experiences of conflict avoidance, whereby they refrained from communicating concepts they felt were in their patients’ best interests in favour of ones that were perceived as less likely to create conflict. Participant C described this as returning to his “comfort zones” and “stuck record mode”, conveying a sense of personal dissatisfaction in his own performance.

“I think I tend to go into a bit of a stuck record mode... where I’m struggling with patients, I tend to go more towards a physiological explanation of pain, which is not necessarily the most helpful thing for, for that patient.”(Participant C, p16)

“...I certainly, with her, veered back onto the physiological explanations... I think the reason I do that is probably a combination of it being more a comfort zone for me as a physio, um, and to some extent... it’s more of a comfort zone for patients.”(Participant C, p17)

Participant C’s experience resonates with the accounts of other participants, who recalled experiencing similar feelings of pressure to communicate specific messages effectively and provide their patients with solutions. This further illuminated the sense of their own professional roles and responsibilities, as perceived by the participants themselves.

“...I think you always feel their hope on your shoulders... and it’s hard sometimes to not want to sell them the world... you feel... their desperation, and their hope, and that sometimes plays on your mind.”(Participant A, p7)

This sense of professional roles and responsibilities did however vary between participants. Participant D, for example, addressed the limits of her personal responsibility in one of her accounts.

“...that’s not my problem to say oh yes, I think you need to go for a, a scan or not.” (Participant D, p14)

Interestingly, she subsequently addressed fewer of the anxieties and uncertainties described by other participants. However, this may reflect the perceived sense of her role as part of a multi-disciplinary team, with responsibility shared with other health professionals. This does resonate with the experiences of the other participants, who described seeking support in the opinions of colleagues during particularly challenging patient encounters. Participant B, for example, explicitly addressed the significance of providing information agreed with another colleague in her communication to a patient.

“...it kind of reinforced the explanation as well, so I was saying oh, myself and [strongly emphasises word] my colleague have found this and, you know, we feel scans and things doesn’t [sic] show that there’s anything dangerous going on...” (Participant B, p10)

The conflicts and uncertainties experienced by participants when planning their approaches to communicating the diagnosis of CNSLBP to their patient were not only inter-related with their experiences of aversion to interpersonal conflict, but also by their experience of their own doubts and scepticism regarding the diagnosis itself. This appeared in several further accounts of the uncertainty and anxiety participants experienced when communicating with this patient group.

“I think that, whether it’s a diagnosis or whether it’s an umbrella term... where there’s no structural, um, problem... I find it quite difficult to explain to patients...” (Participant B, p1)

“...in my opinion, in physio at the moment... it’s all sort of pain theory, which we’re a little bit fluffy about in all honesty... like ‘neurotags’, that’s a physio made-up word, surely? I mean, as I say, I’m a little bit sceptical...” (Participant D, p6)

DISCUSSION

The aim of this study was to provide an in-depth exploration of the communication of the CNSLBP diagnosis to patients as a lived-through experience by musculoskeletal physiotherapists and present the results in a manner, which may facilitate reflection on one’s own approaches to communication in clinical practice. The master themes emerging from this study were not mutually exclusive. The participants’ experiences illuminated ways in which the themes could either support or clash with each other and there were numerous and often conflicting meanings with varying implications for communication. However, this is a typical

characteristic of a qualitative, hermeneutic phenomenological study and any empirical variations of the experiences contained within the participants' descriptions were considered qualitatively significant, helping to understand the complex phenomenon. Therefore, each master theme articulates the best possible expression of a range of meanings, expressed in multiple ways in the raw data.

Several significant implications can be identified on the basis of the study. A focus on understanding patients' perspectives and shaping communication to each individual suggests a strongly patient-centred approach and this certainly resonates with the collaborative, joint decision-making that has been championed as integral to good clinical practice (Coulter and Collins, 2011; Edwards *et al*, 2004; Barr and Threlkeld, 2000). The concept of patient-centredness in healthcare is not new, with past advocates within the medical community describing consultation styles whereby interaction were guided by the patient's experience and an attempt to 'enter the patient's world' in order to view illness through their eyes (Mead and Bower, 2000). Within physiotherapy practice, patient-centredness has been defined as the acknowledgement of patient individuality and building therapeutic relationships which include education, communication and empowerment of the individual (Wijma *et al*, 2017). Furthermore, previous qualitative exploration of CNSLBP patients' experiences of physiotherapy has highlighted that good communication, clear explanations, an individualised approach and involvement in their own decision-making were highly valued (Cooper, Smith and Hancock, 2008). The themes identified in the current study may be considered to echo these perspectives, with the participants' attempts to engage in patient-centred approaches to communication reflecting trends within the wider healthcare community.

However, in the data, this at times appeared to belie an underlying paternalistic wish to get patients "on board" with the clinicians' perspectives. Indeed, the patients' own views were often perceived as barriers to overcome rather than something with which participants were prepared to compromise and collaborate as equal partners in the therapeutic relationship. It may be viewed that the significance of collaborative working practices were addressed by the participants as a means to build the initial trust which they acknowledged as a necessary precursor to patients "buying into" views which may conflict with their own. This study is not the first to suggest that physiotherapists may find it challenging to implement patient-centred approaches in their practice, with evidence demonstrating that collaborative working is often undermined by clinicians' paternalistic approaches to their roles (Barr and Threlkeld 2000; Dierckx *et al*, 2013; Stenner *et al*, 2016). The paradox between attempts to recognise patients'

perspectives and simultaneously “sell” the clinicians’ own views may explain the anxiety, uncertainty and personal conflict discussed in the third master theme.

Anxiety and personal conflict were particularly apparent in participants’ attempts to discuss the role of psychosocial factors in CNSLBP and there are further resonances here with the wider literature. Physiotherapists managing patients with CNSLBP have expressed feelings of tension and uncertainty when patients’ views and expectations conflicted with their own (Jeffrey and Foster, 2012) and, despite recognising the value of the biopsychosocial model, have been observed to find it difficult to operationalise this approach in their clinical practice, with challenges arising when navigating patients’ health beliefs, fears and social contexts (Sanders *et al*, 2013; Singla *et al*, 2015; Zangoni and Thompson, 2017). The participants in this study described similar experiences and the sense of anxiety and uncertainty illuminated in their accounts of addressing the biopsychosocial care of patients with potentially contrasting views highlights the challenges of successful communication and collaboration within the therapeutic encounter.

When approaching communication of the CNSLBP diagnosis, the participants described a process of questioning, listening and seeking to understand their patients as strategies to build the rapport and mutual trust they believed were required as a precursor to “selling” their own views of CNSLBP. The implication to practice is that this was a tentative, reactive process, which rarely adhered to a specific plan, style of communication, or use of language. It was instead influenced by the clinicians’ perceptions of patients’ reactions to their communication in a responsive and adaptable process. The uncertainty this created for them once again seemed to add to feelings of anxiety. This is perhaps unsurprising, as it has previously been observed that physiotherapists struggle with uncertainty in their clinical practice and view this as a potential source of conflict with patients (Slade, Molloy and Keating, 2011). In the current study, the participants described attempts to use their interpersonal skills, empathy and non-verbal communication as strategies to avoid conflict situations and this resonates with the value patients have been reported to place on these skills by their clinicians when attending musculoskeletal physiotherapy consultations (Kidd, Bond and Bell, 2011). The significance placed by the participants on successful communication with their patients also echoes the focus on this facet of the therapeutic relationship by previous researchers. Some authors have concluded that improved engagement, treatment compliance, appointment attendance rates and satisfaction with outcomes were seen in patients with whom a good rapport has been built (Josephson *et al*, 2015; Hirsh *et al*, 2005; Jesus and Silva, 2016; Ferreira *et al*, 2013; Oliveira

et al, 2012). Observation of this in clinical practice may explain the importance the physiotherapy profession has placed on good communication and the participants' unplanned approach to communicating the nature of CNSLBP may represent attempts to remain responsive to the individual patient and adaptable in their use of language.

The dichotomies identified in this study resonate with those that have been discussed in recent physiotherapy literature advocating the postmodern movement of 'connectivity'. This philosophical approach to the therapeutic alliance challenges the stigma attached to paternalistic practises, arguing that effective collaborative working benefits from a state of 'co-dependence' between patients and clinicians (Nicholls *et al*, 2016). This perspective may offer an opportunity to embrace aspects of both traditional paternalistic and novel patient-centred approaches to patient engagement, without engendering the conflicts experienced by this study's participants. It may be argued that expert clinical practice should not seek to operationalise a consistent communication strategy but rather demonstrate the adaptability to approach each individual patient encounter as a unique experience built on mutual trust. Indeed, expert practice has been described as the clinician's ability to draw from a variety of theoretical knowledge and personal experiences to determine the most suitable approach to each clinical encounter (Shaw and DeForge, 2012). Although this research has identified adaptability as a theme in participants' approaches to communication, their accounts highlighted the challenges they experienced attempting to implement this in their practice. Effective rapport-building with this patient group was acknowledged as developing with experience and was something for which the participants felt unprepared by their undergraduate education. Participant E even stated that communication with patients with more complex biopsychosocial presentations may not be within his scope of practice, which may highlight a gap in current physiotherapy training programmes. This perspective shares interesting parallels with studies that have suggested physiotherapists may lack the necessary training and confidence to address the holistic biopsychosocial needs of CNSLBP patients (Zangoni and Thompson, 2017; Singla *et al*, 2015; Synott *et al*, 2015). It may be argued that, given the growing emphasis on the biopsychosocial model and collaborative decision-making in the management of persistent pain, a review of educational curricula may well be warranted to help better prepare clinicians for the communication challenges they may encounter in their musculoskeletal practice.

The ontological and epistemological challenges experienced by the participants during the course of their practice may raise questions regarding the evolving role of the physiotherapist,

with conflicts arising as a result of their own perceptions of their responsibilities within the therapeutic relationship. A lack of clarity regarding their own professional roles may well have contributed to their apparent sense of unease during their clinical encounters. These experiences resonate with evidence from Toye *et al*'s (2017) meta-ethnography to understand health professionals' experiences of treating patients with persistent pain, in which the navigation of juxtaposed models of medicine was identified as a key challenge for clinicians. This may reflect the physiotherapy profession's traditionally positivist approach to seeking quantifiable, objective truths in clinical practice and the conflicting paradigms navigated by clinicians trying to operationalise patient-centred, biopsychosocial approaches may well contribute to their doubts and uncertainties (see Petty, Thomson and Stew, 2012a; Johnson and Waterfield, 2004; Gibson and Martin, 2003). The participants not only described the challenges of "selling" the diagnosis of CNSLBP to their patient, but several also expressed their own scepticism about the diagnosis, describing it as "fluffy" and an "umbrella term".

Whilst exploring the validity of the diagnosis is beyond the scope of this paper, its use remains contested in the literature and some authors have championed alternative classifications of CNSLBP presentations (Costa *et al*, 2013; Sheeran, Coales and Sparkes, 2015; O'Sullivan, 2006; McCarthy and Cairns, 2005; O'Sullivan, 2005; Turk, 2005). It has, for example, been proposed that the understanding of persistent pain may have become too polarised in the consideration of psychosocial factors, with a need to pay equal consideration to pathoanatomical causes of pain (Ford and Hahne, 2013). This view resonates with Participant D's expressed view that the current trend in physiotherapy is too focused on "pain theory". It could arguably be considered that one of the reasons physiotherapists may struggle to "sell" CNSLBP to their patients, is that they may be reluctant to "get on board" with the diagnosis themselves. One may question whether the "selling" process could be less challenging if one begins from a position of greater confidence in one's own understanding and acceptance of the diagnosis. This may have implications for the discussion of the role of biopsychosocial factors in persistent pain and perhaps explains physiotherapists' experienced reliance of retreating to the perceived safety of their "comfort zones". One may wonder whether personal reflection on one's own beliefs regarding a diagnosis is a sensible first step prior to considering how this understanding should be communicated to patients.

CONCLUSION

This qualitative study sought to explore the lived experiences of physiotherapists communicating a common diagnosis to their patients and present findings in a transparent manner for consideration by the reader. Throughout the raw data, participants highlighted the challenges of balancing a paternalistic wish to communicate their own views with their concern that this may become a source of interpersonal conflict. This was often associated with feelings of anxiety and appeared to be a particular issue with this diagnosis, as CNSLBP was regularly shrouded in preconceived meaning for both clinicians and patients. Participants sought to mitigate the risk of unsuccessful communication by relying on interpersonal skills to help them understand patients' perspectives, show empathy and form a good initial rapport. They described a tentative, unplanned, responsive process of communication aimed at getting patients "on board" with the clinician's perspective of the diagnosis, described as "selling" the diagnosis. There was recognition of the importance of patient-centred communication, but the clash this created with participants' sense of obligation to "sell" a specific understanding resulted in feelings of personal conflict and doubt. These experiences were inter-linked with feelings of anxiety and uncertainty when approaching communication with this patient group, which was an area of clinical practice for which participants felt unprepared by their undergraduate training. The communicative process was summarised succinctly by Participant E:

"...it's the listening, talking, using examples that they can relate to... and take on board..." (Participant E, p19)

LIMITATIONS OF THE STUDY

The area of clinical practice explored in this paper is one in which the first author has worked and it is acknowledged that his own experiences may be reflected in the interpretative processes. However, as a phenomenological study the objectives were not to draw concrete conclusions regarding the reality or to claim transferability of findings. Rather, the reader is humbly encouraged to consider the presented information, draw his or her own conclusions and reflect on how this may hold meaning for their own practice.

IMPLICATIONS FOR PRACTICE

The findings of this study have highlighted the complexities and challenges of successful communication and suggested there is a need for further training and mentorship in clinical practice. Physiotherapists might seek mentorship from clinical psychologists whose skills and experience in communication form the core of their practice. They may also benefit from reflection on their own understanding, beliefs, decision-making and approaches to communication within the therapeutic encounter as a precursor to reducing the doubts and conflicts, which may arise from navigating contrasting perspectives and models of care. Additionally, undergraduate curricular need to be continually reviewed to consider how they are helping to prepare students for the challenges of clinical practice. Further emphasis on communication and inclusion of service users in the curriculum may help better prepare students for the real-world situations they will experience. This in turn may facilitate the development of the adaptable, patient-centred and non-verbal interpersonal skills identified by the participants of this study as central to successful communication in their musculoskeletal practice.

SUGGESTIONS FOR FUTURE RESEARCH

The conflicts and doubts related to communicating a diagnosis of CNSLBP were highlighted in this study. The phenomenon explored, however, related specifically to clinicians' experiences, which may not immediately translate to significant meaning for patients. Future research may therefore explore both physiotherapists' and patients' beliefs and perceptions of the diagnosis CNSLBP, to better contextualise the challenges faced by this study's participants within a broader understanding of popular opinions on the diagnosis, along with the contrasts and conflicts that may manifest between clinicians and patients' perspectives. Greater insight into these contrasts may be a useful step towards bridging different expectations of the therapeutic encounter and improve collaborative, shared decision-making, patient experience and satisfaction in physiotherapy practice.

DECLARATION OF INTERESTS

The authors report no declarations of interest

REFERENCES

- Ackerman SJ, Hilsenroth MJ 2003 A review of therapist characteristics and techniques positively impacting the therapeutic alliance. *Clinical Psychology Review* 23(1): 1–33
- Airaksinen O, Brox JI, Cedraschi C, Hildebrandt J, Klaber-Moffett J, Kovacs F, Mannion AF, Reis S, Staal JB, Ursin H, Zanoli G 2006 European guidelines for the management of chronic nonspecific low back pain. *European Spine Journal* 15(s2): S192-300
- Balague F, Mannion AF, Pellise F, Cedraschi C 2012 Non-specific low back pain. *Lancet* 379: 482-491
- Barr J, Threlkeld AJ 2000 Patient-practitioner collaboration in clinical decision-making. *Physiotherapy Research International* 5(4): 254-260
- Carpenter C 1997 Conducting qualitative research in physiotherapy: a methodological example. *Physiotherapy* 83(10): 547-552
- Casserley-Feeney SN, Phelan M, Duffy F, Roush S, Cairns MC, Hurley DA 2008 Patient satisfaction with private physiotherapy for musculoskeletal pain. *BMC Musculoskeletal Disorders* 9: 50
- Cassidy E, Reynolds F, Naylor S, De Souza L 2011 Using interpretative phenomenological analysis to inform physiotherapy practice: an introduction with reference to the lived experience of cerebral ataxia. *Physiotherapy Theory and Practice* 27(4): 263-277
- Clancy M 2013 Is reflexivity the key to minimising problems of interpretation in phenomenological research? *Nurse Researcher* 20(6): 12-16
- Cohen MZ, Omery A 1994 Schools of phenomenology: implications for research. In: Morse JM (Ed) *Critical issues in qualitative research*, pp136-156. Thousand Oaks, Sage
- Cole MB, McLean V 2003 Therapeutic relationships re-defined. *Occupational Therapy in Mental Health* 19(2): 33–56
- Converse M 2012 Philosophy of phenomenology: how understanding aids research. *Nurse Researcher* 20(1): 28-32
- Cooper K, Smith BN, Hancock E 2008 Patient-centredness in physiotherapy from the perspective of the chronic low back pain patient. *Physiotherapy* 94: 244-252
- Costa LDM, Koes BW, Pransky G, Borkan J, Maher CG, Smeets RJE 2013 Primary care research priorities in low back pain: an update. *Spine* 38(2): 148-156
- Coulter A, Collins A 2011 *Making shared decision-making a reality: no decision about me, without me*. London, King's Fund.
- Creswell JW 2009 *Research design: qualitative, quantitative and mixed methods approaches*, 3rd edition. London, Sage

De Souza LH, Frank AO 2007 Experiences of living with chronic back pain: the physical disabilities. *Disability and Rehabilitation* 29(7): 587-596

Dierckx K, Deveugele M, Roosen P, Devische I 2013 Implementation of shared decision making in physical therapy: observed level of involvement and patient preference. *Physical Therapy* 93(10): 1321-1330

Edwards I, Jones M, Higgs J, Trede F, Jensen G 2004 What is collaborative reasoning? *Advances in physiotherapy* 6: 70-83

Ezzy, D 2001 Are qualitative methods misunderstood. *Australian and New Zealand Journal of Public Health* 25: 294-297

Fava GA, Ruini C, Tomba E, Wise TN 2012 The biopsychosocial factor. *Psychotherapy and Psychosomatics* 81: 1-4

Ferreira PH, Ferreira ML, Maher CG, Refshauge KM, Latimer J and Adams RD 2013 The therapeutic alliance between clinicians and patients predicts outcome in chronic low back pain. *Physical Therapy* 93: 470-478

Flood A 2010 Understanding phenomenology. *Nurse Researcher* 17(2): 7-15

Ford JJ, Hahne AJ 2013 Pathoanatomy and classification of low back disorders. *Manual Therapy* 18: 165-168

Furlan AD, Pennick V, Bombardier C, van Tulder MW 2009 Updated method guidelines for systematic reviews in the Cochrane Back Review Group. *Spine* 34: 1929-1941

Gibson BE, Martin DK 2003 Qualitative research and evidence-based physiotherapy practice. *Physiotherapy* 89(6):350-358

Goubert L, Crombez G, Danneels L 2005 The reluctance to generalize corrective experiences in chronic low back pain patients: a questionnaire study of dysfunctional cognitions. *Behavioural Research and Therapy* 43: 1055-1067

Gringeri C, Barusch A, Cambron C 2013 Epistemology in Qualitative Social Work Research: A Review of Published Articles, 2008-2010. *Social Work Research* 37(1): 55-63

Hall AM, Ferreira PH, Maher CG, Latimer J and Ferreira ML 2010 The influence of the therapist-patient relationship on treatment outcome in physical rehabilitation: A systematic review. *Physical Therapy* 90: 1099-1110

Hirsh AT, Atchison JW, Berger JJ, Waxenberg LB, Lafayette-Lucey A, Bulcourn BB, Robinson ME 2005 Patient satisfaction with treatment for chronic pain: predictors and relationship to compliance. *The Clinical Journal of Pain* 21: 302-310

Hopayian K, Notley C 2014 A systematic review of low back pain and sciatica patients' expectations and experiences of health care. *The Spine Journal* 14: 1769-1780

Inwood M 2000 Heidegger: a very short introduction. Oxford, Oxford University Press

Jeffrey JE, Foster NE 2012 A qualitative investigation of physical therapists' experiences and feelings of managing patients with nonspecific low back pain. *Physical Therapy* 92: 266-278

Jesus TS, Silva IL 2016 Toward an evidence-based patient-provider communication in rehabilitation: linking communication elements to better rehabilitation outcomes. *Clinical Rehabilitation* 30(4): 315-328

Johnson R, Waterfield J 2004 Making words count: the value of qualitative research. *Physiotherapy Research International* 9(3): 121-131

Josephson I, Woodward-Kron R, Delany C, Hiller A 2015 Evaluative language in physiotherapy practice: How does it contribute to the therapeutic relationship? *Social Science & Medicine* 143: 128-136

Kamper SJ, Apeldoorn AT, Chiarotto A, Smeets RJE, Ostelo RWJG, Guzman J, van Tulder MW 2015 Multidisciplinary biopsychosocial rehabilitation for chronic low back pain: Cochrane systematic review and meta-analysis. *British Medical Journal* 350(h444): 1-11

Kidd MO, Bond CH, Bell ML 2011 Patients' perspectives of patient-centredness as important in musculoskeletal physiotherapy interactions: a qualitative study. *Physiotherapy* 97: 154-162
Koch T 1995 Interpretive approaches in nursing research: the influence of Husserl and Heidegger. *Journal of Advanced Nursing* 21: 827-36

Koes BW, van Tulder M, Lin CWC, Macedo LG, McAuley J, Maher C 2010 An updated overview of clinical guidelines for the management of non-specific low back pain in primary care. *European Spine Journal* 19: 2075-2094

Koes BW, van Tulder M, Thomas S 2006 Diagnosis and treatment of low back pain. *British Medical Journal* 32: 1430-1434

Krismer M, van Tulder M 2007 Low back pain (non-specific). *Best Practice & Research Clinical Rheumatology* 21(1): 77-91

Kvale S, Brinkmann S 2009 Interviews: learning the craft of qualitative research interviewing, 2nd edition. Thousand Oaks, Sage

Laisne F, Lecomte C, Corbiere M 2012 Biopsychosocial predictors of prognosis in musculoskeletal disorders: a systematic review of the literature. *Disability & Rehabilitation* 34(22): 1912-1941

Lambeek LC, van Tulder MW, Swinkels IC, Koppes LL, Anema J, van Mechelen W 2011 The trend in total cost of back pain in the Netherlands in the period 2002 to 2007. *Spine* 36: 1050-1058

Leach MJ 2005 Rapport: a key to treatment success. *Complementary Therapies in Clinical Practice* 11: 262-265

Liddle SD, Baxter GD, Gracey JH 2007 Chronic low back pain: patients' experiences, opinions and expectations for clinical management. *Disability and Rehabilitation* 29(24): 1899-1909

Lopez KA, Willis DG 2004 Descriptive versus interpretive phenomenology: their contributions to nursing knowledge. *Qualitative Health Research* 14(5): 726-735

Lowe A, Diener A, Butler DS, Puentedura EJ 2011 The effect of neuroscience education on pain, disability, anxiety and stress in chronic musculoskeletal pain. *Archives of Physical Medicine and Rehabilitation* 92: 2041-2056

Lumley MA, Cohen JL, Borszcz GS, Cano A, Radcliffe AM, Porter LS, Schubiner H, Keefe FJ 2011 Pain and emotion: a biopsychosocial review of recent research. *Journal of Clinical Psychology* 67: 942-968

Luo X, Pietrobon R, Sun SX, Liu GG, Hey L 2004 Estimates and patterns of direct health care expenditures among individuals with back pain in the United States. *Spine* 29: 79-86

Machado LA, Kamper SJ, Herbert RD, Maher CG, McAuley JH 2009 Analgesic effects of treatments for non-specific low back pain: a meta-analysis of placebo-controlled randomized trials. *Rheumatology* 48: 520-527

Mapp T 2008 Understanding phenomenology: the lived experience. *British Journal of Midwifery* 16(5): 308-311

Mason, J 2002 *Qualitative Researching*, 2nd edition. London, Sage Publications

McCarthy CJ, Cairns MC 2005 Why is the recent research regarding non-specific pain so non-specific? *Manual Therapy* 10: 239-241

McIntosh A, Shaw CFM 2003 Barriers to patient information provision in primary care: patients' and general practitioners' experiences and expectations of information for low back pain. *Health Expectations* 6: 19-29

Mead N and Bower P 2000 Patient-centredness: a conceptual framework and review of the empirical literature. *Social Science and Medicine* 51: 1087-1110

Moore AP, Jull G 2013 The patient experience of musculoskeletal therapy. *Manual Therapy* 18: 175-176

Moseley GL 2007 Reconceptualising pain according to modern pain science. *Physical Therapy Reviews* 12: 169-178

Moseley GL, Nicholas MK, Hodges PW 2004 A randomized controlled trial of intensive neurophysiology education in chronic low back pain. *Clinical Journal of Pain* 20: 324-330

Moseley GL 2003 A pain neuromatrix approach to patients with chronic pain. *Manual Therapy* 8(3): 130-140

NICE 2016 Low back pain and sciatica in over 16s: assessment and management. National Institute of Health and Care Excellence <https://www.nice.org.uk/guidance/ng59>

Nicholls DA, Atkinson K, Bjorbaekmo WS, Gibson BA, Latchem J, Olesen J, Ralls J, Setchell J 2016 Connectivity: An emerging concept for physiotherapy practice. *Physiotherapy Theory and Practice* 32(3): 159-170

Nicholls D 2009a Qualitative research: part one – philosophies. *International Journal of Therapy and Rehabilitation* 16(10): 526-533

Nicholls D 2009b Qualitative research: part two – methodologies. *International Journal of Therapy and Rehabilitation* 16(11): 586-592

Nijs J, Meeus M, Cagnie B, Roussel NA, Dolphens M, van Oosterwijck J, Danneels L 2014 A modern neuroscience approach to chronic spinal pain: combining pain neuroscience education with cognition-targeted motor control training. *Physical Therapy* 94(5): 730-738

Oliveira VC, Ferreira ML, Pinto RZ, Filho RF, Refshauge K, Ferreira PH 2015 Effectiveness of training clinicians' communication skills on patients' clinical outcomes: a systematic review. *Journal of Manipulative and Physiological Therapeutics* 38: 601-616

Oliveira VC, Refshauge KM, Ferreira ML, Pinto RZ, Beckenkamp PR, Negrao Filho RF, Ferreira PH 2012 Communication that values patient autonomy is associated with satisfaction with care: a systematic review. *Journal of Physiotherapy* 58: 215-229
O'Sullivan P 2012 It's time for change with the management of non-specific chronic low back pain. *British Journal of Sports Medicine* 46(4): 224-227

O'Sullivan P 2006 Classification of lumbopelvic pain disorders - why is it essential for management. *Manual Therapy* 11(3): 169-170

O'Sullivan P 2005 Diagnosis and classification of chronic low back pain disorders: maladaptive movement and motor control impairments as underlying mechanism. *Manual Therapy* 10(4): 242-255

Paley G, Lawton D 2001 Evidence-based practice: accounting for the importance of the therapeutic relationship in the UK National Health Service therapy provision. *Counselling & Psychotherapy Research* 1(1): 12-17

Patel S, Psychol C, Friede T, Froud R, Evans DW, Underwood M 2013 Systematic review of randomized controlled trials of clinical prediction rules for physical therapy in low back pain. *Spine* 38(9): 762-769

Peersman W, Rooms T, Bracke N, van Waelvelde H, de Maeseneer J 2013 Patients' priorities regarding outpatient physiotherapy: a qualitative and quantitative study. *Manual Therapy* 18: 155-164

Petty NJ, Thomson OP, Stew G 2012a Ready for a paradigm shift? Part 1: introducing the philosophy of qualitative research. *Manual Therapy* 17: 267-274

Petty NJ, Thomson OP, Stew G 2012b Ready for a paradigm shift? Part 2: introducing qualitative research methodologies and methods. *Manual Therapy* 17: 378-384

Pransky G, Buchbinder R, Hayden J 2010 Contemporary low back pain research - and implications for practice. *Best Practice and Research in Clinical Rheumatology* 24(2): 291-298

Raymond A, Bouton C, Richard I, Roquelaure Y, Baufreton C, Legrand E, Huez JF 2011 Psychosocial risk factors for chronic low back pain in primary care - a systematic review. *Family Practice* 28(1): 12-21

Reid K, Flowers P, Larkin M 2005 Exploring lived experience. *The Psychologist* 8(1): 20-23

Robson C 2011 *Real world research*, 3rd edition. Chichester, Wiley

Sanders T, Foster NE, Bishop A, Ong BN 2013 Biopsychosocial care and the physiotherapy encounter: physiotherapists' accounts of back pain consultation. *BMC Musculoskeletal Disorders* 14:65: 1-10

Shaw JA, DeForge RT 2012 Physiotherapy as bricolage: theorizing expert practice. *Physiotherapy Theory and Practice* 28(6): 420-427

Sheeran L, Coales P, Sparkes V 2015 Clinical challenges of classification based targeted therapies for non-specific low back pain: what do physiotherapy practitioners and managers think? *Manual Therapy* 20(3): 456-462

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. *Manual Therapy* 20: 328-334

Slade SC, Molloy E, Keating JL 2011 The dilemma of diagnostic uncertainty when treating people with chronic low back pain: a qualitative study. *Clinical Rehabilitation* 26(6): 558-569

Smith JA 2007 Hermeneutics, human sciences and health: linking theory and practice. *International Journal of Qualitative Studies on Health and Well-being* 2: 3-11

Smith JA, Flowers P, Larkin M 2009 *Interpretative phenomenological analysis: theory, method and research*. London, Sage Publications

Smith JA and Osborn M 2008 Interpretative phenomenological analysis. In: Smith JA (ed) *Qualitative psychology: a practical guide to research methods* (2nd edition) pp 53-80. London, Sage

Smith S 2006 Encouraging the use of reflexivity in the writing up of qualitative research. *International Journal of Therapy and Rehabilitation* 13(5): 209-215

Snelgrove S, Edwards S, Lioffi C 2013 A longitudinal study of patients' experiences of chronic low back pain using interpretative phenomenological analysis: changes and consistencies. *Psychology & Health* 28(2): 121-138

Spiegelberg E (Ed) 1994 *The Phenomenological Movement: A Historical Introduction*, 3rd Edition. Dordrecht, the Netherlands: Kluwer Academic Publishers

Stenner R, Swinkels A, Mitchell T, Palmer S 2016 Exercise prescription for patients with non-specific chronic low back pain: a qualitative exploration of decision making in physiotherapy practice. *Physiotherapy* 102: 332-338

Toye F, Seers K, Barker KL 2017 Meta-ethnography to understand healthcare professionals' experience of treating adults with chronic non-malignant pain. *BMJ Open* 7:e018411. doi:10.1136/bmjopen-2017-018411

Toye F, Seers K, Hannink E, Barker K 2017 A mega-ethnography of eleven qualitative evidence syntheses exploring the experience of living with chronic non-malignant pain. *BMC Medical Research Methodology* 17: 116

Tuohy D, Cooney A, Dowling M, Murphy K, Sixsmith J 2013 An overview of interpretive phenomenology as a research methodology. *Nurse Researcher* 20(6): 17-20

Turk DC 2005 The potential of treatment matching for subgroups of patients with chronic pain: Lumping versus splitting. *Clinical Journal of Pain* 21: 44-55

Turk DC, Dworkin RH, Revicki D, Harding G, Burke LB, Cella D, Cleeland CS, Cowan P, Farrar JT, Hertz S, Max MB, Rappaport BA 2008 Identifying important outcome domains for chronic pain clinical trials: an IMMPACT survey of people with pain. *Pain* 137: 276-285

Van Manen M 2007 Phenomenology of practice. *Phenomenology and Practice* 1(1): 11-30

Van Tulder M, Becker A, Bekkering T, Breen A, Gil del Real MT, Hutchinson A, Koes B, Laerum E, Malmivaara A 2006 European guidelines for the management of acute nonspecific low back pain in primary care. *European Spine Journal* 15: S169-191

Van Tulder MW, Waddell G 2005 Evidence-based medicine for non-specific low back pain. *Best Practice & Research Clinical Rheumatology* 19(4): vii-ix

Verbeek J, Sengers MJ, Riemens L, Haafkens K 2004 Patient expectation of treatment for back pain: a systematic review of qualitative and quantitative studies. *Spine* 29(20): 2309-2318

Vos T, Flaxman AD, Naghavi M, Lozano R, Michaud C, Ezzat M 2012 Years lived with disability (YLDs) for 1160 sequelae of 289 diseases and injuries 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* 380: 2163-2196

Waddell G 2006 Preventing incapacity in people with musculoskeletal disorders. *British medical Bulletin* 77-78: 55-69

Walker BF, Muller R, Grant WD 2003 Low back pain in Australian adults: the economic burden. *Asia and Pacific Journal of Public Health* 15(2): 79-87

Walker J, Sofaer B, Holloway I 2006 The experience of chronic back pain: accounts of loss in those seeking help from pain clinics. *European Journal of Pain* 10: 199-207

Wijma AJ, Bletterman AN, Clark JR, Vervoot SCJM, Beetsma A, Keizer D, Nijs J, Van Wilgen CP 2017 Patient-centeredness in physiotherapy: what does it entail? A systematic review of qualitative studies. *Physiotherapy Theory and Practice* 33(11): 825-840

Wilson A 2014 Being a practitioner: an application of Heidegger's phenomenology. *Nurse Researcher* 21(6): 28-33

Zangoni G, Thomson OP 2017 'I need to do another course' – Italian physiotherapists' knowledge and beliefs when assessing psychosocial factors in patients presenting with chronic low back pain. *Musculoskeletal Science and Practice* 27: 71-77