



Guideline adherence of physiotherapists in the treatment of patients with low back pain: A qualitative study

Gijs Petrus Gerardus Lemmers PT, MSc^{1,2,3} | Jasper Daniël Bier PT, PhD^{4,5} |
Wim van Lankveld PhD³ | Gerard Pieter Westert PhD¹ |
Jacobus Bart Staal PT, PhD^{1,3} | Philip Jan van der Wees PT, PhD¹

¹Department of IQ Healthcare, Radboud University Medical Center, Radboud Institute for Health Sciences, Nijmegen, The Netherlands

²Department of Research & Development, Fysius Back Experts, Nijverdal, The Netherlands

³School for Allied Health, Musculoskeletal Rehabilitation Research Group, HAN University of Applied Sciences, Nijmegen, The Netherlands

⁴Department of General Practice, Erasmus MC, Rotterdam, The Netherlands

⁵Department of Physiotherapy, FS Fysio, Capelle aan den IJssel, The Netherlands

Correspondence

Gijs Petrus Gerardus Lemmers, PT, MSc, Radboud University Medical Center, Radboud Institute for Health Sciences, IQ Healthcare, Kapittelweg 54, 6525 EP, Nijmegen, The Netherlands.

Email: gijs.lemmers@radboudumc.nl

Abstract

Rationale: Adherence rates to guidelines show room for improvement, and increase in adherence to guidelines may potentially lead to better outcomes and reduced costs of treatment. To improve adherence, it is essential to understand the considerations of physiotherapists regarding the assessment and management of low back pain (LBP). The purpose of this study is to gain insight in the considerations of Dutch physiotherapists on adherence to the national physiotherapy guideline in the treatment of patients with LBP.

Methods: This is a qualitative study, using an interpretive approach of semi-structured interviews with 14 physiotherapists who regularly treat patients with LBP. Thematic analysis was conducted with open coding using an existing framework. This framework distinguishes five components to adherence based on patient factors, provider factors, guideline characteristics, institutional factors and the implementation process.

Results: Participating physiotherapists mentioned that the guideline should provide more information about psychosocial prognostic factors and psychosocial treatment options. The participants experienced difficulties in addressing patient expectations that conflict with guideline recommendations. The implementation process of the guideline was considered insufficient. Physiotherapists might rely too much on their experience, and knowledge of evidence-based treatment might be improved. In general, the interviewed physiotherapists thought they were mainly non-adherent to the guidelines. However, when comparing their considerations with the actual guideline recommendations they were mainly adherent.

Conclusion: To improve adherence, the guideline should provide more information about addressing psychosocial prognostic factors, and Dutch physiotherapists might be trained in communication skills to better address patient expectations. A more extensive implementation process is warranted for the next guideline to increase the physiotherapists' knowledge of evidence-based treatment.

KEYWORDS

considerations, guideline adherence, low back pain, physiotherapy, qualitative research

1 | BACKGROUND

Low back pain (LBP) poses a major burden on modern healthcare systems. It is the most prevalent musculoskeletal disorder worldwide and the treatment and societal costs are very high and increasing over time, warranting more efficient care.¹⁻³ Fifteen percent of the patients receiving physiotherapy in primary care suffer from LBP.⁴ In The Netherlands, a national guideline for LBP is available for physiotherapists to guide clinical decision making.⁴ This guideline was recently updated without changes to the main content. The scientific evidence for the recommendations has increased.⁵ An increase in adherence to guidelines may lead to better outcomes and may reduce costs of treatment.⁶⁻¹² Yet, in quantitative studies, adherence rates to these guidelines show room for improvement.^{6,13-19} Rutten et al. studied the adherence rates of physiotherapist to the Dutch physiotherapy guideline for LBP. They reported percentages of adherence ranging from 2% to 99% for the individual steps of the diagnostic process and from 47% to 88% for the individual steps of the therapeutic process.⁶ In the study of Bahns et al., physiotherapists in Germany adhered to the guideline recommendations in 38% of the LBP cases.²⁰ Qualitative studies evaluating considerations for adhering to guidelines for LBP are scarce. A qualitative study found that perceived barriers and facilitators of Dutch general practitioners towards using their guidelines were patient-related, suggesting that current guidelines do not always adequately incorporate patient preferences, needs, and abilities. The perceived adherence and perceived barriers varied largely across recommendations and consisted of patient ability and behaviour, patient preferences and lack of applicability of recommendations in general.²¹ Côté et al. reported in a qualitative study that it appears that physiotherapists' understanding of the guideline for LBP, the level of compatibility between their practices and the guideline recommendations, the level of guideline relevance as perceived by the physiotherapists, and their level of agreement with the guidelines, all affected their use of the guidelines.²² Poitras et al. conducted a qualitative study and found that physiotherapists thought that the guidelines did not provide enough information on the pathophysiological management of LBP, and that management recommendations could conflict with patient expectations.²³ Physiotherapists often struggle to adhere to guideline recommendations.^{18,20} It has been suggested that this is because they are used to a biomedical approach or because they think the patient is expecting a 'hands-on-treatment'.^{6,20,24-28} The social context of each patient differs and a person-centred approach seems to be warranted.²⁹ A systematic review of quantitative and qualitative studies by Gardner et al. revealed two main considerations of physiotherapists in their management of chronic LBP: a biomedical treatment orientation and patient factors, such as patient beliefs and treatment expectations.^{20,28,30}

To improve adherence, it is essential to understand the considerations of physiotherapists regarding assessment and

management of LBP.^{6,12,31-33} The considerations of Dutch physiotherapists regarding guideline adherence to the LBP guideline have not been previously investigated through qualitative research. This qualitative study, therefore, aims to gain insight in the considerations of Dutch physiotherapists on guideline adherence in the treatment of patients with LBP.

2 | METHODS

2.1 | Study design and setting

This qualitative study, using an interpretive approach, was conducted to clarify underlying meanings of quantitative data of previous research, and to further understand the considerations of physiotherapists on being nonadherent to the guideline.^{6,20,34} To design and report the qualitative research the COREQ checklist was used.³⁵ Ethics approval for this study was obtained from the Radboud University Medical Centre Ethics Committee (registration no. 2020-6675). This study was performed in accordance with the declaration of Helsinki.

This study was performed in The Netherlands, where physiotherapy care is part of primary care practice. Patients with LBP can consult a physiotherapist with or without a referral from their general practitioner. The majority of patients are covered for physiotherapy services by their health insurer. The amount of reimbursement is limited and differs between insurance companies and health insurance packages.

The current national guideline for physiotherapy on LBP, published by the Royal Dutch Society for Physiotherapy (KNGF) recommends dividing patients with LBP into three profiles based on duration and the course of LBP, and psychosocial prognostic factors.^{4,5} A summary of recommendations is provided in Table 1. Recommendations are mainly in accordance with international guidelines for LBP.^{36,37}

2.2 | Participants

A purposive sampling method was used to recruit physiotherapists for the interviews through recruitment messages on social media accounts of the Radboud University Medical Centre, and the researchers and their network.³⁸ Participants were eligible when they had a bachelor's degree in physiotherapy and when they treated at least five patients with LBP per week on average. To ensure that all categories of physiotherapy (i.e., specialization, years of experience, employer or employee, age) were included, consecutive registrations of physiotherapists were included until sufficient participants in one category of physiotherapy specialism or type of employment were

**TABLE 1** Summary of recommendations of the Royal Dutch Society for Physiotherapy guideline on LBP.⁴

Measurement instruments	
The guideline development team recommends the following measurement instruments for the assessment of limitations of activities and restrictions of participation:	
<ul style="list-style-type: none"> Numeric Rating Scale for Pain (NRS) Pain. 	
<ul style="list-style-type: none"> Patient-Specific Complaints (PSC). 	
<ul style="list-style-type: none"> Quebec Back Pain Disability Scale (QBPDS). 	
Therapeutic process	
Management strategy for non-specific LBP with normal course (Profile 1).	Management strategy for non-specific LBP with abnormal course, with dominant presence of psychosocial factors impeding recovery (Profile 3)
<ul style="list-style-type: none"> Reassure the patient. 	<ul style="list-style-type: none"> Advise the patient to keep exercising and explain to them that movements are not harmful and even speed up the recovery process.
<ul style="list-style-type: none"> Explain that LBP is not a serious condition, often resolves spontaneously, but may recur. 	
<ul style="list-style-type: none"> Preferably do not recommend continuous bed rest. Recommend a maximum of 2 days of bed rest if that is the only way for the patient to sufficiently control the pain; explain that the bed rest should thereafter be gradually phased out. 	<ul style="list-style-type: none"> Emphasize that the patient's psychosocial factors (depressive feelings, fear of movement, catastrophizing, etc.) may have an adverse influence on their recovery.
<ul style="list-style-type: none"> Avoid recommendations that encourage the patient to remain passive, and recommend a physically active lifestyle. 	<ul style="list-style-type: none"> Recommend contacting the family doctor, company doctor, and/or psychologist if serious or persistent psychosocial factors are hampering the recovery, and discuss the management options.
<ul style="list-style-type: none"> Explain that increased activity will not damage any structures in the patient's back. 	<ul style="list-style-type: none"> Discuss the management options with the patient's company doctor, company physiotherapist, or the occupational health and safety service if the recovery process is being impeded by heavy physical work, prolonged sick leave, or a labour dispute, or if collaboration is expected to promote the recovery.
<ul style="list-style-type: none"> Explain that (moderate and gradually increasing) exercise, gradually increasing activity levels, and continuing or resuming work (if necessary with temporarily adjusted workload) promote recovery. 	<ul style="list-style-type: none"> Encourage the patient to engage in (moderate and gradually increasing) exercise, gradually increase their activity levels, and continue or resume work (if necessary with temporarily adjusted workload).
<ul style="list-style-type: none"> Limit the number of treatments to three sessions. 	<ul style="list-style-type: none"> Prescribe a graded activities programme.
Management strategy for non-specific LBP with abnormal course, without dominant presence of psychosocial factors impeding recovery (Profile 2)	
<ul style="list-style-type: none"> Avoid recommendations that encourage the patient to remain passive, and recommend a physically active lifestyle. 	
<ul style="list-style-type: none"> Explain that an increase in pain is not associated with damage to structures in the patient's back. 	<ul style="list-style-type: none"> If the patient is on sick leave, try to match the targets of the exercise programme to the targets for work resumption.
<ul style="list-style-type: none"> Encourage the patient to engage in (moderate and gradually increasing) exercise, gradually increase their activity levels, and continue or resume work (if necessary with temporarily adjusted workload). 	<ul style="list-style-type: none"> Contact the patient's family doctor if the treatment has had no effect (in the sense of increased activity and participation levels) after 3–6 weeks, and terminate the treatment.
<ul style="list-style-type: none"> Design an exercise programme that fits in with the patient's needs and your own. 	<ul style="list-style-type: none"> Encourage the patient to engage in (moderate and gradually increasing) exercise, gradually increase their activity levels, and continue or resume work (if necessary with temporarily adjusted workload).
<ul style="list-style-type: none"> expertise and experience as a therapist. 	<ul style="list-style-type: none"> Design an exercise programme that fits in with the patient's needs and your own.
<ul style="list-style-type: none"> In case of impaired joint functionality, consider: <ul style="list-style-type: none"> joint mobilization or manipulation and/or massage or thermal therapy (of limited duration) to reduce the pain. If necessary refer patient to a manual therapist. 	<ul style="list-style-type: none"> Design an exercise programme that fits in with the patient's needs and your own.
<ul style="list-style-type: none"> If the patient has been on sick leave for more than 4 weeks, ask about any arrangements that have been made with the company 	<ul style="list-style-type: none"> Design an exercise programme that fits in with the patient's needs and your own.

(Continues)

doctor, and if necessary discuss the management strategy with the company doctor or company physiotherapist.

Management strategy for non-specific LBP with abnormal course, with dominant presence of psychosocial factors impeding recovery (Profile 3)

- Advise the patient to keep exercising and explain to them that movements are not harmful and even speed up the recovery process.
- Emphasize that the patient's psychosocial factors (depressive feelings, fear of movement, catastrophizing, etc.) may have an adverse influence on their recovery.
- Recommend contacting the family doctor, company doctor, and/or psychologist if serious or persistent psychosocial factors are hampering the recovery, and discuss the management options.
- Discuss the management options with the patient's company doctor, company physiotherapist, or the occupational health and safety service if the recovery process is being impeded by heavy physical work, prolonged sick leave, or a labour dispute, or if collaboration is expected to promote the recovery.
- Encourage the patient to engage in (moderate and gradually increasing) exercise, gradually increase their activity levels, and continue or resume work (if necessary with temporarily adjusted workload).
- Prescribe a graded activities programme.
- If the patient is on sick leave, try to match the targets of the exercise programme to the targets for work resumption.
- Contact the patient's family doctor if the treatment has had no effect (in the sense of increased activity and participation levels) after 3–6 weeks, and terminate the treatment.

Note: The guideline development team discourages the use of electrotherapy, TENS, ultra-short wave, ultrasound, and traction, in view of the lack of evidence.

Abbreviations: LBP, low back pain; QBPDS, Quebec Back Pain Disability Scale.

reached. Thereafter the other categories were filled with consecutive registrations. This strategy was used to ensure a representative sample of physiotherapists. All participants were informed about the aim and procedures of the study. If the participants agreed to participate, verbal and written consent was provided for the interview, the recording, and the publication of anonymised data.

2.3 | Interviews

Both researchers (GL and JB) interviewed the physiotherapists. There was no pre-existing relationship between the interviewers and participants. Both researchers were trained and experienced in conducting interviews and had multiple years of experience in the field of LBP.

For this study, an interview guide was developed using an iterative consensus process involving all participating researchers. The complete interview guide is presented in Supporting Information:

Appendix A. The participants were asked about their experience with the use of the LBP guideline of the Royal Dutch Society for Physiotherapy and about their considerations for not adhering to the guideline. The main topics were the considerations of the physiotherapists in the diagnostic phase, treatment phase, and considerations concerning the use of questionnaires.

Next, this interview guide and the procedure was pilot tested before the actual interviews by conducting two test interviews. After the first two interviews, the researchers provided each other with feedback to optimize the interviewing process. These two interviews were not analyzed for this study. The number of interviews depended on the point of saturation, that is, when no new information could be identified in the interviews.³⁹ The interviews were performed through a video conference with a mean duration of 1 h. Field notes were made during the interviews. The interviews were audio recorded and subsequently transcribed verbatim. The transcripts of the interviews were offered to the participants for corrections and additional comments.^{40,41}

2.4 | Data analysis

Thematic analysis was conducted with open coding within a framework suggested by Cabana in 2010.³³ Coding is the interpretative process in which conceptual labels are given to data.⁴² This framework distinguishes five components of adherence to clinical guidelines: based on (1) patient factors, (2) provider factors, (3) guideline characteristics, (4) institutional factors, and (5) the implementation process. Within the use of this framework, this study's approach is considered as partially inductive as well as deductive.

The data were analyzed through thematic analysis, with the unit of analysis being the recorded interviews.⁴³ In thematic analysis, researchers get familiar with the data by reading and re-reading the data, generate initial 'open' codes, search for overarching themes, and review these themes.⁴³ After the first two interviews, not the test interviews, the interviewers (GL and JB) each transcribed one interview and coded both transcripts separately. The researchers considered quotes concerning assessment, management as non-adherent to the guideline if they conflicted with the guideline recommendations. Adding something to the guideline recommendations was considered adherent. In this study, the considerations on non-adherence are displayed and discussed. Most of the considerations can also be interpreted as adherence instead of non-adherence. A description of the coding tree is presented in Table 3. The researchers have a different background to ensure different reflexive positions (GL = manual therapy, JB = health-care policy and management, JBS = epidemiology, WL = psychology, GW = medical sociology, PW = allied health sciences). First, transcripts were read, and relevant words, sentences, or paragraphs related to guideline adherence were marked and coded. Qualitative data analysis software programme Atlas.ti version 8.4.20 was used to code the interview transcripts. Second, codes concerning the same type of consideration were grouped together into a category. Finally, categories were reviewed for patterns to create overarching themes. GL and JB discussed each step until consensus was reached between both

researchers. A third researcher (PW) was consulted when needed. Categories and themes were formed with the unanimous agreement of the researchers. Relevant quotes were selected from the transcripts to illustrate the categories and themes.

3 | RESULTS

3.1 | Study population

Fifteen Dutch physiotherapists responded to participate in this study. One participant dropped out before the interview due to personal circumstances. Therefore, we conducted 14 semi-structured individual interviews. Interviews 10 to 14 revealed only one new theme. Therefore, the researchers concluded that saturation was reached. Participant characteristics are presented in Table 2. Physiotherapists of different ages, specializations, types of employment, years of experience, and sex were included. The interviews took between 50 and 70 min. No other persons were present during the interview. There were no repeat interviews.

3.2 | Considerations for non-adherence

The participants mentioned multiple considerations for being non-adherent to the national physiotherapy guideline LBP (Table 3). In

TABLE 2 Characteristics of participants.

	Interviews (n = 14)
Sex	
Female (%)	5 (36)
Male (%)	9 (64)
Age (mean) (range)	
22–30 years (%)	5 (36)
30–40 years (%)	4 (29)
41–65 years (%)	5 (36)
Specialization	
Manual therapy (%)	9 (64)
Psychosomatic (%)	1 (7)
Sport (%)	1 (7)
None (%)	3 (21)
Type of employment	
Employer (%)	4 (29)
Employee (%)	10 (71)
Years of experience (mean) (range)	
<8 years (%)	4 (29)
8–13 years (%)	5 (36)
>13 years (%)	5 (36)

**TABLE 3** Considerations for non-adherence to the guideline LBP.

Category	Factor
Patient factors	Patient preference
	Financial status or health insurance coverage
	Patient is short in time
	High pain intensity
	Not willing to complete questionnaires
Provider factors	Experience with the treatment of patients with LBP
	QBPDS no added value according to physiotherapist
	Physiotherapist is unfamiliar with and/or does not use the QBPDS
	Knowledge from specific courses or training
	Physical therapist feels short in time
	Laziness of the physiotherapist
	Physiotherapist only satisfied when at least a part of the treatment consisted of hands-on therapy
	Not using questionnaires at all
Guideline characteristics	Diagnostics and treatment in Profile 1 is too limited
	Aftercare or prevention for recurrence is not described
	Information provided is not detailed enough
	In Profile 3, physiotherapist wants to do more in psychosocial domain than only graded activity
	Too much room for passive therapy modalities
Institutional factors	Financial status of practice and/or average treatment sessions
	Agreements with the healthcare insurers for a specific form of stratified care for LBP
Implementation process	Implementation process was insufficient

Abbreviations: LBP, low back pain; QBPDS, Quebec Back Pain Disability Scale.

general, the interviewed physiotherapists thought they were mainly non-adherent. However, when checking their considerations with the guideline they were mainly adherent. Physiotherapists mentioned being non-adherent because of the use of specific questionnaires or treatment modalities but after a comparison with the guideline, these did not seem to conflict with the guideline recommendations.

3.2.1 | Patient factors

The majority of participants mentioned the health insurance coverage or financial situation of the patient as a reason to be non-adherent to the guideline. For example, patients with chronic LBP with psychosocial factors, and with a bad financial situation often reject the treatment plan because of insufficient funding.

'Patients with no or limited health insurance coverage recover faster than patients with larger coverage. Patients with larger coverage think "I am paying for it, so let's make use of this"'. (Participant 6)

Another consideration that was mentioned by a large proportion of participants was the preference of the patient (i.e., for passive therapy modalities like manual therapy, massage, etc.).

'Some patients almost demand you to perform massage or manual therapy while the advice from the guideline consists mainly of advice to stay active and to refrain from hands-on therapy'. (Participant 1)

A few participants mentioned that patients had a lack of time or were unwilling to complete questionnaires, causing the therapist not being able to be guideline adherent. High pain intensity was also mentioned as a factor to cause non-adherence because the physiotherapist was not able to perform the appropriate assessment or was limited to passive therapy modalities in the choice of treatment.

3.2.2 | Provider factors

The majority of participants mentioned considerations for non-adherence because of experience with successful treatments that were not recommended in the LBP guideline.

'I look at results from previous cases. If a not-recommended type of therapy was successful in a similar case I often apply that therapy again. I know that is not a guarantee, but that is how I work'. (Participant 10)

The Quebec Backpain Disability Scale⁴⁴ is recommended by the guideline for the assessment of limitations of activities and restrictions of participation (Table 1). The participants mentioned not experiencing added value when using this questionnaire and therefore often being non-adherent on this item. Some participants mentioned being unfamiliar with the Quebec Backpain Disability Scale or just not using it. This led to non-adherence in multiple cases.

'The Quebec Backpain Disability Scale has no added value for me in the assessment or management of a patient with low back pain'. (Participant 12)

Other possible reasons for non-adherence were specific courses or training (i.e., passive therapy modalities, which are not recommended for more than three sessions in the guideline), financial considerations for the provider, and lack of time or laziness of the physiotherapist.

'Sometimes just laziness is the reason to be non-adherent, I think. Sometimes I work on the auto-pilot'. (Participant 8)

A few physiotherapists mentioned that they were only satisfied with the treatment when at least a part of the treatment consisted of hands-on therapy.

'I have 20 years of experience in physiotherapy and in treating patients with low back pain. When I see a patient, I know from my experience that I can fix this problem in 1 or 2 sessions of hands-on treatment, despite the guideline advice to refrain from hands-on therapy'. (Participant 14)

3.2.3 | Guideline characteristics

In general, physiotherapists are satisfied that there is a guideline on LBP although they have some remarks on the content of it. The majority of participants mentioned that the guideline is too limited in prognostic factors and diagnostics, especially in cases of acute LBP.

'When a patient with acute low back pain shows a lot of psychosocial prognostic factors it is hard for me to just reassure and give the advice to stay active'. (Participant 2)

A fair number of participants mentioned that the guideline lacks recommendations for aftercare and prevention of recurrence for patients who had multiple episodes of LBP.

'I struggle the most with patients with recurrent low back pain. The don't seem to fit in one of the profiles'. (Participant 3)

A small number of participants mentioned that the guideline recommendations for the treatment of people with chronic LBP with psychosocial prognostic factors (Profile 3) are limited to mainly graded activity. In graded activity, a behaviourally-oriented treatment, the aim is to restore functionality by decreasing patient disability and to achieve this target by positively reinforcing patient activity levels in a time contingent manner despite existing pain levels.⁴⁵ Based on current evidence, therapists would like to add treatments based on psychosocial prognostic factors such as other forms of cognitive behavioural therapy, motivational interviewing,

acceptance and commitment therapy, pain neuroscience education, and so forth.

'I think it is beneficial for the patient to pay more attention to stress management and relaxation instead of limiting the treatment to graded activity or even before starting with graded activity'. (Participant 7)

Another reason mentioned for non-adherence was the guideline lacking detail in general, and lacking guidance on referral to other healthcare professionals. The guideline recommendations also leave too much room for passive therapy forms, like massage, ultrasound, and so forth.

'If the guideline provided more detailed direction, it would be easier for me to be more adherent to it'. (Participant 9)

3.2.4 | Institutional characteristics

A fair number of participants mentioned that their private practice had agreements with the healthcare insurers for a specific form of stratified care for LBP. In most of these forms of stratified care, the outcome of the STarT Back Screening Tool was the only factor to determine which treatment protocol was to be followed. This might conflict with the guideline recommendations.

'We work with a stratified form of care based on low, medium and high risk for future disability derived from the STarT Back Screening Tool. There are some similarities with the guideline, but in our company, the guideline recommendations are secondary to what we do, based on the STarT Back Screening Tool'. (Participant 12)

The average treatment sessions and the turnover of the institution were also mentioned as reasons for non-adherence.

'I can imagine the consideration of a colleague to schedule 1 or 2 extra treatment sessions while there is no medical need for it'. (Participant 11)

3.2.5 | Implementation process

A minority of the participants reported that a reason for being non-adherent was the unsuccessful implementation process of the guideline. Physiotherapists are therefore not familiar enough with the content of the guideline.

'How can we reach physiotherapists who are unwilling to adopt to a new guideline? What does the actual



implementation process look like? Does everybody have to get familiar with the new guideline by email? Or would an actual training be better?' (Participant 7)

4 | DISCUSSION

4.1 | Main findings and related literature

Understanding the considerations of physiotherapists of being non-adherent to the guideline might help in updating the guideline, and therefore, possibly contribute to an increase of adherence rates, to reduce costs and to improve treatment outcomes.⁶⁻¹² In this study, 22 considerations related to patient factors, provider factors, guideline characteristics, institutional factors, and the implementation process were found for being non-adherent to the LBP guideline.

In summary, the participants mentioned that the guideline should provide more information about psychosocial prognostic factors and psychosocial treatment options. The physiotherapists experience difficulties in addressing patient expectations that conflict with guideline recommendations. The implementation process of the guideline was insufficient. Physiotherapists might rely too much on experience, and their knowledge of evidence-based treatment might be improved.

In general, the interviewed physiotherapists thought they were mainly non-adherent. However, when checking their considerations with the guideline they were mainly adherent. On the other hand, no participant was completely adherent in the diagnostic phase, treatment phase and in the use of questionnaires. These findings are in concordance with the study of Bahns et al.,²⁰ Kiel et al.¹⁹ and Rutten et al.⁶

4.1.1 | Patient factors

The preference of the patient (i.e., for passive therapy modalities like manual therapy, massage, etc.) seems to be an important factor in guideline adherence. Physiotherapists think that patients often prefer passive therapy modalities while the guideline recommendations consist mainly of advice to stay active, reassurance, and physical exercises. The physiotherapists sometimes struggle with communication and shared decision making in this context. Bekkering et al. (2003) and Kiel et al. (2020) conducted surveys among 100 physiotherapy practices and among 977 patients of general practices to identify barriers for implementation of the LBP guideline. Similar results concerning patient preference were found. In these studies, physiotherapy practices reported discrepancies between the current treatment and the recommendations in the guidelines because they received negative responses from the patients, stating that patients were very focused on pain and expected 'real' (hands-on) treatment instead of (hands-off) exercise therapy and education.²⁴ 'Patient views are strongly influenced by previous treatment experiences and education level'.¹⁹ In addition to these results, Poitras et al. reported

in a qualitative study that physiotherapists thought that management recommendations could conflict with patient expectations.²³

In the present study, the majority of participating physiotherapists mentioned the health insurance coverage or financial situation of the patient as a reason to be non-adherent to the guideline. For example, when patients have no health insurance coverage and are not able to pay for physiotherapy while the guideline recommendations consist of an extensive graded activity programme, the physiotherapist is unable to be adherent to the guideline. To date, no other studies are known to compare this finding with.

4.1.2 | Provider factors

Experience with successful treatments not recommended in the guideline for patients with LBP seems to play a role in non-adherence. Guideline adherence of physiotherapists and general practitioners was previously researched by Bahns et al.,²⁰ Bekkering et al.,²⁴ and Lugtenberg et al.³² In these studies, 38%–67% of the physiotherapists and general practitioners reported discrepancies between current practice and the guideline recommendations due to a lack of knowledge or skills. These findings support a lack of knowledge about the content of the guideline being a significant factor in guideline non-adherence, although these findings cannot be adequately compared, due to the differences between the studies. Bahns et al.²⁰ and Bekkering et al.²⁴ performed a survey amongst physiotherapists to explore adherence to, amongst others, the LBP guideline. Lugtenberg et al.³² held focus group interviews with general practitioners for guideline adherence to multiple guidelines.

4.1.3 | Guideline characteristics

The present study reveals that according to the participants the guideline offers too little guidance on prognostic factors and diagnostics, especially in acute LBP. Based on the research of the last decade, physiotherapists prefer to put more emphasis on psychosocial factors.⁴⁶ In the study of Lugtenberg et al.,³² the most frequently perceived barriers were lack of agreement with the recommendations due to lack of applicability or lack of evidence (68% of key recommendations), and guideline factors such as unclear or ambiguous guideline recommendations (43%). This lack might be partially compensated by adding a screening tool like the STarT Back Screening Tool. Current research supports the need for screening on prognostic factors, especially psychosocial factors.^{46,47,48} A fair part of physiotherapists already incorporated the STarT Back Screening Tool in their working method.

4.1.4 | Institutional factors

The average number of offered treatment sessions and the income of the institution were mentioned as reasons for non-adherence. The

physiotherapists in this study mentioned feeling the need to ensure a low average of treatment sessions towards healthcare insurers. Sometimes, this conflicted with the guideline recommendations. For example, when a more comprehensive treatment programme is recommended by the guideline. Besides, some physiotherapists mentioned scheduling one or two extra treatments sometimes to fill gaps in their agenda. This might conflict with the recommendations of the guideline to restrict treatment to a maximum of three sessions for patients with Profile 1 LBP. The negative influence of organizational aspects was reported by 32% of the physiotherapists concerning the diagnostic process in the study of Bekkering et al.²⁴ Lugtenberg et al. reported that one of the most perceived barriers was lack of agreement with the recommendations due to environmental factors such as organizational constraints (52%).³²

4.1.5 | Implementation process

A minority of the participants reported that a consideration for being non-adherent was the unsuccessful implementation process of the guideline. Therefore, physiotherapists are not familiar enough with the content of the guideline. This is in concordance with the studies of Bahns et al.,²⁰ Stander et al.⁴⁹ and Schröder et al.²⁸ Bahns et al. studied the overall guideline adherence to the national guideline on LBP in Germany.²⁰ In the study of Stander et al., the guideline uptake of physiotherapists in South Africa was explored. Schröder et al. reported a short-term increase in guideline adherence of physiotherapists after a new implementation programme. This increase in adherence diminished after 12 months.²⁸ Because of insufficient funding the guideline was only disseminated through the website of the Royal Dutch Society for Physiotherapy and by a notification to the regional departments of this organization. No training courses for physiotherapists were provided. The guideline was recently updated. As no major changes in recommendations were made in comparison to the version of 2013, the results of this study are still relevant for the implementation of the updated version of the guideline.^{4,5} A more extensive implementation process might be helpful to increase adherence to this new guideline.

4.2 | Strengths and limitations

This is the first qualitative study that describes the considerations of Dutch physiotherapists concerning adherence to the guideline for LBP. Previous studies on this subject used quantitative designs or researched a different type of healthcare professionals.^{6,20,24,32}

Another strength of this study is that there was no pre-existing relationship between the interviewers and the physiotherapists. The participants were assured that all the data would be processed anonymously. Hence, the physiotherapists were able to speak freely about their considerations. The threshold for participation was rather low because the video interviews were scheduled at the convenience of the participants. Semi-structured video interviews with mainly

open questions were used to explore considerations in-depth.^{40,41} Interviews were scheduled until no new codes could be retrieved and saturation was reached. The study population consisted of a varied sample in terms of age, experience, specialization, type of employment and sex.

A recommendation for future research is to further explore the considerations of patients concerning health insurance coverage and financial barriers in general when the physiotherapist suggests a specific treatment plan.

4.3 | Implications for practice

An increase in adherence to guidelines may lead to more evidence-based treatment decisions, better outcomes and may reduce costs of treatment.⁶⁻¹² The researchers of this study provided recommendations to the Royal Dutch Society for Physiotherapy for the development of the recent update of the guideline. There seems to be a need for guidance for the physiotherapists in communication with the patient and shared decision making. Physiotherapists prefer to acquire more details about psychosocial prognostic factors in the assessment of LBP and like to address them more thoroughly in the management of LBP. More guidance on these factors and a more extensive implementation process of the guideline might improve adherence. More effort should be made to educate physiotherapists about evidence-based assessment and management of LBP to increase adherence to the guideline recommendations.

5 | CONCLUSION

To improve adherence, the guideline should provide more information about psychosocial prognostic factors and more details about psychosocial treatment options. Guideline adherence might be improved by training Dutch physiotherapists in communication skills to better address patient expectations that conflict with guideline recommendations. A more extensive implementation process is warranted for the next guideline to reach more physiotherapists and to increase the physiotherapists' knowledge of evidence-based treatment.

AUTHOR CONTRIBUTIONS

Jasper Daniël Bier and Gijs Petrus Gerardus Lemmers conducted and transcribed the interviews, and performed the data analysis. Gijs Petrus Gerardus Lemmers wrote the original draft and took care of the visualization. All authors contributed to concept, idea, research design, methodology and the reviewing process. All authors read and approved the final manuscript.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The transcripts used and/or analyzed during the current study are available from the corresponding author on reasonable request.

ETHICS STATEMENT

All participants provided verbal and written consent for participation in this study because the interviews took place through a video conference. Ethics approval for this study was obtained from the Radboud University Medical Centre Ethics Committee (registration no. 2020-6675). This study was performed in accordance with the declaration of Helsinki. All methods were performed in accordance with the relevant guidelines and regulations. The COREQ checklist and SAGER guidelines were used for this qualitative study. The transcripts of the interviews were anonymised. All participants provided their verbal and written consent for publication of their anonymised data for this study.

ORCID

Gijs Petrus Gerardus Lemmers  <https://orcid.org/0000-0001-6877-0755>

Jasper Daniël Bier  <https://orcid.org/0000-0001-6509-953X>

Wim van Lankveld  <https://orcid.org/0000-0002-6102-2997>

Gerard Pieter Westert  <https://orcid.org/0000-0003-3744-8207>

Jacobus Bart Staal  <https://orcid.org/0000-0002-0083-6380>

Philip Jan van der Wees  <https://orcid.org/0000-0003-2881-5159>

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SUPPORTING INFORMATION

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

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