

Abstract

Background

Ageing and the increasing incidence of dementia are global problems. In recent years, there has been increasing interest in targeting early intervention for subjects with milder forms of cognitive impairment. There is also growing evidence to suggest that late-life leisure activity participation may have beneficial effects on cognitive function.

Objectives

To further evaluate the association between late-life leisure activity participation and cognitive function, the study aimed to achieve the following objectives:

1. To examine the association between leisure activity participation in late life and cognitive function in community-dwelling elderly Chinese in Hong Kong.
2. To examine the association between leisure activity participation in late life and cognitive decline in community-dwelling elderly Chinese in Hong Kong.

Method

Five hundred and twelve participants were assessed in the present follow-up study of a previous population-based community survey of the prevalence of cognitive impairment among Hong Kong Chinese people aged 60 and over. The study was conducted between August 2007 and June 2008. With the help of an expert panel and an independent convenience sample of elderly people, leisure activities were classified into 4 categories (physical, intellectual, social and recreational). Information regarding leisure activity participation, cognitive function and other variables was collected using standardized questionnaires and a battery of cognitive assessment tools.

Cross-sectional analyses were used to examine the association between leisure activity participation and cognitive function. Longitudinal analyses were used to evaluate the association between leisure activity participation at the baseline and cognitive decline at the 22-month follow-up. Cognitive decline was defined as a one-point change in z-score for each cognitive test.

Results

A higher level of late-life leisure activity participation, in particular in intellectual activities, was significantly associated with better cognitive function in the elderly, as reflected by the results of the Cantonese Mini-mental State Examination (CMMSE) ($p = .007, .029$ and $.005$), the Category Verbal Fluency Test ($p = .027, .003$ and $.005$) and digit backward span test ($p = .031, .002$ and $.009$), as measured by the total frequency, total hours per week and total number of subtypes, respectively; the Chinese Alzheimer's Disease Assessment Scale- Cognitive Subscale ($p = .045$) and word list learning ($p = .003$), as measured by the total number of subtypes; and the digit forward span ($p = .007$ and $.015$), as measured by the total hours per week and total number of subtypes, respectively. At the follow-up, a higher level of participation in intellectual activities was significantly associated with less cognitive decline in the CMMSE as measured by both the total hours per week (multivariate-adjusted OR 0.97, 95% CI 0.94-0.99, $p = .003$) and the total number of subtypes (multivariate-adjusted OR 0.74, 95% CI 0.58-0.95, $p = .018$).

Conclusions

Late-life intellectual activity participation was associated with better cognitive function among community-dwelling elderly Chinese in Hong Kong. It was also associated with less cognitive decline as measured by the CMMSE at the 22-month follow-up. Further exploration of the specific profiles of beneficial leisure activities and their therapeutic mechanisms would be worthwhile. Intervention programmes that capitalize on beneficial activities may have a positive impact on the prevention of dementia in the community.