

of a therapeutic intervention based on psychomotor massage on quality of life indicators of institutionalized elderly people.

METHODS

The present study included 13 participants aged 63-94 years, without severe cognitive impairment, residing in a nursing home. First, participants (control group) maintained their daily life activities for 4 weeks. Second, participants (experimental group) attended the intervention, two days a week for a period of 8 weeks. The therapeutic intervention program was based on 30-minute sessions of psychomotor massage. Four weeks after the intervention, there was a follow-up. Physical mobility, pain, energy, emotional reactions, sleep and social isolation were assessed through the Nottingham Health Profile questionnaire.

RESULTS

Participants reported significant improvements in pain ($p < .001$), physical mobility ($p = .049$), energy ($p = .012$), emotional

reactions ($p = .002$), sleep ($p = .017$), social isolation ($p = .013$), and health status ($p = .001$).

CONCLUSIONS

This study represents a first approach to the application of a psychomotor massage technique as a therapeutic intervention in nursing homes for the elderly. The method appears to be effective in enhancing health and quality of life of institutionalized elderly persons. This psychomotor technique could be considered as an option for achieving health benefits with a low cost for nursing homes, but further studies using this technique in larger samples are needed to confirm the trends observed in the present study.

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Effects of a multimodal exercise program on cognitive functioning and physical fitness of nursing home residents

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INTRODUCTION

Physical activity is an important strategy to promote successful aging, being associated with several health benefits and a reduction in risk of all-cause mortality. In recent years there has been a growing interest in the study of the effects of multimodal exercise in the functional capacity of older adults (e.g., Vaughan et al., 2014), but the investigation is still scarce. Therefore, the objective of this study was to investigate the effects of a multimodal exercise program on cognitive functioning and physical fitness of nursing home residents.

METHOD

Participants were selected by convenience among two nursing home residents. Twenty-one people (77-92 years old) of both genders participated. During the first 4 weeks of the study participants continued their normal daily life activities and were not engaged in the exercise program. After the control period, the group was engaged in a multimodal exercise program for 8 weeks (2 times per week). The exercise sessions alternated between periods of motor tasks and periods of motor-plus-cognitive tasks. To study the effects of the multimodal exercise program, data were collected at three different times: prior to the control period, after the control period (and before the beginning of

intervention), and at the end of the intervention. A number of motor tests (physical fitness), cognitive tests and dual-tasks (motor-cognitive) were performed. All parameters were compared between the three evaluations using the non-parametric Friedman Test. Post-hoc comparisons were performed using the Wilcoxon Signed-Rank Test with Bonferroni adjustment to compensate for the multiple comparisons.

RESULTS

The analysis of the data collected in the three moments of evaluation, showed statistically significant effects of the exercise program in cognitive dimensions (information processing speed and attention) and functional physical fitness components (muscle resistance, cardiorespiratory fitness and dynamic balance).

In the tests carried out in dual-task conditions, the exercise program promoted significant improvements in the “timed up and go test” (with mental calculations).

CONCLUSIONS

The results of this study demonstrate that a multimodal exercise program can improve cognitive functioning and functional physical fitness in institutionalized older people. Thus, this type of intervention should be promoted among nursing home residents.

REFERENCES

Vaughan, S., Wallis, M., Polit, D., Stele, M., Shum, D. & Morris, N. (2014). The effects of multimodal exercise on cognitive and physical functioning and brain-derived neurotrophic factor in older women: a randomized controlled trial. *Age and Ageing* 43, 623-629. doi: 10.1093/ageing/afu010

The influence of physical fitness levels on BMI and obesity in students from 10 to 11 years old

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INTRODUCTION

The study purpose intends to verify the influence of levels of Physical Fitness, Body Mass Index (BMI) and obesity among 10-11 years old students. These students were divided into groups: students that only practise Physical Education (G1; n=98), students that practise Physical Education and Sports in School (G2; n=94), and students that practise Physical Education and Federated Sports (G3; n=101).

METHODS

The sample had 293 students (113 female/180 male). The data was obtained from Physical Education teachers and Fitnessgram tests. The statistic procedures used were SPSS 20.0 with descriptive analysis using mean and standard deviation in each group. The non-parametric test of Mann-Whitney to compare groups between G₁ (PE), G₂ (PE+SS) and G₃ (PE+FS), the Kruskal-Wallis and Wilcoxon tests for paired samples.

RESULTS

The results showed that boys revealed better physical fitness in the “Mile” test, “Abs” and “Arm extensions” tests, while girls revealed better in the flexibility tests. Both genders and groups, revealed an unsuccessful rate in “Abdominal” and “Arms Extensions” tests. The remaining tests showed some success, but not significant. G₃ students are those with better results, students of the G₂ are those with the highest failure rates. In body composition females presented their IMC average inside the “healthy zone”, except for students of 10 years in G₃, the students aged 11 in G₁ and students of the G₂ at the same age, but only in the 2nd data collection. All males practitioners showed values “Inside healthy zone” except in G₂ for students with 11 years in the 1st data collection. Girls of the G₂ are the ones with the best results in all tests, unlike the students of G₁ and G₃. Boys of