Challenges of person-centered care in physiotherapy for chronic pain: A qualitative metasynthesis

Desafios do cuidado centrado na pessoa em dor crônica na fisioterapia: uma metassíntese qualitativa

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Abstract

Introduction: Person-centered care (PCC) has been recommended as a suitable model for treating people with chronic musculoskeletal pain (CMP), emphasizing the need to understand how this model has permeated clinical practice in physiotherapy. **Objective:** To investigate how physiotherapists understand and implement PCC in the management of CMP. **Methods:** This is a metasynthesis of qualitative studies (PROSPERO CRD 42021268243) involving physiotherapists considering PCC in the treatment of individuals with CMP. The Critical Appraisal Skills Program was employed for methodological evaluation of the included studies, and inductive thematic analysis was used for synthesis and result construction. **Results:** Elements of PCC are present in patient assessment, recognizing the importance of deep patient evaluation and establishing a strong therapeutic bond. However, divergent perspectives and conflicts regarding how to conduct therapeutic approaches were evident in the studies, indicating questions and uncertainties in balancing patient needs and preferences with adherence to clinical guidelines. **Conclusion:** Physiotherapists participating in the studies understand the principles of PCC as relevant to clinical practice and consistently utilize them in patient assessment and building rapport. However, uncertainties persist in implementing PCC principles in the management of CMP, highlighting the need for further research to better understand the disparities found in therapeutic approaches and enhance professionals' preparedness to administer PCC.

Keywords: Musculoskeletal pain. Patient-centered care. Physiotherapists.

Resumo

Introdução: *O cuidado centrado na pessoa (CCP) tem sido recomendado como um modelo adequado para o tratamento de pessoas com dor musculoesquelética crônica (DMC), sendo importante compreender como esse modelo tem permeado a prática clínica na fisioterapia.* ***Objetivo:*** *Investigar como fisioterapeutas compreendem e implementam o CCP no tratamento da DMC.* ***Métodos:*** *Trata-se de uma metassíntese de estudos qualitativos (PROSPERO CRD42021268243) sobre fisioterapeutas, em que o CCP foi considerado no tratamento de pessoas com DMC. O* Critical Appraisal Skills Program *foi utilizado para a avaliação metodológica dos estudos incluídos e a análise temática indutiva foi utilizada para síntese e construção dos resultados.* ***Resultados:*** *Elementos do CCP estão presentes na avaliação do paciente, havendo reconhecimento da importância de um olhar ampliado do paciente e da necessidade de estabelecer vínculo terapêutico. No entanto, perspectivas divergentes e conflitos em relação a como conduzir a abordagem terapêutica mostraram-se presentes nos estudos, indicando questionamentos e incertezas entre entender as necessidades e preferências dos pacientes e seguir as recomendações das diretrizes clínicas.* ***Conclusão:*** *Fisioterapeutas participantes dos estudos entendem os princípios da CCP como relevantes para a prática clínica e os utilizam de forma consistente na avaliação e construção de vínculo com os pacientes. No entanto, persistem incertezas na condução do tratamento da DMC tendo por referência o CCP, enfatizando a necessidade de mais pesquisas para melhor entendimento das disparidades encontradas nas abordagens terapêuticas e melhor a preparação dos profissionais para administrar o CCP.*

Palavras chaves: *Dor musculoesquelética. Cuidado centrado no paciente. Fisioterapeutas.*

Introduction

Research indicates that the experience of chronic musculoskeletal pain (CMP) is strongly associated with a person's disability, including negative emotions, psychological distress, social isolation, and inadequate social support.[1,2] Conversely, the correlation between CMP and pathological diagnoses is less pronounced, particularly in patients with non-specific low back pain.[3,4] As a result, clinical guidelines have raised concerns about simplistic and one-dimensional interventions rooted in the biomedical model. Instead, they propose that CMP should be understood and addressed as a multifactorial condition.[5-7] To this end, the biopsychosocial model, initially introduced by Engel,[8] flourished in the 1990s as a framework specifically applied to CMP.[9] Recognizing the need for a more comprehensive and multidimensional approach to managing CMP, to answer the limitations of the biomedical model, the person-centred care (PCC) model has flourished as an alternative explored and embraced in physiotherapy.

While there is no singular definition for PCC model, several components are widely recognised, including the understanding of the patient and their context from a biopsychosocial perspective, shared responsibilities and decision-making, as well as the establishment of a therapeutic alliance.[10] At the core of PCC is the recognition by healthcare professionals that patients are autonomous people with unique experiences. Consequently, therapeutic practices are tailored to the needs, circumstances, and preferences of each person under their care.[11,12] In order for healthcare professionals to access this information and establish a trusting relationship with patients, empathic communication is essential, where the person's experiences are welcomed without judgment.[13]

Currently, physiotherapy is one of the most sought-after professions for managing CMP cases,[14] and guidelines recommend that the management of this condition be grounded in a biopsychosocial perspective based on PCC.[6,15] However, there is still little discussion in physiotherapy about how psychosocial factors associated with CMP and CCP principles have been incorporated into the therapeutic approach.[16] These difficulties may stem from the fact that physiotherapist training is predominantly focused on a biomedical approach,[17] which makes it challenging to address psychosocial elements and develop the necessary communication skills to apply PCC concepts in clinical practice.[18] Another aspect to consider is the lack of comprehensive guidance on addressing psychosocial aspects in therapeutic approaches within the guidelines.[5,6,19] It is crucial to address these issues and seek a better understanding of how to incorporate PCC into clinical practice, as this may necessitate re-evaluation of professional training and formulation of research questions in this field.

Qualitative research has gained prominence in health as it delves into the intricacies of perceptions, emotions, and experiences of various people involved

in the therapeutic intervention.[20] In the context of PCC, understanding subjective aspects of the therapeutic relationship becomes even more crucial. This care model widely discusses the formation of a therapeutic alliance between the therapist and the patient. Additionally, CMP is a multifactorial health problem inherently subjective to each person, emphasising the significance of the interaction between the therapist and the patient. This interaction is pivotal in enabling patients to manage their health problems effectively.[21] Despite the publication of a few qualitative systematic reviews, they provide a limited exploration of CMP[22] and how physiotherapists conceptualize and implement person-centred physiotherapy in practice.[23] Additionally, they primarily focus on patient perceptions, overlooking the perspectives and insights of physiotherapists themselves.[24] Some systematic reviews have highlighted a gap in the physiotherapeutic literature regarding the theoretical and practical understanding of PCC in clinical reasoning and therapeutic approaches.[25,26] Therefore, the research question for this metasynthesis was: How has physiotherapists been understood and implemented PCC in the management of CMP?

Methods

Identification and selection of studies

In this study we adopted a metasynthesis methodology, which follows the principles of systematic reviews and aims to compare and synthesise findings from multiple qualitative studies.[27] By employing metasynthesis, a more comprehensive understanding of the phenomenon under investigation can be achieved.[28] Unlike traditional literature reviews, metasynthesis involves an additional interpretive and inductive analysis, going beyond the mere presentation of findings to offer a novel interpretation of the results.[29] This research adhered to the criteria outlined in the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) checklist.[30]

The research question guiding the search process was formulated using the PICoS framework: "How has PCC been addressed in qualitative studies focusing on the role of physiotherapists in managing CMP?" PICoS was employed to identify the target population (physiotherapists), the intervention of interest (PCC), and the context (treatment of people with CMP). Based on the PICoS framework, the following search terms were utilized: "Physical Therapists" AND "Patient-Centred Care" AND "Qualitative Research" AND "Musculoskeletal Pain" OR "Chronic Pain" OR "Low Back Pain" OR "Neck Pain" OR "Shoulder Pain," along with their respective synonymous terms. The search terms were intentionally broad to avoid overlooking important articles. The detailed search strategy is presented in Appendix.

In February 2021, a search was conducted in the PubMed, EMBASE, BIREME, PsycINFO, and Scopus databases, with an update performed in May 2024 with the assistance of a librarian. The search did not restrict a time interval and the inclusion criteria for study eligibility were as follows: (1) utilization of a qualitative methodology to explore the experiences and perceptions of physiotherapists; (2) inclusion of the term PCC or similar concepts within the study; (3) publication in scientific journals; and (4) availability of articles written in English. The exclusion criteria consisted of (1) narratives solely focused on patients with CMP, and (2) reviews of qualitative studies. In cases where the same article included perceptions and experiences of both physiotherapists and patients or physiotherapists and other healthcare professionals, the first author assessed whether separate analyses of these accounts were provided, and only those specific reports were considered to contribute to the research findings.

To ensure the reliability of article selection, two independent researchers (Authors 2 and 4) conducted the screening process,[31] discussing any divergences until reaching a consensus. Both researchers reviewed the titles and abstracts of all articles identified through the search strategy and, when necessary, read the full article. The Zotero software was utilized to manage the references.

Assessment of characteristics of studies

The methodological quality of the included studies was assessed by two independent researchers using the Critical Appraisal Skills Program (CASP) checklists, which are widely employed in metasynthesis[32] and recommended by the Cochrane Collaboration.[33]

Data extraction and synthesis

The chosen method for thematic analysis was inductive analysis, which involved the absence of a pre-existing coding frame.[34,35]

The thematic analysis process was similar to the steps outlined by Braun and Clarke.[34] Before commencing the thematic analysis, all selected studies were thoroughly read, and the relevant data from the results section were transcribed verbatim into Google Docs, an online text editor. Subsequently, the second author closely read this data, identifying excerpts related to convergences or divergences among physiotherapists' perspectives on PCC in the therapeutic approach to CMP. The first and second authors developed the initial codes based on their analysis of the data from the first selected study. Then, the coding process continued with the second study. The similar ideas identified in the initial study were added to the existing codes. At the same time, new concepts were assigned to new codes. This process was repeated for all the included studies until the analysis of all data was complete. Themes were established by Authors 1 and 2, who grouped the codes according to their characteristics. These themes were reviewed during fortnightly meetings involving the other co-authors (Authors 3, 4, and 5). It is worth mentioning that all co-authors were qualified physiotherapists, except for Author 4, who was a final-year physiotherapy student and Scientific Initiation Fellow. Furthermore, Authors 1 and 3 possess extensive experience in qualitative research, while Authors 2, 3, and 5 received training in qualitative analysis.

Results

The search strategy resulted in 4,586 studies, of which ten were included and analysed in this research. Details about the studies' eligibility are in Figure 1.

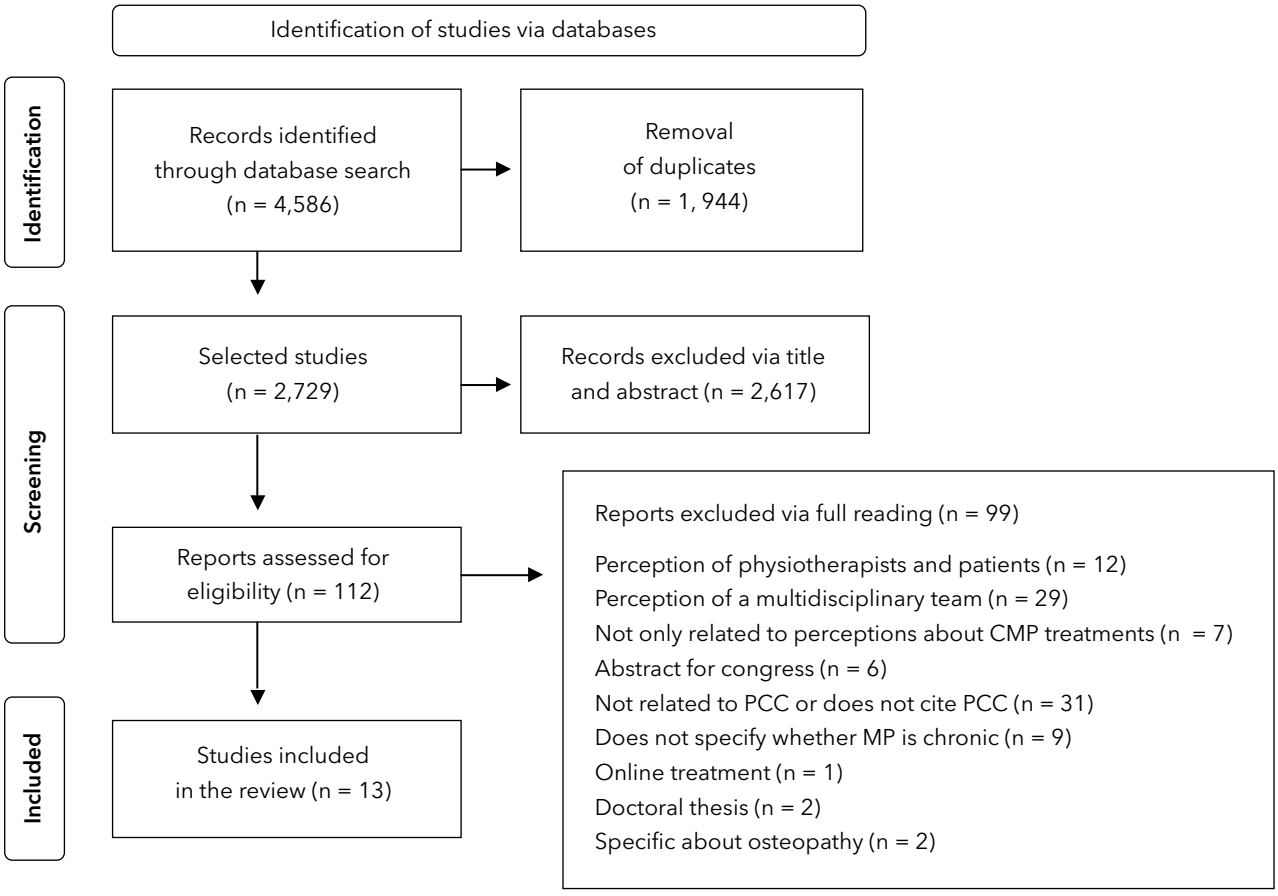

Figure 1 - PRISMA flow diagram of search results and article selection process.

Note: CMP = chronic musculoskeletal pain; MP = musculoskeletal pain; PCC = person- centered care.

The earliest article meeting the inclusion criteria for this review was published in 2014, with the majority of the 13 selected articles originating from European countries. The most used data collection methods were semi-structured interviews, followed by focus groups, field notes and questionnaires with open-ended questions answered in writing by participating physiotherapists. Three studies included other professionals besides physiotherapists,[36-38] in which only the reports of physiotherapists were considered. The total number of participants included in this study were 146 physiotherapists, and six studies aimed to investigate the role of physiotherapists in managing patients with non-specific low back pain. More information on the characteristics of the included studies can be found in Table 1.

Following the CASP tools for evaluation of methodological quality, all studies answered the first two questions, which are considered screening questions, and all studies presented good quality. The criterion the studies found most challenging to fulfil was the one that seeks to understand whether the relationship between researcher and participant was adequately considered. This difficulty was mainly perceived due to the lack of transparency regarding the potential relationship between the authors and the participants during the sampling, data collection, and analysis process. The complete evaluation of the articles included is shown in Table 2.

In our analysis of the included studies, we constructed three relevant themes regarding how PCC has been contextualized in physiotherapy practice in managing CMP: 1) understanding the person in their complexity; 2) building a therapeutic relationship; and 3) balancing linear goals and patient needs in therapeutic interventions.

Theme 1: Understanding the person in their complexity

Our analysis identified that physiotherapists have made concerted efforts to comprehend the multifaceted nature of the person. For instance, they have conducted in-depth investigations into patients' perspectives on their health conditions, treatment goals, and personal interests, extending beyond specific diagnosis to encompass various aspects of their lives. Moreover, they have examined how patients evaluate various factors potentially associated with pain, particularly during the assessment, representing the initial interaction between the healthcare professional and the patient[36,38-47] The following quote illustrates the physiotherapists' investment in gaining a comprehensive understanding of patient perceptions, contextual factors, and needs:

I believe most patients require a different approach. In addition to the routine physical examinations, further assessments such as their psychological, social, work, and their lifestyle evaluations have to be done.[38]

From this perspective, studies have shown that physiotherapists have sought to conduct assessments according to the biopsychosocial model, aiming to comprehend the context and specificities of the problem based on the patient's perception and investing time in listening to factors that could be involved in the patient's pain.[36,39,40,43-47] Although studies have highlighted the importance of active listening as a relevant element in the physiotherapy assessment, social aspects still appear to be underexplored. The physiotherapists' emphasis on psychological and lifestyle factors can be exemplified by Cowell et al.,[40] as transcribed below:

I think my common route is trying to delve into what their underlying fears are, if there are any other drivers, maybe more obvious drivers, so is there, is work an issue? So talking about work a little bit more. Is anything going on at home? The stresses of lifestyle.[40]

Unlike most studies, Miciak et al.[41] delved deeper into the social aspects of the interaction between physiotherapists and patients with CMP. In their research, physiotherapists acknowledged the significance of social issues in establishing a connection between the patient's context, culture, and therapeutic approach. These factors influenced the consideration of patients' reality and their comprehension of the prescribed treatment when recommending specific interventions such as exercise. The following quote exemplifies this perspective:

You know, treating a mom with four young kids, I'm not asking her to do an hour of exercises every morning before the kids go to school because that's not going to happen. But if I say, "Okay once the kids go to bed at night, can you spend 10 minutes doing this"?[41]

Table 1 - General characteristics of included studies

Study, country, year	Aim	Participants	Data Collect	Data Analysis	Main results
Kleiner et al.[47] Canada, 2024	To examine physiotherapists' perceptions of what constitutes a "good" PT.	12 PTs (6 F and 6 M) working in Canada. At least one year of experience in CMP.	Semi-structured interviews.	Hermeneutic phenomenological analysis.	PTs highlighted the understanding of patients' perspectives, collaborating on their goals, and adapting treatment plans to individual needs. They aimed to balance scientific knowledge with personalized care, ensuring treatments are tailored to each patient. They also strived to be responsive to patients by actively listening to their stories, validating their experiences, and being attentive, open, patient, and empathic, with a focus on understanding patients from a BPS perspective.
Kleiner et al.[46] Canada, 2023	To explore experienced CMP practitioners' perceptions of "responsiveness" in the practice of a "good" PT.	12 PTs (6 F and 6 M) working in Canada. At least one year of experience in CMP.	Semi-structured interviews.	Hermeneutic phenomenological analysis.	PTs were concerned about acknowledging and individualizing care based on each patient's unique situation, personality, pain threshold, and interpretations of their experience. Being person-centered emerged as a crucial attribute of a good physiotherapist, characterized by responsiveness to the uniqueness of each patient.
Parchment et al.[45] United Kingdom, 2023	To qualitatively explore PTs' experiences and acceptability of implementing "Making Every Contact Count Healthy Conversation Skills" in routine practice with patients with CMP.	11 PTs (9F and 2 M) working in the UK. Without specifying the time of experience in CMP.	Semi-structured interviews.	Reflexive thematic analysis.	PTs emphasized the importance of allowing patients to speak and be heard, making the individual feel more valued and involved in the treatment. They also seek to understand the patient's unique circumstances when tailoring interventions. PTs, as well, valued patients' knowledge and experiences, seeking to make adaptations on their lifestyle and fostering greater self-awareness.
Chala et al.[38] Ethiopia, 2022	To explore how health care providers understand and conceptualize self-management and how they provide self-management support for people with NSLBP in Ethiopia.	12 PTs and 12 doctors (7 F and 17 M) working in Ethiopia. Without specifying the time of experience in CMP.	Semi-structured interviews.	Inductive thematic analysis.	PTs commented on the importance of recognizing and validating the patient's own pain management strategies, as well as the importance of offering personalized and individual-specific self-management support. They also highlighted the performance of a BPS assessment and the concern to adapt the language according to the patient's context.
Hutting et al.[36] Netherlands, 2020	To investigate the ideas, opinions and methods used by PTs and exercise therapists regarding self-care and self-management support for patients with chronic NSLBP.	38 PTs (14F and 17M) and seven exercise therapists (3F and 4M) working in the Netherlands. Experience in CMP from one to 41 years.	An online questionnaire was developed by the first author and reviewed by the other authors, and pre-tested by four therapists.	Thematic analysis.	PTs invested in knowing the patient's history during the evaluation to think about the treatment. Professionals understood support for self-care as an important topic for the management of NSLBP.

Table 1 - General characteristics of included studies (continued)

Study, country, year	Aim	Participants	Data Collect	Data Analysis	Main results
Hartholt et al.[43] United Kingdom, 2020	To explore the experiences of PTs in making decisions related to the treatment of people with whiplash injuries.	5 PTs (without specifying gender) working in the UK. At least two years of experience in CMP.	Individual, semi-structured interview and reflective diary. The interviewer adopted a hermeneutical phenomenological attitude.	Interpretive phenomenological analysis. A hermeneutic circle was used throughout each step of the analysis.	PTs sought to value collaborative decision-making with patients and were interested in understanding patients' perceptions of their pain, preferences regarding exercises or activities, and goals with the therapeutic approach.
Ahlsen et al.[42] Norway and New Zealand, 2019	To investigate the understanding of the patient as a person in the PCC through the physiotherapy of patients with CMP.	5 PTs (3F and 2M) working in Norway. Experience in CMP from two to 15 years.	Semi-structured interviews.	Narrative analysis confronting the material with Kristeva's health and healing concept.	A profile of PTs sought to understand the meaning of pain in patients' lives and sought to understand the different factors that may be interfering with their pain condition. These PTs also understood the therapeutic process as a construction. On the other hand, another profile of PTs focused on goal-oriented interventions aimed at restoring the patient's health.
Sullivan et al.[44] United Kingdom and Finland, 2018	Explore and understand the experiences of PTs who communicate the diagnosis of NSLBP to their patients.	5 PTs (3F and 2M) working in the UK. At least one year of experience in CMP.	Semi-structured qualitative interviews.	Interpretive phenomenological analysis.	PTs sought to use active listening and questioning to understand patients and thereby plan meaningful approaches to the person. They also made the patient feel believed through empathy and acknowledgment of the patient's perspectives.
Cowell et al.[40] United Kingdom, 2018	To explore the perceptions of PTs in primary care in England who adopt a BPS approach to the treatment of patients with chronic NSLBP.	10 PTs (3F and 7M) working in the UK. Experience in CMP from three to 14 years.	Semi-structured qualitative interviews.	Thematic analysis.	PTs sought to consider BPS aspects related to pain and for that, they used communication to establish a personalized approach. Professionals also sought to establish trust through the therapeutic bond so that patients could rethink beliefs not favorable to the management of NSLBP. They showed concern about following what is recommended by the guidelines for the treatment of NSLBP and the patient's needs.
Miciak et al.[41] Canada, 2018	Identify the various ways PTs make meaningful connections with their patients.	11 PTs (6F and 5M) with at least five years of experience in CMP.	Semi-structured interviews, interview notes, analytical notes and memos.	Inductive and interactive analysis.	PTs were concerned with listening and recognizing the patient, and they understood that establishing an effective and trusting relationship helps the patient's collaboration with the treatment. They shared decisions throughout the treatment and invested in knowing different elements of the patient's life - including social elements, in addition to their functional expectations, and incorporating these issues into the treatment. PTs also understood treatment as a construction in which it is necessary to understand the needs of patients at each therapeutic encounter.

Table 1 - General characteristics of included studies (continued)

Study, country, year	Aim	Participants	Data Collect	Data Analysis	Main results
Lawford et al.[48] Australia, 2018	Explore the experiences of PTs and the impacts of a PCC training program to support exercise adherence in people with knee osteoarthritis.	8 clinical PTs (without specifying gender) working in Australia. Experience in CMP of at least two years.	Semi-structured interviews.	Thematic analysis according to the constructivist paradigm.	For them, one of the main aspects of PCC is shared decision-making and patient education about the importance of exercise. PTs held the patient accountable for adherence to treatment and achievement of results.
Stenner et al.[39] United Kingdom, 2016	Explore how shared decision-making and patient partnership are approached by PTs in prescribing exercise for patients with chronic NSLBP.	8 PTs (without specifying gender) working in the UK. Experience in CMP from two to 19 years.	Field notes, informal interviews and semi-structured interviews.	Thematic analysis is guided by Gadamerian hermeneutics.	As for the PCC, the PTs demonstrated to take into account the perspectives and considerations of the patients when planning the physiotherapy exercises.
Sheeran et al.[37] United Kingdom, 2014	To assess the experiences and perceptions of clinical PTs and managers on barriers and facilitators to better target treatment for chronic NSLBP.	6 clinical PTs (1F and 5M) and 3 managing PTs (1F and 2M) operating in the UK. Experience in CMP from 12 to 39 years.	Focus group and individual semi-structured interviews. Field notes were taken by a research observer.	Inductive thematic analysis.	Clinical PTs and managers were concerned about knowing the patient's history during the physiotherapy assessment.

Note: BPS = biopsychosocial; CMP = chronic musculoskeletal pain; F = female; M = male; NSLBP = non- specific low back pain; PCC = person- centered care; PT = physiotherapist; UK = United Kingdom.

Table 2 - Assessment of methodological quality by Critical Appraisal Skills Program

Criterion	Articles												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	UN	Yes	Yes	Yes	UN
4	UN	UN	Yes	Yes	UN	Yes	Yes	Yes	Yes	Yes	UN	Yes	Yes
5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	UN	Yes	Yes
6	UN	No	UN	UN	No	No	UN	Yes	No	No	No	No	UN
7	UN	UN	UN	UN	Yes	UN	Yes	Yes	Yes	No	UN	Yes	Yes
8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	UN	Yes

Note: UN = unsure. Criterion: 1 = Was there a clear statement of research objectives?; 2 = Is it an appropriate qualitative methodology?; 3 = Was the research design appropriate to address the research objectives?; 4 = Was the recruitment strategy appropriate for the research objective?; 5 = Was the data collected in a way that addressed the research problem?; 6 = Was the relationship between researcher and participant adequately considered?; 7 = Have ethical issues been taken into account?; 8 = Was the data analysis rigorous enough?; 9 = Is there a clear statement of findings?; 10 = Does the research discuss contributions, implications and limitations of the study? Articles: 1 = Kleiner et al.[47]; 2 = Kleiner et al.[46]; 3 = Parchment et al.[45]; 4 = Chala et al.[38]; 5 = Hutting et al.[36]; 6 = Hartholt et al.[43]; 7 = Ahlsen et al.[42]; 8 = Sullivan et al.[44]; 9 = Cowell et al.[40]; 10 = Miciak et al.[41]; 11 = Lawford et al.[48]; 12 = Stenner et al.[39]; 13 = Sheeran et al.[37]

Similar to Miciak et al.,[41] Chala et al.[38] also aimed to gain a better understanding of how physiotherapists addressed social issues in the therapeutic intervention. In this study, physiotherapists demonstrated the ability to adapt their communication style based on the patient's sociocultural context. They emphasised the importance of contextualizing their communication to align with patients' specific contexts and occupations. The following quote illustrates this perspective:

You should be able to communicate with a farmer from a rural area similar to an engineer working in a city. It is our role to use language that suits each patient.[38]

In the study by Chala et al.,[38] physiotherapists also discussed their efforts to validate and understand patients' pain self-management strategies, including religious practices and traditional healing rituals. Physiotherapists incorporated these elements into treatment planning, providing guidance and carefully considering whether these strategies could potentially harm the patient.

I will not stop them if they tell me that they are going for holy water. Because I believe that patients can get better if they follow their faith. But I try to advise them not to engage in harmful practices.[38]

Our analysis indicated that physiotherapists aimed to provide comprehensive care and understand patients' multifaceted contexts. However, most studies did not explore significant social factors or their effective integration into therapy. Emphasizing patients' contexts helped build strong rapport between healthcare providers and patients, a fundamental aspect of PCC to be discussed in the next theme.

Theme 2: Building a therapeutic relationship

Another recurring element highlighted in the studies was the significance of establishing a solid therapeutic relationship with the patient.[40,41,44-47] Trust was considered a fundamental component in forming a therapeutic alliance, enabling patients to re-evaluate unhelpful beliefs and actively engage in their treatment.[40,44,46,47] By fostering a closer relationship, physiotherapists reported being able to cultivate a more collaborative dynamic, empowering patients to take a more active role in their treatment.[41, 46]

The therapeutic relationship between the therapist and patient was further linked to adaptive communication tailored to personal cases. This type of communication encompassed aspects such as attentively addressing patients' needs and concerns beyond diagnostic considerations, with physiotherapists demonstrating their willingness to provide emotional support, as exemplified in the following quote:

There was a gap between us and so I moved around and I actually sat next to her… you need to show some empathy, to show some understanding of how difficult that is… you just need to say it's OK.[44]

Furthermore, physiotherapists emphasised establishing a collaborative partnership by believing in patients' ability to improve their pain. They actively motivated and reassured patients about their condition, fostering a sense of confidence and empowerment, as expressed in the following statement:

You need to toss them [patients] a line. "I've had this for twelve years and everybody says it's never going to get better. All my friends who had this were never the same again." You have to toss them a line and that's hope... not unrealistic expectations, but hope... you think something is going to help so it does because somebody gave you a line.[41]

Our analysis highlighted that therapeutic relationship must create an environment where patients feel comfortable sharing their perceptions and concerns. This environment encourages patients to openly discuss their fears, reconsider unhelpful beliefs, engage actively in treatment, and participate more in their own care. To cultivate this emotional connection, several strategies were identified, such as engaging in casual conversations about their daily lives, demonstrating warmth and empathy, and offering emotional support to address the challenges they face in their everyday lives or as a result of their pain.

Theme 3: Balancing linear goals and patient needs in therapeutic interventions

Unlike the aspects previously discussed, where there was consensus on the need for comprehensive assessment and the establishment of a therapeutic relationship, the selected studies showed controversies among

physiotherapists regarding therapeutic interventions. Some studies highlighted that physiotherapists prioritised patient needs when planning the therapeutic intervention[40-42] and were open to viewing treatment as an ongoing process of collaboration and exchange with the person.[41,42] For these professionals, treatment was continuously and flexibly planned and adjusted according to each patient's specific needs:

I don't know the answer [for treatment] until I see them again. "What do you need" will then lead me to where I am going to do my reassessment and what therapeutic intervention I'm going to commence.[41]

Embracing patients' perceptions and considerations implied that physiotherapists valued patients' desires, beliefs, preferences and ideas.[40,4647] This choice was contextualized in terms of using more passive therapies, such as manual therapy and the request for imaging tests.[40]

If their expectation is that they're going to have manual therapy, and that gives me buy in for them to make sure that they trust me, I can get them to believe in the concept, get them moving, then what harm does it do?[40]

However, this way of responding to patients' expectations generated discomfort or personal conflict for some professionals. Giving in to patients' biomedical expectations by linking their symptoms to some radiological finding was a highlighted tension, as physiotherapists considered that this could lead to catastrophic beliefs:

If nothing shows up that's fine, but if something shows up which is really insignificant then they could really take that on, they could really focus on that.[40]

Responding to patients' expectations also gave rise to conflicts regarding the implementation of evidence-based practice. Hutting et al.,[36] for example, discussed the significance of scientific evidence as the primary guiding factor in determining the therapeutic intervention. Some physiotherapists perceived deviating from scientific evidence as a potential barrier to achieving effective PCC:

I feel the urgency to broadly include self-management in physical therapy. Colleagues who, despite the available evidence [...] continue to use passive treatments or have a purely biomedical approach, are a barrier to efficient patient-centered care in the future.[36]

The analysed studies[36,39,42,45] also identified that, despite the attempt to understand the patient, physiotherapists developed a therapeutic approach centred around their own preferences and desires:

I try and get people to think about it from my point of view I want them to exercise so that they actually get used to getting their spine moving again.[39]

The challenge of incorporating patients' subjective elements in the therapeutic interventions was also evident when physiotherapists attempted to persuade patients to engage in exercises that went against their preferences. For instance, in the study conducted by Stenner et al.,[39] despite the patient expressing clear reservations about an exercise program, the practitioner persisted in recommending its implementation:

He had tried exercises in the past from a previous physio that he didn't find helpful even though he said he had tried them religiously. So it is difficult to know how compliant he will be. I think he was willing to try them again.[39]

In contrast to the earlier notion of viewing treatment as an ongoing process, certain physiotherapists perceived treatment as a linear process, characterized by distinct stages, including goal setting and the expectation of concrete outcomes.[42,48] Consequently, these practitioners seemed to attribute the responsibility for treatment success (or failure) to the patient, often holding them accountable for not adhering to physical activity programs:

Here at the clinic we always have a goal-setting in the initial conversation with the patients. It is my job to point out to them that this is a collaboration between them and us and that they also are responsible for whether this is a fruitful process or not. It requires that they show up and that they try to see their situation and that they make an effort. I expect that they are conscious and active actors in this process. "What do you need to do more of? What do you need to become more aware of"? "What do you think, in 3 months ... you can do more of"? Or "How can you adjust the burden in your daily life in order to get there"? [42]

Thus, the analysis of the selected articles showed tensions in how physiotherapists approached therapeutic intervention. These tensions were mainly related to physiotherapists' choice to consider either patients' desires and needs or their own, usually following scientific evidence, as central in the therapeutic intervention.

Discussion

The present study aimed to investigate how physiotherapists understood and implemented PCC in the management of CMP. Our analysis of the literature encompassed in this metasynthesis revealed some consensus among physiotherapists regarding key elements of PCC, such as understanding patients' unique perspectives, conducting comprehensive biopsychosocial assessments, and fostering strong patient-provider relationships. However, significant tensions were evident in how these elements were incorporated into the planning and execution of therapeutic interventions. As a result, our study underscores the nuanced perceptions of physiotherapists regarding the integration of PCC principles into their treatment approach for patients with CMP.

Physiotherapists often face the dilemma of adhering strictly to scientific recommendations or addressing patients' expressed needs, circumstances, and preferences, such as prioritizing manual therapy and requesting imaging tests. While these strategies may be highly regarded by society, they sometimes diverge from the recommendations outlined in CMP management guidelines. Azeredo and Schraiber[21] argue that privileging scientific knowledge as the sole truth can inadvertently marginalize other forms of knowledge within the clinical setting, which are pertinent from a PCC perspective.

The focus only on scientific facts may compromise the professional's ability to understand the illness process and tailor the therapeutic approach to the person. Furthermore, following Mol's discussion in her book "The Logic of Care"[50] good care can be interpreted as going beyond a simple choice between adhering to scientific evidence or patients' needs: good care is an ongoing collaboration to align scientific knowledge with people's complex lives.

Another highlight point is the combination of therapeutic interventions and management plans oscillating between patient-centred and therapist-centred approaches. Although clinical guidelines[6] have advocated for the need for a biopsychosocial model and PCC, the treatment recommendations in the guidelines are mainly based on randomized clinical trials that do not take into consideration patients' perceptions and singularities. For instance, Aittokallio and Rajala,[12] in their study on patients' perspectives on essential aspects of the rehabilitation process, illustrate the significance of both evidence-based practice and PCC in physiotherapy. Nevertheless, reconciling these two models poses challenges, as they originate from paradigms that diverge in several aspects.[12,26]

The tension described above is mirrored in the results of this metasynthesis, where divergence exists among professionals who advocate for a more individualized approach to patient care, extending beyond the confines of clinical guidelines, and those who, while recognizing the importance of holistic patient understanding, attempt to steer patients towards adherence to established guidelines during therapeutic interactions. Additionally, our analysis revealed instances of physiotherapists who place emphasis on both patient perspectives and evidence-based practice, but express unease or uncertainty regarding the balance between the two.

Regarding the biopsychosocial assessment of the multiple factors that may be related to patients' pain conditions, our analysis showed that the social factors of living with CMP were particularly sidelined. Similarly Mescouto et al.,[51] in a critical review of the biopsychosocial model in the treatment of low back pain, highlighted that the model is primarily supported by psychological factors limited to cognitive and behavioural aspects. Social and emotional issues are absent or superficially mentioned in the literature.

The systematic review of qualitative studies by Synnott et al.[16] emphasised physiotherapists' difficulty in addressing chronic pain's emotional and social aspects. They reported not receiving adequate training to develop this skill during their undergraduate or continuing professional development programs. Physiotherapists may need to expand their knowledge of social, emotional, and care-related aspects when adopting a PCC approach for patients with CMP.

In the literature, much is discussed about the importance of a power balance between healthcare professionals and patients to establish PCC.[52-54]

The study by Miciak et al.,[41] included in this review, shows that physiotherapists while acknowledging the inherent power imbalance in the therapeutic relationship, employ strategies to make the relationship more balanced such as using accessible language for explanations.

Although equality between the professional and the patient may seem inherent to PCC, considering this relationship as entirely balanced requires careful consideration in clinical practice. Azeredo and Schraiber[21] comment that the relationship between healthcare professionals and patients is inherently unequal since the patient seeks a professional with greater technical knowledge about illness processes and therapies. However, even though the relationship may not have a complete balance, it is important for the professional to be open to building a collaborative therapeutic alliance with the patient, providing support for therapeutic interventions and addressing the demands that may arise during treatment.[21]

Additionally, an alternative to addressing the power imbalance is to view PCC as context-dependent, where the healthcare professional guides the therapeutic encounter while considering the extent to which the patient wishes to be responsible for their treatment. Pluut[11] provides examples, highlighting the professional's sensitivity in understanding the patient's needs regarding the topics to be addressed in the encounter, communication styles that can be used, and the degree of involvement the patient desires in decision-making.

It is important to consider some limitations of this metasynthesis. The investment in qualitative research on the adoption of PCC by physiotherapists in the treatment of CMP is still in its early stages, as evidenced by the fact that the earliest article found dates back to 2014. In addition to being a recent research topic, most studies have been conducted in European countries, especially the United Kingdom. There has been limited research publication on this topic in low- and middle-income countries, which might limit the global understanding of how PCC elements have been addressed in the treatment of CMP by physiotherapists. Similarly, other systematic reviews on CMP or PCC also predominantly involve European countries.[22-26,55]

Our review included studies from other developed countries such as New Zealand, Australia, and Canada, with only one study[38] conducted in a low-income country, Ethiopia, but by a researcher affiliated with a Canadian university. Future studies could investigate how physiotherapists have embraced PCC in contexts where economic conditions, healthcare policies, culture, and other factors may influence the understanding and expectations of the therapeutic intervention. In 2018, the Lancet Low Back Pain Working Group highlighted the need to establish an information network on chronic low back pain that includes low- and middle-income countries,[56] emphasising the current lack of studies exploring this health issue in these countries.

The inclusion of only English terms in the article search may have hindered access to studies from different locations; however, it is essential to note that no articles were excluded based on the language of publication during the selection process. Regarding the search process, although it was conducted comprehensively, it is possible that some relevant studies were not included in this metasynthesis. Finally, in articles presenting the perspectives of multiple professionals, we considered only the quotes related to physiotherapists' reports, which may have resulted in the loss of information. Overall, the articles included in this review demonstrated good methodological quality according to CASP. However, most studies did not clearly specify the relationship between the researchers and the research participants, which may indicate the lower reliability of the studies. Such methodological issues compromise reflexivity by not clarifying how the researcher's relationship with the participants and the context in which the research was conducted influenced the provided information, data analysis, and interpretation.[57] Considering that it is virtually unavoidable for there to be some form of relationship between the researcher and the participants, as well as with the research setting, authors should be aware of this influence when reporting the findings of their studies. Recognizing this dynamic and its potential impact on data is essential for a critical analysis of qualitative research.[58,59]

The dearth of a comprehensive analysis regarding PCC within clinical guidelines, theoretical and scientific studies, as well as in the professional training of physiotherapists specializing in CMP, may foster the adoption of divergent or conflicting perspectives among professionals. This deficiency is attributable to an overemphasis on randomized clinical trials, which often fail to account for the nuanced integration of psychosocial factors that shape the unique needs, circumstances, and preferences of individual patients.[60] Consequently, there exists an urgent imperative to delve deeper into the incorporation of PCC principles within the treatment paradigm for CMP.

Hansen et al.,[60] in their examination of research characteristics regarding PCC in physiotherapy, underscored the necessity for a more comprehensive analysis within journals on how the core aspects of this concept can be integrated to enhance the therapeutic approach in physiotherapy. This in-depth analysis is crucial to ensure that PCC is fully embraced in its intended scope as a care model, particularly considering the inherent complexity of therapeutic interventions and the dynamics of interaction between physiotherapists and patients.

Conclusion

The studies in this review identified the presence of PCC principles among physiotherapists in both assessment and building bonds with patients with CMP. However, it was observed that physiotherapists adopt varied approaches to these principles in therapeutic interventions. Some professionals view it as an ongoing collaborative process, while others demonstrate uncertainty and difficulty in adhering to certain aspects of the model, particularly when addressing the disparity between patients' needs and clinical recommendations. These recommendations often overlook the nuances of patients' experiences. Clinical guidelines should not only recommend PCC but also address ways to implement this type of care in therapeutic encounters, improving the incorporation of PCC in the treatment of patients with CMP. Therefore, there is a need for further studies to broaden the discussion on reconciling patients' needs with clinical recommendations and to prepare professionals to navigate the frustrations and uncertainties inherent in clinical approaches.

Authors' contributions

AV and SPS were responsible for the conception and design of the study. SPS, MMA and ACB collected the data, and all authors assisted in the analysis and interpretation of the data. The manuscript was written by AV, SPS and MMA and revised by AV, SPS and KM.

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Appendix

Chart 1 - Search strategy

Population	#1 "Physical Therapists"[Mesh] OR "Physical Therapists"[tw] OR "Physical Therapist"[tw] OR "Therapist, Physical"[tw] OR "Therapists, Physical"[tw] OR "Physiotherapists"[tw] OR "Physiotherapist"[tw] #2 "Musculoskeletal Pain"[Mesh] OR "Musculoskeletal Pain"[tw] OR "Musculoskeletal Pains"[tw] OR "Pain, Musculoskeletal"[tw] OR "Pains, Musculoskeletal"[tw] #3 "Chronic Pain"[Mesh] OR "Chronic Pain"[tw] OR "Chronic Pains"[tw] OR "Pains, Chronic"[tw] OR "Pain, Chronic"[tw] OR "Widespread Chronic Pain"[tw] OR "Chronic Pain, Widespread" [tw] OR "Chronic Pains, Widespread"[tw] OR "Pain, Widespread Chronic"[tw] OR "Pains, Widespread Chronic"[tw] OR "Widespread Chronic Pains"[tw] #4 "low back pain"[Mesh] OR "low back pain"[tw] OR "Ache, Low Back"[tw] OR "Aches, Low Back"[tw] OR "Back Ache, Low"[tw] OR "Back Aches, Low"[tw] OR "Back Pain, Low"[tw] OR "Back Pain, Lower"[tw] OR "Back Pains, Low"[tw] OR "Back Pains, Lower"[tw] OR "Backache, Low"[tw] OR "Backaches, Low"[tw] OR "Low Back Ache"[tw] OR "Low Back Aches" OR "Low Back Pain, Mechanical"[tw] OR "Low Back Pain, Posterior Compartment"[tw] OR "Low Back Pain, Postural"[tw] OR "Low Back Pain, Recurrent"[tw] OR "Low Back Pains"[tw] OR "Low Backache"[tw] OR "Low Backaches"[tw] OR "Lower Back Pain"[tw] OR "Lower Back Pains"[tw] OR "Lumbago"[tw] OR "Mechanical Low Back Pain"[tw] OR "Pain, Low Back"[tw] OR "Pain, Lower Back"[tw] OR "Pains, Low Back"[tw] OR "Pains, Lower Back"[tw] OR "Postural Low Back Pain"[tw] OR "Recurrent Low Back Pain"[tw] #5 "Neck pain"[Mesh] OR "Neck pain"[tw] OR "Ache, Neck"[tw] OR "Aches, Neck"[tw] OR "Anterior Cervical Pain"[tw] OR "Anterior Cervical Pains"[tw] OR "Anterior Neck Pain"[tw] OR "Anterior Neck Pains"[tw] OR "Cervical Pain"[tw] OR "Cervical Pain, Anterior"[tw] OR "Cervical Pain, Posterior"[tw] OR "Cervical Pains"[tw] OR "Cervical Pains, Anterior"[tw] OR "Cervical Pains, Posterior"[tw] OR "Cervicalgia"[tw] OR "Cervicalgias"[tw] OR "Cervicodynia"[tw] OR "Cervicodynias"[tw] OR "Neck Ache"[tw] OR "Neck Aches"[tw] OR "Neck Pain, Anterior"[tw] OR "Neck Pain, Posterior"[tw] OR "Neck Pains"[tw] OR "Neck Pains, Anterior"[tw] OR "Neck Pains, Posterior"[tw] OR "Neckache"[tw] OR "Neckaches Pain, Anterior Cervical"[tw] OR "Pain, Anterior Neck"[tw] OR "Pain, Cervical"[tw] OR "Pain, Neck"[tw] OR "Pain, Posterior Cervical"[tw] OR "Pain, Posterior Neck"[tw] OR "Pains, Anterior Cervical"[tw] OR "Pains, Anterior Neck"[tw] OR "Pains, Cervical"[tw] OR "Pains, Neck"[tw] OR "Pains, Posterior Cervical"[tw] OR "Pains, Posterior Neck"[tw] OR "Posterior Cervical Pain"[tw] OR "Posterior Cervical Pains"[tw] OR "Posterior Neck Pain"[tw] OR "Posterior Neck Pains"[tw] #6 "Shoulder Pain"[tw] OR "Pain, Shoulder"[tw] OR "Pains, Shoulder"[tw] OR "Shoulder Pains"[tw]
Context	#7 "Patient-Centered Care"[Mesh] OR "Patient-Centered Care"[tw] OR "Care, Patient-Centered"[tw] OR "Patient-Centered Care"[tw] OR "Patient-Focused Care"[tw] OR "Patient Focused Care"[tw]
Study type	#8 "Qualitative Research"[Mesh] OR "Qualitative Research"[tw] OR "Research, Qualitative"[tw]
Combination	#1 AND #2 OR #3 OR #4 OR #5 OR #6 AND #7 AND #8