

INPLASY PROTOCOL

Systematic Evaluation and Meta-analysis of Tai chi quan in insomnia

To cite: Shen et al. Systematic Evaluation and Meta-analysis of Tai chi quan in insomnia. Inplasy protocol 202120006. doi: 10.37766/inplasy2021.2.0006

Shen, J¹; Lu, J²; Wang, W³; Tong, Z⁴.

Received: 01 February 2021

Published: 02 February 2021

Corresponding author:
Zhang Tong

13522936453@163.com

Author Affiliation:
Shaanxi University of Chinese Medicine

Support: Shaanxi Provincial Department.

Review Stage at time of this submission: Preliminary searches.

Conflicts of interest:
None declared.

Review question / Objective: The purpose of this study was to investigate the extent to which Tai Chi as a treatment improved sleep problem in adults.

Condition being studied: Insomnia is defined as predominant dissatisfaction with sleep, leading to impairment in social, occupational, educational, academic, behavioral, or other important areas of functioning. Taijiquan, as a fitness exercise with very low side effects, has been applied in clinical promotion for many years to intervene in a variety of chronic diseases. However, evidence on its effectiveness in the treatment of sleep problems needs to be supplemented. The purpose of this study was to investigate the extent to which Tai Chi as a treatment improved sleep problem in adults.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 02 February 2021 and was last updated on 02 February 2021 (registration number INPLASY202120006).

INTRODUCTION

Review question / Objective: The purpose of this study was to investigate the extent to which Tai Chi as a treatment improved sleep problem in adults.

Condition being studied: Insomnia is defined as predominant dissatisfaction

with sleep, leading to impairment in social, occupational, educational, academic, behavioral, or other important areas of functioning. Taijiquan, as a fitness exercise with very low side effects, has been applied in clinical promotion for many years to intervene in a variety of chronic diseases. However, evidence on its effectiveness in the treatment of sleep problems needs to

be supplemented. The purpose of this study was to investigate the extent to which Tai Chi as a treatment improved sleep problem in adults.

METHODS

Participant or population: Adults with insomnia (as diagnosed by a clinician, or using any recognized diagnostic criteria) will be included.

Intervention: Tai chi quan was the main intervention.

Comparator: Aerobic exercise, or sleep hygiene education, or cognitive behavioral therapy, or maintain their habits.

Study designs to be included: Randomized controlled trials (RCTs) will be included.

Eligibility criteria: - Type of study: In order to collect high-quality evidence, this review only included a Randomized Controlled Trial (RCT). - Subjects: All studies on sleep quality were included, and there was no baseline requirement for sleep quality. - Intervention measures: any form of Taijiquan exercise can be selected in the test, and the duration of treatment is not considered. The control group received no intervention, drug treatment or other non-drug treatment. - Outcome indicators: PSQI, Insomnia Severity Index (ISI), Stanford Sleepiness Scale (SSS), Epworth Sleepiness Scale (ESS), Athens Insomnia Scale (AIS) or Polysomnography (PSG).

Information sources: PubMed, Web of Science, Cochrane Library, Wanfang Database, CNKI Database and Chinese Biomedical Literature Database.

Main outcome(s): PSQI, Insomnia Severity Index (ISI), Stanford Sleepiness Scale (SSS), Epworth Sleepiness Scale (ESS), Athens Insomnia Scale (AIS) or Polysomnography (PSG).

Quality assessment / Risk of bias analysis: sequence generation, allocation concealment, blinding of participants, providers and outcome assessors,

completeness of outcome data, selective outcome reporting, and other sources of bias.

Strategy of data synthesis: Meta-analysis was performed using RevMan5.3 and Stata15.1, and the results were presented as forest plots. Since this study only included continuous data, Mean and Standard deviation (SD) were used for analysis. If these data are not available in the paper and the author cannot be contacted, the known data and the formula conversions in the Cochrane Manual are used for the assessment.

Subgroup analysis: Subgroup analysis will be performed based on participants' physical condition (e.g., health or disease), geographical population (e.g., Asian, European or African), comparator, and age.

Sensitivity analysis: Funnel figure, egger statistical test.

Language: English and Chinese.

Country(ies) involved: China.

Keywords: Tai Chi; Insomnia; Adult; Sleep; PSQI; Meta-analysis.

Contributions of each author:

Author 1 - Shen Jiayi.

Author 2 - Lu Jian.

Author 3 - Wang Wenzhu.

Author 4 - Zhang Tong.

Conflicts of interest: We declare that we have no financial and personal relationships with other people or organizations that can inappropriately influence our work, there is no professional or other personal interest of any nature or kind in any product, service and/or company that could be construed as influencing the position presented in, or the review of, the manuscript entitled.