Effects of a multicomponent intervention on cognitive function in community-dwelling older adults with mild cognitive impairment and normal cognition: A randomized controlled trial

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Abstract

Background: Mild cognitive impairment (MCI) has become the best stage for intervention to prevent Alzheimer's disease (AD). Non-pharmacological intervention for the community-based older adults is a proven means of improving the management of cognitive impairment in the community and delaying the progress of AD. Several current studies suggest that multicomponent intervention may be more effective in improving cognitive function in the older adults.

Objective: This study aimed to examine the effects of a multicomponent intervention—cognitive training (based on mnemonic strategies), physical exercise, lifestyle guidance, and computerized cognitive training—on cognitive function in community-dwelling older adults with MCI and normal cognition (NC).

Methods: A total of 116 eligible participants (48 MCI, 68 NC) divided into two groups—intervention group (multicomponent intervention group) and control group (health education group)— participated in the study. The intervention group (24 MCI, 35 NC) received a 7-week multicomponent program, while the control group (24 MCI, 33 NC) received a 7-week health education program. Data were collected at the baseline and post-intervention. The analysis of covariance (ANCOVA) was used to evaluate the intervention effects with covariates including baseline scores, age, gender, education years, physical activity and social support.

Results: At baseline, there were no significant difference between groups in demographic characteristics except in the education years. In the intervention group, MCI participants on

attention (DST) and NC participants on global cognitive function (MMSE) and memory (AVLT-immediate, LMT-delayed) were found to have significantly higher improvements compared with the control group (P<0.05). This study showed that the multicomponent intervention was effective in improving cognitive function in community-dwelling older adults with MCI and NC. The effect and feasibility of this intervention program showed that its application should be promoted in community settings to delay the progression of dementia in older adults.

Biography

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