

## **‘A Trip of Memory’ – A Narrative-based Cognitive Stimulation Program (NCSP): Development and Preliminary Findings on Visually Impaired Elderly with Dementia**

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### **Introduction**

Non-pharmacological interventions, such as cognitive stimulation, have been proven effective in improving the cognitive functions of people with dementia (PwD; Woods et al., 2023). Storytelling has been commonly used as a therapy for PwD in which narratives relevant to their personal experiences can be adopted for life review or reminiscence (Damianakis et al., 2010). Nevertheless, the efficacy of cognitive intervention in individuals with visual impairment and dementia has rarely been investigated. The present pilot study aimed to investigate the efficacy of ‘A Trip of Memory’, a narrative-based cognitive stimulation program on PwD with visual impairment.

### **Method**

A total of 36 visually impaired PwD (mean age = 87.2 years) residing in the Kowloon Home for the Aged Blind participated in the current study. Convenient sampling was adopted. The participants attended 10 sessions of narrative-based therapy in groups of five to six. In each session, the participants listened to a

story related to a local bus trip, which was followed by cognitively stimulating activities and questions regarding the story and discussion/sharing of personal events related to the plot of the story. Outcome measures included the Hong Kong Version of Montreal Cognitive Assessment for the Visually Impaired (HK-MoCA-VI, Yip et al., 2024), semantic category fluency, the Cantonese version of the Amsterdam Nijmegen Everyday Language Test (CANELT; Wong, 2024), Communication Outcomes for People with Dementia Scale for the Visually Impaired (COPD-VI; Ho et al., 2024) and the Holden Communication Scale (HCS; Holden & Woods, 1995).

## **Results**

Adherence to therapy was satisfactory. Gains in HK-MoCA-VI and verbal fluency after therapy reached statistical significance ( $p \leq .01$ ). Nevertheless, no improvement in CANELT, COPD-VI and HCS was noted.

## **Discussion**

The study provided preliminary clinical evidence for 'A Trip of Memory' in improving global cognition and executive functions of PwD with visual impairment. In the second phase of the study, a multi-center controlled study will be implemented.

## **References:**

Damianakis T., Crete-Nishihata M., Smith K., Baecker R., Marziali E. (2010). The psychosocial impacts of multimedia biographies on persons with cognitive impairments. *Gerontologist*, 50(1), 23–35.

\*Ho, H. Y., Wong, W. S., Ng, H. Y., Lam, H. C. I. & Yeung, H. Y. O. (2024, Oct 18-20). *Examination on the use of the Cantonese version of Communication Outcome after Stroke (Can-COAST) scale and the Cantonese version of Carer Communication Outcome after Stroke (Can-Ca COAST) on people with dementia and visual impairment and their caregivers: A pilot study*. [Poster presentation]. The 62<sup>nd</sup> Annual Meeting of the Academy of Aphasia, Nara, Japan

Holden UP, Woods RT. Positive approaches to dementia care. Edinburgh: Churchill Livingstone, 1995.

\* Wong, W. W. S. (2024). Validation of a Cantonese version of the Nijmegen Everyday Language Test (CANELT): A functional approach. *PLoS ONE*, 19, 5, e0303810. <https://doi.org/10.1371/journal.pone.0303810> (Impact factor: 2.9; Q1 Journal in Multidisciplinary Sciences 2023)

Yip, C. C. K., \*Wong, W. W. S., Cheng, C. P. W., & Chiu, A. T. S. (2024). The Hong Kong version of Montreal Cognitive Assessment for the visually impaired (HKMoCA-VI): Proposed cut-off and cognitive functioning survey of visually impaired elderly in residential homes. *PLoS ONE*, 19, 6, e0305426. <https://doi.org/10.1371/journal.pone.0305426>. (Impact factor: 2.9; Q1 Journal in Multidisciplinary Sciences 2023)