



## **Children referred to DBPs at academic medical centers to rule out an ASD: If not ASD, what do they have?**

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**Background:** The number of children referred and diagnosed with an Autism Spectrum Disorders (ASD) is increasing, making up a larger proportion of referrals to Developmental-Behavioral Pediatricians (DBP) for evaluation.

**Objective:** To determine 1) the proportion of children referred to DBPs with concerns for ASD ultimately receiving an ASD diagnosis and 2) what diagnosis were made among those not diagnosed with ASD.

**Methods:** 56 DBPs at 12 academic medical centers in the DBPNet research network recorded de-identified data on  $\leq 15$  consecutive new patients at the end of their 1st visit. They coded a diagnosis as “suspected” or “made” and either will be considered “diagnosed” in this abstract. Chi square tests compared children referred for an ASD who were diagnosed with an ASD to those who were not.

**Results:** Of 784 new visits, 324 (41.3%) had an ASD concern; of these 221 (68.2%) were diagnosed with an ASD (ASD+); 103 (31.8%) were not (nonASD). There were no significant differences between nonASD v. ASD+ groups in gender (86 v. 82% male), insurance status (Medicaid 49 v 52%), parent education (45% college grad), English speaking (94 v 93%) or age overall (5.6 v 4.8 yo). Those  $<4$ yo compared to older children were more likely to be ASD+ (76.6 v 61.4%,  $p<0.01$ ). At referral fewer nonASD children had socialization concerns (17.5 v 40.7%,  $p<0.001$ ) and more had other behavior problems (17.5 v 7.2%,  $p=.01$ ).

Children in the nonASD group were most likely to have language delay (54.4%). This was similar to the 52.5% of ASD+ children with language delay. More nonASD children had ADHD (42.7 v 22.2%,  $p<0.000$ ), anxiety (24.3 v 9%,  $p<0.000$ ), other dx (26.2 v 12.2%,  $p<0.01$ ), learning disability (12.6 v 4.5%,  $p=0.01$ ), or parenting issues (6.8 v 1.4%,  $p<0.05$ ). Fewer nonASD children had cognitive delay (26.2 v 43.6%,  $p<0.01$ ). Sleep problems were prevalent in both groups (22.3 v 14.9%,  $p=NS$ ). 15.5% nonASD children had motor delay, 17.5% had externalizing conditions.

**Conclusion:** Almost 1 in 3 children referred with concern for ASD were not diagnosed or suspected of having an ASD by DBPs. They are demographically similar to those diagnosed with ASD, have fewer socialization concerns, but similar proportions have language delay & sleep problems. Children with ASD concerns who don’t receive an ASD diagnosis have more difficulty with attention, hyperactivity, anxiety, learning and parenting, but less cognitive delay than those diagnosed with ASD.

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