

"disability" and synonyms. The articles were selected in two stages. First, there was selection by means of titles and abstracts based on the objective. The studies were read in the second phase and selected using the eligibility criteria: clinical trials, elderly with CLBP, and exercise. Each item of the measurement instruments was analyzed according to the first level of the CIEZA flowchart (CIEZA et al., 2019), which considers the ICF domains in its composition. Transition to the BPS model was considered if the measurement instruments of the studies had items that assessed body structure and functions with at least one more of the ICF domains described in level 1 of the flowchart. And the biomedical approach when the instrument represented only body structure and functions. The search and selection of the studies were developed by two independent reviewers (D, V), as well as the extraction and analysis of the data (descriptive).

Results: 515 studies were identified, 15 included, with publication year ranging from 2000 to 2020. The primary outcomes of the studies included: pain (intensity, catastrophizing, and perception), kinesiophobia, disability, quality of life, self-efficacy, self-care, physical activity and fear. The secondary ones were fall efficacy, sleep, general health, mobility. Thirty-one instruments were extracted, 23 (74.19%) evaluated concepts linked to the structure and function domain, 18 (58.06%) personal factors, 11 (35.48%) activity and participation, and 4 (12.9%) environmental factors. The distribution of the items of the instruments evaluated according to the CIEZA flowchart indicated that 100% of the studies were making the transition to the BPS model.

Conclusion: There is a transition from the biomedical model to the BPS model in all the studies including elderly people with CLBP. However, there is a predominance of the evaluation of the body structure and function domain, compared to the other ICF domains, in the measurement instruments.

Implications: Although there has been a transition to the BPS model, we suggest using more tools that involve activity and participation domains, environmental factors, and personal factors as outcome measures for exercise studies conducted with older adults with CLBP.

Keywords: Chronic low back pain, Elderly, Disability

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

Acknowledgment: To Federal University of Ceará.

Ethics committee approval: Not applicable.

<https://doi.org/10.1016/j.bjpt.2024.101011>

426

CARDIAC AUTONOMIC FUNCTION AND FUNCTIONAL CAPACITY IN POST-COVID-19 INDIVIDUALS WITH SYSTEMIC ARTERIAL HYPERTENSION

Edelvita Fernanda Duarte Cunha¹, Ádrya Aryelle Ferreira¹,
Matheus Sobral Silveira¹, Arto J Hautala¹,
Juliana Cristina Milan-Matos¹, Victor Ribeiro Neves¹

¹ Department of Physical Therapy, University of Pernambuco (UPE),
Petrolina, Pernambuco, Brazil

Background: The COVID-19 is a recent and highly contagious disease. Individuals diagnosed with systemic arterial hypertension (SAH) are considered risk groups and may have a stronger association with higher level of COVID-19 severity and increased mortality. Furthermore, individuals infected with COVID-19 may also have cardiac autonomic dysfunction (CAD), as well as reduced functional capacity (FC) in the recovery period of disease. However, it is unclear whether individuals infected with COVID-19 have impaired CAD, as well as a greater reduction in FC compared to individuals with SAH not infected to COVID-19.

Objectives: We assessed if cardiac autonomic function and FC differ in SAH patients with post-COVID-19 compared to SAH individuals without COVID-19 infection.

Methods: Methods: We evaluated 40 individuals (31 to 80 years old, both sexes) diagnosed with SAH who had or did not have COVID-19. Volunteers were divided into 2 groups: Group 1 (G1), individuals with SAH and COVID-19 and Group 2 (G2), individuals with SAH. Cardiac autonomic function was assessed with heart rate variability (HRV) method. R-R intervals from ECG were recorded at rest in the supine position for 10 minutes. Stable sequences of 256 R-R intervals were chosen and was analyzed using symbolic analysis (SA) as follows: 0V% (patterns with no variation - sympathetic modulation), 1V% (patterns with one variation, - sympathetic and parasympathetic modulation), 2LV% (patterns with two like variations - parasympathetic modulation) and 2UV% (patterns with two unlike variations - parasympathetic modulation) indices. The FC assessment was performed by 6-minute walk test (6MWT). Student t-test or Mann-Whitney test was performed to compare groups. Furthermore, the correlation between SA indices and the 6MWT was tested by Pearson or Spearman correlation test).

Results: The G1 was composed of 21 individuals (53±13 years; 57% female) and G2 was composed of 19 individuals (53±11 years; 32% female). The groups were similar in terms of age, anthropometric data, clinical status and medication. The SA did not show significant differences between groups. Regarding the distance covered in meters in 6MWT, G2 showed higher values when compared to G1 (G1: 464.70±59.41 vs. G2: 522.21±77.6, p<0.05). There was a positive and moderate correlation between the 6MWT and the 2LV% index only in G2 (r=0.58; p<0.05). The other variables did not show any significant correlations for both groups.

Conclusion: Individuals with SAH who had COVID-19 walked a shorter distance demonstrating that there was a greater impact on the functional capacity of this population. The SAH together with COVID-19 did not show a worsening in cardiac autonomic function when compared to the SAH group without infection to COVID-19.

Implications: The results of our study can contribute to the clinical applicability of several health professionals, with the aim of guiding rehabilitation programs for these individuals and thus improving their physical capacity.

Keywords: COVID-19, Arterial hypertension, Functional capacity

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

Acknowledgment: FACEPE and CAPES.

Ethics committee approval: University of Pernambuco Ethics Committee CAAE - 48683521.8.0000.5191

<https://doi.org/10.1016/j.bjpt.2024.101012>

427

PLASTICITY OF SKELETAL MUSCLE AFTER PARTIAL INJURY OF THE ACHILLES TENDON IN RATS

Victoria Assis¹, Ivo Vieira de Souza Neto¹, Bernardo Petriz¹,
Rita Marqueti¹

¹ Laboratory of Molecular Analysis, Postgraduate Program in Health Sciences and Technology, University of Brasília (UnB), Brasília, Distrito Federal, Brazil

Background: Skeletal muscle is one of the most dynamic tissues in the human body. Among many adaptations, skeletal muscle plasticity may be related to its extensive structural and metabolic remodeling. However, there are some gaps in the literature on the adaptive response of skeletal muscle to tendon injury.

Objectives: To evaluate the effects of partial injury of the Achilles tendon (CT) on remodeling and plasticity of the gastrocnemius muscle (GM) after partial injury of the Achilles tendon using a mouse model.

Methods: The study was performed on Wistar rats that were divided randomly into five experimental groups (Project Ceua Approved