Complementary Therapies in Medicine (2014) 22, 909—919

Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevierhealth.com/journals/ctim

Components and reporting of yoga interventions for musculoskeletal conditions: A systematic review of randomised controlled trials

Lesley Ward[a,b,*], Simon Stebbings[b], Daniel Cherkin[c], G David Baxter[a]

[a] *Centre for Health, Activity and Rehabilitation Research, School of Physiotherapy, University of Otago, Dunedin, New Zealand*
[b] *Department of Medicine, Dunedin School of Medicine, University of Otago, Dunedin, New Zealand*
[c] *Group Health Research Institute, Seattle, WA, USA*

Received 21 March 2014; received in revised form 8 August 2014; accepted 9 August 2014
Available online 18 August 2014

KEYWORDS
Yoga;
Musculoskeletal conditions;
Complementary medicine;
Systematic review

Summary
Objectives: To identify the content and reporting details of randomised controlled trials of yoga for musculoskeletal conditions through a systematic review of the literature.
Design: Twenty electronic databases were searched to identify randomised controlled trials (RCTs) of yoga interventions for musculoskeletal conditions. Eligibility criteria were full-text, peer reviewed articles, of RCTs with yoga as a primary intervention, on a population aged 18 years and over, with a clinical diagnosis of a musculoskeletal condition. Data relating to study characteristics, yoga styles, yoga practices, home practice, and reporting were extracted and summarised.
Results: Seventeen articles met inclusion criteria, representing five musculoskeletal conditions: low back pain, osteoarthritis, rheumatoid arthritis, kyphosis, and fibromyalgia. 15 studies were non-residential, and two were residential. Study duration ranged from 1 to 24 weeks; weekly dosage of yoga ranged from 1 to 56 h. Five styles of posture-based Hatha yoga were specified. Intervention content included seven yoga practises: postures, breathing, relaxation, meditation, philosophy, chanting, and cleansing practises. Ten studies either encouraged or requested home practice. Reporting details included class plans, posture lists, and diagrams. Due to insufficient detail regarding delivery of the yoga intervention only eight of the 17 interventions were considered replicable as reported.

* Corresponding author at: Department of Medicine, University of Otago, PO Box 56, New Zealand. Tel.: +64 3 4740999x8054; fax: +64 3 4709916.
E-mail address: lesley.ward@otago.ac.nz (L. Ward).

http://dx.doi.org/10.1016/j.ctim.2014.08.007

Conclusions: Evaluation of study characteristics and yoga components indicated several areas of homogeneity across studies, suggesting an existing degree of standardisation. However, heterogeneity related to intervention content and reporting impeded determination of intervention content and delivery. Standardisation of content, nomenclature, and reporting details is recommended to enhance protocol transparency, replication, and comparison of intervention effectiveness.

Contents

Introduction

Musculoskeletal conditions, also known as musculoskeletal diseases or disorders, comprise a spectrum of over 200 inflammatory, degenerative, and soft tissue disorders associated with the muscles, bones, joints, and soft tissue.[1–4] A complex group in terms of classification, pathophysiology, and clinical presentation,[5,6] the most prevalent conditions globally include low back pain (LBP), osteoarthritis (OA), and rheumatoid arthritis (RA).[4,7,8]

Musculoskeletal conditions are a leading cause of disability, constituting a substantial, and increasing, health and economic burden.[7,9,10] United by common features including functional limitation, chronic pain, and decreased quality of life,[2,4,11–13] recommendations for the management of this group of conditions combines both pharmacological and non-pharmacological therapies.[14–17] A popular form of non-pharmacological therapy which is increasingly used as an adjunct or preferred treatment for the management of musculoskeletal-related physical and psychosocial symptoms is yoga.[18–22]

Evidence suggests that yoga is moderately effective for the management of pain and functional outcomes across a range of musculoskeletal conditions.[23–25] However, previous reviews have also highlighted issues associated with heterogeneity across yoga intervention protocols for musculoskeletal conditions. Combinations of factors such as the style of yoga, and types of yoga practices, may lead to variations across clinical trials both in the components of these complex interventions, and in their delivery.[26–29] Furthermore, a lack of detailed reporting of intervention components impedes trial replication, investigation of active intervention components, and analysis of dosage effects.[29–32]

To address these issues of heterogeneity it is first necessary to identify the components and reporting characteristics of clinical yoga interventions.[29–34] Despite the increasing integration of yoga into mainstream musculoskeletal management,[15] to date there have been no systematic investigations into the components and reporting of yoga interventions for musculoskeletal conditions. The aim of this review was to identify the characteristics, content, and reporting details of clinical trials of yoga for musculoskeletal conditions through a systematic review of the literature. This review was conducted and reported in adherence to PRISMA guidelines.[35]

Methods

Methods and results for the assessment of methodological quality, risk of bias, and treatment effect of the yoga interventions reported in this systematic review are reported in a separate publication.[25]