

A systematic review of outcome measures utilised to measure change in self-management in clinical trials in non-cancer chronic pain

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Relevance: Chronic pain affects an estimated 19% of Europeans. In chronic pain, supported self-management (SM) for the patient is a key recommendation across national guidelines. Supported SM aims at improving knowledge on monitoring and managing chronic pain; learning skills for goal planning, problem solving and decision making; promoting care participation; and leading to desirable health behaviour changes. However, there is lack of clarity and consistency in assessing the outcomes of SM support. Studies often utilise general or disease-specific measures focused on particular constructs or behaviours, for example, pain, functional disability and self-efficacy. It is unknown which measures can accurately detect treatment effects of SM support for patients with chronic pain.

Purpose: The purpose of this systematic review was to appraise and synthesise the outcome measures utilised to measure the effectiveness of self-management in randomised (or non-randomised) controlled trials in patients with chronic pain.

Methods/analysis: Medline, Embase, CINAHL, PsycINFO, the Cochrane Library and Google Scholar were searched in March 2015. The electronic searches were updated in February 2016. Full-text primary research reports (written in English language) of randomised or non-randomised controlled trials, which purposefully utilised a quantitative SM outcome measure to examine the effectiveness of non-surgical interventions in adult (>18 years) participants with non-cancer non-episodic chronic pain were included in this review. Study selection and risk of bias assessment of included studies were performed by two independent reviewers. The Cochrane Handbook, the Cochrane Back Review Group and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed in the review process and reporting.

Results: A total of 2381 records were identified and after deleting the duplicates 1631 studies were considered for inclusion. After brief and detailed screening, 22 studies and one unpublished study were included in this systematic review. A further four studies were identified in an updated search in February 2016. All 27 included studies were RCTs with sample sizes ranging from 30 to 812 patients and included patients with chronic pain, hip/knee arthritis, rheumatoid arthritis, chronic low back pain, fibromyalgia and chronic fatigue syndrome. The majority of the included studies were assessed as low risk of bias. A total of 14 different validated measures, including scales on self efficacy, coping, empowerment, pain management strategy, attitude and activation and the Health Education Impact questionnaire (heiQ), were used in measuring SM and its change. The identified SM outcomes measured a number of constructs ranging from one to eight. The Self Efficacy scales measure three or fewer constructs of SM, whereas Survey of Pain Attitudes and heiQ respectively measure seven and eight different constructs.

Discussion and conclusions: This systematic review presents the range of scales available for assessing change in SM in non-cancer chronic pain. Knowing the complexity of SM it is better to use a scale with more constructs (for example heiQ) in chronic pain research and clinical practice.

Impact and implications: Future research may emphasise measuring and reporting SM changes in chronic pain. Further research is necessary for developing cut off points of the SM outcomes to dichotomise the respondents in effective and not effective categories.

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