Implementing a proprioceptive exercise program in elderly

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INTRODUCTION

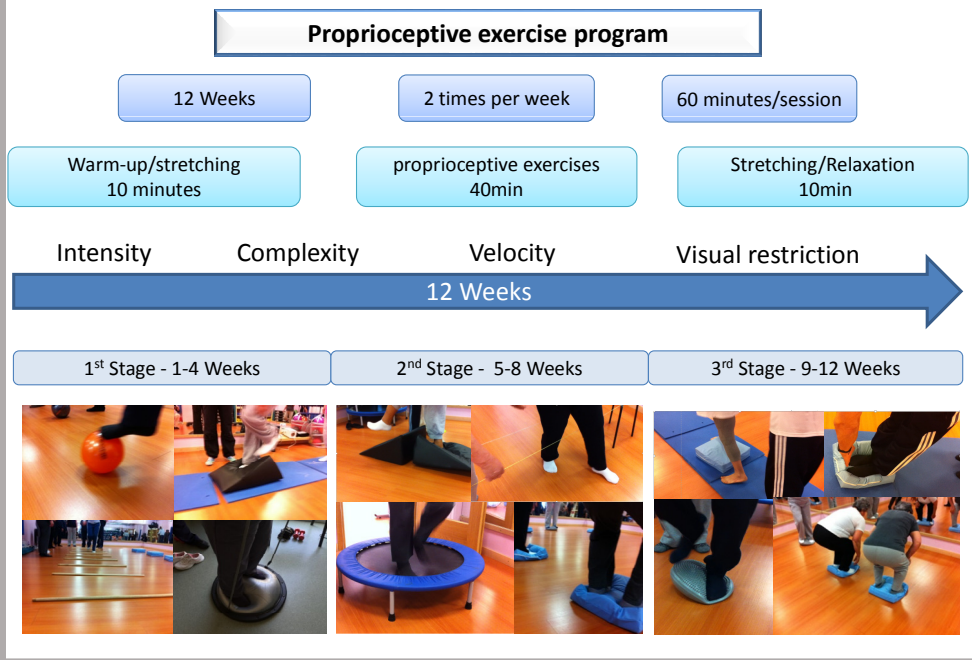
With aging, the human body goes through a period of transformation that generate decline of some physical capacities, such as decreased flexibility, agility, coordination, joint mobility and balance, compromising the functional capacity of older people, which is essential for carrying out Activities of Daily Living. The physical exercise is key to improving the functional capacity of the elderly, in particular with proprioceptive exercises, which have been used in recent studies with elderly.

OBJECTIVE

The aim of our study is to evaluate the effects of a proprioceptive exercise program on functional capacity in the elderly group

METHOD

To achieve this objective, we designed a quasi-experimental study with pre and post-intervention. Instruments and evaluations used in the assessment protocol: handgrip strength, finger pinch gauge, Tinetti Gait and Balance Test, single leg balance test, Rikli & Jones senior fitness test and the Tinetti Falls Efficay Scale



RESULTS

The sample was consisted of 24 elderly (17 women and 7 men), 12 of them in the intervention group (67.25 ± 2.01 years) and the other 12 in control group (68.08 ± 1.73 years). According to the results, the intervention group showed a statistically significant improvement in all evaluations performed after the program. In the control group, there was no significant improvement in functional capacity component evaluated after 12 weeks.

			Intervention Group		Control Group	
		N	Mean	*p*	Mean	*p*
Single leg balance	before	12	12.75±12.37	0.002	4.92±6.59	0.034
	after	12	29.75±21.77		3.75±3.86	
30-Second Chair Stand	before	12	9.08±2.10	0.002	10.42±3.37	0.357
	after	12	17.17±5.02		10.08±3.55	
Arm Curl (repetitions)	before	12	11.33±3.91	0.002	15.58±6.14	0.196
	after	12	21.33±6.91		15.08±5.79	
Chair Sit-and-Reach (cm)	before	12	-11.92±12.06	0.002	-7.92±7.79	0.621
	after	12	-0.33±8.13		-8.25±8.04	
Back Scratch (cm)	before	12	-26±5.87	0.002	-32.25±9.72	0.072
	after	12	-18.33±6.27		-33.5±10.20	
Up-and-Go (seconds)	before	12	11.5±2.46	0.002	11±3.46	0.272
	after	12	6.08±1.50		11.7±4.68	

			Intervention group		Control Group	
		N	Mean	*p*	Mean	*p*
Falls Eficacy Scale	before	12	70.83±19.70	0.002	69.42±8.25	0.435
	after	12	82.67±13.17		69.17±8.1	
Tinettti balance scale	before	12	14.08±2.02	0.011	14.67±2.38	0.046
	after	12	15.67±1.15		14.33±2.27	
Tinetti gait scale	before	12	9.75±1.13	0.003	10.83±0.93	0.564
	after	12	11.83±0.57		10.75±1.13	

CONCLUSION

Our proprioceptive exercise program proved to be decisive in improving the functional capacity of the elderly. This proprioceptive training program is one of the pioneers in this specific area with great potential for future use.

These positive results are clearly reflected in the physical and emotional well-being of the elderly in the intervention group and represent an opportunity for quality aging, becoming older with better functional capacity, more independent, active, self-confident and motivated

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