

## **ABSTRACT**

The objective of the study was to assess the effectiveness of the Feuerstein's Instrumental Enrichment training (FIE) in respondents with Parkinson's disease (PD) in comparison with another type of cognitive training. The specific aim of the study was to verify whether there were differences between the effectiveness of the FIE and the training of the individual cognitive domains for cognitive functions in respondents with PD. The study included patients with PD who underwent an examination by a neuropsychological battery before the beginning of the training in order to evaluate the level of cognitive functions. Based on the demographic characteristics and the overall score in the Mattis Dementia Rating Scale-II (DRS-II), the respondents ( $n = 24$ ) were randomly divided into two research groups. The experimental group (EXP) trained using the FIE method for 60 minutes once a week during three months. The control group (CON) trained the individual cognitive domains. After the cognitive training the respondents were examined again in order to detect changes of the level of each one of the cognitive functions.

The examination revealed significant differences in the first and the second phases of testing in the EXP respondents ( $n = 12$ ) in the level of current anxiety ( $p = 0.024$ ), memory for non-verbal material ( $p = 0.002$ ), attention, working memory and psychomotor speed ( $p = 0.001$ ) and in the visuospatial functions ( $p = 0.01$ ). The CON group showed significant differences in the first and the second phases of testing in the memory for verbal material ( $p = 0.029$ ), memory for non-verbal material ( $p = 0.028$ ) and in the change of settings ( $p = 0.05$ ). Important differences between EXP and CON in the first phase of testing concerned the level of current anxiety ( $p = 0.003$ ) and in the second phase of testing the domain of attention, working memory and psychomotor speed ( $p = 0.05$ ). The results of the study proved the effectiveness of the FIE training in the following domains: memory for non-verbal material, attention, working memory, psychomotor speed, visuospatial functions and level of current anxiety. The training of the individual cognitive domains proved to be effective in the memory for verbal material, memory for non-verbal material and change of settings. The results of the study show that the FIE training is not effective for remediation of the whole spectrum of cognitive domains, but in spite of that it is a suitable alternative for the training of patients with PD.

*Keywords: cognitive rehabilitation, executive functions training, Feuerstein's Instrumental Enrichment, cognitive function, executive function, Parkinson's disease*