Sensory processing difficulties adversely affect functional behavior in multiple sclerosis

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Dr. Goverover, a researcher at New York University, Is a visiting scientist at Kessler Foundation. Credit: Kessler Foundation/Jody Banks

A team of researchers published new findings about the role of sensory processing and disease characteristics in the functional status of individuals with multiple sclerosis. This is one of the first studies to look at the implications of sensory processing deficits in this population. The article, "The role of sensory processing difficulties, cognitive impairment, and disease severity in predicting functional behavior among patients with multiple sclerosis", was epublished on August 27, 2019 by *Disability and Rehabilitation*.

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Little research has been done on the sensory processing difficulties affecting persons with multiple sclerosis, and the impact of these difficulties on their daily activities. This team of researchers examined the association between sensory processing deficits and cognitive impairments in individuals with MS, and the effects of sensory processing difficulties on functional behavior and disease severity.

Researchers enrolled 61 participants with multiple sclerosis, aged 23 to 63 years, and 36 healthy controls. The MS participants comprised 43 participants with cognitive impairments and 18 without impairments. Data collected included the Adolescent/Adult Sensory Profile, Functional Behavior Profile, and MS Functional Composite scores.

Testing revealed the presence of differences in sensory processing including low ability to register sensory input, high sensory sensitivity, and sensory avoidance.

Compared with healthy controls, the participants with MS were more likely to score higher on tests for sensory difficulties; there were no differences between the two MS groups. For the functional behavior profile, the control group had higher scores than both MS groups. Analyses of sensory findings, cognitive status, functional behavior profiles and disease severity showed a lack of effect of cognitive status on functional behavior. Disease severity and sensory processing deficits, however, did affect functional performance of everyday life activities.

"This study underscores the influence of sensory processing in MS, and the importance of screening patients for these disorders," said Dr. Goverover. "Further research is needed to explore whether sensory processing difficulties could be of predictive value for disease severity and cognitive decline," she continued. "This approach may lead to interventions that improve function and support the full participation of people with MS in everyday life."

More information: Batya Engel-Yeger et al, The role of sensory processing difficulties, cognitive impairment, and disease severity in predicting functional behavior among patients with multiple sclerosis, *Disability and Rehabilitation* (2019). DOI: 10.1080/09638288.2019.1653998

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