

Efficacy of the SMR protocol in women with fibromyalgia for the improvement of chronic pain, sleep, and quality of life (pp. 549-560)

Carlos Barbosa-Torres and Sixto Cubo-Delgado

University of Extremadura (Spain)

The objective of the study was to analyze how the brain shaping provided by the sensorimotor rhythm protocol (SMR), applied on somatosensory areas, affects pain, sleep and the quality of life in women with fibromyalgia. Thirty-seven women with fibromyalgia who received an SMR protocol in 20 sessions participated and were evaluated before and after treatment. The data showed an increase in the amplitude of the SMR ($p = .026$) and a decrease in the amplitude of the theta band ($p = .011$) in the somatosensory cortex after the application of therapy, which caused an increase in the SMR/theta ratio ($p = .048$). In addition, the scores on the Chronic Pain Scale ($p = .002$), the Pittsburgh Sleep Quality Index ($p = .001$), and the SF-36 Health Survey ($p = .000$) improved significantly. The SMR protocol applied to the somatosensory cortex favors the shaping of SMRs, which has an impact on stimulating the inhibition of the central nervous system of patients with fibromyalgia, improving symptoms such as pain, sleep, and quality of life.