Cognitive Rehabilitation for Elderly with Cognitive Impairment: 5 years review

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Introduction
The human brain can reorganize after damage and experience functional improvements even with neurodegenerative disease like Alzheimer's disease (AD). Cognitive training is likely to be effective for managing symptoms in persons with early-stage AD and dementia1.

The purpose of this study is to review the effectiveness of cognitive rehabilitation for elderly with cognitive impairment in past 5 years. The intervention group received training once a week with eight sessions in 1 hour, including hospital based cognitive training and home exercise. The cognitive rehabilitation with training elements in attention, memory, reaction time, arithmetic calculation, visual spatial and problem solving. While the control group received home exercise only.

Objectives
1) To evaluate the effectiveness of cognitive training to elderly with cognitive impairment.

Methodology
453 participants (male: 153, female: 300) were recruited with mean aged 78.3 from January 2012 to August 2016. 179 participants were recruited into the intervention group and the remain were recruited into the control group. Standardized assessments of Mini-Mental State Examination (MMSE), Chinese Dementia Rating Scale (CDRS) and Montreal Cognitive Assessment Hong Kong Version (HK-MOCA) were conducted in the first assessment and post 6 month follow up.

Result
Participants in both groups are largely independent in basic self care with Modified Barthel Index > 93. Results showed that the intervention group has statistically improvement in CDRS and HK-MOCA. The mean score of CDRS score improve from pre-107.42 to post-111.83 (p< 0.05), with significant improvement in sub-item of
attention (p=0.034), initiation/perserveration (p=0.023) and conceptualization (p=0.03). The mean score of HK-MOCA score improve from pre-18.26 to post-20.52 (p=0.001). There is no significant difference in MMSE score in both groups.