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Review

Patients' perceived health service needs for osteoarthritis (OA) care: a scoping systematic review

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SUMMARY

Objective: To identify and synthesise evidence regarding patients' perceived health service needs related to osteoarthritis (OA).
Design: A comprehensive systematic scoping review of MEDLINE, PsycINFO, EMBASE and CINAHL (1990–2016) was performed to capture information regarding patient perceived health service needs related to OA. Risk of bias and quality of included articles were assessed. Relevant data were extracted and collated to provide a systematic review of the existing literature.
Results: Of the 1384 identified manuscripts, 21 were relevant to areas of patient perceived need, including needs related to medical care, pharmacologic therapy, physiotherapy and exercise therapy and alternative medicine. Key findings included (1) Symptom control drove the need for both conventional and complementary services. (2) An individualized relationship was sought with a practitioner knowledgeable in OA care and who adopted a holistic approach, whether providing conventional or alternative therapies. (3) Medications were required to obtain symptomatic relief, with use tempered by recognition of potential side effects and financial cost. (4) The need for allied health services was recognised, although patient and system issues were barriers to uptake. (5) Patient's attitudes towards joint replacement, orthoses and physical aids were influenced by patient preferences and previous healthcare experiences.
Conclusion: Patient perceived needs are similar to those suggested by clinical guideline recommendations. Better aligning patient perceived needs with healthcare requirements may improve OA outcomes and optimise healthcare system utilisation.

Introduction

Osteoarthritis (OA) affects approximately 15% of the world population and is a significant cause of long-term pain and disability[1]. The prevalence is projected to increase with increasing life expectancy and obesity, such that it is expected to be the fourth leading cause of disability by 2020[2]. This will escalate health care costs, increasing the already significant economic burden of arthritis, which cost $128 billion USD (1.2% of the United States gross domestic product) in 2003[3].

There is no cure for OA so treatments aim at improving symptoms and function. The primary strategies recommended by all

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guidelines include pain and weight management strategies, and exercise interventions[4]. These can be delivered by a variety of health care providers, including medical and non-medical personnel. Where conservative measures have been exhausted, and pain and disability remain significant, joint replacement may be recommended[4].

Consistent with other chronic conditions, such as diabetes, where actual clinical practice may deviate significantly from guideline recommendation[5,6], the uptake of management guidelines for OA is low[7]. Guideline implementation is a complex process, with a number of influencing factors and barriers related to guideline characteristics, social context or implementation strategies[8,9]. The implementation of guidelines by practitioners and subsequent uptake of recommendations by patients is determined by a complex interplay between health care providers, patients and resources provided within the health care system[8]. Despite practitioner advice, some patients do not comply with recommendations. This may be unintentional, due to cognitive, emotional, socioeconomic and practical difficulties, or intentional, due to subjective cost benefit analysis[8]. One barrier to implementation is engaging appropriate active patient participation in care[10]. Many patients do not engage in effective self-directed care strategies for their OA[11]. This situation is likely to be improved by better understanding patients' beliefs about health service needs for OA care in order to inform approaches aimed at maximizing participation in effective management[10,12]. Furthermore, understanding patients' beliefs is important to identify other barriers to best practice and potential strategies to create more patient-centred health services for OA care[13]. Thus the aim of this systematic scoping review was to identify and synthesise the existing evidence relating to patients' perceived health service needs for OA, relevant to the current clinical environment.

Methods

We performed a comprehensive systematic scoping review of published data to identify what is known about patients' perceived health service needs related to large joint OA within a larger project examining the patient perceived needs relating to musculoskeletal health[14].

Data searches and search strategy

An electronic search of MEDLINE, PsycINFO, EMBASE and CINAHL was conducted to identify studies examining patients' perceived needs for OA health services between 1990 to June 2016. The time period (1990–2016) was chosen to include relevant studies examining the current patient perspective. The search strategy was developed by clinical researchers (Rheumatologists and Physiotherapists), a healthcare organization representing patients with OA, a patient representative and a medical librarian. It combined both MeSH terms and text words to capture the patient perspective, health service needs and OA. A systematic scoping review was performed based on framework proposed by Arksey and O'Malley[15]. The term "needs" encompassed the patients' belief regarding their capacity to benefit from services, including their expectations of, satisfaction with and preference for various services[16]. The detailed search strategy for MEDLINE is provided in the Supplementary Appendix.

Study screening and selection

Two investigators (MP and LE) independently assessed the titles and abstracts of all studies identified by the initial search for relevance. Manuscripts were included if they met the following criteria: publications in English, adults, concerning the patient perspective of need, in relation to health services associated with OA and full text articles. Study populations with arthritis, including OA, that did not report OA results separately, and work presented only in abstract form was not included. There were no criteria regarding study design. Studies that appeared to meet inclusion criteria were retrieved and assessed for relevance. A search of the reference lists of relevant studies for inclusion was conducted. Any disagreements were resolved through consensus or in conjunction with the senior author (AW).

Data extraction and analysis

Two investigators (MP and LE) independently extracted the data from studies using a standardised data extraction form. The following data were extracted[1]: author and year of publication[2], study population[3] primary study aim and[4] study methods. Included studies were reviewed by two authors independently to identify aspects of health services for OA that patients had a preference for, expected, or were satisfied with using principles of meta-ethnography to synthesise qualitative data[17]. In the first stage, one author (LE) developed a framework of concepts and themes, based on study data and pertinent discussion points. In the second stage, another author (MP) independently reviewed the studies and further developed this framework. In the third stage two authors (FC and AW) with over 15 years of rheumatology consultant-level experience independently reviewed the concepts and themes to ensure clinical meaningfulness and face validity.

Assessment of bias and methodological quality

To assess the methodological quality of the studies, two reviewers (MP and LC) independently assessed all of the included studies. For qualitative studies, the Critical Appraisal Skills Programme (CASP) score criteria[18] was employed. Hoy *et al.*'s risk of bias tool[19] was utilized to assess the internal and external validity of quantitative studies. Low risk of bias of quantitative studies was defined as scoring 8 or more "yes" answers, moderate risk was 6–7 "yes" answers and high risk was 5 or fewer "yes" answers. Discrepancies were resolved by consensus. Disagreements in scoring were reviewed by a third reviewer (AW).

Results

Study characteristics

Of the 1384 manuscripts identified by the search, 25 articles met inclusion criteria[20–43]. A PRISMA flow diagram demonstrates the selection of papers (Fig. 1).

Table I provides the descriptive characteristics of included papers. 12 (50%) of studies were from North America or Australia[20,21,26,28–30,32–35,37,39], 11 (44%)of studies were from Europe, including United Kingdom (UK)[22–24,27,36,38,40–44] and 2 (8%) were from South-East Asia[25,31]. Most participants were recruited from general practice or outpatient clinics[20,22,25,27–29,31,33,35,36,39–41]. Other studies recruited patients from disease registries[30], medical records[21,42], pharmacy customers[23], surgical waiting lists [34,38], other studies on OA[44], and the community[26,43].

Most studies involved only those with OA[20–26,29–33,35–44]. Three studies included a population with inflammatory arthritis[27,28,34]. Data relating to OA was separated from other conditions in these manuscripts.

Nine studies used quantitative methods, including written questionnaires[20,27,33,37], computer questionnaires[29,30] or interviews[28,32,34]. Twelve studies used qualitative methods including