(S84) THE UTILITY OF THE EXPANDED DISABILITY STATUS SCALE IN PREDICTING NEUROPSYCHOLOGICAL FUNCTIONING IN MULTIPLE SCLEROSIS

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Background: Patients with multiple sclerosis (MS) often exhibit cognitive deficits in multiple domains, including complex attention, information processing, executive functioning, processing speed, and memory. The literature is mixed regarding the predictive utility of the Expanded Disability Status Scale (EDSS) in cognition. Objectives: To examine the utility of the EDSS in predicting cognitive functioning in MS in an understudied demographic cohort. Methods: Patients (n = 69) enrolled in a multicenter longitudinal monitoring program were studied cross-sectionally. They were given the Minimal Assessment of Cognitive Function in MS (MACFIMS), a consensus neuropsychological battery with established reliability and validity. Physicians rated participants using the EDSS, a method of quantifying MS disability. Participants were 72% male and 53% African American with a mean (SD) age of 46.5 (9.2) years. Linear regressions were conducted examining the relationship between age, sex, race, EDSS Total Score (EDSS TS), and EDSS Functional System Score (FSS)–Cerebellar with specific MACFIMS tests. Results: Linear regressions controlling for age, sex, and race found that greater impairment on the EDSS TS predicted poorer performance on visual (Brief Visuospatial Memory Test–Revised [BVMT-R] delayed recall, P = .05) and verbal (California Verbal Learning Test–Second Edition [CVLT-II] long delayed free recall, P < .01) memory, and efficiency of visual information processing (Symbol Digit Modality Test [SDMT] oral, P = .04). Greater impairment on EDSS-Cerebellar predicted poorer performance on visual (P < .03) and verbal memory (P < .01) and executive functioning (Delis-Kaplan Executive Function System [DKEFS] Sorting, P < .04). Neither EDSS TS nor EDSS-Cerebellar predicted word productivity or visuospatial judgment. Conclusions: The findings indicated that overall disability in MS predicted poorer performance on memory (verbal and visual) and processing speed tests. EDSS-Cerebellar predicted poorer performance on memory and executive functioning tests. The latter is consistent with the previously identified role of the cerebellum in learning/memory. Although this sample differs demographically (African American, male veterans) from those often studied in the literature, the cognitive pattern did not vary significantly. However, differential symptom manifestation of MS in diverse groups requires further investigation.

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