INPLASY PROTOCOL

To cite: Zhao et al. Effect of Taijiquan assisted rehabilitation for breast cancer patients: A protocol for systematic review and meta-analysis. Inplasy protocol 202130010. doi: 10.37766/inplasy2021.3.0010

Received: 03 March 2021

Published: 04 March 2021

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Support: **None.**

Review Stage at time of this submission: **Piloting of the study selection process.**

Conflicts of interest:
None declared.

Effect of Taijiquan assisted rehabilitation for breast cancer patients: A protocol for systematic review and meta-analysis

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Review question / Objective: **Up to now, no systematic review has been used to evaluate the efficacy of Taijiquan in the rehabilitation process of breast cancer patients after treatment. In this study, the Cochrane systematic review method will be used to evaluate the efficacy of Taijiquan in the rehabilitation treatment of breast cancer, to provide high-quality evidence to support guidelines development and clinical practice, and promote the development of personalized rehabilitation of breast cancer.**
Condition being studied: **Taijiquan, as a supplementary and alternative method, has attracted more and more attention in the treatment of breast cancer. But up to now, no systematic review has been performed to evaluate the efficacy of Taijiquan in the treatment of breast cancer. In this study, Cochrane systematic review method will be used to evaluate the effect of Taijiquan in the rehabilitation process of breast cancer patients after treatment.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 04 March 2021 and was last updated on 04 March 2021 (registration number INPLASY202130010).

INTRODUCTION

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attracted more and more attention in the treatment of breast cancer. But up to now, no systematic review has been performed to evaluate the efficacy of Taijiquan in the treatment of breast cancer. In this study, Cochrane systematic review method will be used to evaluate the effect of Taijiquan in the rehabilitation process of breast cancer patients after treatment.

METHODS

Participant or population: Women over 18 years old with breast cancer confirmed by pathology or cytology have received traditional western medicine treatment for breast cancer, including surgery, chemotherapy, radiotherapy, and hormone therapy, regardless of race and nationality.

Intervention: Any type of Tai Chi, such as simplified Taijiquan, simplified Yang's Taijiquan, 19-style simple Taijiquan, and 24-style Taijiquan. It is not limited by the frequency, time, place, and intensity of intervention.

Comparator: The control group should adopt one of the following treatment methods: no treatment, placebo, usual or standard care, health education, psychosocial therapy, and drug therapy.

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

Eligibility criteria: The included studies meet the requirements in terms of title, summary, study population, intervention measures, measurement methods and time, primary and secondary outcome indicators.

Information sources: English databases: PubMed, Embase.com, the Cochrane Central Register of controlled trials (CENTRAL) and Web of Science, as well as Chinese databases: China National Knowledge Infrastructure (CNKI), Wanfang, and Sinomed.

Main outcome(s): Physical function, quality of life, social function, mental state, grip strength, elbow flexion function, elbow extension, social well-being, and emotional health.

Quality assessment / Risk of bias analysis: Two reviewers will assess the risk of bias of included RCTs using the "Cochrane bias risk assessment tool". The evaluation items include: random sequence generation (selection bias). allocation concealment (selection bias). blinding of participants and personnel (performance bias). blinding of outcome assessment (detection bias). incomplete outcome data (attrition bias). selective reporting (reporting bias). other sources of bias (other bias). Each item will be judged as low risk, high risk, and unclear risk.

Strategy of data synthesis: Two reviewers will independently screen the literature, extract the data, and cross-check the data. In case of disagreement, a third party will be consulted to assist in judgment, and the author will be contacted to supplement the missing data if possible. In the process of literature selection, we will first read the titles and abstracts. After excluding the unrelated literatures, we will further read the full text to determine whether they are included. Data extraction included: author, publication time, randomization method, grouping and sample size, age and sex of patients, intervention method (operation name, course of treatment), baseline comparison, distribution, whether to use the blind method, the outcome of interest, and follow-up time.

Subgroup analysis: Univariate meta-regression analysis will be performed on the within-study factors (time, sample size, tumor pathological stage, previous treatment of breast cancer, intervention group scheme, intervention time) and between study factors (mean age, race) respectively to screen out the important factors leading to heterogeneity. Subgroup analysis will be performed on these significant factors.

Sensitivity analysis: We will perform sensitivity analyses by excluding low-quality studies to assess the robustness of our conclusions.

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Country(ies) involved: China.

Keywords: Breast cancer, Taijiquan, Efficacy, Rehabilitation, Comprehensive and alternative medicine.

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