

25 Specific Facets of Trait Mindfulness Show Differences in Associations with Affective and Cognitive Measures in Older Adults

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Objective: Trait mindfulness is associated with reduced stress and psychological well-being. However, evidence regarding its effects on cognitive function is mixed and certain facets of trait mindfulness are associated with higher negative affect (NA). This study investigated whether specific mindfulness skills were associated with cognitive performance and affective traits.

Participants and Methods: 165 older adults from the Maine Aging Behavior Learning Enrichment (M-ABLE) Study completed the National Alzheimer's Coordinating Center T-Cog battery, the Five Facet Mindfulness Questionnaire, and the Positive and Negative Affect Schedule-SF.

Results: All five facets of trait mindfulness were associated with higher Positive Affect and lower NA, with the exception that Observation was not associated with trait NA. Partial correlations adjusting for age indicated that better episodic memory was associated with Observation, Describing, and Nonreactivity. Verbal fluency performance was associated with Observation, while Working Memory was associated with Nonjudgment. Executive Attention/Processing speed was associated with total mindfulness scores and showed a trend relationship with Nonreactivity.

Conclusions: Mindfulness skills showed specific patterns with affective traits and cognitive function. These findings suggest that the ability to maintain awareness, describe, and experience internal and external states without reacting to them may partly rely on episodic memory. Mindful awareness skills also may depend on frontal and language functions, while the ability to experience emotional states without reacting may require Executive Attention. Global mindfulness and a non-judgmental stance may require auditory attention. Alternatively, mindfulness skills may serve to enhance these functions. Hence, longitudinal research is needed to determine the directionality of these findings.

Categories: Aging

Keyword 1: cognitive functioning

Keyword 2: awareness

Keyword 3: emotional processes

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26 To 'Proxy' or Not to 'Proxy': The Differential Effects of Cognitive Reserve on Late-Life Neuropsychological Functioning

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Objective: As the population continues to age at a rapid pace, an important question that has been raised by clinicians and researchers alike, is "how can we preserve our cognitive abilities as older adults?" Cognitive reserve (CR) is thought to account for inter-individual differences in the cognitive trajectories of older people experiencing similar levels of brain pathology. Being a hypothetical construct, CR cannot be measured directly and therefore, must be operationalized through a combination of demographic and lifestyle variables. While there is sufficient empirical evidence supporting the relationship between individual CR proxies and cognitive functioning, few studies to date have explored which CR proxy is most important in predicting aspects of late-life cognitive functioning and whether composite measure of CR accurately predict cognitive functioning, above and beyond variables traditionally associated with late-life cognitive ability (e.g., age, gender, cardiovascular risk, depression). The present cross-sectional study sought to examine the relationship between three well-established CR proxies—educational attainment, mental workplace demands, crystallized intelligence—and baseline neuropsychological functioning in a clinical sample of older adults without dementia.

Participants and Methods: Using archival data from 248 older adult patients seen at geriatric specialist hospital in Ontario, Canada, we examined the cumulative and independent effects of educational attainment (years of formal education), mental workplace demands (mean analyst rating for 10 O*NET variables measuring cognitively complex work activities),

and crystallized intelligence (score on WASI-I Vocabulary subtest) on performance across several neuropsychological tests assessing i.) verbal memory, ii.) visual memory, iii.) attention, concentration, and working memory, iv.) executive functioning, v.) visuospatial processing, and vi.) language. Composite scores for all six cognitive domains were calculated by averaging converted z-scores on domain-specific tests of neuropsychological functioning. A series of regression models were then constructed to evaluate the relationship between CR and late-life cognitive functioning. To determine the relative importance of each CR proxy, a follow-up relative weight analysis (RWA) was performed for each regression model.

Results: After controlling for age, gender, cardiovascular risk, and depression, our composite measure of CR (average z-score of educational attainment, mental workplace demands, crystallized intelligence) proved to be a significant predictor across all domains of cognitive functioning. Of the six cognitive domains assessed, CR was the most important in predicting higher-order cognitive functions, such as working memory and executive functioning. Out of the three CR proxies, crystallized intelligence was the only CR proxy that significantly predicted performance across all six cognitive domains. RWA revealed that crystallized intelligence was the most important in predicting neuropsychological functioning, followed by educational attainment, and mental workplace demands.

Conclusions: Despite being closely related, all three CR proxies demonstrated differential effects on late-life cognitive functioning. Overall, our findings suggest that the effects of CR are not generalizable across all cognitive domains and appears to be somewhat dependent on the CR proxy used. This study supports the existing literature in demonstrating the robustness of crystallized intelligence as a CR proxy and provides preliminary evidence supporting the idea that tasks that require higher levels of cognitive processing are the most influenced by CR.

Categories: Aging

Keyword 1: cognitive reserve

Keyword 2: aging (normal)

Keyword 3: cognitive functioning

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27 Aging Affects Cordoba Naming Test Performance

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Objective: The Cordoba Naming Test (CNT) is a 30-item confrontation naming test developed in Argentina. A common confrontation naming task used in the United States is the Boston Naming Test (BNT). Research shows that age affects BNT performance in the 60-item long form. In fact, studies show that scores on confrontation naming tasks increase in childhood and continue to improve until approximately 40 years of age. However, after this period, scores start to subsequently decline, and especially so after 70 years of age. On the other hand, some studies have reported that older adults maintain high BNT performance despite advancing age. To our knowledge, no study has investigated the aging effects of the CNT across various age groups. We expected CNT scores to increase significantly from young adulthood to mid-adulthood and then significantly decline with advancing age.

Participants and Methods: The present study sample consisted of 272 neurologically and psychologically healthy participants with a mean age of 27.06 (SD = 12.21) with 14.29 years of education completed (SD = 2.46). Participants were divided into six different age groups: 18-19-year-old group, 20-29-year-old group, 30-39-year-old group, 40-49-year-old group, 50-59-