

Differential Cognitive and Affective Theory of Mind Abilities at Mild and Moderate Stages of Behavioral Variant Frontotemporal Dementia

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Cognitive & Behavioral Neurology:

June 2015 - Volume 28 - Issue 2 - p 63–70 (/cogbehavneuro/loc/2015/06000)

doi: 10.1097/WNN.000000000000053

Original Studies

Abstract

Objective: To study the affective and cognitive components of theory of mind (ToM) performance in patients with behavioral variant frontotemporal dementia (bvFTD), focusing on differential impairment at mild and moderate disease stages.

Background: ToM, a central capacity for appropriate social behavior, is critically impaired in patients with bvFTD, even early in the disease. No previous study has explored how the cognitive and affective components of ToM may relate differentially to disease severity.

Methods: We assessed 40 patients with an established diagnosis of bvFTD and 18 healthy controls, using a complete neuropsychological battery that featured executive function and ToM tasks. We used patients' Clinical Dementia Rating scores to classify them as having either mild or moderate bvFTD.

Results: Both groups of patients showed deficits in the affective and cognitive components of ToM relative to the controls. The patients with mild bvFTD outperformed the group with moderate bvFTD in cognitive ToM capacities; however, affective ToM was equally impaired in both bvFTD groups. The cognitive, but not the affective, component of ToM correlated with performance on the executive function tests.

Conclusions: Our results suggest that affective ToM is markedly diminished even during the initial stages of bvFTD; as the disease progresses, deficits in cognitive ToM become more prominent. These findings may relate to the pattern of cortical atrophy described for bvFTD. We also found significant correlations between the cognitive component of ToM and executive functions.

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Supported in part by grants CONICYT/FONDECYT Regular (1130920) (T.T.), FONCyT-PICT 2012-0412 (T.T.), FONCyT-PICT 2012-1309 (T.T.), and the INECO Foundation.

The authors declare no conflicts of interest.

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Received May 2, 2014

Accepted November 17, 2014

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