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# Background and Significance (Part 1 of "Effects of Online Exercise Intervention on Physical and Mental Conditions in Young Adults with Chronic Neck Pain")

In 1 collection

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## ABSTRACT

This is Part 1 of "Effects of Online Exercise Intervention on Physical and Mental Conditions in Young Adults with Chronic Neck Pain".

Neck pain is one of the most common musculoskeletal disorders causing significant burden in public health worldwide. The China Mental Health Survey reported that the prevalence of chronic back or neck pain among people with any mental disorders was more than twice that of those without mental disorder.

It has also been proved that exercise can reduce the symptoms of depression, anxiety and pain in patients with neck pain. However, due to the lack of time, money and rehabilitation resources, many people cannot receive high quality conventional rehabilitation. In response to this crisis, telerehabilitation, as a new service mode of delivering rehabilitation, has become popular for physiotherapists to treat various musculoskeletal diseases. Recent review on systematic reviews of telerehabilitation in physiotherapy provides preliminary evidence that "telerehabilitation in physical therapy could be comparable with in-person rehabilitation or better than no rehabilitation for conditions such as osteoarthritis, low-back pain, hip and knee replacement, and multiple sclerosis and also in the context of cardiac and pulmonary rehabilitation". However, the efficacy of telerehabilitation for patients with chronic non-specific neck pain is still unknown.

## ATTACHMENTS

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**Keywords:** Background, Significance, Online Exercise Intervention, Physical Condition, Mental Condition, Chronic Neck Pain

## GUIDELINES

### Background and Significance:

Neck pain is one of the most common musculoskeletal disorders causing significant burden in public health worldwide (Safiri et al., 2020). In China, neck pain also influences large population, the age standardized point prevalence of neck pain was 4532.6 per 100000 persons, which was higher than the global age standardized point prevalence of 3551.1 per 100000 persons in 2017 (Safiri et al., 2020; Wu et al., 2021). The China Mental Health Survey reported that the prevalence of chronic back or neck pain among people with any mental disorders was more than twice that of those without mental disorder (Xu et al., 2020). It is believed that psychological factors such as stress, distress, anxiety, mood and emotions, cognitive function and pain-related behaviors are important factors related to chronic neck pain (Kazeminasab et al., 2022). Additionally, because of COVID-19 pandemic, people's physical activity has been greatly reduced and the prevalence of anxiety and depression all over the world is prone to increase. In 2020, the pandemic will lead to an increase of 27.6% in cases of severe depression and 25.6% in cases of anxiety disorders worldwide (Santomauro et al. 2021). In this way, people with chronic neck pain may have a higher risk to develop mental disorder. Most chronic neck pain is non-specific with no identifiable pathoanatomical cause (Beltran-Alacreu et al., 2018). Many therapies have been used to treat patients with chronic non-specific neck pain but exercise therapy is considered as the integral component of interventions (Blanpied et al., 2017). It has also been proved that exercise can reduce the symptoms of depression, anxiety and pain in patients with neck pain (Nazari et al., 2018). However, due to the lack of time, money and rehabilitation resources, many people cannot receive high quality conventional rehabilitation. Since the start of COVID-19 pandemic in 2020, it became more difficult to deliver the conventional form of exercise therapy to those patients with chronic neck pain by the physiotherapists. In response to this crisis, telerehabilitation, as a new service mode of delivering rehabilitation, has become popular for physiotherapists to treat various musculoskeletal, neurological and cardiopulmonary disorders (Havran and Bidelsbach, 2021). Telerehabilitation not only alleviates the time cost and economic cost of patients, but also reduces the pressure on the medical system (De Biase et al., 2020). In addition, online rehabilitation can maximize the use of high-quality rehabilitation resources, and neck pain patients in remote areas can also receive the cutting-edge and effective interventions at home. Recent review on systematic reviews of telerehabilitation in physiotherapy provides preliminary evidence that "telerehabilitation in physical therapy could be comparable with in-person rehabilitation or better than no rehabilitation for conditions such as osteoarthritis, low-back pain, hip and knee replacement, and multiple sclerosis and also in the context of cardiac and pulmonary rehabilitation" (Seron et al., 2021). However, the efficacy of telerehabilitation for patients with chronic non-specific neck pain is still unknown. A Cochrane review protocol on telerehabilitation for neck pain has been published but the review results are not available yet (Fandim et al., 2021).

