INPLASY PROTOCOL

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None declared.

Nonpharmacological interventions for chronic obstructive pulmonary disease-related fatigue: A systematic review and network meta-analysis

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Review question / Objective: **The effects of various non-drug interventions for COPD-related fatigue were evaluated and compared by network meta-analysis.**
Condition being studied: **Chronic Obstructive Pulmonary Disease (COPD) is a common chronic respiratory disease. Fatigue is the second most overlooked symptom in COPD patients and is often described as a general feeling of lethargy and depleted energy. Fatigue not only has a severe negative impact on the daily life of COPD patients, but also greatly limits their physical, psychological, cognitive, and social functioning. In addition, fatigue is also a marker of COPD severity and mortality. If fatigue is not treated in a timely and correct manner, it will seriously affect the prognosis of the disease. In recent years, a variety of nonpharmacological interventions have played a crucial role in relieving fatigue in COPD patients. However, it is unclear which nonpharmacological interventions are most effective in reducing fatigue.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 September 2022 and was last updated on 16 September 2022 (registration number INPLASY202290072).

INTRODUCTION

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METHODS

Participant or population: Chronic obstructive pulmonary disease patients.

Intervention: One or more non-pharmacological interventions for COPD-related fatigue.

Comparator: Usual treatment and care or nonpharmacological interventions for COPD-related fatigue that differ from the intervention group.

Study designs to be included: Randomized Controlled Studies and Quasi-Experimental Studies.

Eligibility criteria: Inclusion criteria:① The subjects of the study are COPD patients with a clear diagnosis;②The research design types are randomized controlled studies and quasi-experimental studies;③ The outcome index is the fatigue status of COPD patients;Exclusion criteria:①The original research data is incomplete or the effect indicators cannot be converted or combined;②The original documents cannot be obtained;③ Repeated publications;④ The quality evaluation of the literature is low.

Information sources: Computer searched PubMed, Web of Science, Embase, CINAHL, CNKI, Wanfang, CBM and VIP databases.The retrieval time limit is from the establishment of the database to August 2022. The comprehensiveness of the search results was ensured by further follow-up searches of articles and their references included in published systematic reviews and meta-analyses.

Main outcome(s): Main outcome: Fatigue improvement in patients with chronic obstructive pulmonary disease.

Quality assessment / Risk of bias analysis: The Cochrane risk of bias assessment tool was used to assess the quality of randomized controlled studies, and the JBI Center for Evidence-Based Health Care assessment tool was used to assess the quality of quasi-experimental studies. The quality of the literature was evaluated by two researchers simultaneously.

Strategy of data synthesis: Traditional meta-analysis was performed using Review Manager 5.3 software. The heterogeneity among the results of the included studies was analyzed by χ^2 test, and the magnitude of heterogeneity was determined quantitatively by I^2. The network relationship between the studies was displayed by Stata15.0 software. Network Meta-analysis was performed using Addis1.16.8 software.

Subgroup analysis: We will perform the subgroup analysis according to the sample situation of the included study.

Sensitivity analysis: Sensitivity analyses were performed by using a leave-one-out method by iteratively removing a study from the meta-analysis to assess the changes of overall effects.

Country(ies) involved: China.

Keywords: Pulmonary disease, chronic obstructive; fatigue; network meta-analysis.

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