Tai chi as a potentially effective treatment for neck pain

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Neck pain is a frequent symptom that can lead to disability and high healthcare costs. Tai chi is a combination of physical exercise and mental relaxation and is believed to help improve the mental and physical health of practitioners. A series of previous studies have demonstrated that tai chi can improve muscular strength, reduce the risk of falls in the elderly and alleviate symptoms associated with rheumatoid arthritis and osteoarthritis. Here I propose the hypothesis that tai chi could be an effective treatment for neck pain and discuss the available evidence that supports this hypothesis.

A large proportion of the population may experience neck pain in their lives, especially the middle-aged population. In a survey in the UK, 25% of female and 20% of male adults have reported neck pain. Neck pain is a frequent symptom that can lead to disability and high healthcare costs. Manual manipulation, mobilization, and exercise have been used as single treatments to alleviate neck pain. Exercise seems to reduce neck pain and improve neck function over the long term.

Tai chi involves physical exercise and relaxation and it is originated from ancient Chinese philosophy. It is believed that tai chi can improve the mental and physical health of practitioners, including balance control, flexibility, and aerobic capacity, and alleviate headache and psychological ailments such as depressive symptoms and anxiety. Furthermore, tai chi can improve muscular strength, reduce the risk of falls in the elderly, and alleviate symptoms associated with rheumatoid arthritis and osteoarthritis. A recent study has indicated that tai chi may be an effective treatment for fibromyalgia. On the basis of these findings, it is reasonable to assume that tai chi can help patients with neck pain. However, no studies have been performed yet to examine the effect of tai chi exercise on neck pain patients.

Given the physical and mental benefits of tai chi, its potential in treating chronic rheumatic conditions is promising. Further research is warranted to study the effects of tai chi on neck pain treatment.

Previous studies revealed that strenuous physical activity may cause immunosuppression associated with an increased risk of upper respiratory tract infections. In contrast, other studies demonstrated that moderate exercise improved T cell function and decreased respiratory infections. On the basis of these results, we may speculate whether the beneficial effects of exercise depend on exercise volume. Because tai chi requires no more than 55% maximal oxygen intake, it is classified as moderate exercise.

Tai chi is a mind–body practice that is rooted in martial arts that originated in ancient China. It combines slow and gentle movements with deep breathing and relaxation. It is regarded as a multicomponent intervention that integrates psychosocial, spiritual, and behavioral elements. Because of its mind–body attributes, tai chi may be especially suitable for treatment of neck pain. In fact, individuals with musculoskeletal and mental health conditions prefer to practice tai chi than other types of exercise in the USA.
chi also has potential therapeutic benefits in patients with rheumatoid arthritis and osteoarthritis.\textsuperscript{8} Furthermore, it has been reported that tai chi is effective in alleviating pain, improving physical function, and promoting the quality of life of individuals with chronic conditions.\textsuperscript{9}

Besides pain and impaired function, people with neck pain also suffer from psychological distress. Mind–body interventions may improve psychosocial wellbeing, increase confidence, and help patients overcome the fear of pain. In addition, controlled breathing and movements promote a restful state and mental tranquility, which may raise pain thresholds and help break the pain cycle. Indeed, it has been reported that tai chi can improve mood and sleep patterns.\textsuperscript{10} In this respect, tai chi might ease the psychological distress of patients with neck pain.

To sum up, tai chi might not only reduce pain and promote the physical ability of patients, but also might alleviate the depression or fear caused by such pain. In addition, several clinical trials have supported the effects of tai chi in improving pain in rheumatoid arthritis and osteoarthritis among other conditions. Interventional research is needed to study the effects of tai chi on neck pain and to address the dosing issue.

References


