

## Cognitive Function And Tea Consumption In Community Dwelling Older Chinese In Singapore

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### Abstract:

**Objectives:** We aimed to examine the relationship between tea consumption and cognitive function in older adults. **Design:** Cross-sectional study.

**Setting:** The Singapore Longitudinal Aging Studies (SLAS), a community-based study in urban region of Singapore.

**Participants:** 716 Chinese adults aged  $\geq 55$  years from. **Measurement:** Self-reported current tea consumption habits (frequency and type). Cognitive performance was assessed by a battery of neuropsychological tests; composite domain scores on attention, memory, executive function, and information processing speed were computed using raw test scores. The Mini-Mental

State Examination (MMSE) total score was used as a measure of global cognitive function.

**Results:** After adjusting for potential confounders, total tea consumption was independently associated with better performances on global cognition ( $B=0.055$ ,  $SE=0.026$ ,  $p=0.03$ ), memory ( $B=0.031$ ,  $SE=0.012$ ,  $p=0.01$ ), executive function ( $B=0.032$ ,  $SE=0.012$ ,  $p=0.009$ ), and information processing speed ( $B=0.004$ ,  $SE=0.0014$ ,  $p=0.001$ ). Both black/oolong tea and green tea consumption were associated with better cognitive performance. There was no association between coffee consumption and cognitive function.

**Conclusions:** Tea consumption was associated with better cognitive performance in community-living Chinese older adults. The protective effect of tea consumption on cognitive function was not limited to certain type of tea.

## Living alone, lack of a confidant and psychological well-being of elderly women in Singapore: the mediating role of loneliness

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### Abstract

**Background:** The “feminization of aging” and nuclearization of families calls for research to examine the mental health and well-being of elderly women living alone. This study examined a proposed heuristic model whereby the relationship between living alone and lack of a confidant and psychological well-being is mediated by feeling of loneliness.

*continued next page*

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Methods: Path analysis was performed on data of 1,205 community-living older women aged 55 and above with psychological well-being assessed by depressive symptoms (15-items Geriatric Depression Scale) and SF-12 MCS (mental component summary scale of the 12-item Short-Form Health Survey) quality of life scores assessed at baseline and follow-up 1.5 years later.

Results: Goodness-of-fit indices used for the model showed good fits. All of the path coefficients were meaningful in absolute magnitude and significant at  $P < 0.001$ . Living alone was associated concurrently with lack of a confidant ( $r = 0.11$ ), both of which predicts loneliness (path coefficient = 0.09). Loneliness predicts

more depressive symptoms (path coefficient = 0.25) and SF-12 MCS (path coefficient = -0.28) at baseline, as well as at follow-up.

Conclusion: The findings suggest that loneliness mediates the relationship between living alone, lack of a confidant, and psychological well-being. Living alone becomes detrimental when it leads to loneliness. Social programs directed at elderly women who are living alone should alleviate loneliness through satisfactory interpersonal relationships, and emotional and spiritual support.

## ***Elderly people with mental illness ... rethinking a model of care***

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The report World Population Ageing 1950-2050 (United Nations, 2002) estimated that in 2005 there were 37.3 million elderly people (i.e. aged 65 years or more) in South-East Asia (a region incorporating Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam).

Using Singapore's prevalence rate of 3% for dementia and 5.7% for depression, the numbers of elderly people with dementia in this region would be 1.2 million and with depression 2.12 million (Kua, 1992; Kua & Ko, 1995).

However, even in Singapore, we have identified only 10% of all potential cases of dementia and depression - meaning that the large majority of elderly people with mental disorders are not detected. The under-diagnosis partly arises because most doctors are not taught geriatric psychiatry in the undergraduate curriculum, and even those with some training have difficulty recognising the early signs and symptoms. Medical students are often given clinical teaching in the context of a general hospital or mental hospital, where cases of dementia or depression are of moderate to severe degree. However, within primary care the clinical presentations are usually mild and may not yet fulfil the criteria (DSM or ICD) that apply to the diagnosis of more advanced disorders.





## Access to services

An increased connectedness between mental health services, voluntary organisations and family carers has seen a gradual decline in suicide rates among elderly people in Singapore (Kua et al, 2003). In 1995, the suicide rate among the elderly Chinese population in Singapore was at an all time high of about 60 per 100 000. We identified those at greatest risk, especially elderly people who were disabled and living alone. In teaching primary care doctors we informed them where they could refer these patients to for social service assistance or treatment. Prevention programmes were run by non-governmental organisations like the Gerontological

Society. A telephone helpline was started by a voluntary group called the Singapore Action Group of Elders. The Department of Psychological Medicine in the National University of Singapore provided training for retired persons to act as peer counsellors. There were discussions with the health authorities, with the aim of creating more day centres - some of which were managed by religious organisations - and to have more training opportunities in geriatric psychiatry for doctors, nurses, social workers, psychologists and other therapists. Since 1995 the suicide rate in the elderly population has fallen gradually, to the present level of about 17 per 100 000.

## Family support

Kua & Tan (1997) studied 50 family carers of patients with dementia in Singapore and found 56% had symptoms of anxiety and depression. With the global economic crisis, there may well be an increase in the number of elderly people with depression, since many are dependent on their families for financial support (Phua & Kua, 2009). Care for the frail elderly population in South-East Asia will continue to rest on the family for the foreseeable future.

Carers need to seek help outside the home. Support networks typically have the family at their core but should also include friends, neighbours and home-helps. Community and governmental supports are necessary to alleviate the burden on the family. Although there are only a few old people's homes or day centers in most Asian countries, families may not be eager to use them because to send an elderly relative to such services implies a rejection of responsibility. However, with the change in family structures, many carers may have to turn to the community services in caring for their elderly relatives. Traditional healers are popular with the elderly not

only because of the accessibility of their services but also because they share the same sociocultural beliefs about illness and health (Kua, 2004).

The focus of elderly mental healthcare should be in the community. Anchoring the service to a mental or general hospital generally leads to institutionalisation, sluggish bureaucracy and dislocation of family contact. A day hospital or centre in the community can be the nucleus of a geriatric service in which doctors, nurses, psychologists and other mental health therapists work as a team. Having separate centres for geriatric psychiatry and geriatric medicine often leads to a duplication of services, the division of essential personnel like physiotherapists and nurses, and eventually to spiralling costs. In Singapore there is tremendous support for such a service from voluntary organisations like religious groups, those representing retired persons and other charitable organisations. Galvanising community support is critical to ensure the success of mental health services for elderly people.

## Training and service provision

It has been suggested that to assist primary care doctors identify dementia, a screening questionnaire like the Mini-Mental State Examination (MMSE; Folstein et al, 1975 ) can be helpful. However, the MMSE is lengthy (it takes some 20-30 minutes to complete). In most primary care clinics in South-East Asia, doctors have just 10-15 minutes per patient. The MMSE is also culturally and educationally biased.

Based on research conducted by the World Health Organization (WHO), we have constructed a short instrument, the Elderly Cognitive Assessment

Questionnaire (ECAQ), which is more appropriate for those elderly people who are less well educated (Kua & Ko, 1992). The ECAQ can be administered in 10 minutes.

To ensure the detection of early or mild disorders, training of medical students should include work at primary care clinics. Early diagnosis and a comprehensive management plan will improve the quality of life of elderly people with mental illness.



# Eldercare Services in Hong Kong

Tristan Gwee

During a visit to Hong Kong late last year, I had the opportunity to visit some of the social service agencies there. I was especially interested in the eldercare services being provided in Hong Kong.

I was quite impressed with the development and range of services for seniors there.

- **Integrated family service centres** that caters to special needs of families with infants and young children, and frail elderly. The two organizations that the study team visited, HKCS and CFSC, have integrated services within the same building. A one stop model. We think that it is a very useful model and caters to the needs of multiple service user groups within a locality. Such an arrangement maximizes the use of space and this is especially so in land space limited Singapore.

However, setting up of such a multi-service building can be quite costly. The government will need to facilitate for this to be possible.

- **Integrated home care services.** Looking at the example of home help services provided in Hong Kong, it is timely for similar service providers in Singapore to consider expanding their current range of home help services provided. Other components such as home nursing and medical will be much needed as the population continues to age in Singapore. The government needs to provide better funding for this to happen.

- **Elder support teams.** Such teams, like those in Hong Kong, should be formed by the eldercare agencies (SACs and NLs) operating within their locality to conduct more proactive outreach to identify and engage those isolated and at risk seniors. More resources will need to be provided to such agencies to recruit and train staff and volunteers for this purpose.
- **Community Service projects** for the local schools. A specialized team could be formed with support from the local grassroots to look into assisting to plan and organize community service projects that have an impact on their local communities. A Community Service Development Fund should be set up for schools to tap on for worthwhile projects.
- **Elder Academies in Community Centres.** We should also look into co-locating day activity centres or 'Elder Academies' within existing community centres, and even neighbourhood schools. Elder academies are learning institutions set up specially to cater to lifelong learning needs of seniors. In this way, space utility is maximized and also the co-locating with other services encourages opportunities for intergenerational bonding.





# Public Symposium (3rd Henry Lim Lecture) Ageing in Singapore

Challenges & Opportunities  
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Mr Gerard Ee, Chairman of C3A  
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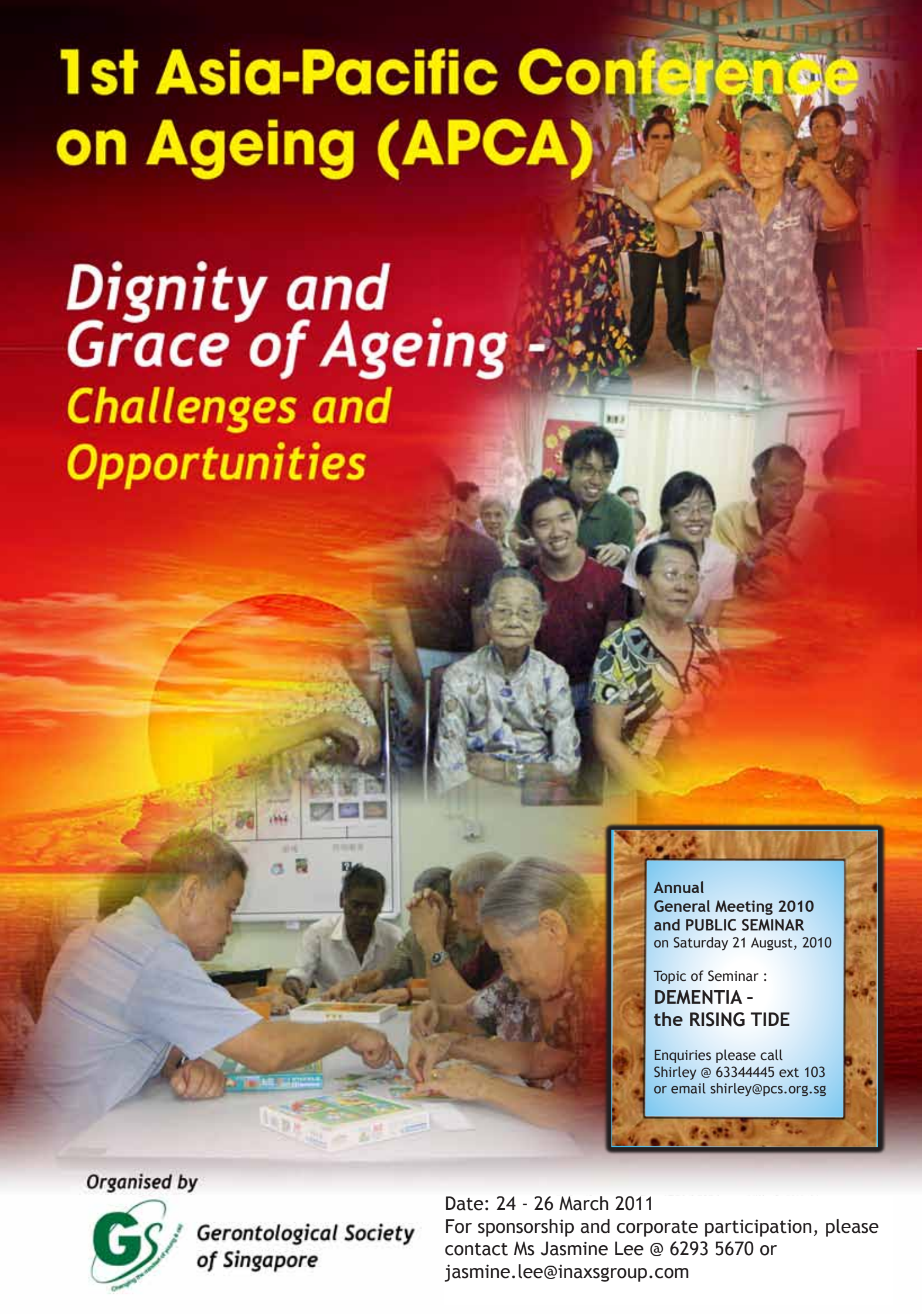
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