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Single Vibroacoustic Impact Effect of Singing Bowls over the Psycho-Emotional State and Cardiovascular System Work

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ABSTRACT

This article presents a two-stage study result of the author's method of vibroacoustic massage using singing bowls application. At the first stage, the effect of vibroacoustic massage single application over psycho-emotional characteristics was studied. 19 studied volunteers took part in our study. The testing results before and after exposures were compared according to the WAM (Weighted average mark), Zung, and Spielberg-Khanin tests. The study of the psycho-emotional sphere showed that after the vibroacoustic massage procedure, the indicators of "well-being" and "activity" of the WAM test significantly improved ($p = 0.002$). In addition, the depression level determined by the Zung test, personal anxiety indicators ($p = 0.004$), and situational anxiety ones ($p = 0.028$) decreased. At the second stage, 62 volunteers were divided into two groups. The first group underwent a vibroacoustic massage session according to the patented author's method. The second group received only acoustic exposure using only singing bowls. Differences in the Kerdo index were revealed in the dynamics, and in the first group, the changes were less significant than in the second one. Changes in heart rate variability characteristics for both groups were similar:

there was an increase in parasympathetic influences at rest and during the orthostatic test (increased levels of RMSSD (Root Mean Square of Successive Differences), NN50, pNN50) and a decrease in sympathetic effects at rest and their slight increase with orthostatic loading (TINN, RR triangular index). The dynamics were more significant in the first group that received a vibroacoustic massage session. When assessing changes in the neurovegetative regulation levels activity of the heart rhythm, the main difference was associated with very low-frequency waves power dynamics during the orthostatic test. Thus, vibroacoustic massage using singing bowls improves the psycho-emotional state, reduces depression and anxiety, and increases Parasympaticus (autonomic nervous system) activity.

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