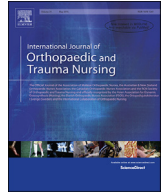




Contents lists available at ScienceDirect

International Journal of Orthopaedic and Trauma Nursing

journal homepage: <http://www.journals.elsevier.com/international-journal-of-orthopaedic-and-trauma-nursing>

Pain in elderly patients with knee osteoarthritis: an integrative review of psychosocial factors

Phichpraorn Youngcharoen^{a,*}, Patricia E. Hershberger^b, Suparb Aree-Ue^a

^a Ramathibodi School of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, 270 Rama 6 Road, Ratchathewi, Bangkok 10400, Thailand

^b Department of Health Systems Science, University of Illinois at Chicago, College of Nursing, 845 S. Damen Avenue, Chicago, IL 60612, USA

ARTICLE INFO

Article history:

Received 6 April 2016

Received in revised form

15 August 2016

Accepted 4 November 2016

Keywords:

Knee osteoarthritis

Elderly

Psychosocial factors

Pain

ABSTRACT

Objective: The aim of this integrative review was to identify themes related to psychosocial factors that influence pain in elderly patients with knee osteoarthritis.

Methods: Guided by the Whittemore and Knafel (2005) framework for integrative review, studies published in English between 1986 and 2015 were identified using PubMed, Embase, CINAHL, and PsycINFO. The search terms included knee osteoarthritis, elderly, pain and psychosocial factors such as psychology, psychosocial, anxiety, depression, mental health, physiological stress, social support, self-efficacy, pain catastrophizing and psychological distress. Sixteen empirical studies that met eligibility criteria were selected for analysis. Study data were extracted and included in a review matrix. The constant comparative method was then used to develop patterns and themes for the review.

Results: Four themes of psychosocial factors influencing pain emerged from the analysis: (a) demographic, (b) disease severity, (c) positive influences and (d) negative influences.

Conclusion: This integrative review revealed multiple personal and psychological factors that can influence pain in elderly patients with knee osteoarthritis. Nurses should promote patient education about weight control and coping strategies in order to manage their pain.

1. Introduction

Chronic pain is defined as pain that persists longer than the normal healing process (International Association for the Study of Pain, 2016). Most elderly people suffer from chronic pain related to degenerative diseases such as arthritis. Osteoarthritis, especially knee osteoarthritis, is the most prevalent form of the disease. It greatly impacts the health of the elderly worldwide in limiting their activity and physical function (Murphy and Helmick, 2012) and has been acknowledged as a global economic burden (Cross et al., 2014). One study in the United States (U.S.) showed that approximately 37% of the elderly population had been diagnosed with knee osteoarthritis (Lawrence et al., 2008). In 2010, the global prevalence of knee osteoarthritis diagnosed by radiographic confirmation was estimated to be 3.8% (Cross et al., 2014). When diagnosed, severe knee osteoarthritis usually leads to clinical recommendations for joint replacement surgery. In 2009, 620,192 knee replacements were performed in the U.S. at a cost of \$28.5 billion in hospital expenditures (Murphy and Helmick, 2012). However, with the

prevalence of knee osteoarthritis rising steeply with age, the demand for joint replacement is greater than the supply, resulting in people waiting for several months or more for surgery (Desmeules et al., 2012). Furthermore, patients with knee osteoarthritis suffer from its symptoms throughout the trajectory of the disease. The symptoms of knee osteoarthritis include pain, aching and/or stiffness in a joint (Zhang and Jordan, 2010); pain and stiffness are the symptoms that most commonly result in difficulties in performing physical activities and in functional limitations (Centers for Disease Control and Prevention, 2010; Murphy and Helmick, 2012). Further consequences of osteoarthritis pain include fatigue, sleep disturbance, self-perceptions of poor health and low quality of life (Hawker, 2009; Zhang and Jordan, 2010). The goal of knee osteoarthritis management is to reduce pain, improve physical function, reduce disability and address other arthritis-related symptoms (American Academy of Orthopaedic Surgeons, 2013). To minimize the pain burden of knee osteoarthritis and its consequences, it is necessary to understand patients' characteristics as well as the factors contributing to their pain.

1.1. Background

During the last several years, investigators have found that several psychosocial factors were related to pain in community-dwelling

* Corresponding author.

E-mail addresses: phichpraorn.you@mahidol.ac.th (P. Youngcharoen), phersh@uic.edu (P.E. Hershberger), superb.aree@mahidol.ac.th (S. Aree-Ue).

elderly patients with knee osteoarthritis (Cleveland et al., 2013; Creamer et al., 1999; Desmeules et al., 2009; Rayahin et al., 2014). Investigators have found that pain catastrophizing, pain-related fear, perceptions of social support and perceived self-efficacy are associated with pain severity and physical and psychological disability in osteoarthritis patients (Ferreira and Sherman, 2007; Rayahin et al., 2014; Sinikallio et al., 2014; Somers et al., 2012). Another investigator demonstrated that self-efficacy for managing the disease, good mental health and social support can help avoid poor functional outcomes for knee osteoarthritis patients (Marks, 2007).

Several systematic reviews have addressed psychological factors in elderly patients with knee osteoarthritis who underwent joint replacement surgery. Such surgery is known to reduce pain, improve physical function and enhance quality of life in osteoarthritis patients (National Institute of Health Consensus Statement on Total Knee Replacement, 2003). In one systematic review article, the authors examined 35 studies that highlighted psychological factors affecting pain and functional outcomes for osteoarthritis patients who had either total hip replacement or total knee arthroplasty (Vissers et al., 2012). In another systematic review article, the authors synthesized 15 studies to better understand the effect of self-efficacy on prediction of functional and emotional outcomes in osteoarthritis patients; specifically, they compared the effects of self-efficacy beliefs of osteoarthritis hip and osteoarthritis knee patients on pain-related outcomes before and after joint replacement surgery (Magklara et al., 2014). Burns et al. (2015) reported, in a third systematic review article, that pain catastrophizing was a significant predictor of chronic pain persisting after total knee replacement surgery.

Although previous reviews identified psychological factors that influenced pain in elderly patients with knee osteoarthritis, none of the authors of the reviews performed separate analyses of study results for hip osteoarthritis and knee osteoarthritis patients, who could have different functional limitations. In addition to performing such an analysis for knee osteoarthritis patients, this review differs significantly from previous ones in that it focuses on whether psychosocial factors influence pain among elderly patients with knee osteoarthritis prior to surgery. Understanding the psychosocial factors in this population is necessary to develop interventions that can improve peoples' behavior so as to minimize the progression of osteoarthritis and reduce the risk of needing total knee replacement surgery. The purpose of this integrative review was to identify themes related to psychosocial factors that influence pain in elderly patients with knee osteoarthritis.

2. Methods

2.1. Search strategies

The review question and search strategies were developed based on the population or patients of interest (P); the intervention,

influence, or exposure (I); and the outcomes (O) (Polit and Beck, 2014). In applying this PIO method, the population of interest was defined as elderly patients with knee osteoarthritis, the influence as psychosocial factors and the outcome as pain. Therefore, our research question that guided the review was: What psychosocial factors influence pain in elderly patients with knee osteoarthritis? Systematic searches of several databases; specifically, PubMed, Embase, the Cumulative Index to Nursing and Allied Health Literature (CINAHL) and PsycINFO, were performed to obtain the necessary evidence to answer the research question (Cooper, 1998; Polit and Beck, 2014; Whittemore and Knafl, 2005). The initial search strategy used included mapping medical subject heading (MeSH) terms that were consistent with the purpose of the review and to use keywords for unindexed terms. Search terms included *knee osteoarthritis*; the Boolean AND; and the search terms *elderly*, *pain*, and *psychosocial factors* in addition to related terms (i.e., *psychology*, *psychosocial*, *anxiety*, *depression*, *mental health*, *physiological stress*, *social support*, *self-efficacy*, *pain catastrophizing*, and *psychological distress*). The search terms employed and the number of papers obtained from each database are summarized in Table 1. The searches covered studies published between 1986 and 2015 because research on pain in arthritis patients was first conducted during the mid-1980's.

Regarding review eligibility, studies had to meet the following inclusion criteria: (a) examine the impact of psychosocial factors on knee pain (self-reported knee pain severity, overall knee pain, or knee pain experience), (b) published in a peer-reviewed journal, (c) published in English, (d) have participants with a mean age of 60 years or older, which was based on the United Nations cutoff age for the elderly population and (e) have participants diagnosed with osteoarthritis of one or both knees (self-reported or via radiography). Excluded from the review were studies addressing psychosocial factors affecting pain after knee replacement surgery, hip osteoarthritis or psychometric testing of an instrument. Book chapters, conference abstracts, letters to the editor, dissertations, unpublished manuscripts and literature review articles were excluded from the review because the focus was on empirical research that had undergone a high-level of peer review. The Whittemore and Knafl (2005) framework, which includes problem identification, literature search, data evaluation, data analysis and presentation, was used to guide this integrative review.

2.2. Search outcomes

Once studies were initially identified, they were screened for inclusion in four phases (see Fig. 1). First, 778 articles identified using four databases were combined. Second, based on a title review, 23 duplicate articles were excluded. Third, the titles and abstracts of the 755 remaining articles were reviewed and irrelevant articles and articles not meeting the inclusion criteria were excluded. Fourth, the full text of the 47 remaining articles was

Table 1
Summary of search terms used and numbers of articles identified in databases.

Construct	Keyword	Database			
		PubMed	Embase	PsycInfo	Cinahl
The population of interest (P)	Knee osteoarthritis or osteoarthritis of knee or knee joint arthritis AND Elderly or older adults or aging	684	45	25	24
The influence (I)	Psychology or psychosocial or anxiety or depression or mental health or physiological stress or self-efficacy or pain catastrophizing or psychological distress or social support				
The outcomes (O)	Pain or discomfort or distress or soreness or suffering or ache or sore or pain experience outcome				

Download English Version:

<https://daneshyari.com/en/article/5568441>

Download Persian Version:

<https://daneshyari.com/article/5568441>

[Daneshyari.com](https://daneshyari.com)