Attention-Deficit/Hyperactivity Disorder (ADHD): Interaction between socioeconomic status and parental history of ADHD determines prevalence

Andrew S. Rowland; Betty J. Skipper; David L. Rabiner; Fares Qeadan; Richard A. Campbell; A. Jack Naftel; David M. Umbach

Journal of Child Psychology and Psychiatry, 2018
DOI: https://doi.org/10.1111/jcpp.12775

Abstract

Background
Many studies have reported a higher prevalence of Attention-Deficit/Hyperactivity Disorder (ADHD) among disadvantaged populations, but few have considered how parental history of ADHD might modify that relationship. We evaluated whether the prevalence of ADHD varies by socioeconomic status (SES) and parental history of ADHD in a population-sample of elementary school children age 6–14 years.

Methods
We screened all children in grades 1–5 in 17 schools in one North Carolina (U.S.) county for ADHD using teacher rating scales and 1,160 parent interviews, including an ADHD structured interview (DISC). We combined parent and teacher ratings to determine DSM-IV ADHD status. Data analysis was restricted to 967 children with information about parental history of ADHD. SES was measured by family income and respondent education.

Results
We found an interaction between family income and parental history of ADHD diagnosis (p = .016). The SES gradient was stronger in families without a parental history and weaker among children with a parental history. Among children without a parental history of ADHD diagnosis, low income children had 6.2 times the odds of ADHD (95% CI 3.4–11.3) as high income children after adjusting for covariates. Among children with a parental history, all had over 10 times the odds of ADHD as high income children without a parental history but the SES gradient between high and low income children was less pronounced [odds ratio (OR) = 1.4, 95% CI 0.6–3.5].

Conclusions
Socioeconomic status and parental history of ADHD are each strong risk factors for ADHD that interact to determine prevalence. More research is needed to dissect the components of SES that contribute to risk of ADHD. Future ADHD research should evaluate whether the strength of other environmental risk factors vary by parental history. Early identification and interventions for children with low SES or parental histories of ADHD should be explored.