

## Cognitive Rehabilitation in Multiple Sclerosis

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**Background:** recent studies have shown that 45%-65% of MS patients have deficits in the cognitive function area that contributes to a significant decrease in their quality of life. Through cognitive assessment is possible the early identification and subsequent planning of rehabilitation and follow up of cognitive deficits in these patients. In order to improve health care in their cognition, cognitive rehabilitation uses different techniques and strategies integrating a dynamic process of restoration for a highest level of performance in their physical, psychological and social life.

**Purpose:** the main aim of this work is to evaluate the success of cognitive rehabilitation in MS patients with cognitive impairment.

**Methods:** Are part of this study 28 patients (20 females, 8 males), with diagnosis of mild to moderate (<25) cognitive impairment, with indication for immunomodulatory therapy followed in the MS Clinic of a University Hospital. At first, the cognitive function of these patients was assessed using the Neuropsychological Test battery for MS (Rao et al., 1991) as a composite screening tool of the major cognitive areas. Subsequently, patients underwent weekly sessions for a period of 12 months on a program of cognitive rehabilitation: the RehaCom, an instrument consisting of several software programs for different areas: attention and concentration, topology memories, reactive behaviour and verbal memory. After the completion of the cognitive rehabilitation program, the effectiveness of the whole process was assessed through a new evaluation with above battery of tests comparing the previous results as a pre-post design methodology.

**Results:** Significant improvements in cognitive functions after cognitive rehabilitation program were acquired. The cognitive area with major improvements was the spatial memory.

**Discussion:** This study demonstrates that cognitive rehabilitation, preceded by the neuropsychological evaluation, is an important tool in MS because it may stabilize or enhance improvements in cognitive deficits and thereby improve the quality of life for patients.