

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

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Introduction

Many dementia-specific measurements evaluating the effects of interventions measure at impairment level only and from clinicians' perspectives, ignoring the input from the people with dementia (PwD). They rarely measure the impact of communication problems on levels of activity and participation and quality of life. Moreover, they are mostly not readily available to PwD with visual impairment (VI). This research aims to study the feasibility of developing client-centered communication measures for PwD with VI and their caretakers, namely the Cantonese version of Communication Outcome for People with Dementia and Visual Impairment (Can-COPD-VI) and its caretaker version (Can-Ca-COPD-VI), which were adapted respectively from the Cantonese version of Communication Outcome after Stroke (Can-COAST) and its carer version (Can-Ca COAST; Kwok & Wong, 2023).

Methods

Eighteen PwD with VI (Mean age: 80.4 years) and seven of their formal caretakers were recruited from The Hong Kong Society for The Blind Kowloon Home for the Aged Blind. Inclusion criteria included: 1) premorbid fluent Cantonese speakers, 2) medically diagnosed to have dementia or failed in the Hong Kong Montreal Cognitive Assessment for the Visually Impaired (HKMoCA-VI; Yip et al., submitted), 3) having corrected hearing function, 4) medically diagnosed to have low vision, 5) able to comprehend questions and commands, and 6) aged 60 years or above. Exclusion criteria included: 1) being nonverbal and unable to comprehend questions and 2) having other neuropsychological disorders. Written consent from the participants/family members was obtained prior to task administration.

PwD completed 1) Can-COPD-VI; 2) Cantonese version of the Amsterdam-Nijmegen Everyday Language Test (CANELT) (Wong et al., 2023); 3) category fluency test 3). Their formal caretakers completed Can-Ca-COPD-VI and the Chinese translated version of Holden Communication Scale (Strøm et al., 2016). Given's the presence of visual impairment of PwD, adaptations were made Can-COPD-VI and Can-Ca-COPD-VI, mainly concerning questions related to reading and writing.

Results

Table 1 illustrates the scores obtained in Can-COPD-VI and Can-Ca-COPD-VI. Correlation between subscales within Can-COPD-VI, and correlation between each subscale and the total score of Can-COPD-VI, were found to be significant. Good internal consistency was found in Can-COPD-VI (Cronbach's alpha = 0.893) and Can-Ca-COPD-VI (Cronbach's alpha = 0.897). Nevertheless, no significant correlations were found between Can-COPD-VI and Can-Ca-COPD-VI, CANELT and semantic fluency test.

Conclusions

Both Can-COPD-VI and Can-Ca-COPD-VI seem to be feasible with good internal consistency. Further investigation into the psychometric properties of Can-COPD-VI and Can-Ca-COPD-VI with a larger sample is suggested. Investigation into extending Can-COPD-VI and Can-Ca-COPD-VI to PwD without visual impairment and their caregivers is also recommended.

Key References

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Table 1. Summary of scores of Can-COPD-VI and Can-Ca-COPD-VI

	Can-COPD-VI (Q1-10) (Interactive communication subscale)	Can-COPD-VI (Q11-13) (Overview of communication subscale)	Can-COPD-VI (14-18) (Quality of life subscale)	Can-COPD-VI Total Score	Can-Ca-COPD-VI (Q1-10)(Interactive communication subscale)	Can-Ca-COPD-VI (Q11-13) (Overview of communication subscale)	Can-Ca-COPD-VI (14-18) (Quality of life subscale)	Can-Ca-COPD-VI Total Score
N	18	18	18	18	7	7	7	7
Mean	60.3	68.1	79.4	66.9	79.6	85.7	75.7	79.6
Standard deviation	16.4	25.3	16.6	15.7	12.2	15.0	14.8	10.8