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 ± 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 ± 2.90. Reduced HGS values were found in the dominant limb (24.22 ± 9.45 Kgf; 75.78% of predicted), STS5 (19.04 ± 6.10s; 57.93% of predicted) and Barthel (63.25 ± 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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Background: Systematic reviews (SRs) are considered the type of study with the highest level of scientific evidence to support decision-making in clinical practice, including in the physical therapy field. In this type of study, in order to establish to what extent the evidence found is reliable, it is highly recommended to use the Grading of Recommendations Assessment, Development and Evaluation (GRADE) tool, as it allows the classification of the quality (certainty) of the evidence of selected studies, through the use of transparent and systematic criteria. When this analysis is neglected, judgment and interpretation of the results presented are impaired, which may reflect on the development and implementation of ineffective intervention and rehabilitation strategies.
Objectives: To evaluate the frequency with which the SRs of interventions in physical therapy, published in high impact journals, use the GRADE tool to analyze the quality of evidence of the included studies.
Methods: Using the Rayyan software, two reviewers independently selected all SRs of physical therapy interventions published in any language, from March 2020 to August 2022, in the 10 journals with the highest impact factor in the field of rehabilitation, evaluated by the Journal Citation Reports (JCR). Divergences were resolved by a third reviewer. The use of the GRADE approach to assess the quality of evidence in the SRs was analyzed using descriptive statistics, with frequencies and percentages.
Results: In the selection, 3,032 records were identified, published in English, of which 2,927 were excluded for not meeting the eligibility criteria. In total, 105 SRs were included, published in journals with an impact factor ranging from 4.762 to 10.714 (JCR, 2021). Among the 105 included SRs, 50.48% (53) used the GRADE tool and 49.52% (52) did not. Of the latter, 25% (13) did not have any type of assessment of the methodological quality or the risk of bias of the included studies, which makes it even more difficult to interpret the reliability of the results.
Conclusion: It was found that a significant part of the SRs on physical therapy interventions, currently published in high impact journals in the rehabilitation field, neglect the systematic and transparent assessment of the quality of the evidence of the included studies. Future systematic reviews should consider evaluating the certainty of the evidence, to increase the clarity and reliability in the interpretation of their results, to better support clinical decision-making.
Implications: This study presents important considerations regarding the lack of transparency on the reliability of the results presented in systematic reviews, even when published in journals with a high impact factor in the area of physical therapy. Failure to carry out a systematic analysis of the certainty of evidence is particularly problematic, as it compromises the safety of published results and does not provide an adequate basis for clinical decision-making by physical therapists.
Keywords: GRADE Approach, Systematic Review, Evidence-Based Practice

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COMPARATIVE STUDY OF THE FUNCTIONAL CAPACITY OF ELDERLY PEOPLE PRACTICING HYDROGYM AND FUNCTIONAL TRAINING

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Background: According to the World Health Organization, aging is a sequential, cumulative, irreversible, individual, universal, and non-pathological process of deterioration of a mature organism, typical of all members of a species. Aging cannot be avoided, but there is a way to ease the process of progressive loss of functional capacity, which influences the quality of life. Thus, data referring to the fragility of the elderly in relation to health care must be identified.
Objective: Compare the functional capacity of elderly practitioners of hydrogymnastics and functional training.
Methods: This is field research, exploratory, descriptive, comparative, longitudinal, with quantitative and qualitative data analysis, carried out from April 2018 to June 2019 at Instituto Senior. The 6-minute walk test (6MWT) and the Duke Activity Status Index (DASI) were applied. Both the test and the questionnaire are reliable tools for assessing functional capacity.
Results: A total of 22 hydrogymnastics or functional training practitioners were evaluated, 4 men and 18 women, with a mean age of 65.95±5.48. Separating by activity, 14 practiced water aerobics (2 men and 12 women) and 8 performed functional training (2 men and 6 women). An average distance of 479.29±72.13 and 462.50±78.92 was observed in the 6MWT and an average score obtained in the DASI of 41.49±11.42 and 49.92±12.24 for practitioners of water aerobics and functional training respectively. It was evidenced that even with aging one can maintain or improve the functional capacity through both modalities.
Conclusion: The practice of physical activity is directly linked to the promotion or maintenance of functional capacity. In the 6-minute walk test, hydrogymnastics practitioners had better performance, in the DASI, functional training practitioners obtained a higher score than those of hydrogymnastics.
Implications: The data show the benefits of practicing water aerobics and functional training in maintaining the functional capacity of the elderly, serving as valid alternatives to preserve the independence, well-being, and quality of life of this population. In addition, the use of assessment tools should be routinely performed in order to monitor the evolution or functional decline of the elderly, demonstrated here by the 6MWT and the DASI, which are easy to apply.
Keywords: Aging, Elderly, Exercise Therapy

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