

# Institutionalized elderly rehabilitation

## Improving balance ability with a platform technology

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### INTRODUCTION

Ageing is associated with a decrease in the functionality of all organic systems. One factor that affects the quality of life in the elderly is the decrease of balance that sometimes leads to falls and consequently the fear of falling. In this sense, it is essential to try to mitigate this progressive degeneration. Platform technology can be used to improve balance in elderly and thus enable them a better quality of life and well-being.

### OBJECTIVE

To investigate whether an exercise program, using platform games, improve balance in a group of institutionalized elderly.

### METHOD

A quasi-experimental study was design in which it was used a sociodemographic questionnaire, nine of the ten tests of Fullerton Balance Advanced Scale to assess balance and the Falls Efficacy Scale (FES) to assess fear of falling. The exercises program where performed on the platform, and applied in 10 minutes session three times a week for two months.

### RESULTS

20 elderly were included, 70% women, with an average age of  $82.20 \pm 4.92$  years, 55% are widowed, 35% single and 10% are married. Results of the Fullerton Balance Advanced Scale evaluation showed that 17 elderly improved balance and 3 elderly decreased. Fear of falling results showed a statistically significant increase ( $Z = -2.875$ ;  $p = .004$ ) from the first to the second assessment moment ( $67.20 \pm 12.07$  vs  $70.25 \pm 12.94$ ).

Last year number of falls	N	%
0	9	45
1	6	30
2	5	25
<b>Total</b>	<b>20</b>	<b>100</b>

	FES T1	FES T2
<b>N</b>	20	20
<b>Mean</b>	67,2	70,25
<b>Median</b>	70	72,5
<b>Standard deviation</b>	12,07	12,94
<b>Z</b>		-2,875
<b>p</b>		0,004

### CONCLUSION

The exercise program set up with the technology platform has improved balance and decreased fear of falling in the elderly who participated in this study. Platform games can be used in rehabilitation of elderly to improve balance and reduce fear of falling.

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