

Influence of a specific exercise program in the institutionalized elderly balance

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Objective

To determinate the effectiveness of a specific exercise program on balance and functional capacity of the daily activities of institutionalized elderly.

Methods

A randomized controlled trial. A total of 21 elderly were selected from the Santa Casa da Misericórdia de Santo Tirso and randomly distributed into experimental (n = 11) and control groups (n=10).

The experimental group performed a specific program of exercises (resistance training, balance, coordination and flexibility) during 4weeks, while the control group wasn't subjected to any intervention.

The primary outcome was balance, as measured with a Performance Oriented Mobility Assessment scale (POMA), and the secondary outcome measure included functional capacity by the Timed Up & Go test. Evaluations were carried out at the beginning and end of the exercise program, for both groups. The data were analysed with Statistical Package for Social Sciences, version 22.0, for all test procedures, a probability of $p < 0.05$ was

considered to be statistically significant. Statistical analyses of POMA and TUG were performed with use of independent and paired t-test. POMA and TUG score association were analysed via the Pearson correlation, after the intervention.

Results

In the pre-intervention, groups were homogeneous ($p < 0.05$). After intervention, there were no statistically significant differences between groups in terms of the total balance and dynamic balance subscale, except static balance subscale ($p < 0.048$). In the functional capacity test, the experimental group reduced significantly the functional activity time into intragroup ($p < 0.001$), however there were no significant differences between groups ($p < 0.633$). After intervention, the experimental group had a significantly strong negative association ($p = 0.001$).

Conclusions

The results of this study demonstrated that this specific exercise program was not effective in terms of the total balance and functionalability of institutionalized elderly.

Trial Registration

NCT03521752

Keywords

Balance, Institutionalized elderly people, Therapeutic exercise, Functional capacity.