increased length of hospital stay, morbidity and mortality, and costs associated with long hospital stays.
Objectives: To evaluate the impact of automatic rotational therapy on length of stay in the intensive care unit (ICU) in mechanically ventilated patients.
Methods: Systematic review conducted from December to January 2023 with randomized clinical trials, following criteria reported in PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis) registered in PROSPERO (CRD42022384258). The search strategy was built based on health sciences descriptors (DeCS), Medical Subject Headings (MeSH), keywords and synonyms most found in the literature. The search was carried out in seven databases: MEDLINE/PubMed, EMBASE, Scopus, Science Direct, Cochrane Library, CINAHL, and Web of Science. The eligibility criteria involved studies that evaluated automatic rotational therapy compared with changing the manual decubitus position during the length of stay in the ICU in individuals of both genders aged 18 years or older using invasive mechanical ventilation for a period. greater than 24 hours. There was no restriction on language or year of publication. The risk of bias was assessed using the Cochrane collaboration tool.
Results: 118 articles were identified, after excluding duplicates and reading in full, 9 were eligible, involving 679 participants. The number of individuals evaluated per article ranged from 27 to 124 in the control and intervention groups. For meta-analysis, four studies were included, totaling 323 participants. The standardized mean (SMD) difference was -0.03 days (95% CI -0.40, 0.35, p=0.90) between automatic rotational therapy and conventional recumbency, with no significant difference between groups with high evidence of overall heterogeneity (χ2 8.26, p= 0.04, I2 = 64%).
Conclusion: Automatic rotational therapy did not have a significant impact on the length of stay in the ICU in mechanically ventilated critical patients. Therefore, it is not possible to make definitive recommendations on this therapy, reinforcing the need for new randomized clinical trials to better answer the research question.
Implications: The development of this systematic review and meta-analysis enabled the expansion of knowledge about the possible benefits of automatic rotational therapy in critically ill patients, for future contributions to the scientific community and, due to the high heterogeneity between studies, it is shown as a field to be explored in future studies.
Keywords: Patient positioning, Ventilators, Mechanical, Intensive Care Units

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ACUTE EFFECTS OF DIFFERENT ISCHEMIC PRECONDITIONING PROTOCOLS ON NEUROMUSCULAR PERFORMANCE IN CROSSFIT PRACTITIONERS: "CROSSOVER STUDY"

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Background: CrossFit is a modality that is characterized by high-intensity intervals, providing practitioners with the development of skills that promote improved sports performance. Similarly, ischemic preconditioning (ICP) is a form of training that aims to optimize muscle performance by increasing tissue tolerance to episodes of ischemia followed by reperfusion.
Objective: To compare the acute effects of different PCI protocols on muscle performance and superficial thermal response in amateur CrossFit athletes.
Methods: This is a crossover study. The participants were 15 subjects (10 men and 5 women) of both genders, aged between 18 and 35 years, with no history of metabolic, cardiovascular, or locomotor system diseases with an Ankle Brachial Index (ABI) between 0.91 and 1.30 and who responded negatively to all items of the Physical Activity Readiness Questionnaire/PAR-Q. After selection, they randomly performed one of the following three protocols: 1) ischemic preconditioning with 2 limb ischemia cycles (PCI-2C); 2) ischemic preconditioning with 4 cycles of limb ischemia (PCI-4C); 3) control ischemic preconditioning (PCI-CONT). Isometric strength measurements of elbow and knee extensors were performed before and after (WOD) and infrared thermography, at baseline, after PCI and WOD. Data were analyzed using SPSS software (v. 20.0), adopting a P$\leq$0,05. ANOVA (one way) was used to analyze the time of execution of the WOD and to analyze the isometric strength of the elbow and knee extensors, in addition to repeated measures ANOVA to compare the averages, normalized, of the temperatures throughout the moments of evaluation.
Results: No significant differences were found between the protocols regarding the WOD execution time (F:2;12=0.09; P=0.916), as well as for the isometric strength of elbow extensors (F:2; 12=0.248; P=0.781) and knee (F:2;12=0.827; P=0.439). For the upper, lower and facial ROI thermograms, no significant differences were observed between the protocols (P$>$0.05); however, there were significant differences between assessments (P$<$0.05).
Conclusion: The protocols behaved similarly in terms of execution time and isometric strength of elbow and knee extensors. However, the normalized temperature means decreased over the course of the evaluations.
Implications: Contribute to an improvement in neuromuscular performance in CrossFit practitioners, in addition to showing a greater understanding of the surface temperature of the skin after application of ischemic preconditioning and training.
Keywords: Blood flow restriction, Performance, Thermography

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TRANSCRANIAL DIRECT CURRENT STIMULATION AND NEURAL MOBILIZATION IN INDIVIDUALS WITH SCIATICA: RANDOMIZED CONTROLLED TRIAL PROTOCOL

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Background: Low back pain is the leading global cause of disability and Years of Life lived with Disability. About 10% of these episodes are classified as specific, with an identified cause, and may be related to discopathies with neurological deficits, including low

back-related leg pain. With three months of persistent pain, it is classified as chronic. It has been investigated that chronic musculoskeletal pain conditions promote structural and functional changes in the brain. Thus, using tDCS a treat these changes may add effect in reducing pain intensity when associated with standard radiculopathy treatment, such as Neural Mobilization.
Objectives: To verify if the effects of tDCS add benefit to pain intensity improvement in individuals with chronic lumbosciatalgia when associated with Neural Mobilization techniques.
Methods: Randomized, blinded controlled trial with participants with chronic lumbosciatalgia. The outcomes assessed are pain intensity, through the Numerical Pain Scale (NDS), as primary outcome; and as secondary outcomes, functional disability, through the Roland Morris Disability Questionnaire, and neuropathic symptoms, accessed by the Douler Neuropathique Questionaire (DN4) and PainDetect Questionaire (PD-Q). Evaluations will occur at the following times: before and after the intervention and at seven, fourteen, and thirty-day follow-up. The intervention consists of the association of tDCS with Neural Mobilization, and the participants will be randomly allocated to two groups: Experimental (Active tDCS and Neural Mobilization) and Control (Sham tDCS and Neural Mobilization). For the Statistical Analysis, the Kolmogorov-Smirnov test will be applied for data distribution and the Levene test to analyze the homogeneity of variance. ANOVA with a mixed design will be conducted for the primary and secondary outcomes. The interaction of time and group and the inter-group and intra-group differences will be analyzed for all variables. The Bonferroni test will be used in post hoc analyses to determine if there are differences between groups at the different intervention times.
Results: This trial is being conducted in its pilot study phase.
Conclusion: It is hypothesized that subjects presenting neuropathic pain, as in sciatica, may benefit from a treatment approach that stimulates adaptive neuroplasticity towards reducing pain intensity and functional disability by stimulating descending inhibitory pathways.
Implications: Such an approach proves promising as it shows a new therapeutic horizon for a condition considered difficult to manage clinically.
Keywords: Sciatica, Transcranial Direct Current Stimulation, Manual Therapy

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Acknowledgment: Not applicable.
Ethics committee approval: Research Ethics Committee (CEP) of Health Sciences Faculty of Trairi, Federal University of Rio Grande do Norte (FACISA/UFRN) through the national interface Plataforma Brasil (Registration number: 3.737.749)

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CORRELATION BETWEEN PRIMARY DYSMENORRHEA AND SLEEP QUALITY IN YOUNG NULLIPAROUS WOMEN

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Background: Primary dysmenorrhea (PD) is a gynecological disorder characterized by difficulty in menstrual flow that affects between 45 and 95% of women of reproductive age. This disorder can disturb sleep, especially during the first days of menstruation, when pain intensity tends to be greater, resulting in daytime fatigue, which suggests a reduction in sleep efficiency and a reduction in deep sleep.
Objectives: Correlate the symptoms of dysmenorrhea and sleep quality in young nulliparous women.
Methods: A descriptive, observational, cross-sectional study was conducted with a convenience sample of young nulliparous women. Women aged 18 to 30 years who had never become pregnant were selected. The participants were evaluated by the same examiner using the socio-clinical questionnaire, visual analog pain scale (VAS) and Pittsburgh Sleep Quality Index (PSQI). In the data analysis, the means and standard deviation of the variables were calculated according to the normal distribution of the sample, and the groups with and without dysmenorrhea were compared according to the level of sleep quality using the t-test for independent samples. The data were analyzed using the Statistical Program for Social Science program (SPSS version 23), considering a significance level of 5%.
Results: The sample of this study consisted of 69 nulliparous young adult women with a mean age of 21.86 $\pm$ 3.16 years. Dysmenorrhea had a prevalence of 65.21% (n=45), and most of them had regular menstrual flow. The level of dysmenorrhea pain was low, with a mean VAS of 3.59 $\pm$ 3.16 points. In the characterization of sleep quality, the average was 8.33 $\pm$ 2.43. Most participants had poor sleep quality (n=51), 14 had sleep disturbance, and 4 women had good sleep quality. There was a statistically significant difference between the groups with and without dysmenorrhea with the dysmenorrhea group showing higher values for sleep disorders ($p = 0.02$). There was a direct correlation between the presence of dysmenorrhea and domains of sleep quality. Subjective sleep quality (R=0.32), daytime dysfunction (R=0.37), and total sleep quality (R=0.35) showed moderate correlation with dysmenorrhea. Sleep latency showed a weak correlation with dysmenorrhea (R=0.29).
Conclusion: Young nulliparous women with dysmenorrhea have more sleep disorders than women without dysmenorrhea. There is a greater association in terms of subjective sleep quality, daytime dysfunction, sleep latency, and total sleep quality.
Implications: In scientific terms, dysmenorrhea directly impacts sleep quality and may directly impact the lives of these women in symptomatic terms (more dysfunction) and terms of quality of life. In clinical terms, this study is relevant for presenting the importance of assessing dysmenorrhea and quality of sleep in young nulliparous women co, considering that both conditions are prevalent in this population.
Keywords: Women's health, Dysmenorrhea, Sleep

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ASSOCIATION BETWEEN DEPRESSION SYMPTOMS AND CARDIORESPIRATORY FITNESS IN WOMEN WHO WORK IN A UNIVERSITY ENVIRONMENT

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Background: Depression is the most common behavioral disorder worldwide, especially in women, and there is an inverse relationship between symptoms and cardiorespiratory fitness. Women with