

COPD 2018: Effects of early exercise on health status and quality of life in hospitalized patients with chronic obstructive pulmonary disease-Guo-Chang Gung University of Science and Technology

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Objectives: Early exercise can promote patients with acute exacerbation of chronic obstructive pulmonary disease (AECOPD) quickly return to a steady state. However, no previous studies have examined the effects of early Tai-Chi exercise on exercise tolerance and quality of life. The aim of this study was to examine effects of Tai Chi intervention on exercise tolerance and health-related quality of life in hospitalized patients with AECOPD. **Methods:** A quasi-experimental study was conducted. A purposive sampling of 31 patients with AECOPD (experimental group, n=17 and control group, n=14) was selected from hospitals in two cities of Midwest Taiwan. The generalized estimating equations were used to examine the effects of Tai Chi training intervention. **Results:** The experimental group had better exercise tolerance than control group (P=0.01) one week after discharge and (P=0.01) six months after discharge. The experimental group had better quality of life than control group (P=0.04) 3 months after discharge. **Conclusions:** Early exercise with Tai Chi intervention during hospitalization can enhance exercise tolerance and health-related quality of life. The findings can be seen as references for professional healthcare providers to promote early exercise in the future.

Chronic obstructive pulmonary disease (COPD) is characterized by a progressive limitation of the airways, which can cause wheezing, chronic cough, sputum production, wheezing, fatigue and hypoxemia. Acute exacerbation, a common complication of COPD, sometimes requires mechanical ventilation (MV) in an intensive care unit (ICU). Pulmonary rehabilitation as a non-drug therapy has recently been added to the standard of care for patients with COPD since the accumulation of evidence supports its effectiveness. Numerous studies have reported

that pulmonary rehabilitation therapy reduced wheezing, improved exercise capacity, improved quality of life and reduced length of hospital stays. Even for patients with a recent exacerbation of COPD, pulmonary rehabilitation has been shown to be an effective and safe intervention that has reduced hospitalizations and mortality and improved health-related quality of life

Each exercise session should include a warm-up, conditioning and cool-down phase. Warming up helps your body adjust slowly from rest to exercise. Warming up reduces stress on your heart and muscles, slowly increases your breathing, circulation (heart rate) and body temperature. It also helps improve flexibility and reduce muscle pain. The best warm-up includes stretching, range of movement activities and starting the activity at a low level of intensity.

The conditioning phase follows the warm-up. During this phase, the benefits of exercise are gained and calories burned. In the conditioning phase, you should monitor the intensity of the activity. Intensity is the intensity of your workout, which can be measured by checking your heart rate. Your healthcare professional can give you more information about monitoring your heart rate.

Over time, you can work to increase the duration of the activity. Duration is the length of time you train during a session. The recovery phase is the last phase of your exercise session. It allows your body to gradually recover from the conditioning phase. Your heart rate and blood pressure will return to near resting values. Recovery does not mean sitting down. In fact, don't sit, stop, or lie down right after exercise. This can cause dizziness, lightheadedness, or heart palpitations (floating in the chest).

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