

(GEC) scales were used as the dependent measure in analyses.

BMI (kg/m^2) was calculated based on CDC 2000 growth charts and classified into 4 mutually exclusive categories—underweight, healthy, overweight, and obese. There was a prediction that higher BMI would be associated with lower executive function.

Results: A one-way ANOVA revealed a statistically significant difference between groups ($F(3,180) = 3.649, p = .014$). A Tukey post hoc test revealed more Shift problems in the obese group (74.55 ± 11.7) compared to the overweight group ($65.79 \pm 11.6, p = .026$). There was no statistically significant difference between the underweight/healthy and obese groups ($p = .999/p = .054$). There was no statistically significant difference in mean T-scores for the Inhibit, WM, Planning, or GEC scales.

Conclusions: Childhood obesity and executive function deficits are significant risk factors for adult health outcomes. Obesity and elevated executive function T-scores for flexibility are related in a group of children with neurodevelopmental disorders. Future investigation will explore the role of cortical thickness and medication in these data.

Categories: Medical/Neurological Disorders/Other (Child)

Keyword 1: executive functions

Keyword 2: attention deficit hyperactivity disorder

Keyword 3: autism spectrum disorder

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81 Autism Symptoms Reported and Observed During Neuropsychological Assessment of Children with Congenital Heart Disorder

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Objective: Children with congenital heart disease (CHD) have increased likelihood for Autism Spectrum Disorder (AuSD; Sigmon, Kelleman, Susi, Nylung & Oster, 2020). Even those not meeting full criteria remain at greater risk for problems with social processing/communication (Cassidy et al, 2018). The current study examined what symptoms indicative of potential AuSD were qualitatively reported by parents, and what symptoms were noted behaviorally by clinicians. These behaviors may be targets for both further clinical inquiry and intervention.

Participants and Methods: A retrospective chart review of CHD patients seen for neuropsychological assessment between the ages of 6-18 years and between 2016-2021 was conducted. The final sample included 88 patients (Ethnicity: 14% Hispanic; Race: 76% White, 17% Black/African American, 5% Asian, 1% Native American, 1% Unknown). A coding system for AuSD symptoms was derived by the authors, who are experienced in AuSD diagnosis and assessment, based on DSM-5 criteria. A comprehensive list of behaviors consistent with each symptom category was generated, and assessment reports were subsequently reviewed noting the presence, absence or "no mention" of each symptom. A second coding system was derived to assess for AuSD symptoms documented in each report's behavioral observations. Three pediatric neuropsychologists, one post-doctoral fellow, and one psychometrist were coders, with very good reliability ($\kappa = .854$ (95% CI, .827 to .881), $p < .0001$).

Results: Twelve patients (14%) were diagnosed with AuSD. Age of diagnosis ranged from 3-14 years ($M = 7.82, SD = 3.92$). Main concerns parents expressed included difficulty with reciprocal conversation (75%), making friends (75%), initiating and maintaining social interactions (67%), and restrictive/intense interests (58%). During testing, providers noted variable eye contact (67%), appropriate responses to questions but minimal social conversation (67%), and exaggerated prosody (42%).

Of those who did not have an AuSD diagnosis, the most frequent parent concerns included difficulty making friends (38%), difficulty initiating or maintaining social interactions (33%), atypical affect (25%), and restrictive/intense interests (18%). In this sample, providers noted concerns with answering questions but not maintaining conversation (26%), flat affect (16%), loud (17%)

or soft (21%) speech volume, and socially immature behaviors (10%). Within this No Diagnosis group, general social concerns were highly correlated (point biserial) with more specific autism symptoms (e.g., intense interests, difficulty with transitions, sensory sensitivities $r = .986 - .784$), although most often the presence or absence of these concerns were not documented.

Conclusions: We examined qualitative parent-reported and provider-observed behaviors indicative of potential AuSD as detailed in a comprehensive neuropsychological evaluation report. Behaviors in children with formal AuSD diagnoses were consistent with that diagnosis, based on both parent and provider description. Of note, in children without AuSD, though, both parents and providers reported AuSD-like concerns (e.g., social communication/interaction problems, atypical interests, atypical affect, atypical speech volume) in a large minority of children. It is important that if general social concerns are present, that providers follow-up on, and document, a broader constellation of AuSD symptoms. These behaviors deserve further exploration and study within the CHD population and are important areas of inquiry in any clinical evaluation, as they should directly inform intervention.

Categories: Medical/Neurological Disorders/Other (Child)

Keyword 1: congenital disorders

Keyword 2: autism spectrum disorder

Keyword 3: pediatric neuropsychology

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82 Behavioral, Emotional, and Adaptive Functioning in a Pediatric anti-NMDARE Population

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Objective: Anti-N-methyl-D-aspartate receptor encephalitis (anti-NMDARE) is a complex, yet treatable autoimmune disorder characterized by a fairly abrupt onset of a constellation of symptoms attributable to diffuse brain dysfunction (Tarantino et al., 2021). Despite the potential for a severe disease course, most patients have a favorable outcome with substantial recovery (Dalmau et al., 2011; Titulaer et al., 2013). Nevertheless, there is limited literature discussing the long-term outcomes in patients with anti-NMDARE, particularly in pediatric patients. The primary objective of this study is to examine and describe behavioral, emotional, adaptive, and executive functioning outcomes in pediatric and young adult patients with this disease. This study also sought to provide information on the perceived health-related quality of life (HRQoL) of patients and their parents and investigate the impact of anti-NMDARE on parents and family functioning.

Participants and Methods: All individuals known to have been diagnosed and treated for anti-NMDARE at The Children's Hospital of Philadelphia (CHOP) between January 1, 2005, and October 1, 2020, were contacted with both patients and their parents/guardians invited to participate. Eighteen pediatric patients between the ages of 6 and 26 and/or their parents/caregivers participated in the study. Of the 18 patients represented in the sample, 50% were white/Caucasian, and 67% were female. The mean duration of time since symptom onset was 7.1 years. Primary outcomes were measured through standardized questionnaires of emotional, behavioral, and adaptive functioning (BASC-3) and executive functioning (BRIEF2 or BRIEF-A). Secondary outcomes related to family functioning and HRQoL were measured through (PedsQL™ and PedsQL™ Family Impact Module.)

Results: All aggregate T-scores for the BASC and BRIEF placed children with anti-NMDARE within an age-appropriate range regarding behavioral, emotional, adaptive, and executive functioning outcomes. Children with anti-NMDARE were not found to have lower HRQoL compared to their healthy same-age peers. Moreover, parents of children with anti-NMDARE did not endorse a prolonged impact of this illness on family functioning and adjustment.

Conclusions: This study aimed to better understand the neurobehavioral profile and the long-term outcomes of children diagnosed with anti-NMDARE, with the ultimate goal of