Has the attention deficit hyperactivity disorder phenotype become more common in children between 2004 and 2014? Trends over 10 years from a Swedish general population sample

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Abstract

Background

Studies have reported increases in clinically diagnosed and treated attention deficit hyperactivity disorder (ADHD) during the last decade, but it is unclear if this reflects an increase in the underlying ADHD phenotype. We aimed to clarify if there has been an increase in the prevalence of ADHD-like traits in the general population from 2004 to 2014.

Method

Data were collected from 9-year-old twins (19,271), participating in the population-based Child and Adolescent Twin Study in Sweden between 2004 and 2014. We assessed lifetime ADHD symptoms using the Autism-Tics, ADHD and other Comorbidities inventory. Research proxies for diagnostic-level ADHD and subthreshold ADHD were derived from this scale. We modeled the lifetime prevalence of diagnostic-level and subthreshold ADHD with logistic regression, and assessed mean ADHD scores each year with linear regression. Lifetime prevalence of clinically diagnosed ADHD was retrieved from the National Patient Register and modeled with logistic regression.

Results

The prevalence of diagnostic-level ADHD based on parent ratings did not differ significantly over time from 2004 to 2014 (OR 1.37; 95% CI: 0.77–2.45; p-value .233). Both subthreshold ADHD and mean ADHD scores increased significantly over time (both p-values <.001). Clinically diagnosed ADHD increased more than fivefold from 2004 to 2014 (OR 5.27, 95% CI: 1.85–14.96).

Conclusions

We found no evidence of an increase in ADHD-like traits at the extreme end of the distribution from 2004 to 2014, but small increases in normal and subthreshold variations of ADHD-like traits were observed. This suggests that the increased rates of clinically diagnosed ADHD might reflect changes in diagnostic and treatment practices of ADHD, administrative changes in reporting diagnoses, greater awareness of ADHD, better access to healthcare, or current overdiagnosis, rather than an increase in the ADHD phenotype.