

patellofemoral pain syndrome group (n = 50) and the asymptomatic control group (n = 50). All participants completed standardized questionnaires, including the Visual Analog Scale (VAS), Positive and Negative Affect Schedule (PANAS), and Pain Self-Efficacy Questionnaire (PSEQ-10). Functional clinical testing was performed using the Vertical Jump test. Mann-Whitney test was used for intergroup comparisons of patient perception and functional test variables due to non-normality (Shapiro-Wilk test), with a significance level of 5%.

Results: The PFPS group exhibited higher pain intensity (VAS: 4.0 [4.17; 5.1]) compared to the Control group (p = 0.001). Positive affect was 15% lower in the PFPS group (29.0 [26.2; 29.8]) compared to the Control group (34.0 [32.3; 35.9]), while negative affect was 35% higher (23.0 [20.8; 25.2]) vs. Control group (15.0 [14.5; 17.1]; p = 0.001). Pain self-efficacy was 23% lower in the PFPS group (46.0 [42.0; 47.9]) compared to the Control group (60.0 [59.5; 60.1]; p = 0.001). Functional performance (Vertical Jump test) was 28% lower in the PFPS group (17.4 cm [16.7; 19.0]) compared to the Control group (24.24 cm [23.9; 26.8]; p = 0.001).

Conclusion: Women with PFPS demonstrate higher negative emotions and lower positive emotions, as well as reduced pain self-efficacy, compared to women without PFPS. Additionally, women with PFPS exhibited poorer performance on the vertical jump test.

Implications: This study suggests that patients with patellofemoral pain syndrome exhibit more pessimistic cognitions, lower pain self-efficacy, and impaired functional performance compared to women without PFPS. These findings underscore the importance of considering emotional and psychosocial factors in the assessment and understanding of PFPS.

Keywords: Patellofemoral pain syndrome, Proms, Functionality

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IMPACT OF PHOTOBIMODULATION LASER AURICULOTHERAPY ON ANXIETY SYMPTOMS IN PATIENTS WITH TEMPOROMANDIBULAR DISORDER

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Background: Anxiety is common among TMD patients and often exacerbates pain and muscle tension. PBM laser auriculotherapy has been used to treat pain and may also help manage anxiety. This study aimed to investigate the impact of PBM laser auriculotherapy on anxiety symptoms in TMD patients.

Objectives: The primary objective was to assess the effect of PBM laser auriculotherapy on anxiety symptoms in TMD patients.

Methods: This randomized, controlled crossover trial included 22 TMD patients. Participants received PBM laser auriculotherapy twice a week for 4 weeks. The Generalized Anxiety Disorder Scale (GAD-7) was used to evaluate anxiety levels before and after the intervention. The experimental and placebo groups crossed over after a washout period.

Results: No significant difference in anxiety reduction was found between the EG and PG (p = 0.44).

Conclusion: The findings suggest that PBM laser auriculotherapy did not significantly reduce anxiety symptoms in TMD patients.

Implications: PBM laser auriculotherapy may not be effective for managing anxiety in TMD patients in the short term. Further research is required to assess the long-term effects and explore different treatment protocols.

Keywords: Anxiety, Rehabilitation, Laser Therapy

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PRESSURE PAIN THRESHOLD IN PATIENTS WITH CHRONIC POST-TRAUMATIC PAIN

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Background: Musculoskeletal traumas have increased over time, raising healthcare costs. Chronic and neuropathic pain impact sleep and quality of life. Assessing the pressure pain threshold (PPT) is crucial for improving treatments and recovery outcomes.

Objectives: To investigate the correlation between PPT in patients three months after upper limb musculoskeletal trauma and sleep quality and neuropathic pain characteristics while still hospitalized.

Methods: This study included 18 adult patients of both sexes with acute musculoskeletal trauma in the upper limb three months prior. Sleep quality was assessed using The Pittsburgh Sleep Quality Index (PSQI), with a global score ranging from 0 to 21, where scores above 5 indicate moderately impaired sleep quality. Neuropathic pain was evaluated using The Leeds Assessment of Neuropathic Symptoms and Signs (LANSS), with scores ranging from 0 to 24, where scores above 12 indicate neuropathic pain. Both questionnaires were administered while patients were still hospitalized. The pressure pain threshold was measured using a digital algometer on the upper trapezius and tibialis anterior muscles bilaterally three months post-injury. Spearman's correlation test was used significance level 5%, with correlations classified as weak ($\rho = 0.10-0.30$).

Results: In this cross-sectional study, 18 patients were evaluated, with a mean age of 40.78 (15.32) years, predominantly male (66.7%) and female (33.3%). The causes of injuries were work-related accidents (44.44%), traffic accidents (44.44%), and domestic incidents (11.11%), including falls from height. Fractures were present in 88.90% of cases, with 11.10% involving injuries in multiple locations, distributed as follows: shoulder/scapular girdle (33.30%), arm (22.20%), elbow (11.10%), forearm (5.60%), wrist (11.10%), and hand (16.70%). The mean PSQI score was 9.7 (5.0), indicating moderately impaired sleep quality. The mean LANSS score was 7.7 (5.3), below the cutoff of 12, suggesting no significant neuropathic pain component on average. The mean pressure pain thresholds (PPT) and standard deviations varied across sites: affected-side upper trapezius 6.1 (4.4) kg/cm², contralateral upper trapezius 6.0 (4.6) kg/cm², affected-side tibialis anterior 7.9 (5.3) kg/cm², and contralateral tibialis anterior 8.0 (4.8) kg/cm². A moderate negative correlation was found between the PPT of the affected-side upper trapezius and sleep quality ($r = -0.5$, $p = 0.04$), indicating that worse

sleep quality at hospitalization was associated with a lower PPT in the affected-side upper trapezius three months post-injury. A moderate negative correlation was also observed between the PPT of the affected-side ($r = -0.5$, $p = 0.04$) and contralateral upper trapezius ($r = -0.5$, $p = 0.02$) and LANSS scores, suggesting that higher LANSS scores at hospitalization were associated with lower PPT in both the affected and unaffected upper trapezius three months post-injury. No correlation was found with PPT measured in the tibialis anterior.

Conclusion: Higher LANSS scores and worse PSQI scores were associated with lower PPT three months post-injury. Lower PPT also correlated with higher LANSS and PSQI scores during hospitalization.

Implications: Although the study presents interesting results and is longitudinal, the sample size (n) is insufficient for more robust analyses, considering other variables and possible confounding factors.

Keywords: arm injuries, fractures, neuropathic pain

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BRAZILIAN VERSION OF THE ACTIVITY PATTERNS SCALE: TRANSLATION INTO BRAZILIAN PORTUGUESE AND CULTURAL ADAPTATION

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Background: Chronic pain significantly affects the physical and psychological functionality of individuals. The lack of accurate tools to measure different activity patterns highlights the need for more effective instruments to assess activity management in patients with chronic pain. The Activity Patterns Scale (APS) is a 24-item instrument that evaluates eight constructs related to physical activity. However, it has not yet been translated, adapted, or validated for Brazil. A culturally adapted version of this instrument is important for a more accurate assessment of chronic pain.

Objectives: Translate and adapt the language of the APS questionnaire into Brazilian Portuguese.

Methods: This is a cross-sectional study. For the translation and adaptation of the APS, the recommendations of Beaton et al. (2000) were followed. This study was approved by the Ethics Research Committee. The original version of the APS was translated by two Brazilian translators fluent in Spanish. The translations were then synthesized and subsequently back-translated into Spanish by two native Spanish speakers. A panel of experts reviewed the versions and compared them with the original to formulate the pretest version. The comprehensibility of the items in the pretest version was evaluated in 30 participants, both sexes, aged over 18 years, with chronic musculoskeletal pain in the lower back for at least 3 months and an intensity greater than 3 on the 11-point numerical pain scale. Each participant answered the questionnaire, reported their understanding, and suggested modifications. The instrument was considered adequate when 90% of participants understood all the questions. Statistical analyses were performed using Excel™ software (Microsoft, version 2019).

Results: In the translation and back-translation processes, no significant differences were identified between the versions, ensuring semantic and conceptual equivalence. The original, translated, and synthesized version were reviewed by the expert committee, and the pre-testing version was created. The pre-testing version was sent to the authors of the original APS who approved and did not suggest changes. Thirty patients participated in the study, with a mean age of 36.3 ± 17.35 years. The sample consisted of 19 women and 11 men, with a mean body mass index of 25.78 ± 4.58 kg/m². The majority of participants (73.33%, $n = 22$) had a higher education level. The participants demonstrated a 90% level of understanding, meeting the established criterion for adequate comprehensibility.

Conclusion: The Portuguese version of the APS was translated and adapted, being clear, with satisfactory comprehensibility, and suitable for assessing individuals with chronic pain.

Implications: The Brazilian version of the APS will be an important tool for the assessment of musculoskeletal chronic pain in Brazil. Additional studies on its measurement properties should be conducted, which will provide important information to support the use of APS in clinical practice and research.

Keywords: Assessment instrument, Chronic pain, Physical activity

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PARTIAL VASCULAR OCCLUSION OR RESISTED EXERCISES ON PAIN, FUNCTIONAL CAPACITY, POSTURAL CONTROL, MUSCLE ACTIVATION, AND QUADRICEPS STRENGTH IN PATELLOFEMORAL PAIN

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Background: The treatment of patellofemoral pain (PFP) is predominantly conservative, with an emphasis on exercises for quadriceps strengthening. However, one of the challenges in rehabilitation is the pain experienced during the execution of these exercises, as well as the difficulty in progressing with load. In this context, Partial Vascular Occlusion (PVO) emerges as a promising strategy, as it enables improvements in strength and hypertrophy with less overload.

Objectives: To evaluate the effect of PVO or resisted exercises for quadriceps strengthening on pain, functional capacity, postural control, activation, and quadriceps strength in women with patellofemoral pain.

Methods: A randomized clinical trial, with a blinded evaluator, approved by the ethics committee (Opinion 4.062.833) and registered at Clinical Trials. The sample consisted of 24 women, aged 18 to 45 years, diagnosed with patellofemoral pain. Participants were randomized into two groups: Group 1 (G1; $N = 12$), who performed resisted exercises with an external load of 20% of their body weight, and Group 2 (G2; $N = 12$), who performed exercises without additional load, with PVO applied to the proximal region of the thigh, at a pressure of 200 mmHg. All participants were evaluated before the intervention, immediately post-intervention, and at a four-week follow-up. The outcomes analyzed were pain (visual analogue pain scale), functional capacity (Anterior Knee Pain Scale and Lysholm