

86 Memory Performance in Children with Duchenne and Becker Muscular Dystrophy

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Objective: There is limited and mixed research describing the memory performance of boys with Duchenne muscular dystrophy (DMD), a progressive disorder that affects the muscle and the brain, presumably due to the absence of dystrophin; however, the literature indicates either the existence of a selective deficit in verbal working memory, or more generalized impairment in both verbal and visual memory. Far less is documented about the neurocognitive profile of boys with Becker muscular dystrophy (BMD), a closely related neuromuscular disorder which allows for at least some functional dystrophin protein to circulate.

The Child and Adolescent Memory Profile (ChAMP) is a valid and widely used memory battery that has not been studied in either DMD or BMD. This study aimed to assess the verbal and visual memory performance in boys having either a DMD or a BMD diagnosis using the ChAMP. A working memory measure, the Digit Span subtest from the Wechsler Intelligence Scale for Children-Fifth Edition, was also included for comparison.

Participants and Methods: Twenty-one patients (Age $M = 12.19 \pm 3.60$; 100% male; 76% DMD, 24% Becker) were selected from retrospective data collection of neuropsychological performance in children with neuromuscular disorders. Patients were recruited and assessed as part of a larger scale IRB-approved research study designed to better understand the neurocognitive and behavioral trajectories of boys with DMD or BMD with a complete neuropsychological battery.

Results: Independent samples *t*-tests revealed no significant differences between groups across verbal (DMD $M = 88.71$; BMD $M = 100.80$; $p = .08$), visual (DMD $M = 90.36$; BMD $M = 93.60$; $p = .33$), and working memory (DMD $M = 84.69$; BMD: $M = 82.60$; $p = .40$) domains. In additional analyses, a one sample *t*-test comparing verbal and visual memory within DMD children revealed significantly worse verbal

than visual memory scores (verbal memory $M = 88.71$; visual memory $M = 90.36$; $p = <.001$).

Conclusions: There were no significant differences between groups in verbal, visual, and working memory performance, though sample size was a significant limitation. However, based on a comparison of means, children with BMD appear to have stronger verbal memory skills than children with DMD. Furthermore, significant differences between verbal and visual memory within DMD children were observed, such that verbal memory skills were weaker. These findings add to the absence of literature on verbal and visual memory outcomes in children with DMD and BMD.

Categories: Medical/Neurological Disorders/Other (Child)

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87 Idiopathic Autoimmune Encephalitis Influences Functional Recovery for Pediatric Patients Admitted to Inpatient Rehabilitation

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Objective: Anti-N-methyl-D-aspartate receptor encephalitis (ANMDARE) is a rare and progressive neurological autoimmune disease that disproportionately affects pediatric patients (Yeshokumar et al., 2022). Patients diagnosed with ANMDARE experience a host of neurocognitive and psychiatric sequelae, but data on the rate of recovery are generally mixed (Wilkinson-Smith et al., 2022). Misdiagnosis of ANMDARE is common and may complicate recovery given the progressive nature of the syndrome (Shimoyama et al., 2016); thus, knowledge of the etiology may result in enhanced resolution of symptoms. The current study assessed the rate of functional recovery for pediatric patients diagnosed with ANMDARE and admitted to an inpatient rehabilitation program. Specifically, we hypothesized that patients with idiopathic autoimmune encephalitis (IAE) would have a protracted rate of acute