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P1. An eight months multicomponent training effect in elderly's functional fitness

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INTRODUCTION

Elderly's physical activity and exercise is a huge concern in fitness instruction to delay physical frailty (Jones & Rikli, 2002). The multicomponent training helps to improve the physical condition in different variables such as strength, resistance, flexibility and balance (Carvalho et al., 2009). Thus, the aim of this study was to assess the influence of an eight months multicomponent training program in functional fitness of community-living elderlies.

METHODS

Forty-nine 64.39 (\pm 6.33) year old elderlies took part of this research, 11 males who were 67.45 (\pm 4.93) and 38 females who were 63.50 (\pm 7.47) years old. All procedures were in accordance to the Declaration of Helsinki and a written consent was obtained from the participants.

The multicomponent training program was applied with the Carvalho et al, (2009) recommendations. It was a 8 months program and the training frequency was three times per week.

The elderly's functional fitness was assessed with the functional fitness test (FFT) of Jones & Rikli, (2002). The T-test allowed to assess the differences between the pre and post training program in the body composition. The tests were performed with a significant level of 5%.

RESULTS

Table 1 presents the mean and standard deviation (\pm SD) between the two evaluation moments. The statistical significance is also presented in table 1.

Table 1

Mean and standard deviation (\pm SD) of the FFT variables between the pre and post-test.

FFT Variables	Pre-Test (mean \pm SD)	Post-Test (mean \pm SD)	F	Sig.	Eta Squared
Upper Limbs Strength (Reps)	27.39 \pm 5.27	31.39 \pm 6.17	8.147	0.005*	0.078
Lower limbs Strength (Reps)	20.90 \pm 4.68	23.33 \pm 4.82	4.282	0.041*	0.043
Upper Limbs Flexibility	-7.13 \pm 6.95	-5.70 \pm 6.22	0.754	0.387	0.008
Lower Limbs Flexibility (cm)	1.99 \pm 7.01	2.54 \pm 6.68	0.069	0.793	0.001
Aerobic Resistance (Reps)	104.63 \pm 24.30	112.41 \pm 25.03	1.425	0.236	0.015
Time Up and Go (sg)	4.65 \pm 0.63	4.48 \pm 0.62	0.899	0.345	0.009

* $p < 0.05$; ** $p < 0.001$

CONCLUSIONS

The multicomponent training program improved significantly the elderly's functional fitness in upper and lower limbs strength. The other variables didn't present significant improvements with the multicomponent training program, however, it is worth noting that everyone improved their scores. Thus, it is possible to conclude that the multicomponent training program may improve and/or preserve elderlies' functional fitness.

References

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