variability (HRV), Barthel index, handgrip strength (HGS) and the 5-time sit-to-stand test (STS5) (patients eligible for execution). Statistical analysis: Using the SPSS software, the Shapiro-Wilk, Wilcoxon and Spearman correlation tests were applied. Values presented as mean, standard deviation and $p \leq 0.05$.
Results: 20 elderly with a mean age of 70.4 $\pm$ 7.17 years (12 men (60%) and 8 women (40%)) participated until the moment of the study. The HRV indices showed no significant change in the change between the supine and sitting position (SDNN p=0.65; RMSSD p=0.57; PNN50 p=0.39; LF p=0.14; HF p=0, 15 and LF/HF p=0.19). The average Charlson score was 5.65 $\pm$ 2.90. Reduced HGS values were found in the dominant limb (24.22 $\pm$ 9.45 Kgf; 75.78% of predicted), STS5 (19.04 $\pm$ 6.10s; 57.93% of predicted) and Barthel (63.25 $\pm$ 29.57). The RMSSD index showed a negative correlation with the STS5 (rs=-0.90, p=0.03) and the Barthel index showed a positive correlation with the FPP (rs=0.62, p=0.01).
Conclusion: Hospitalized elderly did not show changes in HRV indices after postural change, which may indicate an altered autonomic response in this population. In addition, they showed a reduction in peripheral muscle strength and functional performance, and a moderate risk of mortality at one year. Higher RMSSD index values correlated with lower execution times in the STS5, as well as higher FPP correlated with lower dependency. We suggest that new studies like this one be carried out, characterizing, and correlating these variables with frailty and sarcopenia.
Implications: Given these results, even though the sample is small and partial, it is imperative to evaluate these variables at the time of hospitalization of the elderly, to guide multidisciplinary teams in decision-making for intervention and prevention of greater functional and strength losses in this population.
Keywords: Elderly, Cardiac autonomic control, Functionality

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THE EFFECTIVENESS OF AN EXERCISE PROGRAM TO IMPROVE POSTURAL BALANCE IN INDEPENDENT ELDERLY PEOPLE: A RANDOMISED TRIAL

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Background: Aging is accompanied by systemic changes that compromise mobility, muscle strength and postural balance. Therefore, elderly individuals are more susceptible to episodes of falls. In Brazil, the number of hospitalizations and deaths from falls from standing heights has grown dramatically among the elderly population. Several studies have shown the importance of balance and muscle strength training to reduce the risk of falls among the elderly. However, little is discussed about the progression of the level of difficulty in a systematic way in the execution of balance exercises during the execution of these programs.
Objectives: (i) to propose an exercise program with progressions of difficulty for balance exercises; (ii) to investigate the effectiveness of the program to improve postural balance and reduce the risk of falls in independent elderly people.
Methods: this is a randomized clinical trial, carried out with elderly 60 years of age or older, residents of the city of Rio de Janeiro. Twenty-two participants were randomized to one of two treatment groups: intervention and control. The intervention group underwent an exercise program for static and dynamic balance with systematic progression of difficulty (dual-task exercises, manual resistance, and modification of sensory inputs) and exercises for muscle strengthening of the lower limbs. The control group performed the same exercise program, except for difficulty progressions. There were 2 sessions per week, for 12 weeks, lasting one hour each. The participants' risk of falls, functional mobility and gait adaptability were assessed before and after the intervention using the following instruments: Berg Balance Scale, Four Stage Balance Test, Timed Up and Go Test and Modified Dynamic Gait Index. The analysis of the data distribution profile (still to be carried out) will be verified using the Shapiro-Wilk test and, depending on the result, appropriate descriptive and inferential statistical analysis will be used. The effect size will be estimated according to the analysis used.
Results: the present study is in the data analysis phase. A total of 19 participants completed the exercise program (Control N=10; Intervention N=9), including 12 women. All 19 participants completed the 24 sessions without serious complications or falls.
Conclusion: the proposed exercise program was feasible and safe to be applied to independent elderly people, aged between 60 and 82 years, requiring the supervision of two therapists. Data relating to the assessment instruments will be analyzed for further interpretation and discussion of the results.
Implications: Considering the high rate of falls in the elderly population, injuries from falls and treatment costs, the present study proposes to provide a low-cost exercise program with easy access to therapists and the elderly population, and to test its effectiveness, aiming at reducing the risk of falls and their consequences for the elderly and for the Health System.
Keywords: Accidental Falls, Postural Balance, Aged

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EVALUATION OF THE QUALITY OF EVIDENCE IN SYSTEMATIC REVIEWS ON PHYSICAL THERAPY PUBLISHED IN HIGH-IMPACT JOURNALS: A METAEPIDEMIOLOGICAL STUDY

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