The Role of Tai Chi, Cultural Dancing, Playing a Musical Instrument and Singing in the Prevention of Chronic Disease in Chinese Older Adults: A Meditative Creative Arts Approach

Jing Sun, PhD1*, Nicholas Buys, PhD2, Zhengyuan Zhou, MD3, Ning Zhang, MD3, Shuying Shen, MD4, Bao Jun Yuan, MD5,

1School of Public Health and Griffith Health Institute, Griffith University, Australia
2School of Human Services and Social Work, and Griffith Health Institute, Griffith University, Australia
3Changshu Center for Disease Control and Prevention, Jiangsu Province, China
4Chang Shu Health Inspection Institute, Chang Shu, China
5Jiangsu Provincial Centre for Disease Control and Prevention Nanjing, Jiangsu Province, China

*Jing Sun, PhD (Presenter)
School of Public Health and Griffith Health Institute, Griffith University, Gold Coast campus, Parkland, Gold Coast, Q4222, Australia
Phone: 617 55527875
Fax: 617 55528799
Email: j.sun@griffith.edu.au

ABSTRACT

Introduction: Chronic disease is responsible for the majority of disease burden in both developed and low- to middle-income countries (1). Cardiovascular disease (CVD), diabetes, depression and anxiety rank high among the leading disorders in China, causing distress, disability and mortality (2). Older adults with chronic diseases have an increased risk of mortality in China. Previous public health interventions have attempted to reduce chronic disease–related health risks, but have had limited success. In recent years, arts program incorporating with meditative exercises component support the effectiveness of the program, demonstrating significant changes in the medical and psychological symptoms, and coping
ability of chronic-disease patients (3). This study aimed to examine whether 15 months of regular participation in Tai Chi (TC) exercise, dancing, instrument-playing and singing, as part of a creative arts program, improves brain executive function, physiological functioning, and quality of life (QoL) in Chinese older adults.

Methods: The present study used prospective intervention study design. Study participants consisted of 750 people who responded to an invitation to participate in a survey, representing a response rate of 83.5%. Of these respondents, 720 were aged 50 or older and presented with risk factors for chronic diseases, defined as six months’ duration or longer. After they consented to the study, they were then subsequently assigned into four intervention groups and one control group. The four intervention groups were TC, dancing, playing a musical instrument and singing. Participants in the control group joined the activity groups to participate in classes in Chinese literacy, history and computing. Valid and reliable measures including health benefit, resilience, depression, anthropometry measures, and biomedical were used to collect brain functioning, resilience, mental health, body mass index, blood pressure and metabolic syndrome related data.

Results: Results indicated that the creative arts program improved participants’ executive and physiological function, QoL and resilience, compared to a control-group. Moreover, the program regulated the association between reported brain executive function and physiological functioning. These findings indicate that creative arts activities may be adopted as lifestyle approaches in different areas as follows: (1) Tai Chi, for reducing the prevalence of overweight and obesity in older people with chronic conditions, and improving their QoL, mental health and resilience; (2) Dancing, for reducing metabolic syndrome and depression symptoms, and improving QoL and resilience; and (3) Playing a musical instrument and singing, for reducing depression symptoms and improving psychological health.

Discussion and Implications: The creative arts program is effective in preventing overweight and obesity, depression, and promoting QoL and resilience among older adults. However, it is clear that the type of intervention should be tailored to the specific needs of the individual. TC may be adopted to reduce the prevalence of overweight and obesity and improving their QoL, mental health and resilience, dancing to reduce metabolic syndrome, reduce depression symptoms, and improving QoL and resilience, playing a musical
instrument and singing to reduce depression symptoms and improve psychological health. Creative arts programs based in the community offer a low cost, sustainable alternative to existing treating programs and should be given more emphasis in managing chronic conditions as a key public health and prevention strategy.

References