



**Service Priorities and Programmes**  
**Electronic Presentations**

**Convention ID:** 1246

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**Post title:** Occupational Therapist II, SH, NTEC

**The effect of Brain Gym in cognitive rehabilitation training in cognitive decline elderly in GDH: Pilot Study**

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**Keywords:**

Brain Gym

cognitive rehabilitation

GDH

**Introduction**

Brain Gym was developed by Paul Dennison for children in learning. It is a movement based learning program coordinated with brain and breathing to promotes the communication between two brain hemispheres and promotes higher level of reasoning (Dennison, 1985).

Brain Gym included PACE (Positive, Active, Clear and Energetic) warm up activities and 26 specific exercise movement patterns as a sequence of activities in preparing the readiness for learning.

In this study, we try to apply the Brain Gym PACE on elderly with cognitive decline in Geriatric Day Hospital (GDH).

**Objectives**

To investigate the effectiveness of Brain Gym PACE among cognitive decline patients

**Methodology**

A 'Pre-test' vs 'Post-test' design was employed and the subjects were divided into experimental group and control group. All subjects attended six training sessions. Subjects were (1) GDH patients with cognitive decline (Mini-mental status examination (MMSE)  $\geq 18$ ) (2) age were 60 or above (3) vision grossly intact (4) able to communicate with Cantonese (5) no active suicidal idea.

Outcome measures were (1) MMSE (2) Geriatric Depression Scale (GDS) (3) Forward Digit Span.

**Result**

From February to April 2017, 10 subjects which aged from 64 to 90 were joined. There were 5 patients in each control and experimental group. There were no significant improvement in the MMSE score but significant improvements in the GDS score ( $P=0.041$ ) and the Digit Span score ( $P=0.038$ ) in the experimental group were shown. Conclusion:

Based on the result of the pilot study, there were improvement in mood and attention of patients through the Brain Gym PACE and cognitive training. Study with larger sample size could be implemented to further explore the effectiveness of Brain Gym in preparing the readiness for learning.