MS researchers find task meaningfulness influences learning and memory

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Kessler Foundation researchers have found that among persons with multiple sclerosis, self-generation may be influenced by variables such as task meaningfulness during learning and memory. They also found that type of task (functional versus laboratory) had a significant effect on memory.

This is the first controlled investigation of therapeutic and patient-specific factors that supports the inclusion of self-generation in cognitive rehabilitation. The study was published in the January issue of *Neuropsychological Rehabilitation: An International Journal*. (Yael Goverover, Nancy D. Chiaravalloti & John DeLuca: Task meaningfulness and degree of cognitive impairment: Do they affect self-generated learning in persons with multiple sclerosis? http://dx.doi.org/10.1080/09602011.2013.868815). Yael Goverover, PhD, OT, is a Visiting Scientist at Kessler Foundation. She is an associate professor at New York University. Dr. Goverover is a recipient of the National Institute on Disability and Rehabilitation Research Fellowship award (Mary Switzer Award).

The researchers studied two groups: 35 persons with MS who had moderate to severe learning and memory impairments (SEVERE-MS), and 35 persons with little to no impairment (MILD-MS). All the participants learned two types of tasks (functional everyday tasks and laboratory tasks), each in two learning conditions (Provided and Generated). Participants were required to recall the information immediately, 30 minutes, and 1 week following initial learning.

Significantly more words were recalled from the generated condition, a finding that was consistent for both SEVERE-MS and MILD-MS. Also, self-generated learning was more effective for recall of functional vs laboratory tasks, a finding consistent in both groups.

These results have implications for the design of effective strategies for cognitive rehabilitation in MS, according to Nancy Chiaravalloti, PhD, director of Neuropsychology & Neuroscience research at Kessler Foundation. "A self-generation strategy can significantly improve learning and memory on tasks that are important for persons in their everyday lives," said Dr. Chiaravalloti, "which is an important objective of cognitive rehabilitation. This study brings us closer to developing effective treatment for memory and learning impairments in individuals with MS, and consequently improving their quality of life."

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