

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

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

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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 $29.61\text{kg}/\text{m}^2(\pm 5.81)$. In RLL, the passive stiffness ($PP=262.31\text{N}/\text{m} \pm 38.71$; $OP=286.71\text{N}/\text{m} \pm 71.58$), elasticity ($PP=1.85 \pm 0.16$; $OP=1.63 \pm 0.27$), relaxation ($PP=23.35\text{ms} \pm 4.38$; $OP=20.71\text{ms} \pm 4.95$), 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

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

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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