Self-Management and Support in Chronic Pain Subgroups: Integrative Review

Jennifer Kawi, PhD, FNP-BC

ABSTRACT

Self-management (SM) and self-management support (SMS) programs are being implemented to help address the epidemic of chronic pain. This integrative review evaluated the outcomes in chronic pain subgroups and described barriers and facilitators to SM and SMS. Overall, outcomes on SM behaviors, self-efficacy, and self-confidence were improved. Barriers and facilitators included treatment, personal, mental health, social, and organizational aspects. Although further research is necessary, the role of nurse practitioners in collaborating and leading multimodal biopsychosocial management with comprehensive SM and SMS components are highlighted to advance chronic pain management toward improved outcomes and decreased health care costs.

Keywords: barriers, chronic low back pain, chronic pain, facilitators, osteoarthritis, self-management, self-management support

Table 1 is available online at www.npjournal.org.

Patients, their significant others, and health care providers (HCPs) are facing difficult challenges in the adequate management of chronic pain.[1] This problem is magnified as the health care system is placing responsibility on patients to manage their own health conditions. Hence, the concepts of self-management (SM) and self-management support (SMS) are more significant now. SM and SMS interventions are being recommended in the management of other chronic illnesses, having demonstrated success in patient outcomes.[2] In the area of chronic pain, there is a growing body of research on SM and SMS. As such, it is vital to evaluate these concepts in chronic pain, assess the outcomes, and describe barriers/facilitators.

Chronic pain, as defined by the Institute of Medicine (IOM), is a complex condition that has persisted for at least 3-6 months.[1] Currently, 116 million adults in the United States are afflicted with chronic pain, a figure more than the number of individuals affected by heart disease, diabetes, and cancer combined.[3] Consequently, the costs of lost productivity and health care expenses are enormous: $560 to $630 billion annually.[1]

SM programs attempt to address the prevalence of chronic pain and potentially decrease costs. Lorig and Holman[4] operationalized SM in terms of tasks and skills with self-efficacy to enable patients to make decisions and engage in behaviors toward managing their chronic illnesses. A major element in many programs geared toward chronic illness care, SM is now being strongly advocated as a major component of chronic pain management.[1] However, integrating SM into the health care system needs support,[4] hence the term *SMS*. Wagner and colleagues[5] described SMS as empowering and preparing patients to manage their health beyond giving advice and education toward emphasizing their fundamental role in their own care.

In order for patients to engage in managing their own disease processes, HCPs have a responsibility to support patients in their SM so that they are well-informed and effective. Goal-setting, action-planning, skill-building, problem-solving, and variable support strategies in SM and SMS have the potential to improve chronic pain outcomes through lifestyle changes and health-promoting behaviors (eg, exercise, proper diet, appropriate use of medications).[5]

This article supports the IOM's initiative on reporting the current state of science to make recommendations that advance chronic pain management.[1] With the prevalence of chronic pain exceeding other chronic illnesses, the IOM said researchers should pursue pain studies comparable to how they pursue other serious and disabling chronic illnesses. These studies point to the significance of synthesizing current literature on SM and SMS regarding chronic pain to identify gaps in research, assess the need for future studies, bridge related areas of research, and evaluate central issues in SM, SMS, and chronic pain.

CURRENT REVIEW STUDIES ON SM, SMS, AND CHRONIC PAIN

Although a few review studies are noted in the literature on SM, SMS, and chronic pain, none focus specifically on barriers/facilitators to SM or SMS in chronic pain. Review studies primarily looked at chronic pain outcomes. However, it has not been apparent which subgroups of chronic pain patients SM or SMS would be successful.[6]

Integrative reviews aim to summarize previous research by presenting overall conclusions from individual studies that address similar focus.[7] This integrative review will synthesize findings on SM and SMS studies based on subgroups of chronic pain and identify barriers/facilitators to SM and SMS.

METHOD

The following online databases were searched up to February 2012: Academic Search Premier, CINAHL, ERIC, Medline, Ovid, ProQuest Dissertations and Theses, PsycINFO, and Scopus. Search words used were "self-management," "self-management support," "partnership," "collaboration," "barriers," "facilitators," "chronic pain," "pain," and appropriate combinations. Empirical primary research studies published in English that described SM and SMS in nonmalignant chronic pain were included.

Cooper's Procedures for Integrative Review

Cooper[7] proposed 5 stages as systematic guidelines to enhance rigor and validity in appraising research. The first stage is *problem formulation*, followed by *data collection*, then *data evaluation*. Findings from each qualified study were reviewed for relevance to this integrative review. All identified themes were extricated, and a colleague independently reviewed the findings. The fourth stage is *data analysis and interpretation*. Obtained data were synthesized, compared, and categorized into themes and subthemes. The final stage is *public presentation*.

Profile of Selected Studies

Forty-three publications were retrieved and 30 met the inclusion criteria. Of these, 8 were qualitative, 10 were descriptive and nonexperimental, 1 was quasi-experimental, 9 were randomized controlled trials (RCTs), and 2 were non-RCTs.

RESULTS

Three subgroups of individuals suffering from chronic pain were identified based on the literature from the search words used. These were patients with osteoarthritis, chronic low back pain (CLBP), and chronic pain in general (non-specific to CLBP or osteoarthritis). Specific findings from the SM and SMS studies were synthesized based on these subgroups of chronic pain. Barriers/facilitators to SM and SMS were also described. The findings are discussed as follows and summarized in Table 1 (available at www.npjournal.org) with statistical significance values.

Osteoarthritis Studies

SM. Two RCTs using SM programs showed positive outcomes in various aspects: improved activity limitations, pain, exercise, health, fatigue, self-efficacy, and number of medical consults.[8,9] No changes were noted in physical function,[9] although Yip and colleagues[10] conducted a similar study a year prior that showed improvements in functional status, range of motion, and exercise. In contrast, 1 RCT showed no significant effects on pain, physical function, and visits with primary care providers, although anxiety and self-efficacy improved.[11] A study by Lorig and colleagues[12] also noted no significant change in disability but with improved self-efficacy and fewer hospitalization or outpatient visits.

SM and SMS. Using SM and SMS strategies, 2 RCTs showed conflicting outcomes in pain improvement.[13,14] The former found moderate