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