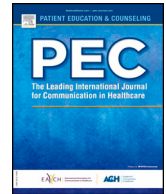




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Review Article

Patient and practitioner priorities and concerns about primary healthcare interactions for osteoarthritis: A meta-ethnography

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ABSTRACT

Objective: To explore primary care practitioners' (PCPs) and patients' priorities and concerns for healthcare interactions for osteoarthritis (OA) in primary care.

Methods: We searched Embase, CINAHL, Medline, PsychInfo (1990 to present) for primary qualitative and mixed methods studies with findings concerning healthcare interactions for OA symptoms. Patient and PCP perceptions were analysed separately then inter-related using a 'line of argument' synthesis.

Results: Twenty-six studies reporting qualitative data from 557 patients and 199 PCPs were synthesised. Our findings suggest that therapeutic interactions for OA can be based on discordant priorities and concerns; some patients perceive that PCPs hold negative attitudes about OA and feel their concerns about impact are not appreciated; some PCPs feel patients have misconceptions about prognosis, and hold pessimistic views about outcomes; and both tend to de-prioritise OA within consultations.

Conclusion: Greater working in partnership could build mutual trust, facilitate tailored provision of information, and foster a shared understanding of OA upon which to build realistic goals for management.

Practice implications: Developing a better shared understanding of OA has the potential to improve the quality of healthcare interactions for both patients and PCPs. The significant impact of OA on everyday life means it should be given higher priority in primary care consultations.

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1. Introduction

Positive practitioner–patient communication has the potential to improve patient experience of healthcare interactions, and can lead to modest improvements in pain symptoms, quality of life and treatment adherence [1–4]. Moreover, poor communication, for example when patients' needs and concerns are not fully elicited and addressed in a consultation, can reduce patient satisfaction and result in poor symptom control, reduced adherence to treatment and increased complaints [5–8].

Particular challenges are associated with primary care consultations for osteoarthritis (OA). OA is a highly prevalent condition [9] and is an increasing cause of disability in people over 45 years [10]. However, joint pain and stiffness does not always relate to radiological findings and thus experience of OA pain relies on clinical report of symptoms [11,12]. Additionally, people living with OA are more likely to have more than one health condition [13]. This can lead to complex healthcare interactions and patients and practitioners may have differing agendas and priorities with important consequences for management [13,14].

There is a growing body of qualitative work exploring patient and healthcare practitioner views of OA management in primary care, some of which has been synthesised. Patient attitudes to OA management and perceived health service needs have been explored in two systematic reviews [15,16]. Patients can delay seeking help for OA, holding negative attitudes about healthcare interactions for OA and be pessimistic about management and outcomes. An evidence synthesis of clinician perspectives identified that OA can be 'trivialised' by healthcare professionals and that patients are perceived to have dissonant expectations about management [17]. These reviews highlighted some attitudinal differences that have the potential to affect OA consultations. A narrative review in 2014 sought to draw together patient and GP perceptions of OA in the same synthesis and identified negative talk by clinicians and lack of legitimisation of patient concerns as key areas warranting further investigation [18].

This study provides an updated synthesis of patient and practitioner priorities and concerns for primary care healthcare interactions for OA and explores the effects of discordance and contrasting perspectives on the interaction. Drawing on the interpretative meta-ethnographic approach to go beyond a descriptive aggregative synthesis of findings, we aimed to offer a new understanding of potential barriers to management and to develop recommendations for improving healthcare interactions about OA pain in primary care.

2. Methods

We selected a meta-ethnographic approach, described by Noblit and Hare [19], for our qualitative synthesis as the topic of exploring multiple perspectives of healthcare interactions for OA warranted interpretation rather than simply aggregation of findings. Details of the meta-ethnographic approach are presented in Table 1.

Our review was led by Jane Vennik, qualitative research fellow, on behalf of the multidisciplinary EMPATHICA [20] project team (comprising general practitioners, psychologists, healthcare researchers and public contributors). The wider project team were involved in the design, analytical process and interpretation of the findings. The study protocol was prospectively registered with PROSPERO (CRD42019130970). We present our meta-ethnography in accordance with the eMERGe Reporting Guidelines [21].

2.1. Step 1: Getting started and rationale for undertaking the synthesis

This study forms part of a larger body of work to develop a training tool to enhance healthcare consultations for OA in primary care (The EMPATHICA Project [20]). To fully understand the complexity of communication and interaction between patients and practitioners in OA related consultations we synthesised the existing evidence to inform our subsequent intervention.

Table 1
Seven steps of meta-ethnography (Noblit and Hare) [19].

Steps of Meta-ethnography	Details
Step 1: Getting started	Identifying the topic and providing a rationale for the synthesis.
Step 2: Deciding what is relevant	Developing a search strategy. Selecting studies for inclusion in the synthesis
Step 3: Reading the studies	Becoming familiar with the primary studies. Initial data extraction. Appraising the studies for quality
Step 4: How are studies related	Coding of primary studies, developing concepts and metaphors.
Step 5: Translating the studies	Comparing and translating concepts and metaphors between studies.
Step 6: Synthesising translations	Interpretive synthesis of concepts using reciprocal, refutational and/or line of argument syntheses.
Step 7: Expressing the synthesis	Expressing the findings through methods such as production of a conceptual model. Disseminating and publishing findings.

Table 2
Inclusion and exclusion criteria.

Inclusion criteria	Exclusion criteria
<ol style="list-style-type: none"> Adults aged 18 + with hip or knee OA diagnosis or pain or a mixed population where OA is a stated concern OR Primary care practitioners who treat lower limb OA Set in primary care/general practice including community consultations, physiotherapy and complementary therapy Qualitative/narrative findings associated with the consultation, interaction or communication between the patient and healthcare professional. Includes qualitative studies, mixed methods, survey, questionnaires, randomised controlled trials, case studies. 	<ol style="list-style-type: none"> Papers focussed on rheumatoid or inflammatory conditions, neck, back or shoulder pain, hand OA, chronic disease, chronic pain, fibromyalgia, general musculoskeletal disorders, whiplash. Set in secondary care, including rheumatology, surgery (joint replacement, arthroscopy) Papers with no qualitative findings associated with the patient-practitioner interaction, systematic reviews, meta-analyses and meta-syntheses

2.2. Step 2: Search strategy and selection criteria

We conducted a systematic search of 6 electronic databases (EMBASE, MEDLINE, PsycINFO, CINAHL, AMED Allied and Complementary Medicine) from Jan 1990 to Jan 2019 for studies published in English. We were interested in contemporary models of healthcare communication and considered 30 years as a reasonable time period to review [22]. We reviewed the reference lists of other relevant qualitative syntheses [15–18] and key papers [14,23].

Our search strategy, informed by the Spider tool [24], is available as supplementary material (Appendix 1 and Table 2). We included primary qualitative and mixed methods studies with findings associated with the consultation or interaction between primary care practitioners (including but not limited to GPs, nurses, physical therapists, community-based specialists) and adults with hip or knee OA pain. We excluded other joint OA (e.g. hand, spine, foot) as management pathways are different to hip and knee OA pain [25]. We excluded all studies where the focus was on rheumatoid arthritis or inflammatory rheumatological conditions, but studies with mixed patient groups were individually evaluated for inclusion, where possible. We also excluded studies of secondary care interactions including those with rheumatologists and orthopaedic surgeons, or where the focus was on joint replacement surgery. This was because secondary care consultations differ from those in primary care in terms of the focus and scope of the consultations, possible outcomes and patient demographic. We excluded qualitative studies where there were no findings associated with perceptions of the patient-practitioner interaction.

Titles and abstracts were initially screened by two of three members of the research team (JV, SH, KS). Full texts were obtained for identified studies and each paper was evaluated for inclusion by a further two from the following members of the wider research team (JV, SH, KS, HE, FB, EL, MR). Any differences were resolved through discussion and independent review by a third team member.

2.3. Step 3: Reading the studies

All identified studies were read in detail and assessed for relevance. The results and discussion sections of each paper were reviewed for findings relevant to the healthcare interactions for OA. Studies were assessed as ‘conceptually rich’, ‘conceptually weak’ or ‘no relevant findings’. We defined ‘conceptually rich’ as those papers that included detailed findings about views, beliefs and perspectives of the patient-practitioner interaction for OA. ‘Conceptually weak’ papers were defined as those where there were only minimal findings we included about the interaction, or the focus was directed more generally towards treatments or healthcare systems. Any paper found subsequently to have no relevant findings were excluded from the analysis. Please see Fig. 1 (PRISMA diagram) that summarises the flow of information through the review.

We extracted study details from all ‘conceptually-rich’ studies including author, year of publication, country, setting, study aims and objectives, participants, data collection methods, analytical process and main findings. Each included paper was then rigorously assessed for quality using the CASP qualitative checklist [26]. We did not assign a scoring system because these can be misleading and difficult to interpret. Furthermore, no study was excluded based on quality and instead quality appraisal findings were considered when interpreting the findings.

The abstracts of studies individually identified as ‘conceptually-weak’ were reviewed again at the end of the analysis to check for any material that would change our conclusions (there were none).

2.4. Step 4 and 5: Identifying relationships and translating studies

We conducted separate preliminary analyses for patient perspectives and PCP perspectives due to the heterogeneity of studies and relevant findings. We approached each analysis in chronological order rather than commencing with an index paper (a key paper) because we did not identify a paper exemplar that aligned perfectly with the aims of our synthesis. We used a grounded theory approach [27] to translate concepts between studies using NVivo 12 [28] to facilitate data management. We considered the findings (including participant quotations) and discussion sections of the primary studies as ‘second order constructs’ (researcher interpretation of primary data) [29]. Initial coding was conducted using open label coding. Using constant comparison techniques [30], further studies were coded and ‘translated’ into common concepts and metaphors (finding shared meaning between studies). Focussed concepts and metaphors were then grouped together informing wider categories and themes which were then discussed at data meetings with the wider team.

2.5. Step 6: Synthesising translations

A line of argument synthesis was then conducted by synthesising the categories and concepts from the individual patients and PCP translations. Through data meetings and team discussions, we compared and contrasted the ideas and concepts from the individual translations, looking for areas of agreement and disagreement, and identifying misalignments of any priorities, concerns and expectations between the different stakeholders represented in the papers. Our synthesis was considered complete through team discussions and reviewing back to the primary data to check the synthesis was a true representation of the findings. The final synthesis created a new representation of the understanding of primary healthcare interactions for OA.

2.6. Step 7: Expressing the synthesis

We present our line of argument synthesis in diagrammatic form to convey the main findings to primary care practitioners and future

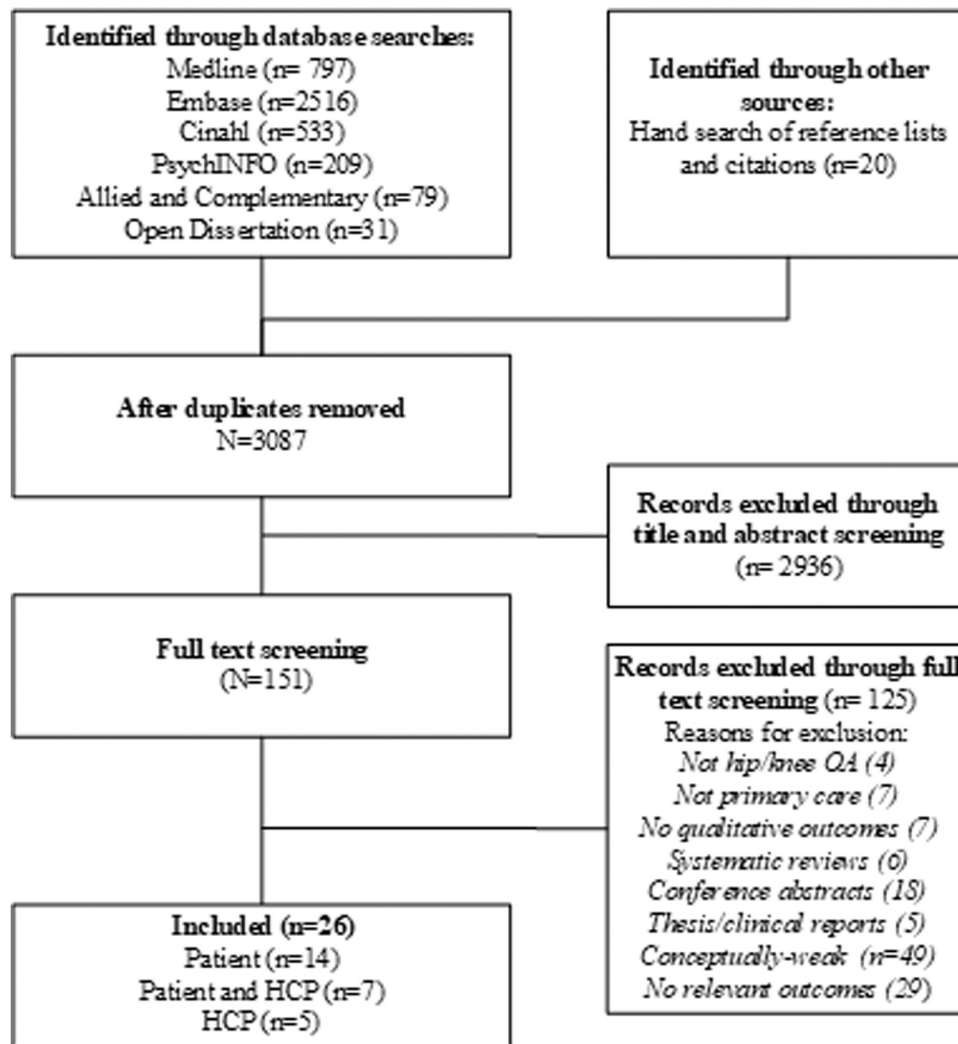


Fig. 1. PRISIMA Diagram.

researchers. The findings will also be used to inform the development of training materials to enhance communication for OA in primary care.

2.7. Patient and public involvement

Our public contributor, a patient with chronic OA pain who regularly uses primary care services, was involved in study design, interpreting the findings, and preparing the manuscript.

3. Results

3.1. Identification and selection of studies

The process of identification and selection of studies is presented in the PRISMA diagram (Fig. 1). Our search yielded a total of 3087 individual studies and after title and abstract screening, 147 were identified for full text review and 26 included in the final synthesis.

3.2. Included studies

The included studies comprised 557 OA patients and 199 PCPs (94 GPs, 25 practice nurses and 80 physiotherapists). Several studies included mixed groups of HCPs including rheumatologists, orthopaedic surgeons, alternative medicine practitioners, occupational

therapists, telephone coaches; these were individually assessed for contribution to the synthesis. The studies were conducted in primary care and community settings in UK (9), Canada (4), USA (3), Australia (3), France (2), Germany (1), The Netherlands (1), Belgium (1), New Zealand (1) and Norway (1). The included studies showed heterogeneity in study rationale and included those that were focused on exploring views and experiences of healthcare provision (11), treatment and management (7) healthcare interactions and communication (3), healthcare and information needs (4) and lived experiences (1). Full details are presented in Table 3.

Quality appraisal of the included studies is presented in Table 4. Some studies did not report criteria in enough detail to permit a full assessment. For example, in a number of studies it was difficult to determine whether the key ethical issues of patient information, consent and ethical approvals were met [23,31,32,36,38,41,44,46,50,51,53]. In others, there was limited reporting about the relationship between researchers and participants [23,31–34,36,39,41,43–46,50–52] recruitment strategies [36,38,41,42,44,50,55] or description of analytical processes [31,36,50–52].

3.3. Findings

We present our findings in three stages. Firstly, we present individual syntheses of patient and practitioner perspectives on

Table 3
Summary of included studies.

First Author, date	Study rationale/focus	Participants and numbers	Location	Study setting	Sampling Method	Data collection method	Data analysis
<i>Patients</i>							
Baumann 2007[31]	Expectations of healthcare for OA	96 patients with OA	France	Community	Consecutive customers in a pharmacy setting in 10 towns/regions of France.	Focus groups.	Not described in detail
Bayliss 2008[32]	Perspectives of healthcare interactions for multi-morbidities, including OA	26 patients with multi-morbidities including OA	USA	Community	Randomly selected from a survey	Semi-structured interview	Constant comparison
Brembo 2016[33]	Information needs for OA	13 patients with hip OA	Norway	Hospital and general practice setting	Purposeful sample	Individual interviews	Thematic analysis
Davis 2002[34]	Barriers to pain management	57 patients with arthritis	USA	Community	Non-probability sampling	Focus groups	Elements of grounded theory
Di Cola 2014[35]	Views of OA assessment centre	40 patients	Canada	Secondary care and community	Purposive sampling (convenience and maximum variation)	Focus groups and semi-structured interviews	Descriptive qualitative research methodology
Erwin 2018[36]	Views of nurse and AHP competencies for OA	25 Patients	UK	Community	Not specified	Focus groups	Thematic analysis
Lawford 2018[37]	Views about telephone-delivered physiotherapy for knee OA	20 patients with knee OA	Australia	Community	Convenience sample from RCT	Semi-structured interviews	Thematic analysis
Miller 2016[38]	Views about needs and expectations for OA	25 patients	Canada	Primary care	Convenience (participants recruited from public forum and snowball sampling)	Interviews and focus groups as part of peer-to-peer research method	Inductive analysis
Morden 2014[39]	Understanding help-seeking for chronic joint pain	22 patients	UK	Primary care	Purposeful sample from survey cohort	Grounded theory	Thematic analysis/constant comparison
Sanders 2004[40]	Views of healthcare provision for OA	27 patients	UK	Community	Iterative sampling	In-depth interviews	Thematic analysis/constant comparison
Smythe 2017[41]	Lived experiences of OA management	4 patients; 3 orthopaedic surgeons, 1 sports physician, 1 physiotherapist	New Zealand	Community and secondary care	Convenience (participants recruited as part of a physiotherapists doctoral study)	Personal interviews	Hermeanutics
Smitaels 2016[42]	Experiences of OA management	11 patients	Belgium	Primary care	No details about sampling	Face to face interviews	Content analysis
Townsend 2015[43]	Use of internet-based information for OA	18 patients, 14 HCPs	Canada	Community	Not described	Focus groups	Theme-based analysis
Walker 2018[44]	Service evaluation of AHP-lead care for OA	12 Patients	UK	Primary care	Convenience sample of service users	Focus groups	Thematic analysis
<i>Patients and PCPs</i>							
Alami, 2011[45]	Views of knee OA management	81 patients, 29 mixed HCPs	France	Community and secondary care	Purposeful sample	Semi-structured interviews	Thematic analysis (generally but not specified)
Hinman 2016[46]	Views of an exercise programme for OA	10 physical therapists, 4 telephone coaches, 6 patients	Australia	Community	Purposeful sample from RCT participants	Semi-structured interviews	Grounded theory approach
Lambert 2000[23]	Views about OA treatment and management	12 patients, 14 physicians	USA	Primary care	Not described	Focus groups	Computer-assisted content analysis
Mann 2011[47]	Views about healthcare provision for OA	16 patients, 12 HCPs	UK	Primary and secondary care	Purposeful sampling	Focus groups – patients	Framework method
Morden 2014[48]	Views and experiences of a guidebook for OA management	29 patients, 9 GPs, 4 practice nurses	UK	Primary care	'Criterion-1' sampling strategy	Interviews - HCPs	Key principles of grounded theory
Paskins 2015[49]	Observing interactions between OA patient and PCPs	13 GP interviews, 17 patient interviews, 19 consultations.	UK	General practice	Convenience sampling	Video recordings.	Thematic analysis.
Rosemann 2006[50]	Exploring healthcare needs and improving care	20 patients, 20 GPs, 20 practice nurses	Germany	Primary care	Purposeful sample of healthcare professionals. Random sample of OA patients from GP database	Face to face semi-structured interviews	Method of coding described, but not assigned to any recognised method.

PCPs

(continued on next page)

Table 3 (continued)

Patients							
First Author, date	Study rationale/focus	Participants and numbers	Location	Study setting	Sampling Method	Data collection method	Data analysis
Egerton 2018[51]	Implementation of guidelines for OA management	11 GPs	Australia	Primary care	Purposive and snowball sampling	Semi-structured telephone interviews	Interpretive thematic analysis, with COM-B model as a framework for theme development
Holden 2019[52]	Communication about weight loss for OA	21 Physiotherapists	UK	Community	Purposive sample from survey respondents	Semi-structured interviews	Constant comparison/inductive analysis
Mackay 2018[53]	Views about OA management	33 physical therapists	Canada	Community	Purposive sampling	Semi-structured interviews	Thematic analysis
Patel 2014[54]	Views of group-based exercise for OA	9 GPs, 10 physiotherapists, 1 community-based rheumatologist	UK	Primary care and community	Convenience sample	Telephone or face-to-face interviews.	Inductive thematic approach
Selton 2017[55]	Views about OA management	5 rheumatologists, 7 orthopaedic surgeons, 7 physical therapists, 5 GPs	The Netherlands	Primary and secondary care	Convenience sample of responders	Face to face interviews	Coding described. No method assigned.

priorities and concerns for healthcare interactions for OA and explore the findings from each other’s perspectives to identify areas of discordance and opportunities for improvement (meta-ethnography steps 4 and 5). Secondly, we present our ‘line of argument synthesis’ drawing on and interpreting findings from the individual syntheses (step 6). Finally, we present our conceptual model as a new interpretation to enhance healthcare interactions for OA in primary care.

3.3.1. Patient perspectives on healthcare interactions for OA

Analysis of patient perspectives identified a range of priorities and concerns about healthcare interactions for OA focussing on potential barriers to interactions and areas for improvement. Priorities included being listened to, interactions characterised by mutual trust and respect, receiving care that is tailored to them as an individual, and, for some, taking a holistic approach that views their OA in the context of their broader lives. Some patients were concerned about OA not being taken seriously, a lack of recognition of the wider impact of OA on them and their lives, a lack of perceived PCP expertise, and unmet needs for (consistent) information. Full details are presented in Table 5.

3.3.2. PCP perspectives of healthcare interactions

Analysis of the PCP perspectives found a range of perspectives and concerns about the interactions for OA. PCPs often consider OA to be a common part of the aging process. Supporting self-management and providing advice and education is important to PCPs but is not always prioritised in consultations. PCPs can be concerned about unrealistic patient treatment expectations, limited patient understanding of OA, patients not following PCPs’ advice, and having limited time within a consultation. Full details are presented in Table 6.

3.3.3. Understanding discordant priorities and concerns for OA

A shared understanding between patients and healthcare professionals about OA can provide a foundation for collaborative therapeutic interactions. Patients and PCPs can hold a range of views, including both positive and negative, about healthcare interactions for OA. In this paper we have focused on instances of discordance as this provides an opportunity for improvement. However, it is important to acknowledge there was also evidence of concordance in some clinical interactions and some positive features which facilitate successful interactions. One study found that patients and practitioners agreed on the need for more time to discuss and elicit patient concerns [23], others identified the importance of personalised care [46], consistency of care [47] and the need for more information and patient education [46,47]. Nevertheless, when patients and PCPs hold different views and perspectives, this has the potential to impact on patient satisfaction and engagement with OA management plans. To elucidate the nature and potential reason for discordant priorities and concerns for OA between PCPs and patients, we next examined PCP perspectives through the lens of the patient and vice versa.

3.3.3.1. Practitioner attitudes to OA through the patient lens. Patients report that GPs can appear disinterested and perceive that OA is not a condition that is taken seriously in primary care [31,45].

“Patients did not see much sign of interest in their disorder among practitioners, whereas they experienced its growing impact day-to-day” [31] (Author theme, Baumann 2007).

This is reflected in reports of GPs describing OA as normal degradation and an unavoidable consequence of aging. Some patients report that GPs refer to OA as a chronic recurring condition that affects normal life and that patients need to adapt to living with [42].

Table 4
Quality assessment of included studies.

First Author	CASP 1	CASP 2	CASP 3	CASP 4	CASP 5	CASP 6	CASP 7	CASP 8	CASP 9	CASP 10
Alami 2011[45]	+	+	+	+	+	?	+	+	+	+
Baumann 2007[31]	+	+	+	+	+	?	?	?	+	+
Bayliss 2008[32]	+	+	+	+	+	?	?	+	+	+
Brembo 2016[33]	+	+	+	+	+	?	+	+	+	+
Davis 2002[34]	+	+	+	+	+	?	+	+	+	+
Di Cola 2014[35]	+	+	+	+	+	+	+	+	+	+
Egerton 2018[51]	+	+	+	+	+	?	?	?	+	+
Erwin 2018[36]	+	+	+	?	+	?	?	?	+	+
Hinman 2016[46]	+	+	+	+	+	?	?	+	?	+
Holden 2019[52]	+	+	+	+	+	?	+	?	+	+
Lambert 2000[23]	+	+	+	+	+	?	?	+	+	+
Lawford 2018[37]	+	+	+	+	+	+	+	+	+	+
MacKay 2018[53]	+	+	+	+	+	+	?	+	+	+
Mann 2011[47]	+	+	+	+	+	+	+	+	+	+
Miller 2016[38]	+	+	+	?	+	+	?	+	+	+
Morden 2014[39]	+	+	+	+	+	?	+	+	+	+
Morden 2014[48]	+	+	+	+	+	+	+	+	+	+
Paskins 2015[49]	+	+	+	+	+	+	+	+	+	+
Patel 2014[54]	+	+	+	+	+	+	+	+	+	+
Rosemann 2006[50]	+	+	+	?	+	?	?	?	+	+
Sanders 2004[40]	+	+	+	+	+	+	+	+	+	+
Selton 2017[55]	+	+	+	?	+	+	+	+	+	+
Smythe 2017[41]	+	+	+	?	?	?	?	+	+	+
Spitaels 2016[42]	+	+	+	?	+	+	+	+	+	+
Townsend 2015[43]	+	+	+	+	+	?	+	+	+	+
Walker 2018[44]	+	+	+	?	?	?	?	+	+	+

(Yes=+; Can't tell=?; No=-)

CASP 1: Was there a clear statement of the aims of the research?

CASP 2: is a qualitative methodology appropriate?

CASP 3: Was the research design appropriate to address the aims of the research?

CASP 4: Was the recruitment strategy appropriate to the aims of the research?

CASP 5: Was the data collected in a way that addressed the research issue?

CASP 6: Has the relationship between researcher and participants been adequately considered?

CASP 7: Have ethical issues been taken into consideration?

CASP 8: Was the data analysis sufficiently rigorous?

CASP 9: Is there a clear statement of findings?

CASP 10: How valuable is the research?

Table 5

Patient priorities and concerns for healthcare interactions for OA in primary care.

Category	Sub-category	Definition	Contributing articles
Priority	To be listened to, heard and understood	Patients want PCPs to listen to their needs and concerns about living with OA.	[31,32,34,36–38,41–46]
Priority	Mutual trust and respect	Mutual trust and respect can be established through confidence in the PCP, respect for the patient and mutual participation in the consultation.	[31,32,34,35,42,43,45,47,50]
Priority	Holistic approach	Patients often want a more global and holistic approach to their OA management, not just focused on a painful joint.	[36,38,41,45,49,50]
Priority	Specific tailored advice and information	Patients value an individualised relationship with their PCP. Tailored support and advice were perceived as improving satisfaction and motivation.	[31,32,37,38,41,44,45,47,50]
Priority	Use of clear language	Patients want PCPs to use clear language when communicating about OA diagnosis and management.	[31,39,42,44,45,49]
Concerns	OA not taken seriously	PCPs commonly describe OA as a normal part of the aging process and may use language such as 'wear and tear' that patients perceive to be normalising or minimising the potential impact of OA symptoms.	[31,33,35,36,39–41,45,47,49]
Concerns	PCPs don't recognise the wider impact of OA	Patients perceive OA to be a low priority for GPs. PCPs don't always understand the impact that OA has on their lives.	[35,40–42]
Concerns	GPs are not experts in OA	GPs are not perceived as the experts in OA treatment and management.	[33,39,43,47]
Concerns	Unmet information needs	Advice and information needs are not always met in primary care, and can be conflicting between different healthcare professionals.	[31,33–36,39,41–43,47–50]

"Patients were disappointed to learn that their doctors presented knee OA as a normal aging phenomenon with limited treatment options. Patients concluded that health care professionals underestimated the physical complaints and were not supportive enough" [42] (Author theme, Spitaels, 2017).

Doctors are reported to use medical jargon that is difficult to follow, whilst others use terms such as 'wear and tear' which can be confusing for patients and can give the impression of inevitability and hopelessness [31,39,42,44,45,49]. The term 'osteoarthritis' is not

commonly used in primary care interactions, but patients would like PCPs to use clear, plain language to describe the condition and management plan [31,44,49].

"You know, doctors don't talk a lot. And I don't follow their jargon; I don't really understand what they say. They don't try (to be understood); they don't lose their time." [45] (Patient quote, Alami 2011)

OA can be seen as the 'poor partner' [47] in healthcare: it is not always prioritised by healthcare professionals in the primary care

Table 6
PCP priorities and concerns for healthcare interactions for OA in primary care.

Category	Sub-category	Definition	Contributing articles
Perspective	PCPs can normalise OA	PCPs consider OA to be a common and unavoidable part of the aging process, with the expectation that the condition will worsen over time	[23,45,47,49,51,53,54]
Perspective	Education and information provision	The role of PCPs in the provision of information about OA to patients, but GPs can be uncertain about what patients need and don't always prioritise information.	[45,48,50,53,54]
Perspective	Supporting self-management	PCPs describe the importance of addressing exercise and weight loss as part of management for OA but can be uncertain about strategies for exercises and do not always think they are qualified to give such advice.	[23,45–47,50,53–55]
Concern	Patients have variable and limited understanding of OA	PCPs perceive patient understanding of the natural history of OA to be variable and limited. Patients often confuse OA with other types of arthritis and osteoporosis, and can be fatalistic about OA.	[45,50,53,54]
Concern	Patient expectations are variable and unrealistic	PCPs perceive patients' expectations about the treatments and outcomes to be unrealistic and to vary considerably between patients.	[23,45,47,49,54]
Concern	Need to be more informed	Patients need to be more informed about the natural history and treatment options for OA.	[23,46,47,49,50,54,55]
Concern	Patient don't listen or follow advice or engage in self-management	PCPs perceive that patients often don't listen to or follow advice, and can become resigned to having little impact on the patient.	[34,47,50,53,55]
Concern	Lack of time in the consultation	Difficult to find time within a consultation for information sharing and to support self-management.	[47,50,51]

consultation. This can lead to patients feeling that their concerns are not validated and not managed optimally, and consequently feel less inclined to seek help or raise concerns in the consultation [39].

"This ultimately meant that these participants had become very reluctant to seek help in the future because of the perceived relative unimportance GPs attributed to the condition and the lack of options offered [48]" (Author theme, Morden, 2014).

Patients with OA want time to express concerns and convey expectations within a primary care consultation, and for their PCP to be attentive and hear their stories [31,32,34,36–38,41–46]. However, GPs are often described as having little time to really listen and can sometimes appear distant [31] and hurried [32]. This can lead to patients feeling dissatisfied with the consultation.

"The method of care that the patients in this study yearned for was for someone to understand "how" their hip pain (and other health issues) was impacting their life; to glimpse the meaning of "living with." For this, the person-in-pain needs a chance to tell their story; the listener needs to listen and to demonstrate empathy and understanding" [41] (Author theme, Smythe 2017).

Many patients would like PCPs to take a holistic approach to their treatment and care, thinking about the wider impact on the patient and not just focussing on the affected joint [36,38,41,45,49,50]. Some patients find that not enough attention is paid to the individual [45] and practitioners can be reductionist [36] and focus on the disease or the affected joint [41,50].

"For all patients with arthritis, the key competency that they wanted from health professionals working in the community was to be able to take a holistic approach to arthritis, with an understanding not just of the physical effects, but also of its wider psychosocial impact and its impact on patients' ability to participate in the widest sense" [36] (Author discussions, Erwin 2018).

3.3.3.2. Patient beliefs and behaviours through the practitioner lens. PCPs perceive patients' view and perspectives of OA to be variable, with many patients having misconceptions about the nature of the disease, treatment options, and prognosis [45,48,50,53,54]. Patients are observed finding difficulty differentiating between OA and other arthritic conditions such as rheumatoid arthritis or osteoporosis [48,54], and some perceive OA

to be a degenerative condition with unavoidable deterioration. This can adversely impact on engagement with management plans, where patients can be fearful of making things worse, or perceive that there would be no benefit to be gained from self-management activities such as exercise [45,53,50].

"Such preconceptions about OA were perceived to be a barrier to management. Participants [PCPs] indicated that in viewing OA as a degenerative condition, some clients feared participation in exercise due to concerns it would lead to further degeneration" [53] (Author theme, Mackay 2018).

PCPs report that patients are not always explicit about their needs, recounting that patients may not prioritise talking about OA in a consultation, raising it late in the consultation or giving priority to other health problems [23,45,47,49,51,54].

"Some GPs described frustration with patients' "late-arising concerns." Others assumed that joint pain mentioned late in the consultation was unlikely to be troublesome and was a result of the patient making conversation" [49] (Author theme, Paskins 2015).

PCPs can become frustrated with patients when they are perceived as not listening to or following advice, which can result in reduced motivation to encourage self-management and have discussions about the benefits of weight loss and exercise [47,48,51,55]. One paper described the challenges of getting patients to initiate self-management and encourage longer-term self-management [53].

"Most GPs were pessimistic about their patients' abilities to make lifestyle changes to address their knee OA, assuming patients are not capable of making the required changes" [51] (Author theme, Egerton 2018).

3.3.4. Line of argument interpretive synthesis: Fostering a shared understanding of OA

Thus far, our data synthesis suggests that therapeutic interactions can often be based on discordant rather than shared understandings of OA and its management. Recognising the impact of these discordant priorities and concerns helps to identify potential sources of miscommunication and work on developing ways to solve these to foster shared understanding in its place.

3.3.4.1. Encouraging dialogue and validating the patient experience. Patients feel they are best placed to help PCPs with treatment planning for their OA and want the patient-practitioner

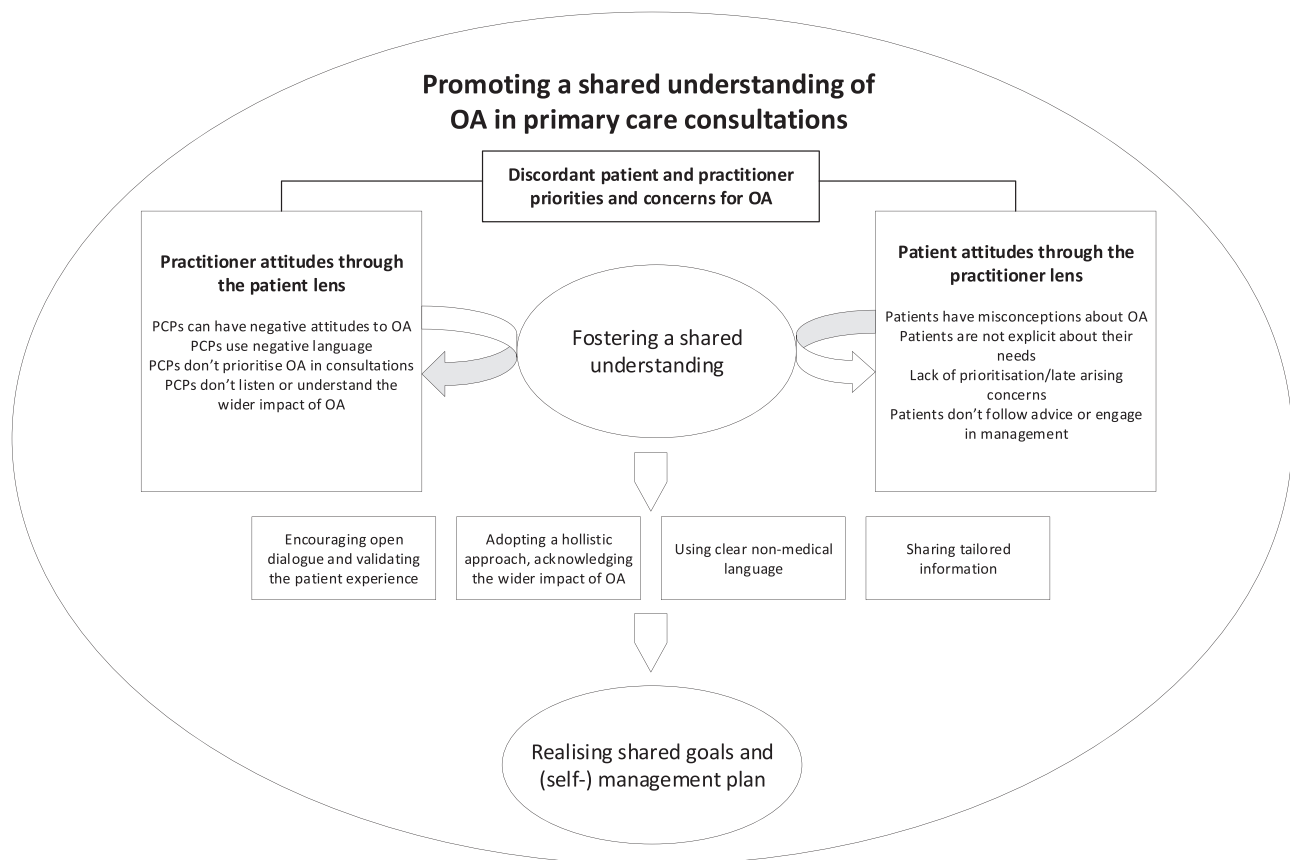


Fig. 2. Conceptual model.

relationship to be a partnership consistent with patient-centred care [31,36,38,41,43,50]. Patients can be fearful about their condition, with concerns about long-term outcomes associated with OA, and would like a reciprocal trusting relationship knowing that the clinician is providing the best treatment to optimise outcomes.

"To manage our OA and live meaningful lives, we need patient–professional relationships that are true partnerships. One participant said it this way: I want the system to reflect my willingness to be a partner in all of this. It's mine to live with the rest of my life [38]" (Author theme, Miller 2016, with quotation from a patient with OA).

Patients need to feel supported to elaborate on their prior experiences, concerns, priorities and beliefs to feed into management plans. PCPs can provide this support by eliciting the full spectrum of patients' concerns and validate patients' experiences through careful listening and acknowledging the impact of OA.

3.3.4.2. Adopting a holistic approach, acknowledging the wider impact of OA. When considering the nature and impact of OA, patients and practitioners can have a different focus. Practitioners are often concerned with the physical symptoms or structural changes of hip or knee arthritis, whereas some patients can be more focussed on the impact of pain and disability on their wider quality of life. Approaching from different viewpoints is likely to affect patient engagement with treatment and management. Many patients would like the focus to be redirected towards a more holistic approach, which takes into consideration the patient's concerns and fears for

the future, the impact on their life, their goals, and the wider psychological impact of OA.

"Patients expect a shift in the management of knee OA from a technical viewpoint, centred on physical symptoms, to a more global viewpoint centred on the patient in all his/her dimensions. The stake is to promote knee OA management strategies that will not be limited to physical symptoms but will take into consideration the impact of knee OA on symbolic, temporal, relational, psychological, emotional, material, and physical dimensions" [45] (Author theme, Alami 2011).

3.3.4.3. Using clear non-medical language. Both patients and practitioners appear to use negative or pessimistic language when talking about OA. However, it is unclear whether practitioners simply use language that patients expect or are likely to understand. Likewise, it is uncertain whether patients think of OA in negative terms due to the perceived attitudes and language used by PCPs. To engender a better shared understanding of OA, practitioners need to check patient understanding of the language used, including discussions about diagnosis, treatments and prognosis. Additionally, a more positive framing of OA, using clear, non-medical language, and avoiding terms suggesting inevitable deterioration has the potential to reduce any misunderstandings and promote a more optimistic attitude to OA.

3.3.4.4. Sharing tailored information. Patient information needs are not always being met by PCPs [31,33–36,39,41–43,47–50] and different clinicians can provide conflicting advice, causing confusion and misunderstanding for patients [34,41,42]. Patients seek knowledge

about their OA to help them to understand and manage their condition. They want information to be specific and tailored to their own personal position, rather than generalised [38,42,48,50] and to be from a trustworthy source [36,38,43]. Tailored information allows patients to make informed decisions about how best to manage their condition, to accept their diagnosis, to deal with the uncertainty about the future that goes with it, and to build self-confidence in managing their conditions [31,38,40,43,44,47,48].

"The right knowledge for managing osteoarthritis goes beyond what is typically found in health literacy or self-help resources. It is more than knowing what OA is, that exercise and weight loss are important, and what pain medications we should take. As patients, we need detailed knowledge about how OA progresses, evidence-informed management strategies, and how to deal with changes in our pain and mobility" [38] (Author theme, Miller 2016).

PCPs recognise the value of good information sharing with patients living with OA [46–48,50,51]. Clear information is perceived to empower self-management, improve patient understanding and have a positive therapeutic impact [46,48]. Physiotherapists perceive it to be their role to guide patients with physical activity and lifestyle recommendations [41,46,52,54,55]. However, GPs describe having limited time in a primary care consultation to share and discuss information and lifestyle advice. GPs can also be uncertain about strategies for specific exercises for OA and some do not think of themselves as qualified to provide such advice.

"The interviewed GPs acknowledged challenges of facilitating behaviour change and most felt they lacked skill in promoting readiness and motivation for these lifestyle treatments: "The problem is how do you actually get people to do this stuff...how do you tell them what the right thing to do is?" [51]" (Author theme, Egerton 2018, with quotation from a GP).

3.3.5. Line of argument synthesis: summary and conceptual model

Our 'line of argument' synthesis can be represented diagrammatically as shown in Fig. 2 (Conceptual model). Our findings suggests that therapeutic interactions for OA are often based on discordant, rather than shared, understandings of OA: patients perceive that PCPs hold negative attitudes about OA, dismissing it as an inevitable consequence of aging; patients feel their concerns about OA symptoms, impact on daily life, and prognosis are not appreciated by PCPs; PCPs feel patients have misconceptions about treatment and prognosis; and patients and PCPs both tend to de-prioritise OA within consultations. Greater working in partnership with patients to elicit and discuss their perspectives could build both mutual trust and respect for each other's contribution to the interaction (joint experts) and help to achieve a shared understanding of OA and realistic, shared, goals for management. This could be achieved through greater adoption of a holistic approach to OA, wherein PCPs explore the wider impact of OA on the patient's life, seeking, listening and acting on information provided by the patient, and providing advice and information in a way that is explicitly tailored to the individual patient. However, this can be challenging in time pressured consultations with competing demands. Notwithstanding, the significant impact of OA on everyday life means it may need to be given higher priority in consultations.

4. Discussion and conclusions

4.1. Discussion

This synthesis was designed to update and interpret patient and practitioner priorities and concerns for healthcare interactions for

OA, focusing on areas of discordance and opportunities for improvement. Our study found that patients and clinicians approach OA consultations from contrasting perspectives, and have differing ideas about each other's priorities and concerns. A greater understanding of each other's ideas and priorities has the potential to build a better shared understanding of OA and ultimately improve the interaction for OA in primary care.

Previous research has identified elements that contribute to positive healthcare interactions for pain conditions such as OA, including positive communication including listening, forming a trusting relationship [56], and recommendations for management [57]. Our study supports these previous findings but also highlights potential barriers and areas for improvement.^{18,56} A recent review found that patients can experience negative healthcare interactions for OA knee pain [57] with practitioners not listening to them and providing only limited information about OA and treatment options. These elements were also evident in our review. Another review aligning with our study highlighted discordant views between healthcare professionals and patients influencing the implementation of OA guidelines in primary care [58].

Clinical empathy involves perspective-taking, recognising patient priorities and concerns, and responding and acting in a way to demonstrate understanding [59,60]. Establishing an empathic interaction provides a building block for creating shared understanding and goals for management, and has the potential to enhance patient satisfaction and improve clinical outcomes [61]. Our synthesis found that patients' value being able to have time to talk about their experiences of living with OA but perceive that PCPs do not have the time within a consultation to give it their full attention. This can result in patients becoming dissatisfied with the interaction and become less trusting of the healthcare professional. To build a better shared understanding of OA, clinicians should draw on the components of empathic communication, such as active listening, validation of patient concerns, and recognition of the patient perspective, to ensure patients feel legitimised for consulting. Clinicians, however, can be concerned about the time this may take within a consultation (Hughes et al., *Clinician views of optimism and empathy in primary car consultations, in press*) but research has found that eliciting patient concerns can be facilitated without adding to consultation length [62]. Furthermore, evidence suggest that clinicians who adopt an empathic approach can experience less burnout and improved job satisfaction [63,64].

The language used by healthcare professionals when communicating with patients can significantly affect how patients engage with healthcare and management plans [65]. Person-centred care requires the usage of language that respects the individual, acknowledges the patients as the expert in their own lives, health and needs. Language is similarly important in chronic healthcare conditions such as OA. Our study found that the use of non-medical language such as 'wear and tear' for OA could leave patients feeling that their doctor was not taking the condition seriously and thus it was not a valid problem that warranted medical attention. This aligns with previous research that found that when doctors provide reassurance or emphasise the non-seriousness of arthritis, patients can feel that they have not been acknowledged or validated [66]. Language such as "wear and tear" can also encourage patients to feel that their OA will inevitably continue to decline and so foster a belief that there is no point in attempting to try new self-management strategies. The use of positive language that promotes a sense of realistic optimism may be more helpful in encouraging self-management and optimising health outcomes. A recent systematic review reported the use of positive messages by clinicians has the potential to improve quality of life and patient satisfaction [67]. Clinicians should carefully consider the language that they use and present their thoughts in a more positive frame to encourage realistic optimism and reduce potential misinterpretation.

Building a shared understanding of OA requires exploring and understanding disease from the patient perspective. Our study found that clinicians appear to focus on the biomedical problem of joint pain, whilst some patients want a holistic approach which incorporates the physical, social and psychological impact of joint pain, related disability and impact on life. Similar conflicts have been reported in primary care consultations for chronic musculoskeletal pain [56], where there are differing beliefs about pain causation and how the problem is presented and negotiated within a consultation, causing dissatisfaction with the consultation. NICE guidance recommends taking a holistic approach to OA management and assessment [68]. However, when patients and clinicians are approaching the consultation with different priorities and concerns for OA, this may be difficult to implement effectively. Eliciting patient concerns, understanding and acknowledging different perspectives for OA will lead to improved shared decision-making for treatment and management.

Conveying tailored information to patients is essential to enhance patients' understanding of OA and to encourage engagement with management; this is a key recommendation in the NICE guidelines [68]. However, our review found that PCPs report insufficient time in the consultation, and some describe being uncertain about what advice and instructions to give. This is consistent with a previous review that found that GPs perceive that they are under-prepared for recommending lifestyle and exercise treatments [17]. Physiotherapists, however, perceive it to be their role and report having more time in their consultations for advice and recommendations. The emerging role of the first contact practitioner placing physiotherapists in GP practices has the potential to bridge this education gap and promote better management for patients with OA [69].

This study provides an updated interpretive synthesis of primary healthcare interactions for OA from the perspective of both patients and clinicians and provides a new perspective on how to enhance the primary care consultation for OA. Research on the OA consultation was distributed throughout multiple domains, making the interpretation of the findings complex. This study draws together work from all domains to strengthen this existing but disparate evidence. We included evidence from 7 countries (mostly UK) and found no particular differences between settings. Whilst many of the concepts identified in this review should be more widely relevant to other healthcare systems, further work would be needed to explore its transferability. We also included studies of healthcare interactions over the previous 30 years, during which time the focus has broadened out from the affected joint and towards patient-centred care. Our findings reflect this move towards patients being 'joint experts' with practitioners and wanting a positive therapeutic relationship to optimise treatment and management.

A key strength of our study is the methodological rigour through which we approached our synthesis. We developed a comprehensive and effective search strategy, identified a wide range of studies relevant to our review and evaluated them for quality using the CASP criteria [26]. Data extraction, coding and analysis were undertaken by a multidisciplinary team of clinicians, psychologists and methodologists, providing a robust and multidimensional analysis of the data. Since completing the systematic search, we checked our findings against most recently published qualitative work on patients' and practitioners' views and experiences of OA [70], and no new evidence has arisen that refutes our outcomes or changes our conclusions. Interestingly, Hinman et al. [71] have developed a core capability framework to optimise OA care, and identified core capabilities including: communication (critical self-awareness of own perspectives, listening, engaging and adapting communication style) and person-centred care (patient as the expert, exploring impact, joint decision-making) which strongly supports our findings. However, a limitation to our review was the heterogeneity of studies.

Included studies varied in terms of study rationale, content, type of healthcare practitioner, and reported findings. Not all studies were focused on healthcare interactions, and some studies contributed more to the synthesis than others did. Additionally, some included clinicians from secondary care teams and it was not always easy to differentiate their views from those of the primary care teams.

Qualitative synthesis relies on the quality and scope of data presented in the primary studies and as such may not always be comprehensive or applicable to one's research question. It is interesting to note that papers on patients' perspectives focused more on feelings and concerns about OA and treatment options, whilst studies on PCPs' perspectives were more focused around the practicalities of the healthcare provision. This may have influenced our synthesis in terms priorities and concerns of the different stakeholders.

4.2. Conclusions

Healthcare interactions for OA are often based on discordant priorities, concerns and perspectives, and patients and practitioners can lack a shared understanding of OA treatment and prognosis. Greater working in partnership to elicit and discuss patient perspectives could build mutual trust and respect for each other's contribution to the interaction and help to achieve a shared understanding of OA and realistic, shared goals for management.

4.3. Practice implications

Developing a better shared understanding of OA has the potential to improve the quality of healthcare interactions for both patients and PCPs. Clinicians should work in partnership with patients to discuss perspectives and agree realistic and shared goals for management. The significant impact of OA on everyday life means it should be given higher priority in primary care consultations.

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CRediT authorship contribution statement

Jane Vennik: Conceptualization, Data curation, Formal analysis, Writing – original draft, Visualisation, Project administration. **Stephanie Hughes:** Data curation, Writing – review & editing. **Kirsten A Smith:** Data curation, Writing – review & editing. **Pranati Misurya:** Data curation, Writing – review & editing. **Jennifer Bostock:** Writing – review & editing. **Jeremy Howick:** Funding acquisition, Writing – review & editing. **Christian Mallen:** Funding acquisition, Writing – review & editing. **Paul Little:** Funding acquisition, Writing – review & editing. **Mohana Ratnapalan:** Data curation, Writing – review & editing. **Emily Lyness:** Data curation, Writing – review & editing. **Hajira Dambha-Miller:** Data curation, Writing – review & editing. **Leanne Morrison:** Funding acquisition, Writing – review & editing. **Geraldine Leydon:** Writing – review & editing. **Hazel Everitt:** Funding acquisition, Supervision, Writing – review & editing. **Felicity L Bishop:** Conceptualization, Supervision, Writing – review & editing.

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Declaration of Competing Interest

The authors report no competing interests.

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