

# COMPARATIVE ANALYSIS OF PSYCHOPHYSIOLOGICAL INDICATORS WHEN SOUNDING MUSIC OF THE DIFFERENT GENRE

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Since the nineteenth century, science has accumulated a lot of information on the effects of music on people resulting from experimental studies. It is scientifically proven that music can strengthen the immune system, lead to reduce morbidity and improve metabolism. Especially intensively studied the influence of music in recent decades. The experiments are conducted in several directions, such as: the influence of individual musical instruments on living organisms; the influence of the music of the great geniuses of humanity, the individual effects of selected works by composers; the impact on the human body of folk music.

It should be emphasized that in Russia the Ministry of health music therapy was recognized as an official method of treatment in 2003. This method is widely used in psychotherapy, because the music has a strong emotional effect on psycho-emotional sphere of people, it can serve as a non-medical cure for various emotional disorders [1–3]. In General, the perception of music is closely associated with mental processes, i.e. requires attention, observation, intelligence. Music perceived auditory receptor, influences the state of the whole body, causing reactions associated with changes of blood circulation, respiration.

Study of mechanisms of influence of music on the emotional state of a person is a traditional problem for psychology, its scientific foundations were laid in the works of classics: H. Helmholtz (1875), T. Ribo, etc.

However, the study of the influence of music on the human condition is a modern, constantly developing field of research, as evidenced by the regularly held specialized conferences. It is known that pleasant music has a beneficial effect not only on the nervous system, but also on the circulatory system, the respiratory system and even digestion. Through music, you can forget about bad mood, insomnia, feelings of insecurity and anxiety, improve memory and attention and even creativity. Many authors suggest that listening to music changes the functional state of the CNS, affects the cognitive activity of the person, improves memory, creativity and so on [4]. The same melody has a different effect on people: some prefer to listen to the music of one style, others another. At the same time remains unexplored the influence of music on the psychological state in the context of its individual circumstances.

Despite the number of publications in this area, questions about the specific influence of music on EEG and emotional sphere require further clarification. Music is a very multifaceted phenomenon. It is thus difficult to distinguish the one particular significant variable influencing the psychophysiological state of a person. The aim of our study was to study the influence of classical and rock music on human psychophysiological state.

In the experiment involved 15 conventionally healthy persons (20–22 years). Investigated the level of concentration, speed and sustained attention, as well as blood pressure and heart rate. Were selected 2 music tracks: classical (Beethoven-moonlight Sonata) and rock music (Europe-The Final Countdown).

Musical compositions of different genres have an effect on such properties as the concentration of attention and speed. The most sensitive to the effects of music were speed of attention. So at the sounding rock music, this proportion increased by 13.3 % in comparison with baseline value ( $p < 0.05$ , Wilcoxon test). Under the influence of music on the hemodynamic parameters, it was observed that the most sensitive to the effects of classical music was an indicator of heart rate. This figure fell by 1.16 % compared to background value. As to the effects of rock music were most sensitive indicators of systolic and diastolic blood pressure. It was noted the decrease of these indicators on 7,02 % and 6,67 % respectively ( $p < 0.05$ , Wilcoxon test). When comparing the hemodynamic parameters, velocity and concentration, which was affected by classical and rock music, with statistical significance reached only the diastolic blood pressure.

**Keywords:** concentration of attention, the speed of attention, blood pressure, heart rate, vegetative index, auditory and visual memory.

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