

Health Sciences : The Effects of Tai Chi on Task Modification

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This study assessed whether tai chi improved muscle strength and balance and thereby improved performance of motor tasks essential for daily activities. Many elders either modify how these tasks are done (e.g., leaning on furniture to get up from kneeling position) or take longer to complete them. To evaluate the effects of tai chi on motor tasks, 22 women and 10 men from 70 to 89 years (mean =76), who had difficulty walking a quarter mile or climbing a flight of stairs, were randomly assigned to experimental or control conditions. Participants in a 16-week tai chi program practiced the Yang form one hour 3 times/week. The Task Modification scale (Manini, et al. 2006 Journals of Gerontology) was used to assess modifications (rated from 0 "none" to 5 "refused") and time to complete motor tasks (rising from 30, 38 and 43 cm chairs; climbing stairs; getting up from kneeling and supine positions). At post test, the experimental and control groups did not significantly differ in modifications of motor tasks (Ms= 2.0 and 3.3, respectively). However, experimental subjects performed them more quickly (Ms= 34.2 and 70.2 seconds, respectively), and the combined task modification score (task modification multiplied by time to complete the task) was significantly lower in the experimental group (Ms= 43.6 and 142.4, respectively). With the caveat of a small sample size, the results suggest that tai chi may improve aspects of the performance daily activities requiring the motor tasks used in this study.

Benefits and Learning Objectives

- Describe the effects of tai chi on modification of motor tasks required for daily activity

