ELECTROPHYSIOLOGICAL EFFECT OF LIU ZI JUE MUSIC UNDER VARIED CONDITIONS OF SOUND DELIVERY

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by

Cara Goo

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Abstract

The objective of this study was to determine any electrophysiological changes on the body after listening to music based on the Chinese Six Healing Sounds (Liu Zi Jue) through speakers, headphones, and earplugs with speakers, compared to silence as the control condition. These interventions are used in clinical settings for either music therapy or blocking of loud noise. This completely-within, four-arm experimental trial involved ten participants who were subject to one control condition and three experimental variables, measuring the before-polarization (BP) value of cutaneous electrical charge at the ends of the extremities before and after application of experimental interventions. Statistical three-way analysis of data revealed no statistically significant values due to the small sample size of ten individuals. However, some notable trends were observed in the data set. In the post-experimental condition, headphones were found to have the least variability, earplugs had the greatest net increase in correlation between left and right, speakers experienced a decrease in left-right correlation as well as a decrease in overall mean BP, and the control condition had the greatest variability and increase in overall BP. The results of this pilot study demonstrate differences in cutaneous electricity between various methods of listening. Recommendations for further study include incorporation of a larger sample size, investigation across other sounds or music, use of a subjective questionnaire, and other biomarkers to distinguish the physiological mechanisms of these listening and noise blocking methods.