



Children referred with concerns for an ASD: A DBPNet Study

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Background: The number of children referred to Developmental-Behavioral Pediatricians (DBP) with concern for an Autism Spectrum Disorders (ASD) is increasing, however, we do not know how many of them receive an ASD or another diagnosis.

Objective: To determine the ultimate diagnoses made for children referred to DBPs with concerns for ASD and whether this varies by child age.

Design/Methods: 56 DBP at 12 academic medical centers in the DBPNet research network recorded anonymous data on < 15 consecutive new patients in 2013-2014. They coded the suspected diagnosis at the end of the first visit.

Results: Of 784 new visits, 324(41%) had an ASD concern; of these 221(68%) were diagnosed with an ASD (ASD+); 103 (32%) were not (ASD-). No significant differences were found in ASD+ vs. ASD- children in gender, insurance, parent education, race/ethnicity, age or number of diagnoses made. More than half of children in each group had speech-language disorder (SLD) diagnosed (ASD+=53%, ASD-=57%). Controlling for site, more ASD- children had ADHD (43 vs 22%, $p<0.001$), anxiety (25 vs 9%, $p=0.001$), learning disability (15 vs 5%, $p<0.01$), or parenting issues (7 vs 1%, $p=0.02$). Fewer ASD- children had cognitive delay (29 v 44%, $p=.03$). More than 1 in 5 (22%) ASD- children had sleep problems, 19% motor delay, 16% externalizing problems, and 12% repetitive behaviors all NOT significantly different than ASD+ children.

When looking at age groups separately and controlling site, ASD- children <4 yrs were more likely to have SLD (74% v 58%, $p=.02$) and less likely to have cognitive delay (18% v 46%, $p=.02$) compared to ASD+ age peers.

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In children 4 and older, ADHD symptoms were more prevalent in ASD- children compared to ASD+ (59% vs 41%, $p = .03$) as were learning disability with normal cognition (22% vs 9%, $p = .04$) and parenting problems (10% vs 3%, $p < 0.05$) controlling site. There was a trend toward more anxiety in older ASD- children (33% vs 18%, $p = .055$).

Conclusions: Only 2 in 3 children referred with ASD concern were diagnosed with or suspected of having an ASD by DBPs. They were demographically similar to those not diagnosed with an ASD. ASD- children 3 and younger had less cognitive delay and more difficulty with language than those with an ASD diagnosis. ASD- children 4 and older had more ADHD, learning differences, parenting concerns and perhaps more anxiety.

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