Mild Behavioral Impairment as a Predictor of Cognitive Functioning in Older Adults

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INTRODUCTION

Background

- Mild behavioral impairment (MBI): late-life transitional state where individuals present with neuropsychiatric symptoms (NPS) that are atypical of the past
- Persons with MBI are found to be at an increased risk of dementia, regardless of cognitive status
- Executive function and attention are found to be influenced by the presence of MBI

Research Questions

1. Are there differences in cognition in older adults with MBI?
2. Does MBI differentially influence cognitive abilities in those with mild cognitive impairment (MCI)?

METHOD

Assessments

- Cognitive Status: established standards of the FL-ADRC, assessed via a consensus conference for healthy cognition or MCI
- Mild Behavioral Impairment Status: established standards of the ISTAART-AA, assessed via the neuropsychiatric inventory
- Neuropsychological Assessments: composite scores of *executive function* (Trail Making B; Category Fluency; Verbal Fluency), *attention* (Trail Making A; Stroop Task- Word, Color, Color-Word; Digit Symbol), *short-term memory* (Digit Span- Forward, Backward), and *episodic memory* (Logical Memory- Immediate, Delayed; Hopkin's Verbal Learning Test- Immediate, Delayed, Discrimination)

Statistical Analyses

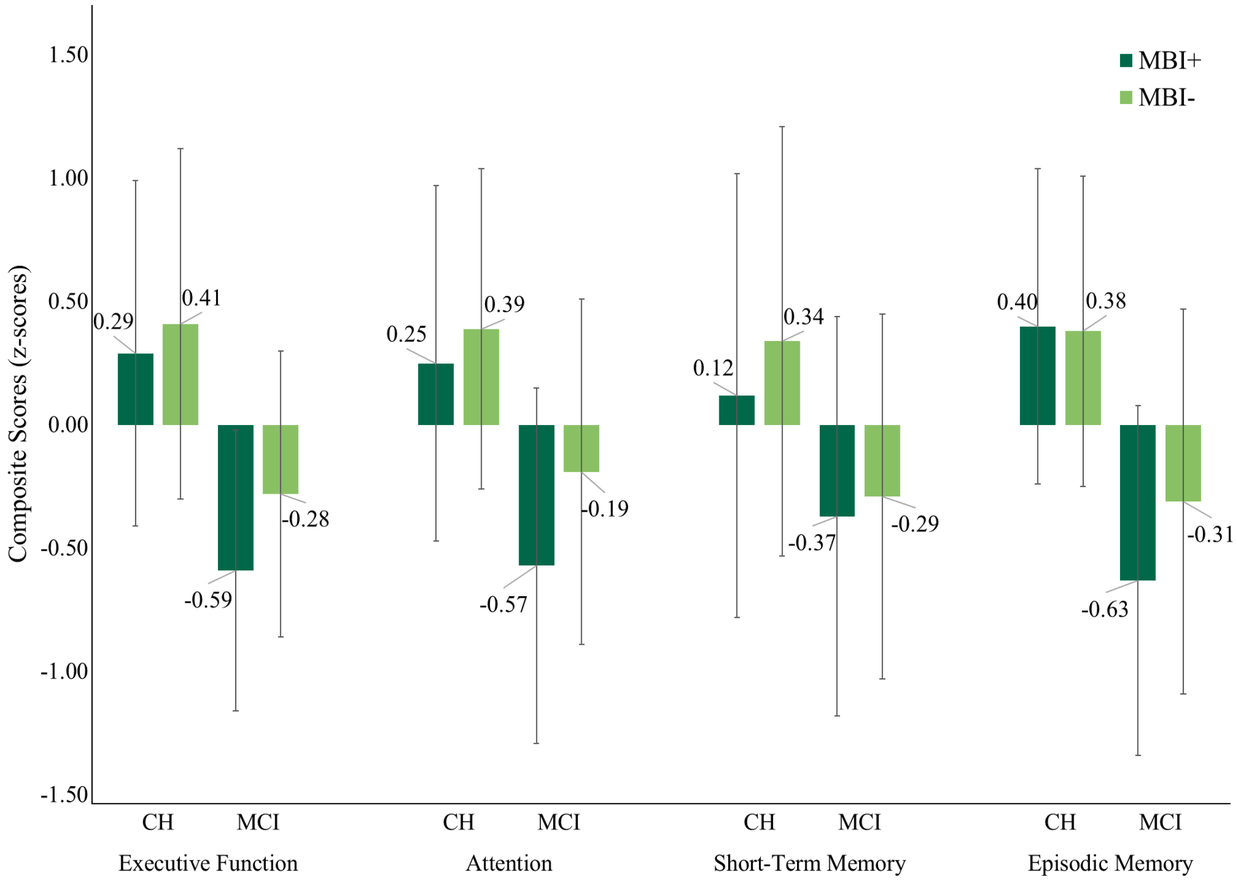
- Multiple imputation for missing item-level scores
- 2 (cognitive status) x 2 (MBI status) ANCOVA, controlling for age, gender, and education

	Cognitively Healthy		Mild Cognitive Impairment	
	MBI+	MBI-	MBI+	MBI-
Sample Size	110	175	144	68
Age, M ± SD	72.3 ± 6.1	73.5 ± 6.7	75.1 ± 6.1	74.6 ± 5.8
% Female	64.5%	65.7%	47.2%	54.4%
% Caucasian	96.4%	93.7%	93.8%	88.2%
Education, M ± SD	14.3 ± 3.5	14.8 ± 3.0	12.8 ± 3.7	13.4 ± 3.1

RESULTS

- Individuals with MBI performed significantly worse on executive function, attention, and episodic memory tasks, regardless of cognitive status
- Individuals with MCI and MBI performed significantly worse than those with only MCI on episodic memory tasks

Figure 1. Average Composite Scores by Cognitive and MBI Status



Note. CH= cognitively healthy; MCI= mild cognitive impairment; MBI= mild behavioral impairment

CONCLUSION

- Compared to older adults without MBI, those with MBI performed worse on executive function, attention, and episodic memory
- Older adults with MCI and MBI performed worse on tasks of episodic memory compared to those with only MCI
- Pattern of results highlights the importance of assessing for both cognitive and non-cognitive symptoms, as these may aid our diagnostic abilities