

INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Efficacy of traditional Chinese exercise in patients with chronic fatigue syndrome: a protocol for a systematic review and meta-analysis

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Review question / Objective: Chronic fatigue syndrome (CFS) is a disease in which fatigue strikes or lasts for more than 6 months, accompanied by pain, sleep disturbance, anxiety, and depression. Moreover, it brings a heavy economic burden to society. Traditional Chinese exercises (TCEs) are a traditional Chinese medical treatment and have good efficacy on CFS, therefore, this systematic evaluation is to accurately evaluate the efficacy of TCEs on CFS. P: Patients with chronic fatigue syndrome. I: Traditional Chinese exercises. C: conventional exercise, acupuncture, physiotherapy, and other physical therapy methods. O: quality of life, fatigue, pain, sleep, anxiety, and depression. S: randomized controlled trials.

Condition being studied: Chronic fatigue syndrome (CFS) is a disease in which fatigue strikes or lasts for more than 6 months, accompanied by pain, sleep disturbance, anxiety, and depression. Moreover, it brings a heavy economic burden to society. Traditional Chinese exercises (TCEs) are a traditional Chinese medical treatment and have good efficacy on CFS. Therefore, this systematic evaluation is to accurately evaluate the efficacy of TCEs on CFS, to provide an alternative therapy for clinical treatment of CFS.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 05 September 2022 and was last updated on 05 September 2022 (registration number INPLASY202290022).

INTRODUCTION

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METHODS

Participant or population: Patients with chronic fatigue syndrome.

Intervention: Traditional Chinese exercises.

Comparator: Conventional exercise, acupuncture, physiotherapy, and other physical therapy methods.

Study designs to be included: Randomized controlled trials of Traditional Chinese exercises for chronic fatigue syndrome will be included.

Eligibility criteria: Inclusion criteria: all published and accessible randomized controlled trials that included traditional Chinese exercise for chronic fatigue syndrome. Exclusion criteria: Cross-sectional studies, case reports, and reviews of the literature will be excluded. Randomized controlled trials without access to the full text will also be excluded.

Information sources: Seven databases (PubMed, Ovid Embase, Cochrane Library, Web of Science, CNKI, CBM, and Wanfang) will be searched from inception to August

2022 to choose RCTs that meet requirements above.

Main outcome(s): Fatigue Scale-14 (FS-14), Multidimensional Fatigue Inventory-20 (MFI-20), Hospital Anxiety and Depression Scale (HADS), Self-rating Depression Scale (SDS), Self-Rating Anxiety Scale (SAS).

Additional outcome(s): Neuropeptide Y (NPY), Calcitonin gene-related peptide (CGRP), the MOS item short form-36 health survey (SF-36), Pittsburgh Sleep Quality Index (PSQI), etc.

Quality assessment / Risk of bias analysis: Two reviewers will independently assess the methodological quality of the included trials using the PEDro scale, an 11-item physical therapy evidence database scale intended to assess the reliability of physical therapy treatments RCTs.

Strategy of data synthesis: Review Manager 5.2 software will be used to analyze the accepted literature, and the relative risk ratio (RR) and 95% confidence interval (CI) will be used as effect indicators for the outcome indicator dichotomous variables. For continuous variables, weighted mean difference (MD) and 95% confidence interval will be used as effect indicators. The heterogeneity test used I² value and Q test as effect indicators. When I²≥50% and P<0.1, it means that the included literature is somewhat heterogeneous and will be analyzed using a random effects model, otherwise, sensitivity analysis will conduct to identify the sources of heterogeneity. When I²≤50% and P≥0.1, it indicates that the included literature is homogeneous and will be analyzed using a solid effects model.

Subgroup analysis: If high heterogeneity exists, we will perform subgroup analyses for sex, age, duration of exercise, duration of CFS, etc.

Sensitivity analysis: If the studies that will be included are of low quality or numerically far from other studies, we will conduct sensitivity analyses. We will use iteratively remove one study at a time from

Review Manager5.2 to finish the sensitivity analysis.

Country(ies) involved: China.

Keywords: Chronic fatigue syndrome; Traditional Chinese exercise; fatigue.

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