

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 to 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 Questionnaire (DN4) and Pain-Detect Questionnaire (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

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

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)

<https://doi.org/10.1016/j.bjpt.2024.100643>

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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 ± 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 ± 3.16 points. In the characterization of sleep quality, the average was 8.33 ± 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, considering that both conditions are prevalent in this population.

Keywords: Women's health, Dysmenorrhea, Sleep

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

Acknowledgment: I thank Professor Josiane for the incentive and Fundação Araucária that provided me with a scientific initiation scholarship of vital importance to stay in this project.

Ethics committee approval: Universidade Estadual do Centro-Oeste - Ethics Committee Approval No. 5.299.509.

<https://doi.org/10.1016/j.bjpt.2024.100644>

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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