Effects of the Tai Chi Qigong in COPD Patients: A Systematic Review and Meta-Analysis

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Background: COPD is an irreversible and non-curable disease, and the physical symptoms caused by it cannot be eliminated but improved. Exercise training is an important part of pulmonary rehabilitation that may improve dyspnea and health status and decrease extra health care. Based on the research findings, Tai Chi Qigong improves lung functions and activity tolerance in COPD patients. Since the studies and meta-analysis in the report were long before August 2014, we wanted to further evaluate the effects of Tai Chi Qigong.

Aims: The purpose of this study is to evaluate the effects of Tai Chi Qigong in COPD patients.

Methods: Identifying the foreground questions and PICO according to 2011 Oxford Centre for Evidence-based Medicine steps. Six databases (Cochrane library, PubMed, MEDLINE, CINAHL, Airiti Library, Index of Taiwan Periodical Literature System) were searched from the earliest year available in August 2017. Searching researches limited on RCT, CCT, Humans, and Adult by using "Tai chi OR Qigong" AND "COPD" as key words. Critical appraisal sheet of RCT of CEBM 2011 was used to examine the validity and reliability. Extracted data were entered and analyzed using Review Manager 5.3.5.

Results: Nine RCT articles (Level of Evidence: Level 2) were included. The results indicate that Tai Chi Qigong can significantly improve quality of life (standardized mean difference = 0.22, 95% CI = 0.06~0.38, p = .007, 594 participants, 6 trials) and 6-minute walking distance (mean difference = 18.91m, 95% CI = 4.41~33.4, p = .01, 459 participants, 5 trials). There was no significant difference in the FEV1 between the intervention group and control group (mean difference = 0.08 litre, 95% CI = -0.01~0.18, p = .09, 369 participants, 3 trials).

Discussion: COPD patients may not be able to carry out exercises at high-intensity levels due to reduced physical abilities. Much of the evidence shows the physiological benefit of exercise based on conventional physical exercise, such as walking, jogging, swimming and cycling. However, Tai Chi Qigong may be a safe and low cost and low-intensity level exercise. It was worthy of applying at home and in community.

Conclusion: Tai Chi Qigong could significantly improve exercise capacity and quality of life in patients with COPD, but there were no significant differences in lung functions. The findings of this evidence support Tai Chi Qigong in order to improve activity tolerance for COPD patients. Tai Chi Qigong is suggested the clinical application as a form of traditional Chinese exercise for the rehabilitation of patients with COPD.
Abstract Summary:
The findings of the evidence support Tai Chi Qigong can improve activity tolerance for COPD patients. Tai Chi Qigong is suggested the clinical application as a form of traditional Chinese exercise for the rehabilitation of patients with COPD.

Content Outline:

1. **Introduction**: COPD is an irreversible and non-curable disease, and the physical symptoms caused by it cannot be eliminated but improved. Exercise training is important part of pulmonary rehabilitation that it may improve dyspnea and health status and decrease extra health care.

2. **Body**
   - Main Point #1: (1) Searching researches limited on RCT, CCT, Humans, and Adult by using “Tai chi OR Qigong” AND “COPD” as key words. Critical appraisal sheet of RCT of CEBM 2011 was used to exam the validity and reliability.
   - (2) Extracted data were entered and analyzed using Review Manager 5.3.5.

3. **Conclusion**: Tai Chi Qigong could significant improve exercise capacity and quality of life in patients with COPD, but there were no significant difference in lung functions. The findings of this evidence support Tai Chi Qigong in order to improve activity tolerance for COPD patients. Tai Chi Qigong is suggested the clinical application as a form of traditional Chinese exercise for the rehabilitation of patients with COPD.

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**Author Summary:** She is a clinical Practitioner nurse, she has been working for 16 years. She loves nursing, so she is self-learning constantly. She want to share her experience with you.