

RESEARCH ARTICLE

Do patients with low back pain remember physiotherapists' advice? A mixed-methods study on patient-therapist communication

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Abstract

Objectives: The primary aim of this study was to determine if the advice physiotherapists think they provide to patients with low back pain (LBP) is what the patients remember and take away from the clinical encounter. The secondary aim was to determine which factors may influence the retention of this advice.

Methods: The first component of the study used questionnaires completed by patients and therapists after the initial visit. Related questionnaires of patients and therapists were screened for inconsistencies. The second component of the study involved semi-structured interviews.

Results: Ninety pairs of questionnaires were completed. Therapists provided patients with one (N = 90), two (N = 85) or three (N = 51) items of advice regarding the management of their LBP. All patients remembered the first item of advice, 92% remembered a second, and 67% remembered the third piece of advice. All items of advice were deemed either 'relevant' or 'very relevant' by 97% of the patients. After the analysis of 14 interviews, data saturation was reached. Four themes emerged from the data analysis of the interviews: (a) Evaluation type, (b) Exercise factors, (c) Patient concerns about their diagnosis, and (d) Patient expectations.

Discussion: In most cases, patients remembered what therapists told them and considered that the advice provided was relevant. Based on the qualitative data, patients were more likely to remember what therapists said when: (a) shared decision making was used during the initial encounter, (b) prescribed exercises were simple to perform and few in number, (c) patients' concerns about their diagnosis were addressed, and (d) patients' expectations were identified and addressed.

KEYWORDS

communication, low back pain, shared decision making

1 | INTRODUCTION

Communication is at the heart of any interaction between a healthcare professional and a patient (Moore & Jull, 2015), with communication skills being identified as critical in the therapeutic encounter between physiotherapists and patients (O'Keeffe et al., 2016). A positive patient-

therapist interaction has been linked with reduced pain and disability, and higher satisfaction with treatment (Hall, Ferreira, Maher, Latimer, & Ferreira, 2010). In its turn, enhanced therapeutic alliance and good patient adherence with suggested management strategies leads to superior outcomes (Escolar-Reina et al., 2010; Essery, Geraghty, Kirby, & Yardley, 2017; Ferreira et al., 2013; Hicks et al., 2012; McLean,

Burton, Bradley, & Littlewood, 2010; Medina-Mirapeix et al., 2009; Pisters et al., 2010; Schäfer, 2017; Tilbrook et al., 2014). However, the management process starts with the initial assessment, and a recent trial showed that the evaluation process itself can produce small, but significant, therapeutic effects related to pain, fear-avoidance, pain catastrophization, and functional measures of mobility and sensitivity (Louw et al., 2020). After the initial evaluation physiotherapists frequently prescribe exercises and/or provide their patients with education regarding their diagnosis, prognosis, and plan of care. Therapists may take for granted that the advice given is successfully delivered, and that the intended message is received and remembered by the patient. However, this assumption and confidence may be mistaken as the literature shows inconsistencies between physiotherapists' self-assessment and patients' perception (Miller, 2008; Peek, Carey, Mackenzie, & Sanson-Fisher, 2018), and problems in communication between patients and physiotherapists and other healthcare professionals (Barker, Reid, & Minns Lowe, 2009; Darlow et al., 2013, 2015; Gulbrandsen, Madsen, Benth, & Laerum, 2010). Patients do not always understand the proposed outcome of the recommended intervention, along with the time frame of the plan of care (White, Lee, & Williams, 2016). Physiotherapists have been found to dominate communication, which has been found to be dependent on the clinician, and only partly individualized to the specific patient (Roberts & Bucksey, 2007; Street, Gordon, Ward, Krupat, & Kravitz, 2005), with the absence of individualized information likely to diminish treatment effectiveness (Lucassen & Olesen, 2016). Patients with spinal problems who do not perceive the message that back pain is generally benign and that activity is a key to recovery, are at a higher risk of disability, and have lower treatment satisfaction 6 months after treatment (Overmeer & Boersma, 2016; Woolf, 2004; Zolnieriek & Dimatteo, 2009).

In summary, research has identified a number of factors that may influence patient-therapist interaction, and patients seem to expect, amongst other things, exercises and information about their condition from their physiotherapist (Farin, Gramm, & Schmidt, 2013; Hush, Cameron, & Mackey, 2011; McRae & Hancock, 2017; O'Keeffe et al., 2016). So far, no published research has investigated how successful physiotherapists are at conveying this information to patients at the initial visit, or whether patients remember this advice.

The primary aim of this study was to determine if the information and exercises that physiotherapists think they provide is what patients remember and take away from the clinical encounter. The authors' hypothesis, derived from former research and clinical observation, was that there are inconsistencies between therapists' assumptions of successful delivery and patients' perceptions of the provided information. The secondary aim was to try to determine which factors may influence the retention of this information by the patient.

2 | METHODS

The criteria for reporting qualitative research (COREQ) checklist was followed during the conduct and reporting of this study (Tong,

Sainsbury, & Craig, 2007). These criteria have been identified in the methods and results as appropriate [in square brackets]; only one criterion 'Description of the coding tree' was missing [25].

Therapists and patients were recruited from four private physiotherapist outpatient clinics in one town in Germany and from an orthopaedic hospital in Switzerland, where the data were collected [14]. Inclusion criteria for patients were: women or men, aged 18–70 years-old with a physician referral for physiotherapy for LBP, which included those with accompanying lower extremity symptoms. No further specifications of the low back pain have been made. The exclusion criteria were: inability to read and understand German and no consent to participate. Patients were also excluded from the study if during their initial evaluation the therapist was concerned about possible serious pathology, such as cancer.

The study's pathway was as follows [10, 11]. Patients who were scheduled for an appointment in one of the participating clinics for evaluation of their low back pain were invited by the clinic staff to join the study. Patients were given a participant information sheet and offered the opportunity to ask any questions prior to giving their written consent for their initial evaluation and treatment to be observed. Patients and therapists were aware of the study aims and that they were to answer questions related to the advice / exercises. Demographic information about both patients and therapists was gathered in the clinic immediately after the first visit [3, 4, 5, 8, 16]. For patients this included information about age, gender, duration of current episode, recurrences and pain locations other than the back. Therapists provided information on age, gender, years of experience as a physiotherapist and postgraduate education.

The first component of the study used questionnaires, in which therapists and patients noted the information and exercises that they had either provided in the case of the therapist or had received in the case of the patients. The questionnaires were completed by both the therapist and the patient immediately after the initial visit in the clinic. Contemporary physiotherapy should represent a comprehensive approach to musculoskeletal conditions (Caneiro et al., 2019; Lewis & O'Sullivan, 2018). It is not appropriate to separate information and exercise as one component might be coupled with the other and be potentially difficult to differentiate. Therefore, the terms information and exercises will be referred to as 'items of advice'. Therapists and patients could list up to six items of advice. Therapists noted how successful they rated the delivery of the advice, and patients noted if they remembered it and how relevant they rated the advice (Appendix S1).

A research assistant transferred demographic data to an excel data file. The data was coded for confidentiality and the file was saved on a password protected computer, and the paper files locked in a cupboard.

All questionnaires were evaluated independently by two researchers (G.S., W.S.). If the therapists or patients used different words to describe essentially the same advice, the single and clearest term was used. When comparing corresponding questionnaires, the order of the listed advice was not considered. For instance, if the patient noted an item of advice first on the list and the therapist listed

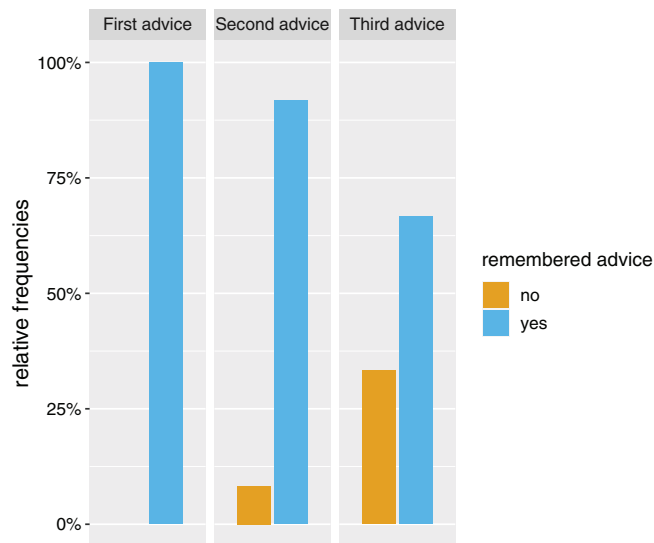


FIGURE 1 The rate by which patients remembered the three items of advice fell significantly from the first to the second ($p < .01$), first to the third ($p < .001$) and second to the third ($p < .001$) given advice

this advice second, this was still seen as a match. If a patient's reported understanding only partially met the therapist's one, this was rated as a mismatch. In terms of identifying agreement between therapist and patient the specific items were considered relevant, rather than the order in which they were listed. Thus, a therapist who listed 'exercise' first and a patient who listed it third would have been considered a 'match'. Thus, agreement over three pieces of advice recorded matches over items, rather than the order in which they were listed. Participants were not being asked to prioritize items of advice in terms of importance.

After completion of this process, the two researchers compared their findings. In cases of discrepancies between researchers, they discussed individual questionnaires and reached a consensus. The final dataset was analysed using R and RStudio (RDC Team, 2008; RStudio Team, 2016). Numeric data is given as mean and standard deviation (SD). Data presented in Figure 1 was analysed by Fisher's Exact Test for count data, and plotted with ggplot2 (Wickham, 2009). Overall and pairwise tests were performed, Likert data was analysed and plotted using R-package Likert.

The initial research plan was to invite only patients for follow-up interviews when the researchers detected major discrepancies in patient/therapist statements. However, the ongoing analysis of the questionnaires did not reveal major discrepancies for most of the items of advice and therefore the initial research plan was changed. In contrast to the initial hypothesis, it was found that patients mostly concurred with what therapists had thought they had told them, and therefore the second component of the study was amended to determine why communication appeared effective in this environment. Following the analysis of the first 40 questionnaires, every subsequent patient who had given consent to an interview (39 of 50) was invited to participate [10, 13].

The interviews were either conducted in the individual clinic or via telephone by one of two physiotherapists (G.S., W.S.), and these were conducted the day after the initial visit or not later than 6 days following the initial visit, with no one else present [1, 2, 15]. The researchers who interviewed the patients were not involved with their treatment, and had no prior knowledge of them [6, 7].

Interviews were conducted once using a topic guide constructed from existing literature and the questionnaire phase of the study [17, 18]. The interviews were analysed the same or the following day. The sample size was determined by the principle of data saturation, as follows [12, 22]. As data collection continued, after each two to three interviews, data analysis was conducted. In this way it was possible to explore if any new themes were emerging from the data analysis, in order that data saturation could be determined. Once it was thought that this point had been reached, that is no new themes seemed to be emerging, two further interviews were conducted to confirm that this was so.

Two pilot interviews were conducted and subsequently evaluated by the researchers. As a result, some of the wording of the questions was modified for clarity. These two interviews were not included in the final data analysis. The researchers ensured that no patients admitted into the study had previously been treated by the researchers themselves.

Interviews were recorded digitally, transcribed verbatim, translated into English and analysed using framework analysis from an interpretivism perspective [9, 19, 20]. One of the advantages of the framework approach is that the researchers' interpretations of participants' experiences are transparent (Gale, Heath, Cameron, Rashid, & Redwood, 2013; Ritchie, 2010). Each participant's transcript was anonymized. Two researchers read and reread each transcript and listened back to the audio-recorded interviews to become familiar with the whole data set [24]. They independently coded the transcripts, underlined interesting segments of text and used the margin to describe the content of each passage with a code. After coding transcripts, the researchers met to compare the coding. Percentage of agreements were recorded, and where there was disagreement a consensus was reached, with the option of referral to another researcher if agreement could not be reached. These codes were grouped together into subcategories and then summarized to themes derived from the data [26]. The analysis was conducted manually without the use of software [27]. In order to strengthen the validity of the final themes, at least 50% of participants had to mention an issue for it to become a theme. Participant checking of transcripts was not performed [23, 28].

3 | RESULTS

3.1 | Results—Quantitative

Data were collected between February 2014 and October 2015. The demographic data of the patients is shown in Table 1 and represented

TABLE 1 Patient demographic data

Demographic data of patients (n = 90)	
Age	42.5 ± 15.2
Sex [m/w]	39/51
Duration* [a, s, c, NA]	6, 32, 51, 1
Recurrent episode [no, yes, NA]	29, 60, 1

Abbreviations: a, acute; c, chronic; s, subacute.

TABLE 2 Therapist demographic data

Demographic data of therapists (n = 25)	
Age [years]	39.3 ± 10.4
Sex [m/w]	9 / 16
Experience [years]	14.0 ± 9.5
MDT training [none, A, B, C, D, cred, Dip]	5, 2, 1, 2, 4, 10, 1

Abbreviations: A–D, MDT courses; cred, credentialing exam; Dip, Diploma in MDT; MDT, Mechanical Diagnosis and Therapy (McKenzie).

a typical patient population in an outpatient physiotherapy clinic. The demographic data of physiotherapists is shown in Table 2.

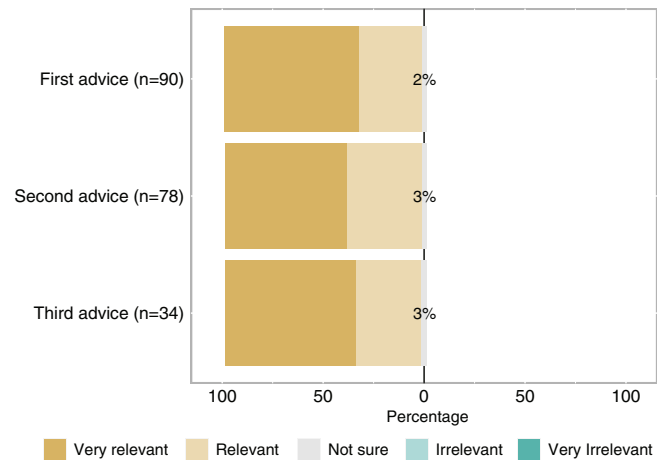
In total, 99 pairs of questionnaires were provided by five centres and a total of 25 invited physiotherapists volunteered to participate. Initial screening of these documents revealed missing demographic patient data in three cases, missing patient questionnaires in four cases, missing all data in one case and missing patient consent in one case. These were excluded and so the researchers used 90 pairs of completed questionnaires for further analysis. The investigators agreed on the rating in 85 of 90 (94.4%) cases when comparing the corresponding questionnaires. The five remaining cases were discussed and consensus was reached without need to refer to another researcher.

Therapists provided patients with one (N = 90), two (N = 85) or three (N = 51) pieces of advice regarding the management of their low back pain. The following types of advice were given to the patients: education (in 59% of all cases), postural advice/tips on modification of daily life (51%), directional preference exercises (47%), general exercises (37%), advice to stay active (31%), flexibility exercises (7%), strengthening (5%), motor control (4%). Examples for directional preference exercises were 'Repeated Extension in Lying' or 'Repeated Flexion in Standing'. Education consisted, for example, of information on the benign character of LBP, natural healing or pain mechanisms.

One hundred percent (N = 90) of the patients remembered the first piece of advice; 92% (N = 78) remembered the second; and 67% (N = 34) remembered the third. The rate by which patients remembered the three items of advice fell significantly from the first to the second to the third given advice (Figure 1).

All items of advice were deemed either 'relevant' or 'very relevant' by 97–98% of the patients (Figure 2).

There was a difference between therapists' perception of successfully delivered advice and whether the patient actually remembered that advice. While the first and second items of advice were

**FIGURE 2** Likert plot of Patient estimation of relevance. All items of advice were deemed either 'relevant' or 'very relevant' by 97–98% by the patients

remembered correctly by patients 100 and 92% of times respectively, therapists were unsure of the successful delivery of 14–15% of these items. In contrast, for the third piece of advice there was an over-estimation of successfully delivered advice. Therapists were unsure of a successful delivery in only 12% of these items, whereas patients did not remember 33% of them. The therapists' estimation does not reflect the fact, that first, second and third advice are remembered differently by the patients (Figure 3).

3.2 | Results—Qualitative

After screening of the first 40 questionnaires every patient who had given consent (39 of 50) was invited to an interview. Some patients were not available in the required timeframe, and so a total of 14 interviews were conducted, which lasted 20–30 min [21]. After these 14 interviews data saturation was reached as it was deemed that no new themes were emerging.

The interviews produced four themes; with the numbers in brackets indicating in how many interviews this was relevant [30, 31, 32].

3.2.1 | Evaluation type (13)

Patients appreciated the possibility to report extensively on their LBP and emphasized the fact that they could describe their problems and in what way the LBP interfered with their daily activities.

Most interviewed patients felt that they were included in the diagnostic process and appreciated this type of mutual evaluation. The clinical examination was not conducted 'on them' but 'with them'. Nearly all patients emphasized the 'we-aspect' when they talked about their experience with the initial evaluation. This active participation in the clinical examination met the definition for shared

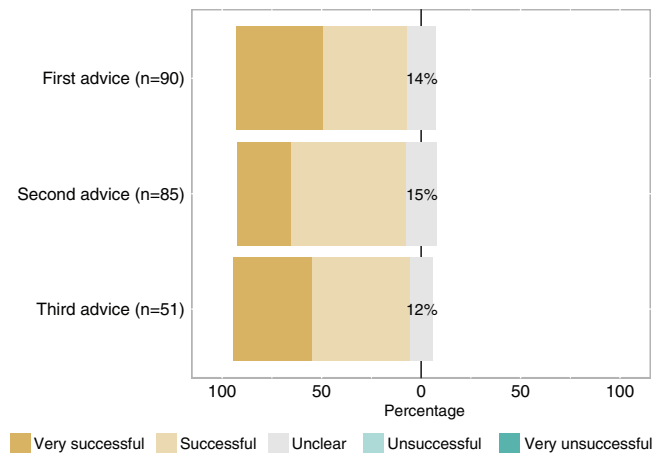


FIGURE 3 Likert plot of Therapist estimation of successful delivery of advice. Therapists were unclear of the successful delivery of their items of advice in 12–15% of their advices

decision making and this occurred during the initial diagnostic process and progressed through to treatment. Patients felt that they determined the appropriate treatment together with the therapist by monitoring the symptomatic and mechanical response to movements.

3.2.2 | Exercise factors (12)

When asked about the reasons why they could remember the exercises prescribed, most patients referred to the fact that only a limited number of exercises had been given and that they appreciated the simplicity of the exercises. All patients could recall or show most of instructed exercises and most of them stated that the simplicity of the exercises helped to easily include them in daily life. In cases where the exercises led to an immediate change of symptoms the motivation was higher to perform them on a regular basis.

3.2.3 | Patient concerns about their diagnosis (11)

Almost all patients reported varying degrees of 'worry' about their LBP; some referred to negative examples from family and friends that lead to additional concerns about their own health status. The duration of symptoms was mentioned regularly, and this gave rise to concerns about their prognosis. In five cases the evaluation and trial treatment process lead to reduction of worries; they stated that their worries were reduced with the initial visit.

3.2.4 | Expectations (8)

Most patients expected specific individualized exercises and information about the cause of their LBP. Patients who had different expectations compared to what happened during the initial visit did not report lower patient satisfaction.

Table 3 provides examples of patient statements for different themes and subcategories [29].

4 | DISCUSSION

This mixed methods study evaluated an aspect of physiotherapist-patient interaction that previously has not been studied in detail. The initial hypothesis, derived from existing literature (Barker et al., 2009; Darlow et al., 2013, 2015; White et al., 2016) and clinical experience, was that there would be inconsistencies between what the therapist thinks she/he tells the patient and what the patient actually remembers. This hypothesis was not confirmed for the first item of advice that was given (100% concordance); however, for second, and especially for the third item of advice this was more the case (92 and 67% respectively). Considering that this study was conducted in standard physiotherapy clinics with a limited time frame of 20–30 min for the initial visit the high levels of concordance can be regarded as positive. However, therapists should be aware of the influence of the total number of items of advice provided and their perceived successful retention. Up to three items may be justified as more than two thirds of patients were able to demonstrate good retention of the third item, but one third of patients did not remember the third piece of information. Furthermore, there was a discrepancy between the items of advice that the therapists perceived as successfully delivered, and the patients remembered. Therapists underestimated success in the first and second items by 14 and 7% respectively, and overestimated success by 21% for the third item.

To gain more information in this area, future research could stratify patients in groups regarding the number of exercises and information prescribed, and the patients' ratings of importance of the advice provided.

The aim of the study was to detect discrepancies between the patients' and the therapists' perceptions during the initial visit and then conduct interviews to find out why there were misunderstandings. Based on the high rate of concordance between patients and therapists, the interviews were modified to get a general understanding of why communication between physiotherapists and patients seemed to work in this environment.

The four themes extracted from the semi-structured interviews with 14 patients may help to explain why communication worked in the observed clinical setting.

4.1 | Evaluation type

Patients in this study consistently emphasized the collaborative approach of the clinical evaluation utilized by the examining therapists. Instead of providing the patient with a diagnostic label at the end of the initial session and then discussing therapeutic options, the therapists involved the patients throughout the diagnostic process.

In the last decade, the term 'Shared Decision Making' (SDM) has gained increasing attention in physiotherapy research (Hoffmann

TABLE 3 Themes, subcategories, quotes

Theme	Subcategory	Quote
Evaluation type (13)	Active participation in the clinical exam and shared decision making in diagnostic process and treatment	<p><i>PU51</i>: ...Then we tried some exercises and had a look how they act, if pain gets better or worse and discussed this later</p> <p><i>SCH3</i>: ...that was more an exchange</p> <p><i>PU61</i>: He recommended that we look together what exactly is producing the pain. So that's because we find out which movement is good and which is not that good</p> <p><i>PU45</i>: I did like that he kept on asking me for how it feels, is it getting better, is it worse, is it good for you? And I did like, that he asked me exactly 'what happens, do I understand this right?'</p>
	Possibility to report extensively	<p><i>PU52</i>: Good. I could describe my problems</p> <p><i>PU45</i>: He did a detailed assessment, it was very descriptive. And he did not speak too much</p>
	Exercise factors (12)	Limited number of exercises
	Simplicity of exercises	<p><i>PU 44</i>: They were easy to remember. He showed them to me and I did them</p> <p><i>PU 52</i>: The exercise was simple. We did it together</p>
	Easy to include in daily life	<p><i>PU51</i>: I can do them easily at home</p> <p><i>PU 55</i>: I can include them quite well, in standing, lying, at work, while driving the car</p>
	Exercises are effective	<p><i>PU43</i>: ...I feel an improvement and it's good for my brain. I do something by myself to get healthier</p> <p><i>PU 35</i>: Why I'm doing them? Very simple, because they work</p>
Patient concerns about their diagnosis (11)	Influenced by experiences of others	<i>PU55</i> : I have only one back. Degeneration is there. Of course, you can support that with muscles but...you have only one back. You know in my family it is ...my brother in law had a disc prolapse, had failed surgery ...now he does not feel his legs anymore. Of course, I'm worried. I know on the long run this job is nothing for me
	Giving themselves a poor prognosis	<i>PU 44</i> : I'm worried that I will not get rid of that pain... I have it now for half a year continuously
	Positive influence of the active type of evaluation	<p><i>PU52</i>: Since I realized that it gets better when I work actively on that, I'm not worried anymore</p> <p><i>PU60</i>: I expected to have a disc prolapse and that it may get worse. He told me that it's not that bad as the exercises didn't make the pain worse. That was good and very reassuring</p>
Patient expectations (8)	Exercises	<i>PU51</i> : I did expect an effective treatment
	Looking for causality	<i>PU52</i> : ...that the reason for my problem would be detected and there should be a trial to solve it
	Different expectation	<i>PU45</i> : I did expect that we would do much more exercises and that he would demonstrate more exercises... So I expected something else, but I think, what I do now, makes more sense

et al., 2014; Parsons et al., 2012; Topp, Westenhöfer, Scholl, & Hahlweg, 2017; Tousignant-Laflamme et al., 2017), with a recent claim that it should be an integral part of physiotherapy practice (Hoffmann, Lewis, & Maher, 2020). Shared Decision Making can be defined as: A consultation process where a clinician and patient jointly participate in making a health decision, having discussed the options and their benefits and

harms, and having considered the patient's values, preferences and circumstances (Hoffmann et al., 2014). Although it is postulated that SDM should be used to guide decisions about screening, investigations and treatments (Hoffmann et al., 2014, 2020), usually this process exclusively applies to therapeutic decisions. Research on SDM appears to focus either on its ability to enhance outcomes (Hoffmann et al., 2014; Street,

Makoul, Arora, & Epstein, 2009), or on the general knowledge and state of implementation of SDM (Dierckx, Deveugele, Roosen, & Devisch, 2013; Jones et al., 2014; Topp et al., 2017). In a Swedish qualitative study on physiotherapy for musculoskeletal problems, all participants described a preference for participating in the clinical decision making process (Bernhardsson, Larsson, Johansson, & Öberg, 2017). In contrast, a systematic review reported a lack of studies showing a true effect on patient reported outcomes and questions the efficacy of SDM in a population with musculoskeletal pain (Tousignant-Laflamme et al., 2017). This conclusion is supported by a recent clustered randomized controlled trial (RCT) with patients with low back pain. Shared Decision Making followed by positive reinforcement of the chosen therapy did not show a significant difference in the main outcome during 6 months follow up (Sanders, Bensing, Magnée, Verhaak, & de Wit, 2018).

In reference to this critical research and its extrapolation to physiotherapy, two aspects should be considered. First, most physiotherapists seem to have no knowledge on and report limited use of SDM (Topp et al., 2017). Second, traditionally and currently, SDM is restricted exclusively to the treatment aspect. In the current study SDM was initiated at the onset of the history taking. Future research should address the application of SDM to the diagnostic process and explore its full potential in musculoskeletal care.

4.2 | Exercise factors

Most patients in the current study were able to correctly remember what advice they had been given and confirmed the relevance of the advice for their individual problem. Patients in general are likely to prefer and participate in exercise programs that are designed with consideration of their preferences, circumstances, and past exercise experiences (Slade, Molloy, & Keating, 2009). Reducing the numbers of instructed exercises seems to be an effective tool to facilitate exercise recall and enhance adherence with a treatment strategy (Babatunde, MacDermid, & MacIntyre, 2017; Bachmann, Oesch, & Bachmann, 2018; Eckard, Lopez, Kaus, & Aden, 2015; Escolar-Reina et al., 2010; Henry, Rosemond, & Eckert, 1999; Medina-Mirapeix et al., 2009; Sluijs, Kok, & van der Zee, 1993). The therapists in the current study followed these guidelines which may explain the lack of discrepancies between advice that was given and the patients' reporting of it. Furthermore, the patients appreciated the exercises as they had an immediate impact on their symptoms.

Most of the patients who were interviewed described a friendly and positive atmosphere during the evaluation. In a study of 87 patients with musculoskeletal conditions, it was found that the patient-practitioner relationship is the best predictor of adherence to a home exercise program (Wright, Galtieri, & Fell, 2014).

4.3 | Patient concerns about their diagnosis

Worries, fear-avoidance, individual beliefs, and experience with back pain can negatively influence the prognosis and treatment outcome of

patients with LBP (Morton, Bruin, Krajewska, Whibley, & Macfarlane, 2019; Wertli et al., 2014; Wertli et al., 2014; Wertli, Rasmussen-Barr, Weiser, Bachmann, & Brunner, 2014).

Eleven out of 14 patients in the current study expressed worries about their low back and described negative expectations for the future. Nevertheless, five patients stated that the initial visit considerably reduced their worries. In four cases the fact that a reasonable treatment strategy was determined led to this positive estimation. This finding is supported by former research showing the potential of positive changes due to specific management strategies (Long, Doneison, & Fung, 2004; Long, May, & Fung, 2008; Werneke & Hart, 2001; Werneke, Hart, Resnik, Stratford, & Reyes, 2008) or positive evaluation style (Indahl, Velund, & Reikeraas, 1995).

4.4 | Expectations

In an Australian study including 79 patients with LBP, 90% expected physical tests or investigations leading to a diagnosis and an explanation of causation when they visited a physiotherapist and 60% wanted to discuss different problems in their life caused by the LBP (Kamper et al., 2017). The current study confirmed these findings. The desire to receive an explanation and the satisfaction derived from this were reported in detail. Most patients expected specific tailored exercises. The type of evaluation utilized in this study involved the patients in the evaluation process and because of this, patients may have gained more awareness of the exercises that were derived from the evaluation. They may feel equally in charge to find the 'right' exercise. From the 90 patients in the study, 86% stated that their expectations were fulfilled, which was possibly because they remembered what the therapists had advised them.

The study has a number of limitations. The therapists involved in the study had volunteered to take part in the study and therefore demonstrated a specific interest in the topic. The therapists were aware of the study design and knew that they had to fill out a questionnaire immediately after the initial evaluation. Therefore, generalizability to all physiotherapists may be questionable. A comparable aspect may apply to patients. The patients knew from the information sheet provided that the study was researching communication and might have paid specific attention during the evaluation. Another limitation of the study is the fact that neither therapists nor patients ranked the reported advice relating to its importance. If a patient wrote down an item of advice in the first box of the questionnaire and the therapist wrote the same advice in the second, this was scored as a match. Participants were not being asked to prioritize items of advice in order of importance. The themes may help to explain why most forms of advice were remembered by patients and judged as relevant. This does not explain why 33% of the patients did not remember more than two pieces of advice. In the interviews no effort was made to evaluate why some specific advice was delivered and some was not, and this should be a consideration in future research.

Of the 90 patients surveyed 84% were evaluated by a physiotherapist with at least some training in the McKenzie Method of Mechanical Diagnosis and Therapy (MDT; McKenzie & May, 2006). Of the interviewed patients, 13 out of 14 were evaluated by an MDT trained therapist. This and the fact that the study was conducted only in Germany and Switzerland limits its generalizability and shows the need to replicate the study with non-MDT trained physiotherapists in different countries to confirm external validity. Furthermore, the exercises were relatively simple, and the explanation might be said to be relatively straightforward compared to say, for instance, imparting education about pain physiology or central sensitisation. On the one hand this clearly is an advantage and may have had a role in the ability of patients to remember what had been imparted; however, this retention might not be replicable with more complicated exercises and advice. In addition, the clinical data regarding the patients was restricted to duration of symptoms and previous episodes; there was no detail regarding severity of symptoms or functional limitations.

5 | IMPLICATIONS FOR PHYSIOTHERAPY PRACTICE

According to this study, patients seem to remember what physiotherapists say if shared decision making is used during the initial encounter, prescribed exercises are simple to perform and few in number, patients' concerns about their diagnosis are addressed and patients' expectations are identified and addressed.

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ETHICAL APPROVAL

Ethical approval was received from the ethics committee of the German Physiotherapy Association (Ethikkommission des Deutschen Verbandes für Physiotherapie/Number 2013-1).

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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