

can sustain or even improve upon these outcomes.

Categories: Sleep and Sleep Disorders

Keyword 1: sleep disorders

Keyword 2: brain function

Keyword 3: neurostimulation

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80 Processing Speed Mediates the Association between Executive Functioning and Adaptive Functioning Among Older Adults

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Objective: Cognitive decline is expected in normative aging (Cabeza et al., 2018; Salthouse, 2019), which can lead to impairments in adaptive functioning (Yam et al., 2014). Several cognitive domains have been associated with adaptive functioning in older adult samples, including processing speed and executive functioning (e.g., Nguyen et al., 2019; Vaughn & Giovanello, 2010). A recent study examining a mixed clinical sample of older adults demonstrated that processing speed was more predictive of functional decline than other cognitive domains, including aspects of executive functioning (Roye et al., 2022). Therefore, this study attempts to build on previous findings by further examining the relationships between processing speed, adaptive functioning, and executive functioning. Specifically, it investigated the extent to which processing speed mediated the associations between executive functioning and adaptive functioning.

Participants and Methods: Participants (N = 239) were selected from a clinical database of neuropsychological evaluations. Inclusion criteria were age 60+ (M = 74.0, SD = 6.9) and completion of relevant study measures. Participants were majority White (93%) women (53.1%). Three cognitive diagnosis groups were coded: No Diagnosis (N = 82), Mild Neurocognitive Disorder (NCD; N = 78), and Major NCD (N = 79). The Texas Functional

Living Scale (TFLS) was used as a performance-based measure of adaptive functioning. Processing speed was measured using the Coding subtest from the Repeatable Battery for the Assessment of Neuropsychological Status. Executive functioning performance was quantified using part B of the Trail Making Test, Controlled Oral Word Association Test, and Similarities and Matrix Reasoning subtests from the WAIS-IV and WASI-II. Mediation models included age and years of education as covariates and indirect effects were assessed with bootstrapped confidence intervals (Hayes, 2020).

Results: Processing speed mediated all measures of executive functioning. The pattern was consistent for all executive functioning measures such that poorer executive functioning was associated with poorer processing speed, which was subsequently associated with poorer adaptive functioning. Direct effects were significant for all models ($ps < .03$), suggesting that executive functioning maintained unique associations with adaptive functioning. Follow-up analyses indicated no evidence for moderation of the mediation models based on diagnostic group.

Conclusions: These results highlight the importance of processing speed in understanding real-world implications of pathological and non-pathological cognitive aging. Processing speed mediated all relationships between executive functioning and adaptive functioning. There was no evidence for moderation of these effects, supporting generalizability regardless of neurocognitive disorder and etiologic subtype. Further investigation is warranted into the importance of processing speed in explaining associations of other cognitive domains with adaptive functioning.

Categories: Aging

Keyword 1: adaptive functioning

Keyword 2: everyday functioning

Keyword 3: aging disorders

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