

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: <http://www.elsevier.com/journals/international-journal-of-nursing-sciences/2352-0132>

Original Article

Mindfulness intervention in the management of chronic pain and psychological comorbidity: A meta-analysis

Yan Song, Haixia Lu*, Honglin Chen, Guiling Geng, Jing Wang

School of Nursing, Guiyang Medical University, Guiyang 550001, China

ARTICLE INFO

Article history:

Received 15 December 2013

Received in revised form

11 April 2014

Accepted 18 April 2014

Available online 9 May 2014

Keywords:

Chronic pain

Mindfulness

Meta-analysis

Psychological comorbidity

ABSTRACT

Objective: To review trials on mindfulness intervention for chronic pain in primary care to clarify the evidence base and establish whether mindfulness is an important intervention for relieving pain and improving psychological comorbidity.

Methods: We performed a literature search using PubMed, the Cochrane Database, EBS-COhost, Elsevier, Wiley, Springer, and the references of retrieved articles. We included articles written in English and that were published up to January 2012. We found 428 empirical studies, but only eight were included as randomized controlled trials of mindfulness intervention for chronic pain in our meta-analysis. After extracting and synthesizing data from these eight trials, we analyzed the data extracted and synthesized from these eight trials.

Results: Compared with control intervention, mindfulness intervention had no specific effect on reducing pain intensity (weighted mean difference 3.24, 95% confidence interval [CI]: -8.92 to 2.45). Mindfulness intervention led to greater improvement in psychological comorbidity with chronic pain, such as depression (weighted mean difference -3.91, 95% CI -5.94 to -2.32) and trait anxiety (weighted mean difference -4.07, 95% CI -4.48 to -3.65).

Conclusion: There is insufficient evidence that mindfulness intervention relieves pain intensity. However, it improves depression and trait anxiety in patients with chronic pain. Further research in larger, properly powered, and better-designed studies is warranted.

Copyright © 2014, Chinese Nursing Association. Production and hosting by Elsevier (Singapore) Pte Ltd. All rights reserved.

* Corresponding author.

E-mail address: klxx-163@163.com (H. Lu).

Peer review under responsibility of Chinese Nursing Association



1. Introduction

Chronic pain develops from numerous conditions and is one of the most widespread and disabling health problems today [1]; it seriously affects the lives of those who have it, leading to significant suffering in patients and their families and significant cost to communities and healthcare systems [2,3]. About 20–30% of the adult population in the Western countries suffers from chronic pain [4]. An investigation of the prevalence and characteristics of chronic pain in the general population of Hong Kong reported overall pain (34.9%) lasting >3 months (chronic pain), with an average of 1.5 pain sites [5]. In addition, epidemiological studies indicate that depression is a common comorbidity associated with chronic pain states [6]. Some studies [7,8] have also shown that patients with chronic pain are significantly more likely to have higher levels of anxiety symptoms.

Pain medications, including nonselective, nonsteroidal anti-inflammatory drugs, cyclooxygenase 2 inhibitors, and weak or strong opioids, are significant interventions for improving chronic pain. However, Gore and colleagues demonstrated that therapy switching and discontinuation of certain pain medications due to inadequate pain relief or undesirable side effects were common among patients with osteoarthritis and chronic low back pain (CLBP) in the United Kingdom [9]. Other than pain medication, surgery can also relieve pain significantly, but it is suitable for only a subset of patients [10,11]. Regarding psychological approaches for chronic pain, the focus in recent work has shifted from cognitive behavior therapy (CBT) to acceptance and commitment therapy (ACT) due to the lack of a coherent and consistent theoretical model in CBT [12]. Currently, ACT is the most widely researched approach to relieving pain, where the focus is less on controlling or fighting pain, but accepting it [13].

Mindfulness intervention, one of the processes described in the ACT model, is currently the most widely implemented meditation interventions when examining pain outcomes [14]. Mindfulness intervention has been defined as “awareness that emerges by way of paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment by moment” [15]. It was initially introduced as a clinical intervention for patients with chronic pain and disease [16]. A number of studies support the efficacy of mindfulness intervention for chronic pain [17–19]. For psychological comorbidities with chronic pain, Hofmann and colleagues suggested that mindfulness-based therapy is a promising intervention for treating anxiety and mood problems in patients with chronic pain [20], and it accounted for significant variance in measures of depression and pain-related anxiety [21]. However, other studies found no statistical significance in mindfulness intervention on chronic pain [22,23]. Given these positive and negative outcomes and the question of whether mindfulness intervention improves chronic pain, we investigated previous trials for evidence of the efficacy of mindfulness intervention through systematic review.

2. Aim and objectives

We searched the literature in six data sources as well as the references of retrieved articles to select randomized controlled trials (RCTs) of mindfulness intervention for chronic pain. We performed the above to identify the evidence base to fulfill the purpose of this meta-analysis, which was to evaluate the efficacy of mindfulness intervention in relieving chronic pain and improving depression and anxiety associated with chronic pain states.

3. Methods

3.1. Search strategy

We searched the published literature for RCTs that used mindfulness as intervention for relieving chronic pain and improving psychological state, and searched keywords such as “intervention with mindfulness”, “mindfulness meditation”, “mindfulness-based interventions” (MBIs), and “mindfulness-based stress reduction” (MBSR). The inclusion criteria were as follows: population of interest comprising adults aged ≥ 18 years with pain for a minimum of three months or diseases with chronic pain symptoms; primary outcome measures were pain symptoms, including pain intensity, pain acceptance, and so on; secondary outcomes were psychological symptoms, including depression and anxiety.

3.2. Data sources and extraction

First, we searched evidence-based data sources: the Cochrane Database and Registered Nurses Association of Ontario guidelines, and then we searched PubMed, EBSCOhost, Elsevier, Wiley, Springer, and the references of the retrieved articles. We searched for RCTs originally published in English before January 2012. We attempted to obtain potential missed information through general web searches, requesting articles via the shared databases of our respective institutions, and corresponding directly with authors to identify missed citations. However, some articles were unavailable or were an incorrect match.

We selected potentially relevant studies independently by screening retrieved citations and abstracts. We retrieved trials assessed as definite or uncertain for inclusion as full papers. We resolved differences by discussion; arbitration by a third author (CHL) was planned but not required. Details of the studies and data were extracted using a standardized electronic form; differences were resolved by discussion. Risks of bias in terms of random sequence production, allocation concealment, and blind method were assessed as adequate, unclear, or inadequate; withdrawal was assessed as description and undescribed using the revised Jadad Scale [24]. One author (SY) checked the reference lists of all included studies for further potentially relevant citations, and two authors (SY, LHX) reviewed this list and agreed on further potentially relevant papers to be retrieved in full. We performed the searches in November 2011 and repeated them in January 2012 before the final analysis.

Download English Version:

<https://daneshyari.com/en/article/2655880>

Download Persian Version:

<https://daneshyari.com/article/2655880>

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