

# Researchers identify impaired new learning in persons with Parkinson's disease

19 March 2014

Kessler Foundation scientists collaborated with colleagues in Spain to study memory and learning in patients with Parkinson Disease (PD). They found that the Parkinson group's ability to learn new information was significantly poorer when compared with the control group. The article was published ahead of print on February 24:

*Chiaravalloti ND, Ibarretxe-Bilbao N, Deluca J, Rusu O, Pena J, García-Gorostiaga I, Ojeda N. The source of the memory impairment in Parkinson's disease: Acquisition versus retrieval. Movement Disorders 2014 Feb 24.*

Lead author Nancy Chiaravalloti, PhD, is the Foundation's director of Neuropsychology, Neuroscience & Traumatic Brain Injury Research; John DeLuca, PhD, is senior VP of Research & Training. Their co-authors are affiliated with the University of Deusto, Bilbao, and Galdakao Hospital, Galdakao, Spain.

Memory deficits are common in persons with PD, even among those without frank dementia. "Traditionally, these deficits have been attributed to the patients' inability to retrieve information from their long-term memory," explained Dr. Chiaravalloti, "which is called the 'retrieval failure hypothesis.' Some studies, however, document problems that are inconsistent with the retrieval failure hypothesis." To clarify the underlying mechanisms, this study focused specifically on learning abilities in a PD sample without dementia.

Researchers compared the performance of a PD group of 27 patients with a group of 27 matched healthy controls (HCs) on a neuropsychological test battery designed to assess new learning and memory. "We found a significant difference between the groups in their ability to learn a list of 10 semantically related words," noted Dr. Chiaravalloti. "However, no significant differences were seen between the PD and control groups in recall or recognition of newly learned material. We concluded that the memory deficit in patients with

PD without dementia was caused by a deficit in learning new information. Improving new learning is an important factor to consider in the development of cognitive rehabilitation interventions in this population."

**More information:** [onlinelibrary.wiley.com/doi/10.1002/mds.25842/abstract](http://onlinelibrary.wiley.com/doi/10.1002/mds.25842/abstract)

Provided by Kessler Foundation

APA citation: Researchers identify impaired new learning in persons with Parkinson's disease (2014, March 19) retrieved 1 August 2022 from <https://medicalxpress.com/news/2014-03-impaired-persons-parkinson-disease.html>

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