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**IMPACT OF COGNITIVE TRAINING WITH COGNITRAIN SYSTEM ON COGNITIVE PLASTICITY IN SCHIZOPHRENIC PATIENTS**

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**Background:** In the literature we can find an increasing number of examples of successful cognitive rehabilitation of patients suffering from schizophrenia. The aim of this study was to investigate the effectiveness and impact of the CogniTrain therapeutic method on cognitive neuroplasticity in patients suffering from paranoid schizophrenia. We expected an answer to the question, whether brain is sensitive to stress and if the efficiency of cognitive rehabilitation improves as a result of using CogniTrain computer training.

**Subjects and methods:** Two groups of test subjects were recruited of patients with paranoid schizophrenia. In the first and second groups the measurements of short-term memory, selective attention and level of anxiety were done two times, in the beginning and at the end of the treatment program. In one of the tested groups the CogniTrain cognitive training was applied. In order to diagnose mechanisms of memory we used the Free Recall method, CPT method was used to measure selective attention, and STAI was used to determine the severity of anxiety.

**Results:** The patients participating in the CogniTrain trainings gained significantly better outcomes in the neuropsychological assessments than the patients who did not participate in the cognitive rehabilitation.

**Conclusions:** There is a need to develop and introduce into clinical practice neurocognitive rehabilitation programs in order to improve cognitive and social functioning of schizophrenic patients.