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THE TREATMENT OF NON-ALCOHOLIC FATTY LIVER DISEASE THROUGH PHYSIOTHERAPY REHABILITATION

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Background: One focus of non-alcoholic fatty liver disease (NAFLD) treatment is physical exercise. Resistance training (ET) has become a viable option for initial physical activity for patients with NAFLD, due to the low cardiorespiratory fitness and sedentary lifestyle found in most of these patients. The physiotherapist, on the other hand, has the competence to rehabilitate individuals who have intercurrent functional kinetic disorders in organs and systems of the human body, generated by genetic alterations, trauma and acquired diseases. Considering that the association between NAFLD and physiotherapeutic rehabilitation is in constant development, clear definitions and more research are needed to help improve the understanding of the subject. Therefore, considering the growing number of individuals affected by NAFLD and the need to provide practical data to help prevent and control this pathology, it was important to carry out a systematic review on the subject, since this could lead to interventions additional and potential therapies in the management of individuals diagnosed with NAFLD.

Objective: To analyze the effect of physiotherapeutic rehabilitation, through resistance training on the clinical markers of individuals diagnosed with NAFLD.

Methods: It is a Systematic Review study with Randomized Clinical Trials (RCTs), formatted in accordance with the Preferred Reporting Items for Systematic Review and Meta-Analysis Statement (PRISMA Statement) and registered in PROSPERO27 N° CRD4202236638. Searches were carried out in Medline (accessed by PubMed), Lilacs, Embase, Cochrane, and Scielo databases, in addition to manual searches, from January/2011 to December/2022. Studies with individuals who were not diagnosed with NAFLD through imaging or biopsy were excluded. The ROB 2.0(30) tool was used to assess the risk of bias in the eligible studies. A summary guide without meta-analysis (SWiM) was applied for data analysis and outcomes.

Results: A total of six studies were included, totaling 232 adult participants diagnosed with NAFLD. Hepatic fat (GH) showed a significant reduction ($p \leq 0.05$) when comparing the beginning and end of the intervention, in the groups that were only submitted to resistance training. Already, the resistance training groups associated with dietary intervention, showed a reduction in GH (11.8%) between the beginning and end of the intervention, as well as a relative reduction of 212.6% (95% CI) of GH, in the same period. The groups that used the resistance training protocol showed improvement in insulin sensitivity and insulin resistance (IR) in the comparison between the initial and final period of the intervention.

Conclusion: The resistance training protocol can play an important role in physical therapy rehabilitation in individuals with NAFLD, as it reduces liver fat and improves insulin sensitivity and resistance in these individuals. Furthermore, it is possible to consider that the practice of resistance training is an easily accepted and consistent

option for individuals with NAFLD, even when there is dietary intervention.

Implications: The articles in this systematic review showed heterogeneity in the intervention protocols and in the diagnostic criteria and outcomes of NAFLD, therefore, these points were observed as limiting aspects for this study.

Keywords: NaflD, Physiotherapy Rehabilitation, Strength Training

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PROFILE OF SLEEP PARAMETERS AND LEVEL OF PHYSICAL ACTIVITY OF PATIENTS POST-COVID-1

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Background: The COVID-19 pandemic has had cardiorespiratory, musculoskeletal and life habits repercussions, such as sleep and physical activity, both in the acute phase and after the disease. Thus, it is important to identify these changes in these patients to structure prevention and rehabilitation measures in clinical practice.

Objective: To profile sleep parameters and physical activity level in post-COVID-19 patients.

Method: This is a cross-sectional study, carried out from November 2022 to March 2023, at the Cardiopulmonary Rehabilitation Laboratory of the Physiotherapy Department of the Federal University of Pernambuco. Patients aged 18 and over, of both sexes, with a diagnosis of COVID-19 confirmed through a positive result in molecular and serological tests between 3-12 months of diagnosis were included. And excluded, patients who make use of sleep-inducing medication, who have cardiometabolic diseases such as grade III obesity, as well as decompensated chronic degenerative diseases, neuromuscular or some cognitive impairment that makes it difficult to understand how the evaluations will be carried out and who have osteopathies -joints that make it impossible to perform during the physical assessment protocol. Sleep efficiency, total sleep time, number of awakenings and sleep latency were evaluated using actigraphy and the Pittsburg Sleep Quality Index (PSQI), in addition to sleep quality. The level of physical activity was also assessed using the International Physical Activity Questionnaire - IPAQ. The descriptive analysis of the data was presented as mean and standard deviation.

Results: Eighteen patients were selected, predominantly female (74.3%), aged 46.4 ± 12.9 years. On the actigraphy data, a total sleep time of 8.0 ± 5.6 hours was verified, the sleep efficiency was $75.3 \pm 10.0\%$, the number of awakenings was 7.5 ± 4 , 9 times and a sleep latency of 4.5 ± 2.9 minutes. The PSQI showed poor sleep quality with an average of 6.4 ± 3.2 points. In addition, a total sleep time of 9 ± 4.6 hours, sleep efficiency of $68.3 \pm 7.6\%$, number of awakenings of 4.2 ± 2.8 times and sleep latency of 6.5 ± 2.8 minutes. Regarding the level of physical activity, it was observed that 50.3% of the sample was insufficiently active, 23.4% active and 26.3% sedentary.