عنوان مقاله:

Effectiveness of Brainwave Synchronization in Alpha, Beta, and Theta Bands by Binaural Beats on Visuospatial Working Memory

محل انتشار:

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خلاصه مقاله:

Background and Objective: This study aimed to determine the effect of synchronization of brain waves in alpha, beta, and theta bands by the Binaural beats on visuospatial working memory. Materials and Methods: The present quasi-experimental study was conducted based on a pretest-posttest control group design. In this regard, ۶۰ students were selected by the available sampling method and randomly divided into three experimental groups and one control group (n=۱۵ each). All subjects were assessed in the pre-test and post-test stages by the Corsi blocks tapping test. Participants in the experimental groups received ۱۵, ۹, ۵, and ۶ Hz binaural beats for ۱۲ min. The collected data were analyzed using a one-way analysis of covariance. Results: The findings showed that ۱۵ Hz binaural beats (beta bands) significantly improved the subject's visuospatial working memory (P<۰.۰۵). Conclusions: Given that working memory is the basis of numerous cognitive functions, using ۱۵ Hz binaural beats could improve the visuospatial working memory in these people

کلمات کلیدی:

working memory, brain waves, cognitive functions