

Ethics committee approval: CAAE: 73501823.6.0000.5504.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101310>

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THE VIVIFRIL PROGRAM AS A TOOL TO COMBAT FRAILTY SYNDROME: A RANDOMIZED CLINICAL TRIAL WITH INSTITUTIONALIZED ELDERLY PEOPLE

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Background: Aging is associated with a decline in functional capacity, which impacts the performance of activities of daily living (ADLs) that depend on factors such as strength, speed, endurance, coordination, flexibility, and balance. The decline in these factors increases frailty, leading to greater functional dependence in older adults. Institutionalized older adults, compared to community-dwelling older adults, are more vulnerable to frailty syndrome due to reduced participation in daily activities, sedentary behavior, and social isolation.

Objectives: To evaluate the effectiveness of the Vivifril program in combating frailty syndrome in institutionalized older adults by analyzing the program's effects on improving balance and muscle function in this population.

Methods: The study is a randomized clinical trial conducted over a three-month period with two weekly sessions in long-term care facilities (LTCF). A total of 30 female volunteers over the age of 60 participated, forming two groups: the Vivifril Group (VG), which underwent multicomponent training, and the Control Group (CG), which received usual care. The training followed the Vivifril model, adjusted according to the participants' initial functional capacity, categorizing them as "frail," "pre-frail," or "independent." Participants were assessed before starting the intervention and four weeks after its completion.

Results: Thirty older women were included in the study, with a mean age of 86 years. There were no statistically significant differences between the groups at the pre-intervention stage. However, post-intervention analysis revealed statistically significant differences in frailty levels, with lower frailty scores in the intervention group. Notably, the intervention group showed an improvement of nearly two points in the SPPB assessment, an increase of approximately 5 kg/f in handgrip strength, and a reduction of nearly 5 seconds in the time required to complete the five-times sit-to-stand test.

Conclusion: In this sample, the Vivifril program proved effective as a strategy for combating and preventing frailty syndrome, according to Fried's Frailty Phenotype.

Implications: The results suggest that the Vivifril program can be implemented to reduce frailty and the risk of falls. Furthermore, its adoption in LTCFs may promote greater independence and quality of life for this population.

Keywords: Multicomponent Training, Elderly, Fragility

Conflict of interest: The authors declare no conflict of interest.

Funding: Not applicable.

Ethics committee approval: CAAE: 81471324.1.0000.5188.

Registration: Not applicable.

<https://doi.org/10.1016/j.bjpt.2025.101311>

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IDENTIFICATION OF MUSCULOSKELETAL COMPLAINTS AND FUNCTIONAL PERFORMANCE IN FRAIL AND PRE-FRAIL ELDERLY PATIENTS IN HOSPITALIZATION

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Background: The elderly population has been growing rapidly, especially in developing countries like Brazil, presenting significant challenges for public health systems. The increase in the number of elderly individuals, along with decreasing fertility rates and rising comorbidities, has led to higher hospitalizations and mortality, particularly among those with frailty, sarcopenia, and musculoskeletal disorders. These conditions negatively impact functionality, mobility, and quality of life, making the elderly more vulnerable to severe complications. The implications of this aging trend for public health policies and hospital management are profound, requiring specialized care. Identifying clinical predictors related to frailty and musculoskeletal disorders is crucial to improving outcomes and personalizing care. This study aims to investigate the relationship between musculoskeletal complaints and physical performance in frail and pre-frail elderly individuals, contributing to the development of more effective rehabilitation strategies for this growing population.

Objectives: To associate functional performance, gait mechanics, respiratory function, and the history of musculoskeletal dysfunctions among frail and pre-frail elderly individuals in hospital admission.

Methods: Twenty-seven elderly individuals aged 60 or older, classified as frail or pre-frail according to Fried's phenotype, were evaluated. The methodology included gait tests, grip strength, the Medical Research Council scale, the Timed Up and Go test, the Short Physical Performance Battery, the 10-meter walk test, kinematic gait assessment, and inspiratory muscle function. Additionally, pain levels and data from functional capacity and performance questionnaires, such as WOMAC, the Health Assessment Questionnaire, and the Lequesne Questionnaire, were analyzed. Statistical analysis was performed using Pearson's correlation test, with a significance level of $p < 0.05$ to determine correlations between pain levels, questionnaire scores, and functional capacity tests.

Results: The data analysis revealed no significant correlations between the variables, refuting the study's initial hypothesis. The absence of association between functional capacity, length of hospitalization, and musculoskeletal complaints may be explained by the fact that frail elderly individuals have multiple impairments, such as sarcopenia, immune system alterations, and comorbidities, making the musculoskeletal impact a secondary factor in their health and recovery.

Conclusion: According to the findings of this study, functional performance, gait mechanics, and respiratory function are not associated with the history of musculoskeletal dysfunctions among frail and pre-frail elderly individuals in hospital admission. It is suggested that the functional impairment in frail individuals is influenced by multidimensional factors, with musculoskeletal complaints being a lesser factor compared to other health issues affecting these individuals.

Implications: The results of this study highlight the importance of a multidimensional approach in physical therapy for frail and pre-frail elderly individuals, considering factors such as sarcopenia and comorbidities. The analysis reinforces the relevance of personalizing care in hospital management and the need for comprehensive assessments in the training of physical therapists. Additionally, the findings contribute to the understanding of how rehabilitation