

ADHD and Sleep Disordered Breathing in the Pediatric Population – Comparing Real World Prevalence to Literature Estimates

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Background/Objective: Literature has demonstrated a bidirectional relationship between attention-deficit hyperactivity disorder (ADHD) and sleep disordered breathing (SDB) in the pediatric population. SDB is a term used to describe a range of disorders that impact and interrupt ventilation patterns during sleep. ADHD and SDB have overlapping symptoms such as inattention, impulsivity, hyperactivity, cognitive impairments, and behavior problems. It is important to recognize SDB in children, as it has been associated with hypertension, cardiovascular disease, atrial fibrillation, growth failure, and negatively impacted school performance. Previous studies estimate a 25 to 57% incidence of SDB in children and adolescents diagnosed with ADHD. The primary goal of this study was to evaluate if the prevalence of SDB in children diagnosed with ADHD, as recorded in a national electronic medical record database, is consistent with previous studies.

Methods: Data was obtained from the [IU School of Medicine-Evansville](#) RWEdataLab ([CRC/Sidus Insights](#)) Psychiatry dataset, which contains de-identified records across the United States from 4.89 million patients with psychiatric diagnoses. Selection criteria included patients currently less than 20 years of age with both an ADHD diagnosis and a SDB diagnosis. Primary retrospective analysis compared patients with an ADHD diagnosis to patients with ADHD+SDB diagnoses.

Results: 68,259 patients < 20 years of age were diagnosed with ADHD. 1,959 patients also had a SDB diagnosis, indicating a prevalence of 2.87%. 72.79% of individuals with both diagnoses had ADHD as their first recorded diagnosis or had both ADHD and SDB diagnoses first recorded on the same date.

Conclusion and Potential Impact: Prevalence of SDB in children with ADHD was found to be substantially lower than estimated literature prevalence of 25 to 57%. Future research is necessary to identify if current practitioners are regularly screening for SDB in children with ADHD.