

Keyword 3: attention deficit hyperactivity disorder

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13 Verbal Memory and Learning Strategies in an Autistic Sample Using the CVLT

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Objective: The present study aims to better understand learning strategies and difficulties in autistic youth. Previous studies have found that autistic youth have difficulties with executive function skills and poorer performance in memory and learning tasks, especially those that require spontaneous retrieval of information compared to memory tasks that provide external retrieval cues. Additionally, it has been theorized that autistic youth employ a serial approach rather than a semantic approach to learning. The current study hypothesized that the autistic sample will have (a) significant difficulties in learning and memory, (b) employ a serial approach more frequently and a semantic approach less frequently than the CVLT normative sample, and (c) will benefit significantly when provided with external retrieval cues.

Participants and Methods: Archival data from a mixed clinical and research database were examined for this study. Participants include 740 autistic individuals between the ages of 5.50 and 24.3 ($M = 10.90$, $SD = 2.98$). The sample consisted of 22.2% girls and 34.0% Black, Indigenous, and people of color (BIPOC). All individuals had a FSIQ ≥ 70 ($M = 99.91$, $SD = 16.09$) and were clinically diagnosed with autism using DSM-IV-TR or DSM-V criteria by a clinician at an autism diagnostic center. Participants completed the age-appropriate California Verbal Learning Test (CVLT, Delis et al. 1987) which is a neuropsychological measure that examines verbal memory and learning. One-sample t-tests were used to examine the sample's verbal memory abilities and their

learning strategies. A paired sample t-test was used to evaluate the sample's performance before and after an external retrieval cue was given.

Results: Results from the one-sample t-tests indicate that the autistic sample performed worse than the CVLT normative data with a large effect size ($t(739) = -9.440$, $p < .001$, Cohen's $d = 1.292$). Secondly, the autistic sample was less likely to use a semantic learning approach ($t(739) = -1.841$, $p = .033$, Cohen's $d = 1.234$), but not more likely to use a serial approach ($t(739) = -.040$, $p = .484$) compared to the normative sample. Lastly, the paired sample t-test results show that the sample performed significantly better after receiving the external retrieval cue ($t(739) = 2.570$, $p = .005$, Cohen's $d = .770$).

Conclusions: The data supported the first hypothesis; autistic individuals have increased difficulties with learning and verbal memory. However, the data only partially support the second hypothesis. The sample was less likely to use a semantic approach to learning but was not more likely to use serial learning. This finding is opposed to the Weak Central Coherence (WCC) theory, which suggests that autistic individuals are more likely to have detail-oriented, bottom-up cognitive thinking styles, consistent with a serial learning strategy. Lastly, data showed improvement when autistic individuals received a retrieval cue. This result supports the Task Support Hypothesis (TSH) and indicates that autistic individuals benefit from cues for memory recall, particularly those that capitalize on their areas of strength. This study did not use a control group and is limited in ethno-racial diversity; therefore, these are preliminary findings that require further replication.

Categories: Autism Spectrum Disorders/Developmental Disorders/Intellectual Disability

Keyword 1: learning

Keyword 2: autism spectrum disorder

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14 Changes in Service Delivery Models for Children with Neurodevelopmental Disorders During the Covid-19 Pandemic

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Objective: With the onset of the COVID-19 pandemic, many families face barriers in accessing critical services for their children. However, there is a disproportionate impact on families of children with Neurodevelopmental Disorders (NDDs), particularly those who are dependant on receiving regular services. The current study investigated how service delivery has changed for children and families with NDDs during the COVID-19 pandemic, to identify which groups are most at risk for service disruption and negative outcomes, and to provide actionable recommendations for community agencies that provide early interventions for future pandemics.

Participants and Methods:

Data was collected in the fall and winter of 2020/2021 during the Covid-19 pandemic. Families were recruited from a local service provider in British Columbia whose Early Years Support services delivery model was changed to online delivery during the pandemic. Children had a diagnosis of NDD or were on the waitlist for an assessment. Overall, 26 families participated in a semi-structured interview that asked about their experiences of receiving services for their children during the pandemic. Of these families, 20 subsequently completed online questionnaires that asked about their parenting stress levels and their children's behaviour throughout the pandemic. Families of a range of compositions were drawn from different ethnicities (30% white, 25% South Asian, 20% Filipino, and the remaining 5% identified as Indigenous, African or East Asian). The mean age of children was 3.80 years (SD = 0.72).

Results: From the survey, we found that 58% of parents reported higher than average levels of mental health and behavioural challenges in their children during the Covid-19 pandemic. In addition, 45% of parents reported higher than average parenting stress levels. Qualitative interview data indicated that most parents reported positive experiences with receiving services during the Covid-19 pandemic and reported feeling supported even with social distancing measures. However, families also

reported increased stress levels and isolation, particularly those who have children with Autism Spectrum Disorder, who rely on early funding (0-6 years) and early services. One of the themes that emerged from parents who were on the waitlist to receive an assessment was that wait times around assessments were very long, which contributed to parent stress levels. Parents also reported concerns around wait times to access services and difficulty of accessing online services due to internet and connection issues.

Conclusions: The current study identified central themes of stressors and barriers experienced by families and children with NDDs in service delivery. Overall, parents reported satisfaction in changes in service delivery in most ways; however, they also reported stresses and barriers that included wait times, increased isolation, and accessing online services. Actionable steps to reduce family stress include better communication between service providers and families for wait times, and more variability in appointment times. Specific recommendations for current and future pandemics will be expanded on in the poster.

Categories: Autism Spectrum Disorders/Developmental Disorders/Intellectual Disability

Keyword 1: child development disorders

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15 An Investigation of Non-Evidence Based Autism Intervention Representations in the Media

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Objective: This study seeks to describe the context and contents of YouTube videos featuring non-evidence-based practices (NEBPs) for autism spectrum disorder, including recent fad usage of transcranial magnetic stimulation.

Participants and Methods: A sample search of autism intervention-related YouTube videos was conducted to reflect the experience of caregivers researching autism intervention information on