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Pemangkin Idea



Cognitive Stimulation Therapy- Malaysia (CST-M):

*Empowering Cognitive Functions Among Older
Persons with Dementia in Communities*

B

y the year 2030, Malaysia is projected to become an aging country, with 16% of

the total population being older people, expected to rise to 22% by the year 2050 (United Nations, 2013). Aging is often associated with the deterioration of physical, psychological, psychosocial, and cognitive functions. One of the most common causes of the deterioration of cognitive functions is dementia. Dementia is defined by the Royal College of Physicians as acquired global impairment of higher cortical function, including memory, the capacity to solve day-to-day living problems, learning performance, perceptuo-motor skills, the correct use of social skills, all aspects of language and communication, and the control of emotional reactions. The progression of dementia is inevitable, and a person suffering from dementia will manifest cognitive deficits that will affect their ability to engage in daily activities such as dressing, personal hygiene, cooking, domestic activities, shopping, and medical self-management, subsequently leading to dependency on carers. The deteriorations not only affect the older person but the carers too, as many carers will be physically, emotionally, and financially affected. According to the 2018 Malaysia National Health and Morbidity Survey (NHMS), the prevalence of probable

dementia in Malaysia was 8.5% (The National Health and Morbidity Survey, 2018).

Treatment for dementia is divided into pharmacological (treatment with medications) and non-pharmacological intervention/treatment (NPI) (treatment using no medications). However, pharmacological intervention has been less encouraging, and the medications often cause side effects and unpleasant interactions with the patients' existing conditions. NPI, on the other hand, carries fewer risks and adverse effects and uses versatile approaches to improve outcomes for people with dementia (Chalfont et al., 2020). Cognitive Stimulation Therapy (CST) is a non-pharmacological treatment that is clinically effective and more cost-effective than usual treatment for people with dementia. CST is also a non-invasive, psychological intervention for those with cognitive impairment, which focuses on the improvement and strengthening of spared cognitive functions (cognitive reserve) and resources, as well as on the maintenance of social and interaction skills, with the potential to improve mood and quality of life. CST consists of structured activities designed to stimulate cognitive functions, tapping into cognitive reserve and enhancing social interactions between the participants. It was

developed by Amiee Spector, Martin Orell, and Bob Woods from the United Kingdom in 1998. They combined four main effective NPIs for older persons with cognitive impairment, such as Reality Orientation and Reminiscence Therapy, Validation Therapy, and Multisensory Stimulation, to form the CST. CST is divided into a) group CST, b) individual, and c) maintenance CST.

In group CST, the program is conducted for 14 sessions, 45 – 60 minutes/sessions (2 x week, 7 weeks). Initially, the participants were asked to give a group name; and will involve discussions about orientation, where time / place / people and current scenarios are discussed at the beginning of each session to improve cognitive functions in the orientation's components. The sessions begin with warm-up exercises. Then, bridging between sessions, consistency in time, place, participants, and facilitator, and presenting sessions in a fun and stimulating way are ensured. There are two facilitators/occupational therapists who will facilitate the sessions. Each session is structured into three components: a) Introductions, b) Main activity, and c)

In the main activity part, the participants will engage in fun, enjoyable, and

stimulating cognitive activities or games based on various themes. For example, in session one, the older person will engage in physical games; in session two, the theme is sound, in which the older person will hear various sounds used to stimulate reminiscence, thinking, memorizing, and other cognitive functions. The themes from session 1 to 14 are as below. The 18 fundamental principles of conducting the CST, such as multi-sensory stimulations, new ideas, thought and association, opinions rather than facts, using reminiscence, implicit learning, providing triggers, fun activities, etc., are practiced throughout the session of the CST.

PART	CONTENT	TIME	
1. Introductions	Welcome	10 minutes	
	Group name		
	Sing team song		
	Orientation discussion (using white board)		
	Current affairs		
2. Main activity	Level A – seeking opinions, social interaction	30 – 40 minutes	
	Level B – less complex, relaxed exercises		
	Thank for attending and contribution / reflexions		10 minutes
	Sing team song		
Reminder re next sessions			
3. Conclusion / Final	Reminders re next sessions	10 minutes	
	Farewells		

Sessions	Sessions
1 Physical games	8 Being creative
2 Sound	9 Categorising objects
3 Childhood	10 Orientation
4 Food	11 Using money
5 Current affairs	12 Number games
6 Faces / scenes	13 Word games
7 Word association	14 Team quiz

The manual provided in the CST was found to be unsuitable to be conducted in Malaysia, as many of the activities are not culturally sensitive and valid to older persons in Malaysia. Hence, it needs to be adapted to Malaysian culture. Cultural validation and adaptation of Cognitive Stimulation Therapy (CST) in Malaysia are particularly important due to its multi-ethnic society. Malaysia's diverse population consists of various ethnicities – Malay, Chinese, Indian, and other ethnicities – each with their own cultural values, traditions, social norms, beliefs, practices, and languages. By considering the cultural nuances of different ethnic groups, the adapted CST can be more inclusive and effective in addressing the cognitive needs of older individuals from

COGNITIVE STIMULATION THERAPY- MALAYSIA (CST - M) GROUP 3/2023



ATTENDANCE 5/6 SESSIONS 3 & 5
KLINIK KESIHATAN BANDAR BOTANIK

various ethnic backgrounds. This approach promotes cultural sensitivity and ensures that therapy is accessible and relevant to the diverse Malaysian older population. Currently, Group CST was culturally adapted and conducted successfully in Australia, New Zealand, Indonesia, Taiwan, Japan, Italy, Thailand, Hong Kong, Singapore, India, Tanzania, and Nigeria.

A team of researchers consisting of occupational therapy lecturers from UiTM, 17 Occupational Therapists working around the Klang Valley, 3 Geriatric Specialists, and 2 Medical Officers was formed in 2019 to culturally validate the adapt the CST and transform the CST into the Cognitive Stimulation Therapy i-Malaysian version (CST-M). Permission to adapt and validate was obtained from the main author of the CST. The validation and adaptation of Cognitive Stimulation Therapy (CST) in Malaysia followed a five-phase process based on the Formative Method for Adapting Psychotherapy (FMAP) model. This model provides a bottom-up approach to culturally adapting CST, ensuring its applicability and effectiveness within the Malaysian context.

The five phases of the methodology are as follows:
Phase 1: Generating knowledge and collaborating with stakeholders
Phase 2: Integrating generated information with theory and empirical and clinical knowledge
Phase 3: Reviewing the initial culturally adapted intervention with

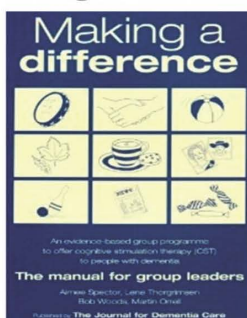
stakeholders and revising the culturally adapted intervention
Phase 4: Testing the culturally adapted intervention – Pilot study
Phase 5: Finalizing the culturally adapted intervention

Eventually, the CST was successfully adapted and culturally validated in Malaysia. An experimental study was conducted, and the CST-M was found to improve the most components in the domain of cognitive functions, especially orientations, thinking operation, visuomotor organization, and memory among older people with mild dementia in the institution. The improvement in cognitive functions is aligned with the findings from previous literature regarding the effect of CST on improving cognitive functions among older people. It is postulated that the changes in cognitions are results of the enriched environment and sensory stimulations in the activity that may induce hippocampal neurogenesis, an increase in synaptic plasticity and density, an increase in the alpha wave in addition to the decrease of cortisol during engagement in the activities as suggested in the previous study.

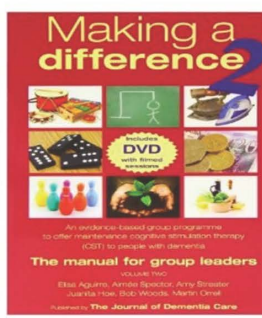
To date, the CST-M was accepted by Malaysian Occupational Therapists (MOTA) as standard treatment for older persons with mild or moderate dementia in Malaysia and was conducted by Occupational Therapists in many hospitals and health clinics in Malaysia. Furthermore, the CST was included as one of the important non-pharmacological treatments (treatments without medications) in the Clinical Practice Guidelines (CPG) for Older Persons with Dementia (MOH/P/PAK/454.21 (GU)-E) by the Ministry of Health, Malaysia.

The widespread acceptance and integration of CST-M into healthcare practices marks a significant advancement in dementia care in Malaysia, contributed by efforts of a team of researchers from UiTM. It underscores a shift towards more holistic and culturally sensitive approaches to addressing cognitive decline in older individuals. By recognizing the unique cultural context of Malaysia and tailoring interventions to suit the diverse needs of its population, CST-M

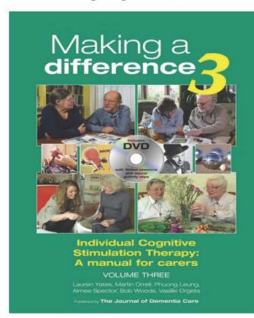
Cognitive Stimulation Therapy (CST)



Group CST
45-60mts / session,
2x/week, 7 weeks



Maintenance CST
45-60mts / week, once /
week for 24 weeks



Individual CST
30 mts/session Up to
3x/week, for 25 weeks

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