

Study provides first Class 1 evidence for cognitive rehabilitation in MS

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Kessler Foundation researchers published the results of the MEMREHAB Trial in *Neurology*, the medical journal of the American Academy of Neurology, providing the first Class I evidence for the efficacy of cognitive rehabilitation in multiple sclerosis (MS). The article, Chiaravalloti N, Moore NB, Nickelshpur OM, DeLuca D: An RCT to treat learning impairment in MS. *Neurology* 2013(81), was released as an epub ahead of print on November 8. It was accompanied by an editorial: Filippi M, Rocca MA: Let's rehabilitate cognitive rehabilitation for MS. *Neurology* 2013(81):1-2.

Although disabling [cognitive problems](#) that affect functional performance and employment are common in persons with MS, there are very few evidence-based protocols for cognitive rehabilitation in MS. This randomized controlled trial (RCT) is the first to include both objective (investigator administered) and subjective measures (patient and family self-report). Investigators looked at the impact of the modified Story Memory Technique (mSMT) on learning and memory in 86 participants with MS with documented memory deficits (41 mSMT group, 45 placebo). Not only did objective measures improve, patients and families reported improvements in daily function in everyday life - improvements that had a positive impact on satisfaction with life and everyday contentment.

"Our results show that cognitive rehabilitation works," said Nancy Chiaravalloti, Ph.D., director of Neuroscience & Neuropsychology Research at Kessler Foundation, "and moreover, the effects of the

10-session protocol persisted for six months." a unique aspect of the protocol is the inclusion of 2 sessions that focus on translating cognitive strategies to daily life. Neuroimaging results that were collected in a subset of patients were published in the *Journal of Neurology* in 2012 ([Chiaravalloti N, et al.](#) Increased cerebral activation after behavioral treatment for memory deficits in MS. *J Neurol* 2012;259:1337-46). FMRI supported the clinical results, as evidenced by changes in brain activation, noted Dr. Chiaravalloti.

The two studies are being used to support reimbursement for cognitive rehabilitation. "RCTs are essential to demonstrating to third party payers that [cognitive rehabilitation](#) should be a reimbursable intervention," commented John DeLuca, Ph.D., VP of Research & Training at Kessler Foundation. "Behavioral intervention should be available for persons with MS who have [memory deficits](#). Without reimbursement, however, few clinicians will use it and few patients will benefit."

The mSMT protocol has been translated into Spanish and is being used in the U.S., Mexico, and Argentina. A Chinese translation has also been completed for use in upcoming studies. Future studies will consider other factors such as type of MS, the duration of MS, and level of cognitive reserve.

More information: [www.neurology.org/content/earl ...
37311.96160.b3.short](http://www.neurology.org/content/earl...37311.96160.b3.short)

Provided by Kessler Foundation

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