

analyze gait as the primary outcome of interventions with different exercise modalities for both elderly men and women with osteoporosis, in order to define more effective short and long-term strategies for this population.

Implications: From this review, it is still difficult to determine whether balance training combined with other types of exercise brings benefits to elderly people with osteoporosis. However, balance training with multi-task exercises deserves attention, as it simulates everyday situations, making elderly people more prepared and confident while walking.

Keywords: Aged, Gait, Osteoporosis

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PREVALENCE AND FACTORS ASSOCIATED WITH CHRONIC BACK PAIN IN ELDERLY BRAZILIANS: DATA FROM THE 2019 NATIONAL HEALTH SURVEY

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Background: Chronic back pain (CHP) is a prevalent condition in the general population and has been associated with socioeconomic, clinical, and health factors. Despite this, studies with elderly people involving all regions of Brazil are not yet available.

Objectives: To analyze the prevalence and factors associated with chronic back pain in elderly Brazilians.

Methods: This is a cross-sectional study that used data from the 2019 National Health Survey, with 23,144 people aged 60 years or older. The factors associated with CHD were established based on the estimates of odds ratios by the binary logistic regression model, using the Statistical Package for the Social Sciences (SPSS) program, version 27.0.

Results: The prevalence of CHD among elderly Brazilians corresponded to 31.1% (95% CI: 31.0-31.1). The following variables were consolidated as associated factors: male sex (OR: 0.88; 95% CI: 0.87-0.89), age group from 70 to 79 years (OR: 1.16; 95% CI: 1.15-1.16) and 80 years and over (OR: 1.16; 95% CI: 1.15-1.17); lack of education (OR: 1.06; 95% CI: 1.06-1.07), 1 to 4 years of education (OR: 1.47; 95% CI: 1.45-1.48), 5 to 8 years of education (OR: 0.94; 95% CI: 0.93-0.96); income of up to 1 minimum wage (OR: 1.42; 95% CI: 1.40-1.43), 1 to 2 minimum wages (OR: 1.29; 95% CI: 1.28-1.31); absence of partner (OR: 1.16; 95% CI: 1.15-1.16); perception of health as regular (OR: 0.61; 95% CI: 0.60-0.62) and poor/very poor (OR: 1.26; 95% CI: 1.25-1.27); sleep problems (OR: 0.85; 95% CI: 0.84-0.86); presence of multimorbidities (OR: 0.74; 95% CI: 0.73-0.74); use of medications (OR: 3.17; 95% CI: 3.14-3.20); dependence for basic (OR: 0.40; 95% CI: 0.39-0.40) and instrumental activities of daily living (OR: 1.19; 95% CI: 1.18-1.20); body mass index (OR: 1.02; 95% CI: 1.02-1.02); depression (OR: 1.19; 95% CI: 1.18-1.20); and occurrence of falls (OR: 0.63; 95% CI: 0.62-0.63).

Conclusion: The prevalence of CHD was high and associated with socioeconomic, clinical, and health variables.

Implications: The results shown may provide support for the implementation of health actions aimed at elderly Brazilians.

Keywords: Elderly health, Risk factors, Back pain

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THE INFLUENCE OF VISUAL CONTRIBUTION ON MUSCLE ACTIVITY DURING VISUAL FEEDBACK TASKS WHILE STANDING

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Background: Visual biofeedback has been widely used in training programs aimed at improving postural balance through the reduction of postural sway. However, studies have shown variability between individuals in their ability to reduce postural sway while using visual biofeedback, suggesting that some individuals may not rely heavily on visual cues to adjust their posture. An important question arising from these findings is whether individuals who rely on visual information differ from those who do not in their postural strategies when engaging in biofeedback tasks.

Objectives: This study investigated the effect of visual contribution on muscle activity and postural sway in young adults while standing and using different visual biofeedback tasks.

Methods: Twenty participants performed four distinct postural tasks, each lasting sixty (60) seconds: (1) Eyes open (EO), as a control condition; (2) Eyes closed (EC); (3) center of pressure (CoP) biofeedback using 2 cm (3a) and 4 cm (3b) targets; and (4) wrist-controlled laser biofeedback. Electromyograms (EMG) were collected from the right tibialis anterior (TA) and medial gastrocnemius (MG), and CoP displacement was measured in the anterior-posterior (AP) and medial-lateral (ML) directions. The index, based on percentage difference of COP sway area [(EC area EO area)/(EC area +EO area) × 100] was used to determine the weight of visual information in postural control, dividing individuals into vision or non-visual. The Friedman test was used, followed by the post-hoc Wilcoxon test for pairwise comparisons between conditions, with a significance level of 5%.

Results: Eight individuals were classified as visual, with a larger COP sway area in the EC than in the EO condition, while eleven (~58%) were classified as non-visual. In the visual group and when considering CoP biofeedback, the RMS of TA activity increased when using 2 cm target (p = 0.047) in relation to EO, but without differences in CoP variability. In the non-visual group, there were no significant differences in muscle activity, but the SD of the AP CoP and CoP sway area decreased with the 2 cm and 4 cm targets when compared to EO (p < 0.05). For laser biofeedback, no differences in muscle activity were observed; however, the SD of the AP CoP increased during this biofeedback task compared to the EO condition, regardless of the visual group.

Conclusion: Postural adaptations to CoP biofeedback appear to depend on an individual's reliance on vision for postural control and