



**Title:** Factors Associated with Psychotropic Medication Use in Children with Autism Spectrum Disorder: A DBPNet Study Using Electronic Health Records

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**Background:** Psychotropic medication (PM) is frequently prescribed for children with Autism Spectrum Disorder (ASD), but little is known about the prescribing practices of developmental-behavioral pediatricians (DBPs) and there is controversy about whether having Medicaid insurance increases the likelihood of being prescribed PM.

**Objective:** To determine the frequency with which DBPs prescribe PM for children with ASD and to determine if insurance status influences prescribing practices.

**Methods:** A retrospective analysis was done using electronic health record data (EHR) of all patients with ASD seen at 3 DBP clinical programs from 1/2011 through 12/2012. Data extracted from the EHR included age, primary and comorbid diagnoses, primary insurance (Medicaid vs private), and medication prescribed by the DBP. Data was summarized using standard descriptive statistics. Logistic regression adjusting for clustering by clinician within site was used to determine if site or insurance status influenced medication use across different age groups. A p-value of  $p \leq 0.01$  was used to adjust for multiple comparisons.

**Results:** Sites varied in the frequency with which they prescribed PM for children with ASD (site 1: 32.8%, site 2: 48.8%, site 3: 3.5%;  $p < 0.001$ ). Older children were more likely to be treated with PM (<3yo: 2.4%; 3-5yo: 20.5%; 6-11yo: 47.3%; 12-17yo: 61.8%). At the two sites that most frequently prescribed PM, site and insurance status did not predict PM use in children <3yo, 6-11yo, and 12-17yo. 3-5yo children with ASD insured by Medicaid were more likely to be prescribed PM (OR 1.79; 95% CI 1.32-2.44). The PMs most frequently prescribed to 3-5yo were alpha agonists (13.9%), stimulants (13.0%), atypical antipsychotics (6.2%) and selective serotonin reuptake inhibitors (6.0%). Among these medications, the ones prescribed more frequently to children on Medicaid compared to private insurance were alpha agonists (OR 2.5; 95% CI 1.75-3.65) and atypical antipsychotics (OR: 3.5; 95% CI 1.66-7.39).

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**Conclusions:** Across 3 academic DBP programs there were large variations in the use of PMs for children with ASD. Older children were more likely to be prescribed PMs. Among younger children, those with Medicaid were more likely to be prescribed PMs. Further research is needed to understand the factors that contribute to higher use of PMs in young children with Medicaid as their primary insurance.

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