

What Exercise Interventions are Effective in the Elderly Population During the COVID-19 Pandemic?

A Systematic Review

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ABSTRACT

Cardiorespiratory fitness is an important factor to prevent cardiovascular diseases in the elderly population. The COVID-19 pandemic resulted in limited outdoor activities or exercise. This study aimed to evaluate if any exercise intervention is effective in the elderly population during the COVID-19 pandemic.

This was a systematic review that included studies with quasi-experimental or randomized controlled trials (RCT) comparing any exercise interventions versus control or exercise interventions. Five databases were searched for eligible articles. The primary outcomes were either physical or mental health outcomes, while pre-and post- intervention outcomes were defined as secondary outcomes.

There were 127 articles searched from five databases. Of those, there were 13 articles eligible for full -text review; eight articles were excluded due to non-elderly studies (3), non-COVID-19 studies (2); non-intervention studies (2), and non-RCT studies (1). There were five articles included in the analysis and all articles were RCT studies. Regarding outcomes, there were two studies with significant differences between the exercise intervention group versus the control group. The Otago exercise group had significantly improved both physical functions and mental health outcomes more than the control group, while Tai chi exercise significantly decreased perceived stress more than the control group. The exercise intervention group had significant pre-post outcomes in three studies.

Two exercise interventions had beneficial outcomes in the elderly population including Otago exercise and Tai chi.

Keywords: Otago; Tai chi; Mental health; Physical function; Elderly

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