



## Service Priorities and Programmes Electronic Presentations

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### **Home-Based Cognitive Stimulation Activities for people with Major Neurocognitive Disorder (MND) using Montessori Methods for Dementia: a pilot program**

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#### **Keywords:**

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#### **Introduction**

Montessori Methods for Dementia is an intervention approach to work with elderly having cognitive and/or physical impairments based on the philosophies developed by Dr. Maria Montessori. It emphasizes on maintaining the person's spared capacity in MND, and bringing purpose to their lives by establishing roles and routines through the implementation of meaningful activities in a supportive environment. Some research evidence concluded that Montessori method improves person's cognitive performance, affective states, engagement levels, social interaction and helps reduce responsive behaviors associated with MND.

#### **Objectives**

This program aims to (1) increase client's levels of engagement and participation in their daily activities, (2) provide cognitive stimulation activities to maintain client's functional abilities, and (3) empower caregivers to implement meaningful and purposeful cognitive stimulation activities in their home.

#### **Methodology**

A total of 9 out patients (aged range from 78 to 87) with MND were recruited from Feb to Dec 2016. 5 out of the 9 patients showed signs of Behavioral and Psychological Symptoms (BPSD). The average Cantonese version of the Mini Mental State Examination (CMMSE) score was 13.3 and the average Chinese Disability Assessment for Dementia (CDAD) total score was 35.5% before the training. For each individual client, trained therapist applied the Montessori principles and tailored the activities based on their unique needs, interests, skills and abilities with environmental adaptations. To empower caregivers to conduct the cognitive stimulation

activities in daily basis, a full activity kit with clear guidelines and demonstrations was provided. Therapist would provide support and monitoring on an ongoing basis depending on the patient's condition. Regular cognitive and functional assessment was conducted after the activities were started for 6 months on average.

### **Result**

There were no significant statistical differences in all patients' CMMSE and CDAD score before and after the training. It shows that all patients attending the program could maintain their cognitive performance and daily functioning. It provides preliminary support that Montessori Methods could benefit people with dementia in preventing further deterioration in both cognitive and functional performance. Among the 5 patients with BPSD, the severity and frequency of the symptoms have decreased in terms of sleep quality, agitation and sleep quality as reported by caregivers. Positive feedback from caregivers regarding to the increased levels of engagement in daily activities were received. Individualized home-based cognitive stimulation activities using the Montessori approach was shown to be effective in maintaining cognitive and functional performance, managing BPSD and increasing the engagement levels in daily activities, but it warrants further study in the future on its efficacy.