

ABSTRACT

Title: A set of physical activities with game elements for elderly people with cognitive impairment living in retirement houses with special regime

Objective: To observe the effectivity of created set of physical activities with game elements to improve physical condition and cognitive function by ten clients with mild and moderate cognitive impairment living in retirement house with special regime.

Methods: In a quasi-experimental study, 10 seniors (4 women and 6 men) aged 70 to 87 participated. The participants underwent a three-month program (April to June 2024), during which they exercised twice a week for sixty minutes. The program included warm-up exercises, various game activities, and stretching. An initial and final assessment of functional fitness was conducted using the Senior Fitness Test, including chair stand test, deep bend, finger linkage behind the back, and walking around a target. Cognitive abilities were assessed using the MoCA test battery, which included visual-spatial perception, naming, attention, speech, abstraction, delayed recall memory, and orientation.

Results: A three-month intervention program focused on psychical activities with game elements let to improved physical condition in most of the seniors. Improvements were particularly observed in the in the areas of lower and upper limb strength, balance and flexibility. These domains were assessed using a Senior Fitness Test. In addition, there was a slight improvement in some of the test areas of cognitive ability as measured by the MoCA test battery. The results take suggest that the developed exercise routine is effective and can be successfully used in facilities for seniors with cognitive impairment.

KEYWORDS

exercise, dementia, old age, institutionalised care, residential facility