

Abstract:

Objectives: The purpose of the current study was to evaluate whether a 12-week neuropsychological rehabilitation program has a positive effect on the improvement of cognitive functions and what methods can be used to measure this effect. Furthermore, this study intended to verify the effect of the chosen training plan on the resulting state of cognitive functions, in particular with regard to the frequency and duration of the plan.

Methodology: Forty-three patients diagnosed with MS were randomized into an experimental condition or the control group. The experimental condition included 26 patients (22 women and 4 men), while the control group consisted of 17 patients (12 women and 5 men). All of these patients had a cognitive defect that was assessed at the beginning of the study and monitored using the neuropsychological tests after the participation in the training program. Participants in the experimental group received their rehabilitation of cognitive functions using a PC training program, which they completed in their home environments (30 minutes/4 times per week, for 8 consecutive weeks). Overall, there were 32 training sessions on predetermined days with a specific detailed training plan. The control group received no training. The neuropsychological tests used at the beginning and the conclusion of the study showed a positive effect of the training program, while the greatest improvement was seen in the areas of immediate memory and attention.

Results: The results showed a positive effect related to neuropsychological rehabilitation in MS patients that received regular training four times per week for eight consecutive weeks.

Key words: Multiple Sclerosis (MS), Neuropsychological rehabilitation, Attention, Memory, Computer cognitive training