**Title**: Support Service Engagement in Children with Prenatal Alcohol Exposure and ADHD

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**Introduction**: Early intervention is critical for children with neurodevelopmental disorders in order to support cognitive and behavioral development. Children with prenatal alcohol exposure (PAE) face many barriers to receiving support services such as incorrect diagnosis, lack of eligibility, limited funding, and stigma (Montag et al., 2022). Many children with PAE also have an Attention-deficit/hyperactivity disorder (ADHD) diagnosis (Fryer et al., 2007). Children with PAE and/or ADHD benefit from support through early intervention, Individualized Education Programs (IEP), and specialized support services such as speech therapy or mental health treatment (Reid et al., 2015). This study aimed to explore the association between PAE and/or ADHD and support service engagement in order to better understand support service needs in children with PAE compared to other clinical populations.

**Method**: As part of a larger research project, data were collected from participants 5-17y (n = 313) recruited from a university research site. Parents or guardians completed a comprehensive questionnaire to report support and intervention services their child has received and reported prenatal alcohol exposure history. Data collected from three groups were examined for the purposes of this analysis: PAE only (n= 122), ADHD only (n = 27), and PAE/ADHD (n = 164). The association between group and support service utilization (defined as: utilization of IEP, early intervention, and specialized support services) was examined using Chi-Square analyses. Post hoc analyses using adjusted standardized residuals were run to explore the differences between observed and expected frequencies in each of the groups.

**Results**: The sample was 55.6% (n = 174) male, 62.9% (n = 197) white, and 41.2% (n =129). Hispanic/Latino with a mean age of 10.1y (SD = 3.71). Neuropsychological data were collected from a subset of participants per group (PAE: n = 47, IQ = 86.30), (ADHD: n = 16, IQ = 97.38) (PAE/ADHD: n = 81, IQ = 86.51). A Chi-Square test of independence was conducted between group and support services. All expected cell frequencies were greater than five. There was a statistically significant association between group and IEP, χ2(2) = 2.602, p < .001. The association was moderately strong, Cramer's V = .296. There was a statistically significant association between group and specialty services, χ2(2) = 10.243, p < .001. The association was moderately strong, Cramer's V = .181. There was not a statistically significant association between PAE group and early intervention, χ2(2) = 3.798, p = 0.151. Post hoc analysis of the significant findings revealed that standardized residuals were greater than expected for the combined PAE/ADHD group and less than expected for the PAE only group.

**Discussion:** Results revealed that there is an association between clinical groups and IEP and specialized service utilization by families. There was no association between early intervention services and groups. Post hoc analyses revealed the combined PAE/ADHD group is engaging in services more than expected, and the PAE group is engaging in services less than expected. This suggests that the PAE group, without an ADHD diagnosis, is receiving less support services than those with an ADHD diagnosis. Further research should explore what factors are influencing the lower utilization rates, such as whether families are seeking services or being denied services and how support services impact developmental and behavioral outcomes in children with PAE. Research supported by NIAAA grants U01 AA014834 and 1F31AA031883-01.

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