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EFFECTS OF NINTENDO WII® TRAINING AND ECCENTRIC EXERCISES ON TREMOR IN PATIENTS WITH PARKINSON'S DISEASE: PRELIMINARY RESULTS

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Background: Parkinson's disease (PD) is a neurodegenerative disease, chronic and progressive, that produces signs such as tremors at rest, alteration in the functionality of upper limbs (MMSS), and cognitive decline, which impact the performance of activities of daily life. Eccentric exercises have been shown to reduce tremors in people with PD. Nintendo Wii exergames have been used in the rehabilitation of people with PD, promoting improvement in gait, balance, and cognition.
Objectives: To evaluate the effects of training using Nintendo Wii games in combination with exercises in the upper limb on tremors, upper limb functionality, and the cognition of patients with Parkinson's Disease (PD), compared to training exclusively composed of eccentric upper limb exercises.
Methods: This is a randomized, controlled, blinded clinical trial with a sample of 30 people with PD randomly allocated into two groups: Nintendo Wii group combined with eccentric exercises (n=15), who will do 20 minutes of eccentric exercises and 25 minutes of training with Nintendo Wii, and Exclusive eccentric exercises group (n=15), which will do only eccentric exercises for 45 minutes. Both groups will be trained for 8 consecutive weeks, twice a week, totaling 16 sessions. The groups will be evaluated before training, within 7 and 30 days after the end of training.
Results: It was verified in both groups: increase in handgrip strength tends; tremor reduction; improvement of the functional performance of the upper limbs; and improvement in cognitive performance.
Implications: The results of this study may contribute to a better understanding of the effectiveness of treatments focused on reducing tremor in patients diagnosed with Parkinson's disease.
Keywords: Parkinson Disease, Virtual Reality, Tremor

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HOW FIBROMYALGIA TREATMENT AND DIAGNOSIS ARE PERFORMED IN THE CITY OF SÃO CARLOS: A CROSS-SECTIONAL STUDY

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Background: Fibromyalgia (FM) is a chronic widespread pain disorder. Its prevalence varies between 0.2 and 6.6% in the world, with a higher prevalence in females. The diagnosis and treatment of FM can be carried out in primary health care (PHC) and although it can be diagnosed and treated in this context, the literature lacks articles that demonstrate that the diagnosis and treatment of FM occurs in the PHC. This is because it is common for PHC professionals to refer the patient to a specialist, making the diagnosis and treatment processes time-consuming and significantly affecting the lives of patients due to the length of this wait.
Objectives: To collect data on how the diagnosis and treatment of fibromyalgia is carried out in primary care in the city of São Carlos and what the different professionals do when screening and treating a patient with suspected fibromyalgia.
Methods: A cross-sectional study was carried out, and health professionals from Basic Health Units (BHUs) and Family Health Units (FHUs) distributed within the municipality of São Carlos were invited to answer an online form that evaluated which guidelines are followed by them and what is the conduct performed when they assist a patient with suspected FM.
Results: The study included 22 health professionals from the municipality, who have been working in PHC for an average of 9 years. Regarding the diagnosis of FM, 40% of professionals reported considering the presence of tender points to perform it, criteria of the American College of Rheumatology (ACR) of 1990, which are no longer considered an effective way to diagnose FM. In addition, only 5 professionals reported using the most current FM diagnostic criteria (2016 ACR revision). Regarding treatment, health professionals bring physical exercises as part of their conduct. However, it is noteworthy that one physiotherapist reported not performing non-pharmacological treatment; in addition, 4 professionals reported prescribing or referring their patients to integrative practices, and, in this sense, it is important to point out that there was no consensus by the Brazilian Society of Rheumatology for the use of these practices. Thus, it is notable that health professionals working in PHC in São Carlos do not know the current guidelines for diagnosing and treating FM, which may lead to excess referrals to secondary care and delays in patient care.
Conclusion: It is necessary to carry out interventions and training with health professionals who work in PHC for a better diagnosis and management of fibromyalgia.
Implications: This was the first study to understand how the diagnosis and treatment of fibromyalgia is carried out in the PHC and the first to raise aspects that may influence the diagnosis and treatment carried out in the BHUs and FHUs.
Keywords: Fibromyalgia, Treatment and Diagnosis, Primary Health Care

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DO THE INSTRUMENTS USED TO ASSESS FIBROMYALGIA SYMPTOMS GENERATE SIMILAR SCORES IN OTHER CHRONIC MUSCULOSKELETAL PAIN?

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Background: As with fibromyalgia, several musculoskeletal disorders are characterized by chronic pain, raising a clinical question – do the instruments used to assess fibromyalgia symptoms according to ACR criteria (ACR criteria) generate similar scores in other chronic musculoskeletal pain?
Objectives: To compare the pain, functionality, and symptoms between fibromyalgia and other chronic musculoskeletal pain using the Widespread Pain Index (WPI) and the Symptom Severity Scale (SSS).
Methods: This is a cross-sectional study. Participants over 18 years old were included if they presented the report of chronic musculoskeletal pain ($\geq$ 3 months), and after that, they were divided into two groups (fibromyalgia and chronic pain). They answered the Fibromyalgia Impact Questionnaire-Revised (FIQ-R), Brief Pain Inventory (BPI), Numerical Pain Rating Scale (NPRS) for pain and fatigue, WPI, and SSS.
Results: A total of 166 participants were included in this study into two independent groups (chronic pain, n=83; fibromyalgia, n=83). We observed significant differences ($p < 0.05$) and large effect sizes (Cohen's d, ≥ 0.7) in clinical outcomes comparisons between groups (i.e., widespread pain, symptom severity, present pain at rest, and after movement, fatigue; pain severity, and impact; function, global impact, and fibromyalgia symptoms).
Conclusion: Fibromyalgia patients (2016 ACR criteria) compared to other chronic musculoskeletal pain patients have higher levels of pain (at rest or after movement) and fatigue, greater impairment in both functionality and global impact, and worse symptoms.
Implications: WPI and SSS instruments should be used exclusively to assess fibromyalgia symptoms.
Keywords: Chronic Pain, Rheumatology, Primary Health Care

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A BIOMECHANICAL ANALYSIS OF TURNING DURING GAIT IN INDIVIDUALS WITH PARKINSON'S DISEASE

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Background: Turning during gait is a complex component of locomotor capacity and can prove challenging to individuals with neurodegenerative diseases during their day-to-day lives. In Parkinson's disease (PD), motor dysfunction can be exacerbated in conditions that require interruptions in gait or change in direction. These changes in gait are among the leading factors contributing to falls and can occur at different stages and in different clinical subtypes of the disease, compromising functionality and, consequently, social participation.
Objectives: To describe and compare biomechanical variables during the task of turning while walking in individuals with Parkinson's disease and its different clinical subtypes.
Methods: A cross-sectional study approved composed of 43 individuals with idiopathic Parkinson's disease, divided into groups according to their clinical subtype: akineto-rigid, tremor-dominant, and mixed. Motor impairment was evaluated using the Unified Parkinson's Disease Rating Scale, and the cognitive status of individuals was assessed using the Mini-Mental State Examination. The biomechanical parameters of gait (number of steps, step length, cadence, as well as variables associated with the displacement of the center of mass, such as amplitude, velocity, and turning radius) were analyzed while turning during gait, in a kinematics laboratory. Statistical analysis included a comparison between Parkinson's disease subtypes (one-way ANOVA and Kruskal-Wallis) and a correlation between biomechanical parameters (Pearson and Spearman), with the significance set at 5%.
Results: There were no statistically significant differences in the comparison between akineto-rigid, tremor-dominant, and the mixed subtypes. The correlation analysis highlighted a significant correlation between the anticipatory step length and the number of steps ($r = -0.418$; $p = 0.005$), step length while turning ($r = 0.805$; $p < 0.001$), step length after turning ($r = 0.644$; $p < 0.001$), the mean velocity ($r = 0.830$; $p < 0.001$), the mean velocity while turning ($r = 0.755$; $p < 0.001$), and the maximum velocity ($rho = 0.835$; $p < 0.001$).
Conclusion: In people with Parkinson's disease, the greater the length of the anticipatory step, the greater the step length required to turn and the greater the step length taken after turning. In addition, the greater the speed, the greater the step length amplitude, and the greater the radius of the turn, resulting in fewer steps in order to complete the task.
Implications: This research demonstrates that individuals with Parkinson's disease face difficulties when turning during gait. The results suggest that these difficulties primarily occur during the anticipatory phase of the turn, which affects the entire task. Therefore, these findings can potentially be used to guide rehabilitation interventions in individuals with Parkinson's disease, such as targeting the anticipatory phase of turning through gait training, visual and auditory cues, rhythmic cues, verbal cues, environmental enrichment, and progressive activities with increasing complexity. These interventions are likely to be beneficial in improving turning and gait performance in the day-to-day lives of individuals with Parkinson's disease.
Keywords: Parkinson's disease, Gait, Kinematics

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DEPRESSION, DEPRESSIVE SYMPTOMS AND USE OF ANTIDEPRESSANTS IN HEALTH PROFESSIONALS DURING THE COVID-19 PANDEMIC - CROSS-SECTIONAL STUDY

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Background: Depression is a health problem that affects the whole of society, having worsened in the context of the Covid-19 pandemic. There is evidence that healthcare workers are more likely to develop depression, which can compromise productivity at work and quality of life.