

101 **DELAYING COGNITIVE DECLINE IN NURSING HOME RESIDENTS WITH MENTALLY STIMULATING AND PHYSICAL ACTIVITIES: A RANDOMIZED CONTROLLED TRIAL**

10.1136/bmjspcare-2011-000053.101

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Objectives Nursing homes, especially those in developing countries, are understaffed and favor physical over psychosocial care. However, leisure activities, especially those that can be run with little professional staff cost, may be highly beneficial. This study examined the effects of mentally stimulating (mahjong) and physical (Tai Chi) leisure activities on the cognitive functioning of nursing home residents.

Methods 110 residents from six nursing homes in Hong Kong were randomized into three conditions: (a) mahjong, (b) Tai Chi and (c) handicrafts (placebo). Inclusion criteria were Mini-Mental State Examination (MMSE) ≥ 10 and ≤ 24 , and suffering from at least very mild dementia (Clinical Dementia Rating (CDR) ≥ 0.5). Exclusion criteria were audio/visual impairment, and contraindication to do mahjong or Tai Chi. Each activity was carried out three times a week over a 3-month period. Outcome measures including MMSE, verbal memory (both immediate and delayed recall), digit memory (forward and backward), categorical fluency and CDR were collected at baseline, post-treatment (3 months), 6 months and 9 months.

Results There were moderate effects of mahjong on all outcome measures except CDR up to 6 months, but no benefits for the Tai Chi group over the placebo.

Conclusion Leisure activities can be highly beneficial even for older adults with significant cognitive impairment and frailty. This study provides strong evidence for the effectiveness of mahjong in maintaining cognitive abilities in this population. It can be implemented in nursing homes with minimal staff cost. While this was a time-limited intervention, regular mahjong activities should provide long-term benefits.