Patients' and primary healthcare professionals' perceptions regarding chronic low back pain and its management in Spain: a qualitative study

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Supplemental data for this article can be accessed here.

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ABSTRACT

Purpose: This study aimed to explore and compare the perceptions of patients and primary healthcare professionals regarding the management of chronic low back pain.**Methods:** Qualitative study using 26 semi-structured individual interviews, and one discussion group, carried out in primary care in Lleida, Spain.**Results:** Patients and primary healthcare professionals both had assumptions pertaining to: (1) the diagnosis and meaning of chronic low back pain, (2) expectations regarding treatment for pain reduction, and (3) communication between primary healthcare professionals and patients with chronic low back pain. Results suggest a mutual dissatisfaction with the diagnosis of chronic low back pain and a lack of understanding between primary healthcare professionals and patients. Some contradictions between them were also noted: the patients wanted quick solutions to reduce their pain, but the primary healthcare professionals required an accurate etiology to prescribe treatment, and the patients did not always follow the primary healthcare professionals' recommendations.**Conclusions:** Diagnosing and treating chronic low back pain is compromised due to differing expectations and the communication barriers that exist between healthcare professionals and their patients. Primary healthcare professionals should be aware of the power of their explanations and recommendations to patients.

Keywords: Low back pain ; chronic pain ; primary health care ; pain management ; qualitative research ; Spain

Introduction

Low back pain is the musculoskeletal problem with the highest prevalence worldwide [1–5]. Between 4 and 14% of the world population will develop chronic low back pain [6]. In Spain, according to the latest Annual Report of the

National Health System 2017, chronic low back pain was the second chronic health problem with a prevalence of 14.7% in men, and 22.1% in women, in adults over 15 years old [7]. Low back pain has major economic implications to our society in terms of direct and indirect costs [8]. Worldwide, low back pain causes more disability than any other particular condition when measured in years lived with disability [9]. Leadley et al. [10] estimated that the cost of medical care per patient per year for low back pain was 1095 □ in Germany and 1431 □ in France.

In the context of primary care, chronic low back pain is one of the main reasons for medical consultation for pain relief [11]. Patients with chronic low back pain usually seek for medical attention in order to get a treatment and to obtain more information about their health condition and its prognosis [12–15]. Nevertheless, many of the methods used to treat acute pain are ineffective for chronic pain, and some of these methods may have long-term consequences that are detrimental to the patient's quality of life, such as side effects, continuous medication use, decreased physical activity, or work abandonment [16,17].

Pain is a multifactorial experience in which psychological and emotional factors influence the transition from acute to chronic [18–20], the prognosis [21–23], and the adoption of inappropriate self-management strategies [24–26]. Besides psychological and emotional factors, healthcare professionals can also contribute to the development of chronic disabilities of their patients if they promote an attitude of hypervigilance and restrict their normal activities, and they can reinforce or change the perceptions of their patients that limit their mobility [27–31].

Previous studies suggest that patients with chronic low back pain often feel as not receiving sufficient information from healthcare professionals that could help them better understand and cope with pain [12–15]. Furthermore, patients with chronic low back pain tend to develop catastrophic thoughts regarding the origin and the possible long-term consequences of suffering from chronic low back pain [32,33], and express feelings of anger and frustration because of the lack of understanding and validation of their pain experience [34]. As the extent of our knowledge, there are no studies involving both patients with chronic low back pain and primary healthcare professionals in Spain. Greater knowledge in this field could help to improve the care provided to these patients with chronic low back pain. Therefore, the aim of this study was to explore and compare the perceptions of patients and primary healthcare professionals regarding the management of chronic low back pain.

Methods

Design

This qualitative exploratory study was conducted in Lleida, Spain between 2015 and 2016, following the recommendations of the Standards for reporting qualitative research guidelines [35]. Personal interviews and group discussions were combined in order to inform the interview guides, and to achieve triangulation of results. The authors used semi-structured individual interviews because they are useful for obtaining a wider understanding of personal perspectives related to chronic health problems [36], and a discussion group was also used with the aim of building a discursive reconstruction of a social group, the primary healthcare professionals, about the management of chronic low back pain [37].

Participants

Sixteen patients suffering from chronic low back pain and 10 primary healthcare professionals (five family physicians and five nurses) involved in the management of patients with chronic low back pain underwent semi-structured individual interviews, and eight additional primary healthcare professionals (four family physicians and four nurses) participated in a discussion group (total participants = 34, 16 patients and 18 primary healthcare professionals, Tables 1 and 2). All of them were Spanish Caucasian living in the city of Lleida.

Table 1. Patients' demographics (n = 16).

	Participant ID code	Duration of low back pain (months)	Educational level	Gender	Age
Patients personal interview	Patient 1	132	HNC	Male	46
	Patient 2	30	Primary Education	Female	61
	Patient 3	120	VET	Female	54
	Patient 4	480	Bachelor's degree	Female	64
	Patient 5	120	HNC	Female	50
	Patient 6	7	VET	Male	32
	Patient 7	360	Bachelor's degree	Male	52
	Patient 8	444	GCE	Male	47
	Patient 9	18	University degree	Male	44
	Patient 10	72	VET	Male	38
	Patient 11	144	Primary education	Female	60
	Patient 12	60	HNC	Male	50
	Patient 13	408	Primary education	Female	50
	Patient 14	312	University degree	Female	56
	Patient 15	60	Master´s degree	Male	34
	Patient 16	168	Primary education	Female	62

HNC: Certificate of Higher Education; VET: Vocational Education and Training; GCE: General Certificate of Education.

Table 2. Primary healthcare professionals' demographics (n = 18).

	Participant ID code	Educational level	Professional experience (years)	Gender	Age
Primary healthcare professionals discussion group	Professional 1	MD	22	Male	48
	Professional 2	MD	29	Male	56
	Professional 3	MD	24	Female	51
	Professional 4	MD	32	Female	58
	Professional 5	RN	23	Male	46
	Professional 6	RN	39	Male	61
	Professional 7	RN	35	Female	59
	Professional 8	RN	17	Female	42
Primary healthcare professionals personal interview	Professional 9	MD	25	Male	51
	Professional 10	MD	20	Female	47
	Professional 11	MD	35	Male	63
	Professional 12	MD	23	Female	52
	Professional 13	MD	25	Female	57
	Professional 14	RN	36	Female	59
	Professional 15	RN	14	Female	40
	Professional 16	RN	15	Female	48
	Professional 17	RN	20	Female	51
	Professional 18	RN	24	Male	53

MD: Doctor of Medicine; RN: Registered Nurse.

The health disciplines of medicine and nursing were considered for the study because, according to the Spanish National Health System, primary care settings with multidisciplinary teams are mainly made up of family physicians and nurses. In some cases, teams may include physiotherapists. However, the nursing staff covers most of the activities related to health promotion, health education and disease prevention.

Recruitment of participants

The authors used a theoretical sampling to recruit patients suffering from chronic low back pain from different age groups (18–29 and 30–65 years), gender (male and female), and educational levels (Table 1). Patients were recruited and invited to participate by their respective family physicians; once the physician ensured that the individual met the inclusion criteria, the physician informed the patient of the existence of this project and invited him/her to contact the first author by telephone. The inclusion criteria for patients were: History of chronic low back pain longer than 3 months, patients between 20 and 65 years of age, and able to read, speak, and understand Spanish or Catalan.

Primary care physicians and nursing staff from different primary healthcare centers in Lleida, Spain were intentionally selected based on their ability to respond to the objective of the study, and to achieve a discursive representation of each group based on a combination of gender and profession (Table 2). The inclusion criteria to select them were to be working in any primary healthcare center in the city of Lleida. They were recruited using the snowball technique, through initial contact with one of the professionals, who then facilitated contact with the other professionals. The primary healthcare professionals were individually contacted by the authors and asked to participate in the study.

Data collection

The patient interviews and discussion group were conducted in 2015 by two authors (a physiotherapist and a medical doctor). To achieve saturation and follow an emerging typical design of qualitative research, the study was complemented with eight semi-structured individual interviews with four family physicians and four nurses in 2016 conducted by a third author (physiotherapist). All of them have experience interviewing patients in the clinical practice and were trained in qualitative methods. The patient interview guide was produced after conducting a literature search and review of previous studies on chronic low back pain and applying the clinical experience and knowledge of the research team. The guide for the primary healthcare professionals´ discussion group was based on the results obtained from the interviews with patients, with the aim of comparing the patients´ opinions among them. The primary healthcare professional interview guide was based on the results obtained from the discussion group. The interview and the discussion group guides (Supplementary Table S1) were administered with flexibility to allow inclusion of new questions if new topics emerged during the interviews.

The fieldwork was carried out by FV, JS, and EG. The patients´ interviews and the primary healthcare professionals´ discussion group were conducted at the Faculty of Nursing and Physiotherapy at the University of Lleida. The primary healthcare professional interviews were performed in their medical practice. Each patient was interviewed for approximately 70 min, and the discussion group met for 75 min. The interviews and discussion group were audio-recorded, respectively; both were later transcribed verbatim.

Analysis

A qualitative content analysis of the transcripts was conducted by FV, EB, and EG using the ATLAS-ti 7 software to assist with the coding process [38]. First, the transcriptions were individually read in order to identify meaning units (sentences or paragraphs with the same meaning), which were independently open-coded with emergent codes, summarizing the content and expressing a higher level of abstraction. Second, the three authors shared and compared their lists of codes to identify patterns across the texts and create categories, grouping the codes according to their similar meaning. Categories reflect the similarities and differences (points of convergence, divergence, and omission) between both collectives. The most representative patient and primary healthcare professional quotes are provided throughout this section in italics.

Ethical considerations

All participants were asked to voluntarily participate in the study, and all provided written informed consent. Information regarding the project was provided, and the participants were given an opportunity to express their concerns or ask any questions pertaining to the study. Data confidentiality was assured according to the Organic Law of Data Protection.

The study protocol conformed to the Declaration of Helsinki and the "Guidelines of Good Clinical Practice" (Committee for Proprietary Medicinal Products/International Council for Harmonisation/135/95) and was approved by the Clinical Research Ethics Committee in Primary Care of the University Institute for Primary Care Research of Lleida (P14/138).

Results

As a result of the analysis and comparison of the transcriptions, three main categories were identified: (1) diagnosis and meaning of chronic low back pain for patients and primary healthcare professionals, (2) patients´ and primary healthcare professionals´ expectations regarding pain reduction treatments, and (3) primary healthcare professional-patient communication regarding chronic low back pain (See Supplementary Table S2 for more data related to each category).

Diagnosis and meaning of chronic low back pain for patients and primary healthcare professionals

Patients' and primary healthcare professionals' beliefs regarding the origin of chronic low back pain

Patients interviewed in this study reported that they seek medical consultations with the aim of obtaining a clear and definitive diagnosis that explained their pain. Failing to receive a diagnosis worried them, as they then believed that they may have an undiagnosed underlying condition.

I need to know the reason for that. […] You go around, you think what yoúve done wrong, where it comes from, if it's genetic or … (Patient 6)

The patients interviewed believed that their pain was due to possible structural or physiological changes in the vertebrae, muscles, or nerves, disc herniations, inflammation, or degeneration, based on what other professionals had told them.

The doctor shows you the x-ray and you see the curvature in the lower back, and between vertebra and vertebra the disc is coming to the side and causes the two vertebrae to rub against each other and that is what is triggering my pain. (Patient 4)

These biomedical explanations were corroborated by the primary healthcare professionals interviewed, who also reported poor postural hygiene along with these structural changes were responsible for chronic low back pain.

Maybe because they already have a bad structure, that they have alterations of spinal deviations, that they have arthrosis problems, that they have things at the structural level and then, well, then that combined with what they can do of wrong exercise, at work […] to the bad postures of the whole day. (Professional 13 medicine)

Additionally, both the patients and the primary healthcare professionals recognized the implications of psychosocial factors, although as pain modulators and not as the origin or cause of their pain.

There was a time when I was a little more annoyed and I also had other things, other stress problems and things that still gave me more back pain. (Patient 9)

I think that, something usually causes it at the organic level, right? But I think there are many more things that go around with all this pain, right? I think there are even, say, psychological causes. That there are things that make pain less tolerable, and from one day to another, pain begins. (Professional 12 medicine)

The primary healthcare professionals reported that facing patients' emotional distress is an additional problem that they must address during consultations.

The problem for someone with chronic low back pain is that there is often something else, right? I mean, having chronic pain often means having associated or a dysthymia or some type of disorder of this kind. I mean, they're

like…comorbidities here, right? And that is what sometimes can be difficult to treat, I mean, there is an amalgam that…that is difficult. (Professional 3 medicine)

The diagnostic process

To make a diagnosis, primary healthcare professionals need to know the temporal evolution of the pain to differentiate between acute and chronic conditions, as they consider the causes and therapeutic needs of each type to be different.

If it's an injury that can be repaired…it is acute. If it cannot be repaired, then…pain remains. (Professional 8 nursing)

The primary healthcare professionals explained that they believe that chronic low back pain is a diagnosis that is reached after ruling out other underlying pathologies that can cause low back pain, such as those of oncological origin. Even so, the primary healthcare professionals reported finding the diagnostic process difficult because the cause of the pain cannot always be elucidated.

You reject if there is inflammation, you reject that it is not tumoral, you reject […] and you have a bit of a mixture there, of 50% to say something. (Professional 2 medicine)

For the primary healthcare professionals determining a diagnosis that explains the origin of the pain equivocates success and is proof of their professionalism. Owing to the patients' demands and expectations, primary healthcare professionals reported feeling pressured to make a diagnosis and provide an explanation regarding the pain's origin to satisfy the patients, despite not being able to demonstrate a relationship between an identifiable structural alteration and their pain.

We like to show off, if we make a diagnosis, we make a great diagnosis. Sure, how are you not going to suffer from low back pain? Don't you see? […] You suffer from scoliosis! (Professional 1 medicine)

Most of the ones that you, of the patients you receive, you end up finding a cause or you end up detecting something that you want to explain to the patient that is the cause, right? It's easy for you to say that there is pain because there is a hernia, right? It seems easier to say. […] I suppose it is easy for us to explain it that way and for the patient it is also easier to understand it. Because having pain without a cause is hard, right? So, at least have a cause because this is what hurts, right? (Professional 12 medicine)

The primary healthcare professionals reported that their chronic low back pain diagnoses may not always be accurate. For this reason, they felt indirectly responsible for the unwanted chronification of their patients' pain.

Professionals do not face chronic pain properly; we facilitate precisely the chronification beyond what would be acceptable. (Professional 2 medicine)

There are people who label them as chronic low back pain and I do not know to what extent this has been clearly demonstrated. The problem is that there is no measure tool, there is no pain meter. Then, with chronic low back pain and all chronic pains, it's difficult, you have to believe it! (Professional 15 nursing)

The patients believed that a diagnosis of chronic low back pain did not explain the cause of their pain. Furthermore, if the patients did not undergo a battery of diagnostic tests, they felt that their primary healthcare professionals' performances were inadequate and that they did not put forth enough effort to find the cause of their pain. The patients also considered that the specialists have more knowledge than the general practitioners about the management of chronic low back pain.

And it's not an explanation, how can I explain? He is a general practitioner. He is not a specialist. That's why now I insisted, and I said: I insist on doing, on repeating the radiography. I want to clarify this! (Patient 8)

Consequently, not knowing the cause of their pain make the patients feel confused, frustrated, angry, stressed, and/or worried, and often developed negative and catastrophic thoughts, especially regarding their expectations for future improvement.

Yes, yes, I am scared, and more scared as times goes by. Of course, …My vertebra will get worst… and there will be some other vertebrae more affected. (Patient 1)

I have it clear, if I know that this pain is going to get worse and that it will be a cause of permanent pain or that I could end up in a wheelchair because of my lower back… I want to die; I don't want to suffer. (Patient 2)

I worry that maybe will come a day that I cannot move, do you understand? That I will end up, I will end up, not paralyzed, but I think a day will come when I won't be able to move anymore, or something will happen to me that will stay with me. (Patient 8)

Patients' and primary healthcare professionals' expectations regarding pain reduction treatments

The patients want treatment, but the primary healthcare professionals require an accurate aetiology to prescribe it

The primary healthcare professionals, showing a lack of empowerment, reported that they did not feel confident treating patients with chronic low back pain because, without knowing the cause of the pain, their ability to treat them is limited.

When I see them coming through the door, I get the willies and it makes me wonder what I'm going to do […] (Professional 4 medicine)

If the primary healthcare professionals were not able to identify the pain's cause, they felt forced to refer the patient to the traumatologists for the prescription of an accurate treatment; which could be a referral resulting from the impotence felt by the primary healthcare professionals rather than a clinical need.

The patient only complains that it hurts, that he has functional impotence, that he has pain. So, if I have already finished the therapeutic arsenal, I do not see anything that can be done about anything, so then […] I send you to the orthopaedic surgeon. (Professional 11 medicine)

The primary healthcare professionals reported that patients often visit them looking for a quick and immediate solution to relieve their pain, and that they sometimes feel pressured by the patients to prescribe pharmacological medications.

But if you don't give them a prescription, it's as if you had done nothing. They want their medical prescription. (Professional 16 nursing)

However, the primary healthcare professionals reported that they view pharmacological treatment as an easy way out, which may be a temporary solution for both themselves and the patients. When they prescribe medication, the primary healthcare professionals reported that they gain time and temporarily forget about the problem, in addition to meeting the patients' expectations. However, the primary healthcare professionals conveyed that they know that chronic low back pain does not usually respond to a quick solution, and drugs will not actually solve the problem; therefore, patients will likely return for further consultations.

You have to take their (patients) pain away. They do not want to have pain. Then, all the tests that you do or, above all, now many times the infiltrations, they have an expectation and sometimes, you must be realistic, that they (infiltrations) do not work for everyone. (Professional 15 nursing)

The treatment is an easy way out, but the professional has to think why he has reached that point. (Professional 5 nursing)

The patients corroborated that the effects of drugs are not long-lasting and require continuity. The patients seemed to go through a series of phases: first, desperation as they searched for treatment to relieve their pain; second, resignation as they realized that the medication does not help nor cure their pain, but they were still hopeful that they would be presented with a surgical treatment option, albeit as a last resort (especially if they believed that their pain may be due to a herniated disc); and finally, adaptation and acceptance that they have to modify their habits and/or behaviours in order not to aggravate their pain (Table 3).

Table 3. Adaptation phases that participant patients with Chronic Low Back Pain go through.

1. Desperation	There should be something that we could take so that it (the pain) is not so much, some medication or some treatment to avoid having to undergo surgery. (Patient 11)What do I have to do to get the pain away? if I can… / … / Then I need to improve my quality of life from here to what I have left. But now my question is, how do I get better? How do you fix me? If anyone can fix me… (Patient 9)
2. Resignation	If I can go on living a normal life and control myself, I believe that I am not going to have surgery. But if I have no other option, I cannot walk or have a normal life, yes, I will go to the surgeon and get surgery. (Patient 11) "Well, if it hurts, don't do it." I already knew that without coming to the doctor but … But I have to live with this pain, I have to resign myself. (Patient 9)
3. Adaptation	But once I understand that it is a waste, I do not know if anything can be done to […] I think that the most that can be done is to understand what I have and avoid making any movement. (Patient 12) There is a degeneration (in the lower back), right? Maybe I need physiotherapy and analyze my posture when I work and things like those, right? I don´t think you can do much more… (Patient 3)

The patients did not always follow the primary healthcare professionals' recommendations

The primary healthcare professionals conveyed that they consider prevention-based treatment focused on health education such as how to deal with physical efforts, movements, exercise, or work, to be more effective than, or in some cases complementary to, pharmacological treatments, in addition to patient compliance with the professionals' advice.

We should focus more on prevention for patients than on treatment. […] If we do a good prevention with good advice, another thing is that people want to do it or not, but we should be more focused on prevention than on treatment. (Professional 5 nursing)

You give them some advice, that's what they want the least. What they really want is that now…look, you have to take my pain away! (Professional 4 medicine)

There were three reasons reported to explain the patients' lack of adherence to the primary healthcare professionals' recommendations:

1. The patients reported that the advice they received from their primary health care professionals to reduce their pain was sometimes contradictory to the demands of their work, evidencing an absence of patient-centered care. For example, if they have to perform certain movements or tasks at work, such as lifting heavy objects, they could be dismissed if they are not able to perform these tasks.

   The doctor tells you not to lift weights but of course at work they tell you that you have to lift that, you cannot do anything because you are there. They tell you: the doctor can tell you what he wants, you have to do it and that's it. (Patient 1)

Another contradiction reported was that primary healthcare professionals often suggest taking a temporary leave of absence from work, which patients often avoid due to a fear of being terminated. Thus, situations of presenteeism occur (i.e., going to work despite having pain).

You are on sick leave for a month and you get kicked out. (Patient 8)

They do not want to ask me for the sick leave. They do not want… They are very scared. And I think many people go back to work having not solved many problems they have. And even if you tell him some postural changes, how they should sit down, how they should sleep, what type… Yes, very well, look, the person tells me…take my pain away as I have to go to work, I need to eat every day. (Professional 7 nursing)

- The patients were not convinced of the benefits of the primary healthcare professionals' advice, because sometimes they did not receive enough information, such as about a medication and its effects.

  If the explanation comes from a doctor you leave calmer and you are convinced about all of that and you have more faith […] but sometimes, they've got no time to tell you. Sometimes, that time is needed to say 'listen, do this and you will improve.' And then, it may be that half of the pain will go away. (Patient 11)

In this sense, the primary healthcare professionals complained that they would need more time with each patient to provide high value care, explaining the requirements and benefits of modifying their behavior in further detail.

Sometimes we want to do all patient´s therapeutic and pharmacological diagnostic action during the 10 minutes' consultation and on the last 3 minutes we give advice oriented to exercises that sometimes are self-defeating. (Professional 2 medicine)

However, the primary healthcare professionals admitted that sometimes they provide advice without knowing if it is actually going to be beneficial for the patient. For example, they may recommend moderate exercise (e.g., hydrotherapy/aquatic exercise, Tai Chi, Pilates, etc). Therefore, the primary healthcare professionals maintained that there is a need for physical therapists in primary healthcare centers; this coincided with the patients' opinions since they believe they require a professional to teach them how to perform the appropriate exercises.

But if someone taught me how to do some exercises to strengthen this area or something… (Patient 16)

It is a living and eternal recommendation of primary care… to have a number of physicians with an additional service portfolio and physiotherapy. It would be a very important situation in primary care. (Professional 2 medicine)

- If the patients received recommendations or explanations from primary healthcare professionals pertaining to treatment that were contradictory to those recommendations given by specialists. The primary healthcare professionals stated that they believe that if the patient understands what the medication is for, they are less likely to stop taking it. They also criticized specialists (e.g., traumatologists and rheumatologists) for not providing this information. They recalled situations in which their patients reported that they were no longer taking medication prescribed by specialists because these physicians did not adequately explain the need for continuity to obtain benefits. This causes confusion for patients, who end up making their own decisions, thereby resulting in a lack of therapeutic compliance.

  The doctor told me "Take this", but he didn't explain anything else to me. Then I felt sick and stopped taking them. I prefer to endure the pain a little than to always be on pills. (Patient 10)

  And why don't you take it? 'Well, if I haven´t told what it is for, I can stop taking it whenever it suits me. No problem… Many times, to say don't stop taking this because it is good for this, and for this…is also important. Let them know the why …, right? (Professional 7 nursing)The primary healthcare professionals indicated that they are aware of the need for coordination between themselves and specialists.

  In the therapeutic issue we see many interpretations, eh? When there is no specific rheumatological diagnosis this one has a different action. It is what I insisted before, on the need of the diagnosis, because this is a ragbag sometimes with too many diagnostic omissions. And third, the action of pain units, eh? Which are also very distant to, very distant to the perception we have of chronic pain, eh? And therefore, often not reconciled, not shared, eh? (Professional 2 medicine)

Primary healthcare professional-patient communication

Lack of understanding between primary healthcare professionals and patients

Both the primary healthcare professionals and the patients agreed that the former, showing again a lack of patient-centred care, do not always adapt their scientific language when necessary and, as a result, patients do not always understand the message. Even so, the primary healthcare professionals felt that it is not always possible to translate medical language to patients.

He showed me the X-ray and he said: look, here there is… And I look at an X-ray and I do not understand anything. (Patient 8)

The issue is no longer how you explain; the issue is the medical culture. […] Because we talk so technically… it is difficult not to do so. But it's hard. To the level… so that people understand it, it's difficult. (Professional 7 nursing)

Primary healthcare professionals' explanations generate beliefs in patients

The primary healthcare professionals reported that they were aware that the explanations they provide to patients can positively or negatively influence the patients' future attitudes. Proof of this was demonstrated by the primary healthcare professionals reporting that they have faced situations during consultations in which the patients remind them of advice they have provided previously.

Maybe we talk too much, uh? What I said before, maybe words flow easily and there are messages that remain deeply within patients. […] We talk a lot during a morning! And surely there are many phrases that … that remain, right? And then the patient tells you, "And what you told me, you were right! That worked well for me!" (Professional 1 medicine)

For example, it was indicated that explanations influence the patients' adherence to treatment. The primary healthcare professionals reported that they feel responsible for achieving patient commitment to remain consistent with and not abandon treatment, and thus achieve benefits, or in contrast, limiting patients' mobility, resulting from fear of feeling pain or getting worse.

We have to take care of how we explain things. Because according to how we explain them, we can create beliefs or limitations including mobility, forever for this patient. (Professional 1 medicine)

Before I did not think so, but now seeing how the x-ray is, if the spine was straight I wouldn´t think like this. But now, as I see it a little curved and this pain and that peak and that if I make an effort more than what I can, my low back goes locked up and, it's over! (Patient 8)

Discussion

The findings of this qualitative study conducted in Spain showed that patients consulted with primary healthcare professionals to know the cause of their chronic low back pain and receive treatment to alleviate the pain, and primary healthcare professionals were frustrated with not being able to do it. Some contradictions between the patients' and the primary healthcare professionals' discourses were noted in this study: the primary healthcare professionals wanted to determine a diagnosis, but the patients reported that they also require explanations from professionals regarding the cause of their chronic low back pain. It seems that our patients differentiated between "diagnosis" and "cause", since they believed that a diagnosis of chronic low back pain did not explain the cause of their pain. For instance, chronic low back pain is a diagnosis, and the nerve/disc/muscle would be the cause [39,40]. Other studies have shown that patients with chronic low back pain demand a clear diagnosis accompanied by information adapted to their needs regarding the prognosis, the treatment and the self-management strategies available [41,42].

The patients also wanted treatment, but the primary healthcare professionals require an etiology for the pain to prescribe the treatment; the patients often wanted quick solutions to reduce their pain, but felt that primary healthcare professionals' recommendations were not often easy to follow; and there was a lack of understanding demonstrated between the primary healthcare professionals and the patients. These findings build upon the previous literature, which indicate that conflicts related to the healthcare practice, different expectations regarding a treatment´s purpose, and the usefulness of effective communication strategies are common between primary healthcare professionals and patients with chronic health conditions of unknown origin, which can negatively affect the primary healthcare professional-patient relationship [43,44]. It is common for patients with low back pain to feel that their opinions are not taken into account when making decisions [45,46]. In contrast, the primary healthcare professionals involved in this study felt that they often "negotiate" treatment with patients, which indicates a lack of understanding between them. Patients demand more attention from primary healthcare professionals by requesting more diagnostic tests, different medications, and improved therapeutic communication. Conversely, their lack of compliance with treatment (either pharmacological, or preventive based on habit modification) may be due to their dissatisfaction with the explanations and information provided by primary healthcare professionals.

The main contribution of this study is showing that clinicians were not delivering person-centred care and were unable to manage persistent pain as a long-term condition. Authors such as Lewis and O'Sullivan [47] suggest that the treatment of chronic conditions should be addressed by providing a patient centered management plan with the goal of improving the patient´s well-being. There is also a conflict between patients and primary healthcare professionals because the patients find that the primary healthcare professionals' explanations can be unclear and not entirely justified, and the primary healthcare professionals believe that chronic low back pain has no solution beyond preven-

tive measures, which are not always well-received by patients initially. This conflict can be explained by the fact that patients sometimes believe that primary healthcare professionals' recommendations are not applicable in their daily life, and adapting the advice to the personal experiences of each patient is an essential aspect for obtaining therapeutic success [48]. Primary healthcare professionals should approach patients with chronic pain using the biopsychosocial model and taking into consideration the patient´s personal circumstances to facilitate the implementation of their medical recommendations. The American College of Physicians [49] recommends the use of nonpharmacological treatments such as exercise or multidisciplinary rehabilitation among others as an initial treatment for patients with chronic low back pain. However, the evidence of nonpharmacological treatments ranges from low to moderate. Other authors advocate the use of pain neuroscience education as a way to provide information and advice on the neurobiology and neurophysiology of pain with the aim of changing patients' cognition and knowledge about their chronic state [50–52].

Additionally, the patients in this study felt that primary healthcare professionals tend to use vocabulary that they do not understand; this can result in poor communication and understanding between them. Reciprocity between the patient and the primary healthcare professional is essential for establishing a therapeutic relationship [34,43]. In this regard, effective primary healthcare professional-patient communication emerged in this study as a decisive factor for transmitting information by the primary healthcare professional, and for understanding and applying it by the patient, apart from having an emotional and functional effect on patients. Although the primary healthcare professionals were aware of this communicative distance, they complained that they do not have enough time for thorough patient education, which is in line with primary healthcare professionals surveyed in previous studies of musculoskeletal pain [46,53].

As well, this study identified a series of stages that patients go through until they become adapted to their chronic situation, which are linked to negative moods. Other authors have explained that patients develop feelings such as anger and frustration (among others) due to the lack of understanding and knowledge regarding their current situation [34]. According to Toye and Barker [45], this process implies that patients, over time, after not seeing improvement in their condition even after initially following prescribed treatment recommendations, rethink the explanations provided by their primary healthcare professionals, and they begin to question his/her competency as an expert in the field. In fact, primary healthcare professionals have expressed insecurity and frustration regarding addressing chronic low back pain, for fear of exposing their professional limitations, thus potentially reducing their patients' confidence in them. Skelton [54] reported similar results regarding musculoskeletal pain. The primary healthcare professionals interviewed in our study revealed that they were much more comfortable treating specific pathologies with an underlying clear diagnosis, than chronic pain conditions.

Previous studies have demonstrated that a common patient complaint is that their relationship with their primary healthcare professionals is excessively pharmacologically based, and not sufficiently focused on providing advice and education regarding their chronic low back pain [34]. However, the present study has shown that the primary healthcare professionals perceive a demanding attitude from patients in relation to the search for a solution that alleviates their pain. This may be due to the fact that primary healthcare professionals usually approach chronic pain from a biomedical perspective, through which they try to find a pathology-based cause that justifies the condition and concurrently guides their diagnosis and treatment [53]. Consequently, as our findings have demonstrated, both patients and primary healthcare professionals share a biomedical view regarding the meaning and origin of chronic low back pain. This view is based on the belief that pain is a warning signal, indicating tissue damage has occurred in the lower back, primarily due to structural, biomechanical, and/or functional alterations, or poor postural hygiene. This assessment is based on findings reported in previous studies that have suggested that patients' beliefs seem to be influenced by the biomedical beliefs of their primary healthcare professionals [48,55–58].

Researchers such as Gatchel et al. [59] believe that the biomedical model, which is based on the duality of the mind-body entities that work separately, is inadequate for approaching chronic pain. The biomedical findings, such as those derived from the physical examination or laboratory tests, have a modest association with the pain intensity reported from patients suffering from a chronic pain condition [60]. In fact, management of chronic low back pain using the biomedical model can negatively influence the recovery of these patients [48]. For example, the fear-avoidance behaviors exhibited by patients are usually due to their own misbeliefs regarding pain, which prevent them from participating in activities involving their lower backs [46,55,61]. How the patients interpret what their healthcare professionals tell them is often translated into a state of hypervigilance and an overprotective attitude toward their lower back, in addition to perceiving it as being vulnerable [55,56]. Darlow et al. [27] observed that primary healthcare

professionals with a more biomedical than biopsychosocial orientation were prone to recommend limiting work and physical activity to their patients. In fact, Raak and Wahren [62] reported that patients' negative thoughts or misbeliefs regarding their low back pain can impair their recovery, which emphasizes the importance of addressing those thoughts.

Limitations

To the best of our knowledge, this is the first study conducted in Spain, to investigate the conflict between patients' expectations and professionals' beliefs, and the potential influence of primary healthcare professionals' opinions and attitudes regarding chronic low back pain on those of the patients they are treating. Despite this study had some limitations, we followed the criteria of Guba and Lincoln in qualitative research to enhance the trustworthiness of our results [63]. It should be emphasized that this study was developed in a local context in a Spanish city; thus, the results must be viewed in this ambit. Although the descriptive analysis approach does not allow us to create theoretical models which could be applicable to other settings, however, we have described the characteristics of chronic low back pain management in Spain to allow the reader to evaluate whether our results may be similar to their settings. The sampling method helped us to identify participants who could contribute to answer the research question, even though information regarding the patients who declined to be interviewed was not registered. The fact that interviews were conducted by physiotherapists might have influenced the responses of patients criticizing the family physicians, but at the same time allowed patients to express their opinions toward the management process. Physiotherapists, a family physician and researchers not involved in the clinical practice discussed and negotiated the findings in order to avoid interpretation bias. The credibility of the results of this study is based on data triangulation, where individuals with different participant profiles (i.e., patients, and professionals of medicine and nursing; both men and women), as well as researchers from different fields (physiotherapy, medicine, nursing and public health) helped to generate, analyse, and interpret the data. In addition, in order to enhance credibility, the original transcriptions in Spanish were used to coding, and only representative quotes were translated into English.

Conclusions

In conclusion, this study showed that the diagnose and treatment of chronic low back pain in Spain is compromised due to differing expectations and the communication barriers that exist between primary healthcare professionals and their patients. Additionally, patients have expressed the need to better understand the underlying causes of their pain, thereby implying that primary healthcare professionals should provide more information regarding the origin of pain and how patients can develop effective self-management strategies. Primary healthcare professionals in Spain should be more informative during their consultations and when prescribing treatment, including advice for coping strategies, ensuring that they explain the underlying mechanisms of chronic low back pain. Also, the healthcare professionals in Spain should be more trained in the (bio)psychosocial model of long-term pain, stop searching for non-evident pathologies and change their biomedical beliefs.

Improvement in primary healthcare professional-patient communication, could enable patients to better understand their chronic low back pain, which may reduce pain misbeliefs and fear-avoidance behaviors/limiting attitudes, and improved quality of patient care.

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