

Results: The subjects in the study were divided into 3 diagnostic groups; 1. OA (subjects with knee OA and chronic knee pain, n = 502), 2. Pain (subjects with chronic knee pain, but no knee OA, n=496), 3. Controls (subjects with neither chronic knee pain nor knee OA, n=421). The overall F-test and all pairwise differences between the 3 diagnostic groups were statistically significant ($p < 0.001$) with all HRQL instruments. Based on the overall F-score, the different HRQL instruments and subscales were ranked regarding their ability to discriminate the diagnostic groups (see Table 1). For a hypothetical repeat study with the 3 diagnostic groups, the approximate number of subjects per group needed with the HRQL instruments are given in Table 2.

Conclusion: As judged from the present study, QoL(KOOS), Pain(KOOS), and Symptoms(KOOS) are the most powerful discriminators between the different diagnostic groups, and EQ-5D single index is the least powerful one. The results indicate that only 50-70 subjects are needed in a hypothetical repeat study when using KOOS and WOMAC discriminators as compared to 1,000 subjects for EQ-5D single index.

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ENHANCING THE PROCESS OF A CLINICAL TRIAL IN OSTEOARTHRITIS WITH EMBEDDED QUALITATIVE APPROACHES

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Purpose: The value of qualitative research methods in the design and conduct of clinical trials is increasingly recognised. In this study we describe qualitative approaches embedded within a randomised controlled trial of anaesthesia regimens for patients with osteoarthritis receiving lower limb joint replacement (the 'APEX' trial). We explore the role that such methods have to play in improving design and conduct of trials.

Methods: Patients with osteoarthritis and receiving total knee or hip joint replacement are eligible to take part in the APEX trial. This aims to include 600 participants recruited at a single site within the UK's NHS system. The trial design was informed by existing literature and our research to date on patients' experience of osteoarthritis and outcomes after joint replacement surgery. Within the APEX trial qualitative approaches are used to assess the acceptability of participation to patients and to advise on enhancement of the recruitment process.

To examine the recruitment process we used a peer-listening approach. Research nurses audio-recorded recruitment interviews with potential trial participants. The audio-recordings were listened to by other members of the research nurse team. The nurses evaluated the recruitment interviews using a data extraction form and meetings to compare findings. In addition, qualitative interviews were conducted by an experienced researcher with a sub-sample of participating patients three weeks after their surgery. These in-depth interviews addressed trial participation, expectations and experiences of surgery, and pain management.

Results: Process analysis of the inclusion of a peer-listening approach and qualitative research within the APEX trial shows that research nurses prefer to conduct their own peer-review of recruitment interviews rather than relying on external observers to do so. The process of peer-review improves consistency in recruitment and provides a structured forum through which to discuss how best to confirm equipoise, ensure informed consent and maximise participation in a trial. Qualitative interviews with patients who participated in the APEX trial provide evidence about the clarity of trial information packs, the acceptability of altered modes of anaesthesia during joint replacement surgery as well as significant detail and depth about pain and the hospital management of joint replacement surgery.

Conclusions: Research into the process of clinical trials in osteoarthritis and other areas has begun to highlight the importance of qualitative research within the trial design stages. This study highlights the value of nurse-led 'peer' observation of recruitment interviews using audio-recording techniques as well as the value of ongoing inclusion of qualitative interviews with trial participants. Further research will explore the impact of these methods on patient acceptability of trials in treatment of osteoarthritis and ultimately potential improvements in levels of recruitment and retention within research studies.

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REACHING THOSE MOST IN NEED: A SCOPING REVIEW OF INTERVENTIONS TO IMPROVE HEALTH CARE QUALITY FOR DISADVANTAGED POPULATIONS WITH OSTEOARTHRITIS

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Purpose: To conduct a systematic review to identify and describe the scope and nature of the research evidence on the effectiveness of interventions to improve health care quality or reduce disparities in care of disadvantaged populations with osteoarthritis (OA).

Methods: We searched electronic databases from 1950 through February 2010 and the grey literature for relevant articles in any language using any study design. Studies with interventions designed explicitly to improve health care quality or reduce disparities in care for disadvantaged adult populations with OA were eligible. Those that evaluated the effectiveness of the intervention were included. Disadvantaged populations were identified using the PROGRESS-Plus framework. Reviewers abstracted data from studies to determine study and participant characteristics, details on the intervention, results and quality.

Results: Of 4,701 citations identified through the search process, 10 studies met the inclusion criteria. Most studies were community-based ($n=8$) and targeted race/ethnicity/culture ($n=6$). All 10 studies evaluated interventions aimed at people with OA; 2 hospital-based studies also targeted the health care system by providing individualized assessment or reinforcement using follow-up telephone calls not previously provided by health care providers. No studies targeted health care providers. Nine of 10 studies evaluated arthritis self-management interventions and 6 described cultural tailoring of the intervention. Arthritis self-management interventions improved the health care quality of disadvantaged populations by improving participant arthritis self-efficacy, health behavior, and health status. Only one study measured the impact of an intervention in reducing disparities in care by comparing the difference in effect between the disadvantaged populations and the relevant PROGRESS-Plus comparator group.

Conclusions: There are few studies evaluating the effectiveness of interventions to improve health care quality in disadvantaged populations with OA, and a lack of studies evaluating interventions targeting health care providers. Further research is needed to evaluate interventions aimed at health care providers and the health care system, as well as other patient-level interventions. Promising interventions at the provider-level, such as cultural competence training and shared decision-making skills, are worthy of future evaluation. Gap intervention research is important to evaluate whether an intervention is effective in reducing documented health care inequities.

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GENERIC AND DISEASE-SPECIFIC HEALTH-RELATED QUALITY OF LIFE - A SWEDISH POPULATION-BASED STUDY ON CHRONIC KNEE PAIN AND KNEE OSTEOARTHRITIS

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Purpose: To estimate generic and disease-specific health-related quality of life (HRQL) in subjects with knee osteoarthritis in Sweden assessed by the EuroQol-5D (EQ-5D) index, Knee Injury and Osteoarthritis Outcome Score (KOOS), and Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC, version 3.0).

Methods: A self-reported questionnaire about knee pain was sent to 10,000