other variables than strength only, as balance and power output. For body composition, BIA showed the best correlations, as expected. Skinfold, calf circumference and MAC could be a good choice for this criterion, because they have good correlation, low cost, and are fast to develop. For physical performance, UGS seems to be the best assessment, although SPPB and TUG showed some correlations. Is important to note that, for these criteria, the choice of assessment method may affect the result of sarcopenia severity.
Implications: Studies like this used to clarify the use of certain assessment and diagnostic techniques. With this study, for this sample, we were able to demonstrate the power of comparability of the instruments available for the diagnosis of sarcopenia in older people, thus facilitating the clinical practice of health professionals.
Keywords: Sarcopenia, Aged, Geriatric Assessment, Anthropometry, Kinanthropometry

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EFFECT OF TWO PHYSICAL EXERCISE PROGRAMS ON STRENGTH, FUNCTIONALITY AND QUALITY OF LIFE IN OLDER PEOPLE: A RANDOMIZED CLINICAL TRIAL

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Background: The body of the elderly, in general, suffers impacts with the aging process, which may result in changes in the body as a whole, and exercise has been commonly used by health professionals as a form of intervention for the mitigation and prevention of changes in the aging process.
Objective: To compare the effect of two different exercise programs on strength, functionality, and quality of life in elderly people from Porto Alegre, Brazil
Method: This was a randomized, blinded, intent-to-treat clinical trial in which 31 elderly subjects participated, 16 in the strength training group (G1) and 15 in the Pilates solo training group (G2), with a duration of approximately 1 hour, and frequency of 3 times a week for 12 weeks, with evaluations every 4 weeks of training. To measure strength the handgrip test and the isokinetic dynamometer (Biodex) were used for knee flexion and extension strength. For functionality the TUG, SPPB, Berg and TC6 were evaluated and for quality of life the SF-36 questionnaire was used.
Results: Although the elderly gradually improved in the strength outcome, there was not statistically significant intragroup or intergroup difference. As for functionality, there was a statistically significant difference (p=0.010) in the predicted percentage of the 6-minute walk test between the groups in evaluation 4, where G1 walked 126.51±10.28% and G2 walked 112.11±5.99%. As for quality of life, despite the improvement in all domains, only in the Emotional Aspects domain there was a statistically significant difference (p=0.017), between groups G1 and G2 at Assessment 1 and Assessment 3, being respectively 72.92±32.70 and 55.56±41.25, and 77.78±28.87 and 100.00±0.0.
Conclusion: There was no significant difference in strength when comparing the groups. In functionality G1 presented a higher predicted percentage of the 6-minute walk test when compared to G2. In quality of life, in the domain of emotional aspect G2 was able to overcome G1 even though initially G1 had significantly higher values.
Implications: this work brings important knowledge to the literature, demonstrating the impact of each modality of physical activity on certain health indicators of the elderly individual. We also reiterate that further work, with larger samples and different training models, should be conducted to deepen these results.
Keywords: Aging, Resistance training, Exercise movement techniques, Functional capacity, Quality of life

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NEUROMUSCULAR PERFORMANCE OF WOMEN WITH KNEE OSTEOARTHRITIS

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Background: Knee osteoarthritis (KOA) is characterized by progressive degeneration of cartilage and periarticular tissue, resulting in narrowing of the joint space, formation of osteophytes and sclerosis of the subchondral bone. Compromised ability to generate muscle torque and power has been the most predominant symptom of KOA and may be related to the difficulty in performing the main activities of daily living. The muscle strength deficit in KOA affects the entire lower limb, being more pronounced in the knee extensors, 40% lower in relation to healthy individuals of the same age group. Strength together with quadriceps muscle power may be clinically more important to identify functional deficits in these patients, providing more accurate information about the neuromuscular system in relation to imaging exams.
Objectives: The aim of the study was to compare peak torque and rate of torque development of knee extensors in women with and without knee KOA.
Methods: 71 women participated in this study, divided into a group with Knee Osteoarthritis (GOAJ; n= 39) and a control group (GC; n=32). For the GOAJ, the individuals had a radiological diagnosis of tibiofemoral OA and for the CG, the individuals did not have a history of alterations related to chronic-degenerative diseases in the lower limbs. To evaluate the knee extensor torque, the volunteers performed 3 maximum voluntary isometric contractions, for a period of 5 seconds, with an interval of 30 seconds between each contraction. Torque data were normalized by the volunteers' body mass. A load cell (Noraxon®), with a sampling frequency of 100 Hz, was coupled to the lever of the leg extension chair for the acquisition of joint torque data. Peak torque was determined by the highest torque value obtained after the onset of muscle contraction, and the average of the values of the three contractions performed was calculated. To calculate the torque development rate (TDT), the slope of the torque versus time curve was analyzed, in windows of 0-30 and 0-200ms. For statistical analysis, the T test for Independent Samples was used, considering the significance level of $p < 0.05$.
Results: The knee extensor torque of the GOAJ was 54% lower compared to the CG. Regarding DTT, there was a significant difference

both in the initial and late phase of muscle contraction, with GOAJ presenting values, respectively, 49% and 36% lower than the CG.
Conclusion: Women with KOA have neuromuscular impairment in relation to women in the same age group without the disease.
Implications: The neuromuscular variables analyzed show that women with KOA have a lower ability to produce force and generate rapid nerve impulses in a short period, which may predispose these individuals to falls and contribute to the worsening of functional mobility in this population.
Keywords: Knee osteoarthritis, Muscle strength, Torque development rate

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BIOMECHANICAL AND VISCOELASTIC PROPERTIES OF HAMSTRINGS WITH AND WITHOUT POSTURAL DEMAND IN COMMUNITY-DWELLING OLDER WOMEN: A PILOT STUDY

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Background: Hamstrings act in hip extension, knee flexion, hip and knee rotation, as well as in simple stabilization of the pelvis and lumbar spine during movement. In older adults, these functions may be compromised due to age-related changes in both muscle structure and function. Thus, the biomechanical and viscoelastic properties could be altered due to the decrease in muscle fiber size, decrease in collagen content and increase in fibrosis. Associated with these aging-related changes, postural demands such as standing for prolonged periods or maintaining an upright posture, could further exacerbate these changes, leading to increased muscle stiffness and reduced elasticity. Therefore, it is possible that the biomechanical and viscoelastic properties of hamstrings are affected by postural demands, particularly in community-dwelling older adults.
Objectives: To evaluate and compare changes in the biomechanical and viscoelastic properties of hamstrings at rest and during the orthostatic position.
Methods: Descriptive analytical cross-sectional study. Individuals aged 60 years or older, without muscle tone alterations and without conditions affecting functional mobility, were evaluated. Individuals with cardiorespiratory, metabolic, or neurological health conditions without medical follow-up were also excluded. Initially, the individuals answered an evaluation form developed by the researchers. Next, the MyotonPro (Myoton AS, Estonia) was used to assess the passive stiffness, elasticity, relaxation, and creep of the biceps femoris (BF) and semitendinosus (SMT) muscles in prone position (PP) and in the orthostatic posture (OP). Mean values for the left lower limb (LLL) and right lower limb (RLL) were calculated from the values obtained in BF and SMT. Means and standard deviations were used to describe the data and, to compare the different situations between MIE and LID, the Wilcoxon test was used with a significance level of $p<0.05$.
Results: Seven female participants were evaluated, with a mean age of 65.57($\pm$4.68) years and a mean body mass index of 29.61kg/m^2($\pm$5.81). In RLL, the passive stiffness (PP=262.31N/m$\pm$38.71; OP=286.71N/m$\pm$71.58), elasticity (PP=1.85$\pm$0.16; OP=1.63$\pm$ 0.27), relaxation (PP=23.35ms$\pm$4.38; OP=20.71ms$\pm$4.95), and creep (PP=1.45$\pm$0.26; OP=1.29$\pm$0.30) showed a significant difference between groups. In the LLL, only the elasticity (PP=1.85$\pm$0.14; OP=1.59$\pm$0.29) showed a significant difference.
Conclusion: The findings of this study indicate that maintaining the orthostatic posture would imply an increase in stiffness and a reduction in elasticity, relaxation and creep of the hamstrings, in at least one of the lower limbs.
Implications: Understanding the biomechanical and viscoelastic properties of tissues in different postures can help design and optimize training and rehabilitation programs.
Keywords: Muscle stiffness, Postural control, Older adults

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THE ROLE OF THE PHYSIOTHERAPIST IN PRE-ADMISSION SCREENING, PERIODIC AND DISMISSAL ASSESSMENTS OF WORKERS: CROSS-SECTIONAL STUDY

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Background: A crucial occupational health physiotherapist's role is advising on a person's physical fitness for work. To do this, the physiotherapist working in occupational health uses tools to measure a person's physical and functional capacity and perform a series of assessments. Many physiotherapists use physical-functional measurements for this purpose. The physical-functional pre-employment evaluations aim to identify musculoskeletal injuries present in the worker or functional limitations of movements that prevent him from carrying out occupational activities, such as handling loads.
Objectives: Identify the profile of physiotherapists who perform physical-functional and complementary assessments, who work with occupational health.
Methods: This is a cross-sectional study through interviews (survey) with physiotherapists who work with physical-functional and complementary assessments in occupational health. Physiotherapists who carry out physical-functional evaluations in workers with the objective of assessment, periodic, or dismissal, were included. the recruitment and access to the questionnaire were through a "Contact Mode" survey and the link was sent through social networks and a banner in the development and pre-test questionnaire was prepared with the title and purpose of the research and types of questions, the administration of the survey carried out via the web, it was a voluntary survey, without incentives with collection from June to December 2022 with a questionnaire with 55 items and 12 pages.
Results: Of the 1210 guests with a professional profile in the occupational health field, 106 physiotherapists responded that they