The attitudes, beliefs and behaviours of GPs regarding exercise for chronic knee pain: a systematic review
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CRD summary
This review investigated attitudes, beliefs and behaviours of general practitioners about exercise for chronic knee pain/knee osteoarthritis and concluded that attitudes and beliefs varied widely and exercise appeared to be underused in management of chronic knee pain/knee osteoarthritis. Given limitations in the included studies, the reliability of the conclusions cannot be ascertained fully.

Authors' objectives
To identify attitudes, beliefs and behaviours of general practitioners regarding the use of exercise for chronic knee pain or knee osteoarthritis.

Searching
MEDLINE, EMBASE, PsycINFO and CINAHL were searched from inception to January 2008. There were no language restrictions. The search terms were reported. Reference lists of retrieved papers and relevant in-house papers were reviewed.

Study selection
Studies of any design were eligible for inclusion if they assessed chronic knee pain or knee osteoarthritis in adults aged over 45 years. Eligible studies were related to primary care, included information about exercise and contained details about the attitudes, beliefs and behaviours of general practitioners towards exercise for chronic knee pain or knee osteoarthritis. Studies on patellofemoral pain syndrome or chronic knee pain/knee osteoarthritis that resulted from trauma, malignancy, infection, inflammatory arthritis or secondary to other diseases, or that occurred in a prosthetic joint were excluded.

Definitions of chronic knee pain and knee osteoarthritis used in many of the studies were unclear or inconsistent. In this review, chronic knee pain was defined as mechanical knee pain with or without loss of function and with or without radiographic changes consistent with knee osteoarthritis that had lasted for at least three months. Radiographic confirmation of knee osteoarthritis was not required. Definitions of attitude, beliefs and behaviour were agreed between reviewers and reported. The distinction between prescribing and advising exercise was defined by the amount and type of information relayed to the patient.

Seven studies described attitudes and beliefs of general practitioners towards exercise for knee osteoarthritis alone. Four studies described physician behaviour regarding patients with chronic knee pain. Fourteen studies described physician behaviour regarding patient with knee osteoarthritis. Seventeen studies described behaviours of general practitioners regarding exercise for chronic knee pain or knee osteoarthritis. Three studies focused on management of patients with chronic knee pain and 16 focused on patients with knee osteoarthritis. Multiple methods were used to investigate attitudes and behaviours of general practitioners; these included physician questionnaires, patient interviews and questionnaires, case-note reviews and physician interviews. The included studies were conducted in Europe, USA and Canada.

Two reviewers independently applied the inclusion criteria and selected the studies.

Assessment of study quality
The quality of studies was assessed using the Newcastle Critical Appraisal Worksheet (NCAW) and the Critical Appraisal Skills Programme (CASP) Qualitative Research Assessment Tool. The details of how individual components were assessed were reported.

Two reviewers independently assessed the quality of the included studies and resolved disagreement by discussion.
Data extraction
Data were extracted on changes in outcomes between the pre- and post-intervention periods. The authors did not state how data were extracted.

Where necessary, authors of primary studies were contacted for clarification or insufficient data.

Methods of synthesis
Studies were combined in a narrative synthesis.

Results of the review
Twenty studies conducted between 1992 and 2007 met the inclusion criteria. The results of the quality assessment in the included studies were not reported.

Although 99% of general practitioners agreed that exercise should be used for chronic knee pain/knee osteoarthritis and reported providing advice or referring to a physiotherapist, up to 29% believed that rest was the optimum management approach (two studies).

Frequency of actual provision of exercise advice or physiotherapy referral was lower (6% to 63%). Estimates of provision of exercise advice and physiotherapy referral were generally higher for vignette-based studies: exercise advice (9% to 89%; six studies) and physiotherapy referral (44% to 77%; seven studies) than reviews of actual practice (exercise advice 5% to 52%) and physiotherapy referral (13% to 63%). Advice to exercise and exercise prescription were not clearly differentiated.

Study response rate was 7.4% to 94% for general practitioner attitude towards exercise for knee osteoarthritis and 27% to 94% for studies that investigated behaviour.

Authors' conclusions
Attitudes and beliefs of general practitioners towards exercise for chronic knee pain/knee osteoarthritis varied widely. Exercise appeared to be underused in management of chronic knee pain/knee osteoarthritis, although the evidence was limited by limitations in the studies included in the review.

CRD commentary
This review addressed a broad but well-defined question. The search included appropriate electronic databases. No apparent attempts were made to retrieve unpublished studies which meant that publication bias could not be ruled out. Two reviewers independently selected studies and assessed quality in the included studies, which minimised bias and errors during the review process. It was unclear how many reviewers extracted data and thus the process might not have been transparent and errors might not have been minimised. The characteristics of the individual studies were presented. Quality in the included studies was assessed using NCAW CASP criteria for quality assessment. Potential sources of heterogeneity were explored qualitatively and reported.

Although the review process was followed and reported adequately, it was understandable that the authors toned down their conclusions given the heterogeneity and methodological limitations in the studies included in the review.

Implications of the review for practice and research
Practice: The authors stated that the optimal means of supporting and educating general practitioners at the clinical, educational and service level should be identified to improve certainty and confidence about the value of exercise and exercise recommendations in practice.

Research: The authors stated that further research should focus on consistent investigations of attitudes, beliefs and behaviours of general practitioners regarding use of exercise for chronic knee pain. Research should utilise large, nationally representative samples of general practitioners.
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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.