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PERFORMANCE OF TAI CHI EXERCISE IMPROVES THE RISK OF FALLS IN PATIENTS FOLLOWING A STROKE: A SYSTEMATIC REVIEW

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ABSTRACT

Background: People who have sustained a stroke commonly experience a decline in functional balance leading to an increased fall risk. Falls may lead to debilitating injuries, recurrent falls and a decline in functional independence. Balance impairment is one of the predominant risk factors for falls in stroke survivors. In recent research, Tai Chi has been used as a therapeutic intervention compared to conventional physical therapy methods. The purpose of this study was to summarize the current research investigating the use of Tai Chi as an intervention to improve balance and fall risk and its success in patients with a stroke. **Methods:** Electronic databases, PubMed and EMBASE, were searched in December of 2019 to identify studies of Tai Chi as a balance intervention for survivors of stroke. Experimental studies with ambulatory participants, diagnosed with a stroke, used Tai Chi as an intervention and utilized outcomes measures to assess balance level, number of falls or fall risk. The studies compared outcomes of patients who underwent a minimum of eight weeks of Tai Chi intervention to standard physical therapy methods. Study quality was assessed using the 10-point PEDro scale and 12-point Quality Assessment Tool for Pre-Post Studies with No Control Group. **Results:** Six studies were included in this review. All studies demonstrated that Tai Chi intervention was effective in improving balance when compared either to the patients' previous ambulatory status (within group comparison) or to a group receiving standard physical therapy (between group comparison). **Conclusion:** Our data suggests that Tai Chi is an effective intervention for improving balance in patients who have survived a stroke. Clinically, the use of Tai Chi should be implemented in conjunction with conventional physical therapy when addressing balance deficits in patients who have survived a stroke.

Keywords: Tai Chi, Stroke, falls, balance, physical therapy

INTRODUCTION

The incidence & Prevalence of Strokes has continued to increase worldwide. Stroke has not only become the 2nd most common cause of death but it has become the 3rd most common cause of disability. A Stroke is detrimental to one's quality of life because it affects a person's function, mobility, and their fear unfortunately. Due to strokes becoming more prevalent worldwide, balance has become a common cause of disability in patients and has the greatest impact on physical performance. Due to balance deficits, this places stroke survivors at an increased risk for falls and injury. This increased risk leads to, not only a decrease in balance, but also decrease in quality of life, function, and activities of daily living. Recent studies have begun to implement Tai Chi additionally or compared to traditional physical activity as a therapeutic intervention. Tai Chi is an ancient exercise, with various forms, widely practiced in China. It is an exercise with low impact and moderate intensity Tai Chi focuses on using strength and