

Effects of a multicomponent program on anthropometric measures, physical fitness and health-related quality of life in older people

Vargas Vitoria R.
Alfaro Larena J.
Rodriguez M.
Arellano R.
Valdes Badilla P.

Abstract

Introduction: Aging causes, among other changes, a decrease in muscle mass and a reduction in functional independence. Regular physical activity is considered an essential tool for healthy aging. Aim: To analyze the effects of a multicomponent training program on anthropometric measures, physical fitness and health-related quality of life in independent older people. Material and Methods: Pre-experimental study (with pre- and post-evaluation) that included 17 older people (13 women and 4 men) with a mean age of 72.5 years. Basic anthropometric measures, physical fitness through the Senior Fitness Test, and health-related quality of life were evaluated through the SF-36 survey. Pre- and post-intervention comparisons were made through Student's t test and Wilcoxon considering a $p < 0.05$. Results: After 12-weeks of intervention, older people reported a significant reduction ($p < 0.001$) in body weight and BMI. Significant increase ($p < 0.05$) in tests related to lower and upper body strength, cardiorespiratory capacity, agility and dynamic balance, and a significant reduction ($p < 0.05$) in the distance between hands (for upper body flexibility) and between hands and feet (for lower body flexibility). In addition, there was a significant increase ($p < 0.05$) in seven dimensions of health-related quality of life (i.e. physical function, physical role, general health, vitality, social function, emotional role and mental health) and a significant reduction ($p = 0.000$) in body pain. Conclusions: There is a significant reduction in body weight and BMI and a significant increase in physical fitness and health-related quality of life in older people after 12-weeks of participation in a multi-component training program. © 2021 Sociedad española de dietética. All rights reserved.

Author keywords

Aging; Exercise; Older adults; Physical activity; Quality of life