

Relative age and ADHD symptoms, diagnosis and medication: a systematic review

Holland J, Sayal K.

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Abstract

There is a growing international literature investigating the relationship between attention-deficit/hyperactivity disorder (ADHD) and younger relative age within the school year, but results have been mixed. There are no published systematic reviews on this topic. This study aimed to systematically review the published studies on the relative age effect in ADHD. Systematic database searches of: Medline, Embase, PsycINFO, Web of Science, ERIC, Psychology and Behavioral Sciences Collection and The Cochrane Library were conducted. Studies were selected which investigated the relative age effect in ADHD in children and adolescents. Twenty papers were included in the review. Sixteen (of 20) papers reported a significantly higher proportion of relatively younger children being diagnosed with ADHD and/or receiving medication for this. Meta-analyses involving 17 of these 20 papers revealed a modest relative age effect in countries with higher prescribing rates, risk ratio = 1.27 (95% CI 1.19-1.35) for receipt of medication. The relative age effect is well demonstrated in countries with known higher prescribing rates. Amongst other countries, there is also increasing evidence for the relative age effect, however, there is high heterogeneity amongst studies. Further research is needed to understand the possible reasons underpinning the relative age effect and to inform attempts to reduce it.