

Title: Physical activity programs for persons with dementia
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Abstract

Background

There is some evidence that physical activity delays the onset of dementia in healthy older adults and slows down cognitive decline to prevent the onset of cognitive disability. Studies using animal models suggest that physical activity has the potential to attenuate the pathophysiology of dementia. 'Physical activity' refers to 'usual care plus physical activity'.

Objectives

Primary: do physical activity programs maintain or improve cognition, function, behaviour, depression, and mortality compared to usual care in older persons with dementia?

Secondary: do physical activity programs have an indirect positive impact on family caregivers' health, quality of life, and mortality compared to family caregivers of older persons with dementia who received usual care alone? Do physical activity programs reduce the use of health care services (e.g., visits to the emergency department) compared to usual care in older persons with dementia and their family caregiver?

Search strategy

The trials were identified from searches of the Specialized Register of the Cochrane Dementia and Cognitive Improvement Group, *The Cochrane Library*, MEDLINE, EMBASE, PsycINFO, CINAHL and LILACS on 9 September 2007 using the search terms: exercise OR "physical activity" OR cycling OR swim* OR gym* OR walk* OR danc* OR yoga OR "tai chi".

Selection criteria

All relevant, randomized controlled trials in which physical activity programs were compared with usual care for the effect on managing or improving cognition, function, behaviour, depression, and mortality in people with dementia of any type and degree of severity. Secondary outcomes related to the family caregiver(s) included quality of life, mortality, and use of health care services were intended to be examined.

Data collection and analysis

Two reviewers independently assessed the retrieved articles for relevance and methodological quality, and extracted data from the selected trials. These were pooled where appropriate.

Main results

Four trials met the inclusion criteria. However, only two trials were included in the analyses because the required data from the other two trials were not made available. Only one meta-analysis was conducted. The results from this review suggest that there is insufficient evidence of the effectiveness of physical activity programs in managing or improving cognition, function, behaviour, depression, and mortality in people with dementia. Few trials have examined these important outcomes. In addition, family caregiver outcomes and use of health care services were not reported in any of the included trials.