

The Effectiveness of Tai Chi on Increasing Exercise Capacity and Quality of Life in Patients with Chronic Obstructive Pulmonary Disease: A Systematic review. (Tai Chi Effectiveness in COPD Patients)

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Abstract

Chronic Obstructive Pulmonary Disease (COPD) is a chronic respiratory disease characterized by persistent and usually progressive airflow obstruction with an increased chronic inflammatory response to the airways caused by certain irritant particles. Tai Chi exercises can be applied as a therapeutic modality in pulmonary rehabilitation programs in patients with stable COPD. This systematic review aims to examine the effectiveness of Tai Chi in improving exercise capacity and quality of life in patients with Chronic Obstructive Pulmonary Disease.

This systematic review search was conducted using four databases: CINAHL, PubMed, Science Direct, and Scopus, for the last ten years, starting from 2011- December 2020. The keyword combinations used were: 'Tai Chi', 'Tai Chi Chuan', 'Tai Ji Quan', 'Quality of Life', 'Health-Related Quality of Life', 'Life Quality', 'Exercise Capacity', 'COPD', 'Chronic Obstructive Pulmonary Disease'. Joanna Briggs Institute (JBI) critical appraisal checklist for randomized controlled trials was used to assess selected articles' bias and methodological quality.

The total articles obtained were 258 articles and 10 research articles were taken using the RCT method for analysis. A 6-month Tai Chi program under the guidance of a therapist can improve exercise capacity and quality of life in COPD patients.

Tai Chi is a therapeutic modality that effectively increases exercise capacity and can also improve the quality of life in patients with COPD.

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Introduction

Chronic Obstructive Pulmonary Disease (COPD) is a health problem that affects many people around the world. WHO predicts that COPD will be the number 3 cause of death worldwide in 2030 and is ranked 5th (DALYs) in the same year¹. Persistent respiratory symptoms and restricted airflow characterize COPD. The most common respiratory symptoms suffered by patients are dyspnea, cough with sputum

production or not. COPD patients often suffer from dyspnea and exacerbations, causing the patient to become unproductive, tired quickly during daily activities, resulting in decreased functional capacity and quality of life².

The Global Burden of Disease Study reported a prevalence of 251 million cases of chronic obstructive pulmonary disease globally in 2016. Globally, an estimated 3.17 million deaths were caused by this disease in 2015 (i.e., 5% of all deaths globally that year). More than 90% of COPD deaths occur in low- and middle-income countries³. The leading causes of Chronic Obstructive Pulmonary Disease are the age and a history of regular smoking. Exposure to dust and fumes from the workplace can also cause COPD². In addition, some COPD is also caused by long-term asthma. COPD cannot be cured,

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