INPLASY PROTOCOL

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None declared.

Mind-body therapies in traditional Chinese medicine for neuropathic pain: a systematic review of randomized controlled trials

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Review question / Objective: **The purpose of this review is to comprehensively evaluate the effectiveness and safety on mind-body therapies of traditional Chinese medicine for neuropathic pain.**
Condition being studied: **According to the definition by the International Association for the Study of Pain (IASP), neuropathic pain is a kind of pain caused by lesions or diseases affecting the somatosensory nervous system. It has brought considerable negative impacts on patients and society. Neuropathic pain is a prevalent disease and can be induced by a variety of clinical conditions such as spinal cord injury (prevalence rate: 53%), induced peripheral neuropathic pain (prevalence rate: 38%), diabetic peripheral neuropathic pain (prevalence rate: 10%-26%), chemotherapy postherpetic neuralgia (3.9-42.0/10,000 people per year), prosopalgia (3-5/10,000 people per year), and so on. However, current recommended medicines for neuropathic pain management could cause dependence and adverse events. Thus, alternatives would be helpful for both patients and clinicians. Mind-body therapy in traditional Chinese medicine (TCM) has a long history in clinical practice for relieving pain and their effectiveness has not been systematically reviewed.The purpose of this review is to comprehensively evaluate the effectiveness and safety on mind-body therapies of traditional Chinese medicine for neuropathic pain.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 April 2022 and was last updated on 04 April 2022 (registration number INPLASY202240016).

INTRODUCTION

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METHODS

Search strategy: The search strategy consist of a juxtaposition of two aspects of TCM mind-body therapies. One part aims the search for randomized controlled trials (RCTs) of TCM therapies that have been widely accepted as mind-body therapies for neuropathic pain. The other part intends to obtain TCM interventions such as acupuncture and massage that is able to use mind-body techniques for neuropathic pain. The two parts will be searched together in each database. Search terms consists of the aspects about mind-body-related techniques in traditional Chinese medicine, mind body, neuropathic pain, and "random" or "control". EndNote 20 will be used to manage retrieved records, and preliminary exclude the duplicates.

Participant or population: Adults (equal or over 18 years old) with confirmed neuropathic pain without any limitation on parts of the body and original causes.

Intervention: Interventions will be mind-body therapies in Traditional Chinese Medicine (TCM). Which is mind-body therapies by TCM theory or under the guidance of TCM theory. Mind-body therapies are based on the holistic principle that mind, body and behaviour are all interconnected, incorporate strategies that are thought to improve psychological and physical well-being, and aim to allow patients to take an active role in their treatment and to promote people's ability to cope (NCCAM 2012). It focuses on the interaction between mind and body by using internal awareness, anatomical alignment, and deep breathing to improve individual wellness [REF: CD012290], administered or taught by a trained practitioner or teacher [REF: https://www.nccih.nih.gov/health/mind-and-body-practices%5D.Examples of TCM mind and body therapies include active mind-body movement therapies such as Taiji, Qigong, Baduanjin, Wuqinxi, Yijinjing, Liuzijue; passive mind-body movement therapies such as mind regulating acupuncture, Tuina; and motionless interventions such as TCM meditation, Zhan Zhuang, Naikan [REF: CD012290]; mind-body sensory therapies such as five tone music therapy, TCM aromatherapy [MAYO CLINIC].Mind-body therapies that do not involve TCM perspectives will be excluded, e.g. yoga, Pilates, and music therapy. Mind-body therapies combined with other complementary interventions will be excluded.

Comparator: Comparators include but not limit to placebo, no intervention such as waiting list control, usual care such as carbamazepine for trigeminal neuralgia, and amitriptyline, duloxetine, gabapentin or pregabalin as initial treatment for other neuropathic pain.

Study designs to be included: Randomized controlled trials regardless of blinding, or

publication status. Cross-over trials will be excluded.

Eligibility criteria: For participants, the diagnosis criteria of IASP will be used to determine neuropathic pain, which will include any one of trigeminal neuralgia, postherpetic neuralgia, diabetic and non-diabetic painful polyneuropathy, postamputation pain, post-traumatic/ postsurgical neuropathic pain, central post-stroke pain, spinal cord injury pain, multiple sclerosis-associated pain. There will be clear diagnosis of these conditions based on national or international guidelines, or WHO International Statistical Classification of Diseases 10th. Adults that equal or over 18 years old will be include in this review. There will be no limitation on gender, race, and comorbidity.Conditions such as complex regional pain syndrome type I, low back pain without radicular pain, fibromyalgia, and atypical facial pain will be excluded.As for the interventions, TCM mind-body therapies will be included if they involve in both psychological and physical aspects. The two aspects could be reflected in the study reports by names, introductions of the intervention, and/or outcomes. For example, the outcome covered both the aspects of mind (such as psychometric scale) and body (such as pain scale), or the name of the intervention indicates both psychological and physical components. The form or course of the treatments is not restricted. Comparators have no restrictions, with exceptional of psychological intervention, non-TCM mind-body practices, other treatments without research evidence (not recommended in guidelines or reported as "insufficient evidence" in systematic reviews). Randomized controlled trials published in English and Chinese will be included. Duplicates of the same studies will be excluded.

Information sources: Chinese and English databases was comprehensively searched to find eligible randomized controlled trials published or unpublished from their inception to March, 2022. (1)English databases are MEDLINE/PubMed, EMBASE, the Cochrane library, Web of Science, PsycINFO, Alt HealthWatch, and ProQuest; (2)Chinese databases are China National Knowledge infrastructure (CNKI), Wanfang Database, Chinese Scientific Journal Database (VIP), and Sino-Med Database.

Main outcome(s): The main outcome is pain intensity or pain relief measurement with validated tools such as pain assessment scales (such as visual analogue scale, numerical rating scale, verbal rating scale, etc.), or neuropathic pain specific instrument (such as neuropathic pain screening tool, douleur neuropathique 4 questions, neuropathic pain questionnaire, Leeds assessment of neuropathic pain symptoms and sings scale and so on).

Additional outcome(s): Based on the recommendations of IASP, additional outcomes including following items: physical functioning, emotion functioning, global judgement of improvement and of satisfaction with treatments rated by participants, and adverse events and symptoms. Other pain-related outcomes will be included such as occurrence of pain, lasting of pain, pain distribution, analgesic drug use, pain-related hospitalizations, or pain-related rehabilitation measured by scales.

Quality assessment / Risk of bias analysis: The Cochrane risk of bias tool 2 will be used to assess the quality of the RCTs to be included.

Strategy of data synthesis: A pre-designed extraction sheet will be used to extract general information (publication status, author, country, content-language, publication year), participants characteristics, intervention, controls, comparisons, study design, outcomes, and safety measurements. Review Manager 5.3 will be used to pool the data when possible. Intention to treat (ITT) data will be used for analysis when reported. Risk ratio (RR) with 95% confidence interval (CI) will be used to present binary data, and mean difference (MD) or standardised mean differences (SMD) with 95% CI will be used to present continuous data. An overall

effect size of 0.2-0.5 will be regarded as small, 0.5-0.8 as moderate, and more than 0.8 as large. Statistical heterogeneity will be assessed using the I2 statistic. When I2 is between 0% and 30%, the heterogeneity will be considered as not important; when I2 is greater than 30% but lower than 50%, the heterogeneity will be considered as moderate; when I2 is greater than 50%, but lower than 75%, the heterogeneity will be considered as substantial; when I2 is greater than 75%, the heterogeneity will be considered as considerable.

Subgroup analysis: The subgroup analysis will be planned as follows: 1) Based on different types of therapy; 2) Based on comparisons and comparator(s) (such as drugs or non-drugs); 4) Based on different anatomic sections of neuropathic pain.

Sensitivity analysis: Where I2 is greater than 50%, further investigation of potential heterogeneity sources will be conducted using sensitivity analysis. For the primary outcome, sensitivity analyses will be performed to determine whether the review conclusions will be different if eligibility is restricted to trials with low risk in selection bias.

Language: The language in this review will be limited to Chinese and English.

Country(ies) involved: China, United Kingdom.

Keywords: Traditional Chinese medicine; mind-body therapy; neuropathic pain; systematic review; randomized controlled trials; RCT; meta-analysis; complementary and alternative therapy.

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