instructions and the translated version of the RTP. At the end of this stage, 30 young adults aged between 13 and 35 years (mean=25; SD=6.9 years), diagnosed with CP and with a good cognitive level, provided data for content validation, in addition to sociodemographic information.
Results: After two rounds of review with the authors, the final version translated into Portuguese was obtained and construct validity was established with agreement among professionals to change 3 items of the instrument. Content validity was demonstrated with suggestions for additional modifications to 2 of the same 3 items also pointed out during construct validity. In the end, changes were made to items 1 (education and employment) and 8 (care demands). The internal consistency analysis was considered good (Cronbach's alpha 0.820).
Conclusion: The Brazilian Portuguese version of the RTP was considered adequate and clear.
Implications: The instrument will support transition planning for person-centered care, highlighting the strengths and challenges faced by young people with CP during the transition to adulthood.
Keywords: Cerebral palsy, Evaluation instrument, Measurement properties

Conflict of interest: The authors declare no conflict of interest.
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INSPIRATORY MUSCLE STRENGTH AS A PROTECTIVE FACTOR FOR MORTALITY IN PATIENTS WITH HEART FAILURE

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Background: Chronic heart failure (HF) is commonly associated with inspiratory muscle weakness (IMW). However, few studies have investigated risk factors for IMW in patients with HF and systolic dysfunction (left ventricular ejection fraction (LVEF) $\leq$ 40%).
Objectives: This longitudinal study aimed to: (1) analyze whether clinical factors, functional capacity measures, and biomarkers of inflammatory and cardiovascular disease were associated with IMW in patients with HF; (2) to analyze associations between IMW, functional capacity and the outcome death in 36 months of follow-up.
Methods: This longitudinal study. Patients with HF, NYHA functional class I-II-III, LVEF $\leq$ 40% consecutively recruited at a referral cardiac tertiary center were evaluated. At baseline, we evaluated patients regarding clinical data, smoking history, peripheral muscle strength using a dynamometer, functional capacity using the six-minute walk test (6MWT) and treadmill cardiopulmonary test (CPT), quality of life using the Minnesota Living with Heart Failure (MLHF) questionnaire and plasma levels of cardiovascular biomarkers. Through analysis of medical records and phone calls, we followed these patients for 36 months for the main outcome, death. Statistical analysis compared the survivor and death groups using the Wilcoxon test for continuous variables and Fisher's exact test was used for categorical variables. To identify predictors of mortality in these patients, a logistic regression was performed. P values $<$0.05 were considered significant.
Results: Sixty-nine patients were evaluated. They had 58 $\pm$ 10 years, LVEF 30 $\pm$ 7% and 71% were male. Six patients died during the 36-month follow-up. Compared with survivors, patients in the death group had lower predicted inspiratory muscle pressure (IMP) (80 $\pm$23 vs 57$\pm$22%, p= 0.015), lower oxygen consumption (VO_2) at the point of respiratory compensation (20 $\pm$ 5 vs 15 $\pm$ 1 mL/Kg/min, p= 0.020), higher troponin I plasmatic values (453 (244-596) vs 804 (674-1085) pg/mL, p= 0.022), higher Galectin-3 plasmatic values (1168 (806-2092) vs 2756 (2021-6514), p=0.020) and worse quality of life according to the MLHF (p=0.048). Most patients in the death group had IMW (83%), with a significant difference (p=0.018) compared to the survivor group, in which only 31% of patients had IMW. Predicted IMP was the only protective predictor of mortality in these patients (OR 0.958 (0.920 to 0.998), p=0.027).
Conclusions: Predicted IMP proved to be an independent protective predictor of mortality in patients with HF and reduced LVEF.
Implications: In physiotherapeutic care for patients with HF and reduced LVEF, the assessment of inspiratory muscle strength and identification of IMW is an important measure to guide conducts and identify the severity of patients.
Keywords: Heart failure, Inspiratory muscle weakness, Functional capacity

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CORRELATION BETWEEN OCCUPATIONAL PROFILE, ABSENTEEISM AND WORK ACCIDENTS IN MUSCLE, SYNOVIA AND TENSION DISORDERS

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Background: Absenteeism and accidents at work are considered a public health problem due to the socioeconomic and functional repercussions imposed on the worker and the country. The characteristics of the work environment can increase occupational risks and, consequently, the incidence of work absenteeism and accidents.
Objective: To identify which occupational characteristics are associated with absenteeism and work accidents in work-related muscle, synovial, and tendon disorders.
Methods: We performed an observational study. We obtained the data through the National System of Medical Assistance - SINAM (DATASUS) considering the notifications resulting from muscle disorders (M60-M63), synovial and tendon disorders (M65-M68) in Brazil between the 2006 and 2022 years. The analyzes correlated absenteeism and work accidents with the occupational profile, with the following variables: (1) repetitive movements; (2) stressful environment; (3) time for breaks; (4) working hours longer than 6h/day; and (5) more than one employment relationship. We assessed the normality of all variables using the Shapiro-Wilk test. In the absence of normal distribution, we used the Spearman Correlation test. All

analyzes were performed using the R Core Team software, considering an $\alpha \leq 0.05$.
Results: Absenteeism were associated with a stressful environment ($r^2 = 0.953$, p-value = 0.000), time taken for breaks ($r^2 = 0.866$, p-value = 0.000), working hours longer than 6h/day ($r^2 = 0.627$, p-value = 0.007) and more than one employment relationship ($r^2 = 0.948$, p-value = 0.000). Similarly, work accidents had a statistically significant association with the stressful environment ($r^2 = 0.928$, p-value = 0.000), time of breaks ($r^2 = 0.846$, p-value = 0.000), working hours greater than 6h/day ($r^2 = 0.606$, p-value = 0.009) and more than one employment relationship ($r^2 = 0.939$, p-value = 0.000). On the other hand, there was no statistically significant correlation between repetitive movements and absenteeism ($r^2 = -0.051$, p-value = 0.846) or work accidents ($r^2 = -0.153$, p-value = 0.558), demonstrating that, despite the studied population being workers with musculoskeletal disorders, repetitive movements did not influence cases of absenteeism and work accidents. Furthermore, absenteeism and work accidents were significantly associated ($r^2 = 0.981$, p-value = 0.000) showing that these workers may be more susceptible to this type of injury.
Conclusion: Stressful environments, working hours longer than 6h/day, time for breaks and more than one employment relationship had a greater impact on absenteeism and accidents at work in cases of muscle, synovial and tendon disorders reported in Brazil compared to the variable "repetitive movements".
Implications: This study provides insight for future investigations. In contrast to expectations, the stressful environment was the variable best correlated with absenteeism and work accidents in Brazilian workers with musculoskeletal disorders. Therefore, it is pertinent to continue this investigation to understand how the stressful environment, and other variables analyzed, had repercussions on absenteeism and accidents of workers diagnosed with musculoskeletal disorders related to work.
Keywords: Cumulative trauma disorders, Occupational risks, Occupational accidents

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EFFECT OF MUSCLE STRENGTHENING AND AEROBIC EXERCISE ON PAIN, MUSCLE STRENGTH AND PHYSICAL PERFORMANCE OF INDIVIDUALS WITH KNEE OSTEOARTHRITIS

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Background: For the treatment of individuals with knee osteoarthritis (KOA), the American College of Rheumatology recommends conservative modalities and, among them, are muscle strengthening (MS) and aerobic exercise (AE), the latter usually associated with MS, which makes it difficult to know what the effective contribution of AE is to this population. In addition, psychological factors are also important to be considered for KOA and how much they influence physical performance and symptom improvement is still uncertain.
Objectives: To evaluate and compare MS and AE protocols on intensity and pain awareness, muscle strength, self-reported and objective physical performance in individuals with KOA, considering the influence of age, BMI and psychological factors.
Methods: Ninety-eight individuals (mean $\pm$ SD = 63.2 $\pm$ 8.4 years, 72 women) with KOA participated in the study. Three protocols were performed over an 8-week period, 3 times a week. 1) MS protocol: It consisted of strengthening the hip abductor muscles, quadriceps and tibialis anterior, through 4 sets of 6 repetitions; 2) AE Protocol: It consisted of 40 minutes of ergometric bicycle, in which the individual should maintain the range of 50-70% of the maximum heart rate; 3) Control Protocol (CT): It consisted of education through a booklet and 60-minute lectures on the characteristics of KOA and execution of part of the physiotherapeutic protocol to be carried out at home. The main assessment measures were Numerical Pain Scale (NPS), Pressure Pain Threshold (PPT), Beck Depression Inventory (BDI), Pain Catastrophizing Scale (PCS), Western Ontario and McMaster Universities Osteoarthritis Questionnaire (WOMAC), Isometric Muscle Strength and Gait Speed.
Results: The MS and AE protocols produced a positive short-term effect on pain intensity and sensitization, muscle strength, self-reported and objective physical performance, even when considering the influence of age, BMI and psychological factors. However, the MS protocol proved to be more effective than the AE and CT protocol for pain intensity, in addition to increasing tibialis anterior (TA), quadriceps (QD) and hip abductor (ABD) muscle strength. Peripheral and central sensitization decreased after MS, AE and CT protocols, however, there was no significant difference between groups. Likewise, self-reported physical performance increased after MS, AE and CT interventions, however, there was no significant difference between groups. As for the objective physical performance variables, both the MS group and the AE group increased the comfortable speed (CS), slow speed (SS) and fast speed (FS) compared to the CT group.
Conclusion: MS is the most effective protocol to improve the symptoms of individuals with KOA when compared to AE and CT, even when considering the influence of age, BMI and psychological factors.
Implications: This study reveals that muscle strengthening was more effective when compared to aerobic exercise in improving the symptoms of knee osteoarthritis.
Keywords: Knee osteoarthritis, Muscle strengthening, Aerobic exercise

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