

Sara Almeida¹⁻⁴, Madalena da Silva⁵, Alda Marques^{1,2}

1Lab 3R – Respiratory Research and Rehabilitation Laboratory, School of Health Sciences (ESSUA), University of Aveiro, Aveiro, Portugal

2Institute of Biomedicine (iBiMED), University of Aveiro, Aveiro, Portugal

3Department of Education and Psychology (DEP), University of Aveiro, Aveiro, Portugal

4Instituto de Ciências Biomédicas Abel Salazar (ICBAS), University of Porto, Porto, Portugal

5Interdisciplinary Centre of Health Applied Research, School of Health, Polytechnic Institute of Setúbal (ESS-IPS), Setúbal, Portugal.

Title: Effectiveness of the Lifestyle Integrated Functional Exercise for People with Dementia

Background

People with dementia wish to live at home as it is internationally recommended. Exercise capacity and health-related quality of life are important domains for living well at home and can influence and be influenced by being physically active. Nevertheless, physical activity programmes for people with dementia, especially conducted at home, are scarce. The Lifestyle Integrated Functional Exercise for People with Dementia (LiFE4D) might overcome this gap.

Objective

To explore the effectiveness of LiFE4D on exercise capacity and health-related quality of life in people with dementia.

Methods

A randomised controlled trial was conducted with people with dementia living at home. The experimental group (EG) received 3-months of an individualised home-based physical activity programme (LiFE4D), integrated in everyday tasks with the supervision of carers (when possible). Face-to-face sessions with the health professional were progressively reduced over time (1st month 3x/week, 2nd month 2x/week, 3rd month 1x/week). The control group (CG) continued with usual care (pharmacological treatment). Measures exercise capacity (2Minute Step Test) and health-related quality of life (Quality of Life – Alzheimer’s Disease) were assessed. Effectiveness of LiFE4D was analysed with an intention-to-treat analysis. Generalised Estimating Equations (GEE) were used to compute the effect of interaction time*group and to deal with missing values.

Results

Forty-seven people with dementia (30 female (63.8%), 80.7±6.7 years old) were enrolled in this study. Significant interactions between group*time were found for the 2Minute Step Test (p=0.027) and for the Quality of Life – Alzheimer’s Disease (p=0.005) measures.

Conclusions

The LiFE4D seems to be an effective intervention to improve exercise capacity and health-related quality of life of people with dementia.

Keywords: Major neurocognitive disorder, tailored physical activity, community-dwelling.