

compared to WLC were found at T1 on the attention fluctuation measures (IIVRT and TAU). **Conclusions:** The findings from the current study indicates that MBCT enhances executive control in adults with recurrent depression. As such, MBCT may target an important cognitive vulnerability factor in the chronic course of recurrent depression that may contribute to its efficacy in preventing depressive relapses. It was also observed that reductions in depression symptoms led to higher alertness in conflict detection.

Categories: Cognitive Intervention/Rehabilitation

Keyword 1: depression

Keyword 2: executive functions

Keyword 3: treatment outcome

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25 Biases in Informant Ratings of Functional Abilities in Mild Cognitive Impairment: Predictors of Caregiver-Rated Functional Abilities While Controlling for Patient Objective Cognitive Status

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Objective: An understanding of factors that contribute to informant ratings of patients' functional abilities is crucial, not only because these ratings are used to diagnose individuals with mild cognitive impairment (MCI) versus dementia, but also because these ratings are commonly used as outcome measures in clinical trials. While these ratings are assumed to be largely accurate, research shows they are subject to biases. Caregiver distress, higher caregiver educational attainment, and higher patient age are associated with a higher discrepancy between informant and patient reports of functional abilities. Studies on informant ratings of functional abilities that simultaneously control for patient objective cognitive abilities remain sparse. The current

study aims to evaluate caregiver characteristics as predictors of informant-rated functional status while controlling for patient objective cognitive abilities in MCI.

Participants and Methods: Individuals with a clinical diagnosis of MCI (Albert, 2011 criteria) were referred to the Cognitive Empowerment Program (CEP), a comprehensive lifestyle program addressing modifiable risk factors associated with progression. This study included cross-sectional data from 118 newly enrolled individuals and their caregivers who served as informants. Patient cognitive functioning was assessed with the Montreal Cognitive Assessment (MoCA). Predictors of interest included caregiver-rated functional abilities (Functional Activities Questionnaire; FAQ), caregiver burden (Zarit Burden Interview; ZBD), caregiver depressive symptoms (Center for Epidemiological Studies Depression scale; CES-D), caregiver stress (Perceived Stress Scale; PSS), and caregivers' self-rated communicative effectiveness (Communicative Effectiveness Index; CETI). Hierarchical linear regression models were run to predict FAQ while controlling for patient MoCA scores. Separate models were run for the caregiver variables of interest including caregiver age, ZBD, CES-D, PSS, and CETI.

Results: Caregivers were 75.6% spouses, 17.1% adult children, 3.3% unmarried partners/cohabitating partners, and 4.1% friends. The mean age of individuals with MCI was 74.7 years (SD: 6.96, mean education = 16.2±2.60 years; 47% female) and the mean age of caregivers was 66.4 (SD: 12.88, mean education = 16.3±2.34; 66% female). Worse ratings of functional abilities on the informant-rated FAQ were found for patients with lower MoCA scores ($\beta = .242, p = .008$). Importantly, while controlling for MoCA scores, worse ratings of functional abilities on the FAQ were found for informants with lower age ($\beta = -0.269, p = .003$), higher perceived stress ($\beta = 0.267, p = .003$), higher caregiver burden ($\beta = 0.289, p < 0.001$), and lower self-rated communication effectiveness ($\beta = -0.324, p < .001$). Caregiver depression ($\beta = 0.089, p = .084$) and education ($\beta = -0.137, p = .147$) were not significant predictors of functional ability ratings while controlling for MoCA scores.

Conclusions: Results of the current study highlight the potential for biases in informant ratings regarding functional abilities in MCI. Informant ratings were found to be significantly influenced by caregiver age, stress, burden, and

communicative effectiveness. A key finding is that younger caregivers, such as adult children, may report greater functional impairment in individuals with MCI. The current findings have implications for the use of perceived functional ratings, both for diagnostic purposes and as outcome measures in clinical trials.

Categories: Cognitive
Intervention/Rehabilitation

Keyword 1: mild cognitive impairment

Keyword 2: caregiver burden

Keyword 3: activities of daily living

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26 Improvement in Executive Function Following Goal-Oriented Attentional Self-Regulation Training in Veterans with mTBI

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Objective: Goal-Oriented Attentional Self-Regulation (GOALS) is a cognitive rehabilitation training that targets difficulties with executive control functions. Prior research has found that GOALS training improves executive function, functional outcomes, and PTSD symptoms in Veterans with comorbid PTSD and TBI. The objective of this study is to assess the effects of GOALS training versus an active time-matched Behavioral Health Education (BHE) intervention in military Veterans with history of mTBI and executive function difficulties.

Participants and Methods: Thirty-four veterans with a history of mild TBI (>6 months post-injury) and cognitive difficulties were randomized to GOALS or BHE group intervention. GOALS is a cognitive rehabilitation intervention that incorporates mindfulness-based attention regulation training, and goal management strategies applied to participant-defined goals. It consists of ten 2-hour sessions administered in small group format, and three individual 1-hour

sessions. The BHE group is a matched control condition that mirrors GOALS in terms of duration and level of involvement. Participants completed a comprehensive evaluation consisting of neuropsychological and ecologically valid functional performance measures of complex attention and executive function, before and after GOALS or BHE intervention. Overall neuropsychological attention/executive functioning included measures of working memory (Letter Number Sequencing, Auditory Consonant Trigrams), mental flexibility (Design & Verbal Fluency Switching, Trails B, Stroop Inhibition/Switching), inhibition (Stroop Inhibition), and sustained attention (Digit Vigilance). The Goal Processing Scale (GPS) was used to measure ecologically valid complex functional performance.

Results: Post GOALS training, but not post BHE, participants significantly improved on measures of attention /executive function including overall performance ($p=.02$), working memory ($p=.04$), sustained attention ($p=.03$), and inhibition ($p=.01$). On measures of complex functional task performance, post GOALS participants significantly improved in the domain of planning ($p=.02$).

Conclusions: GOALS training improved performance on neuropsychological and ecologically valid functional measures of complex attention and executive function in Veterans with mild TBI and cognitive difficulties. The current study highlights how mindfulness-based attention regulation and goal-management strategies applied to personal goals has positive effects across various outcomes. A percentage of individuals with mTBI continue to report persistent problems with cognition and daily functioning. Cognitive rehabilitation training such as GOALS may be beneficial for those with persistent difficulties following mTBI, even in chronic phase.

Categories: Cognitive
Intervention/Rehabilitation

Keyword 1: executive functions

Keyword 2: concussion/ mild traumatic brain injury

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