

Oppositional defiant disorder, conduct disorder and ADHD: A co-dependent relationship?

Liliana Marques and Jane McGrath

ADMIRE, ADHD Specialist Service, Linn Dara Child and Adolescent Mental Health Services, Ballyfermot, Dublin 10, Ireland
Corresponding author: Liliana Marques Email: Liliana.andre.marques@gmail.com

Introduction and Aims

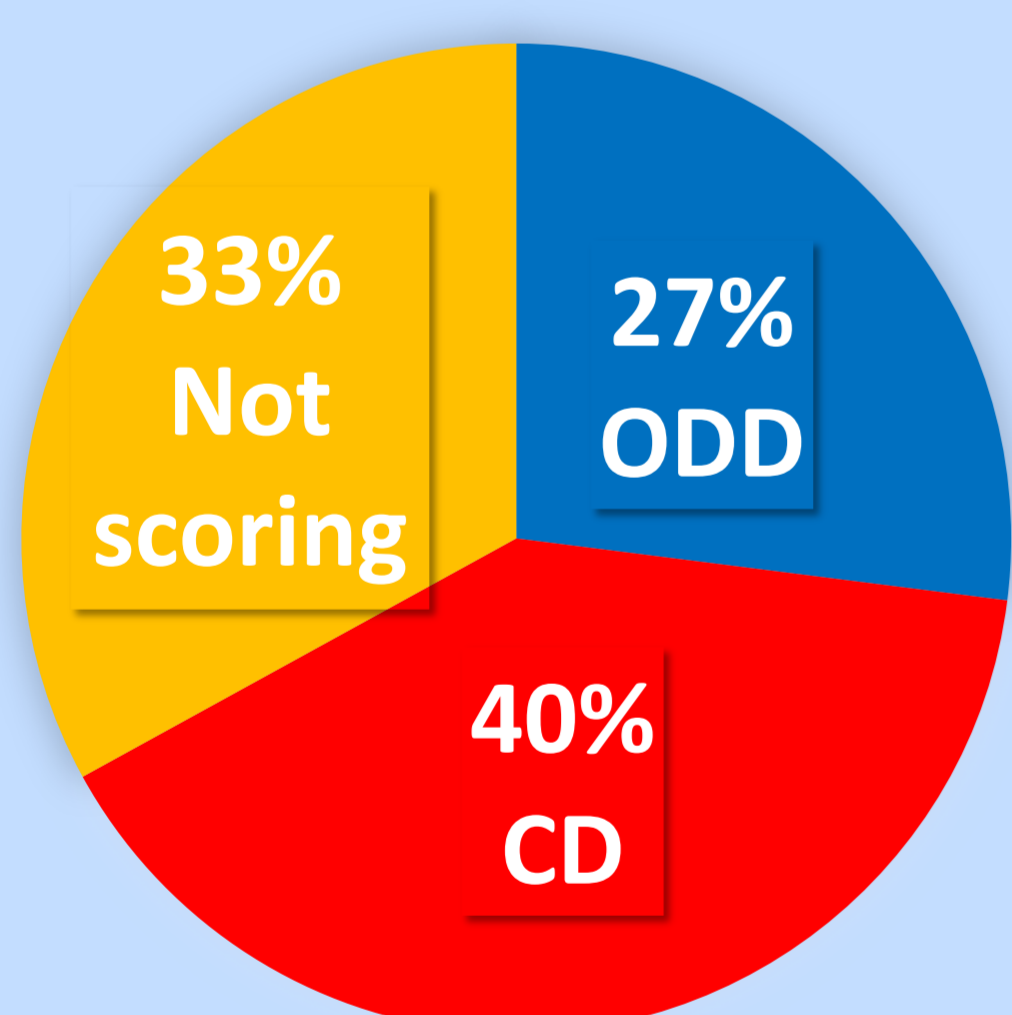
- Children and adolescents with ADHD often present with comorbid behavioural difficulties, particularly Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD).
- These disorders can significantly impact the affected individual's life in their family, school and social relationships.
- The global prevalence estimate for ODD ranges between 2 and 11%¹, and for CD is 8%².
- The prevalence of ODD / CD in young people with ADHD is poorly established.
- This study aims to establish the prevalence of ODD and Conduct Disorder traits in young people (YP) with ADHD attending ADMiRE, the first ADHD specialist service in the Irish public health system.

Methods

- A retrospective file review of all open cases in ADMiRE was completed in November 2022.
- For all YP with confirmed ADHD diagnosis (n=111), the following information was recorded: 1) Age 2) Sex 3) Socio-economic status 4) IQ 5) Conners T-scores for ODD and Conduct Disorder (Parents and Teachers report) 6) Scores on Social Responsiveness Scale 7) Whether there was a confirmed diagnosis of co-occurring Autism Spectrum Disorder.
- Data was analysed to determine the proportion of YP presenting with significant traits of ODD and CD in this population using Conners T-Scores (cut-off T-Score ≥ 60 in both parent and teacher Conners)³.
- The cohort was divided into three groups of individuals: 1) Those not scoring for behavioural difficulties 2) Those with significant traits of ODD 3) Those with significant traits of CD.
- Statistical analysis was conducted to investigate the impact of Age, Sex, Socioeconomic status and ASD diagnosis on Conners ODD / Conduct disorder scores.

Results

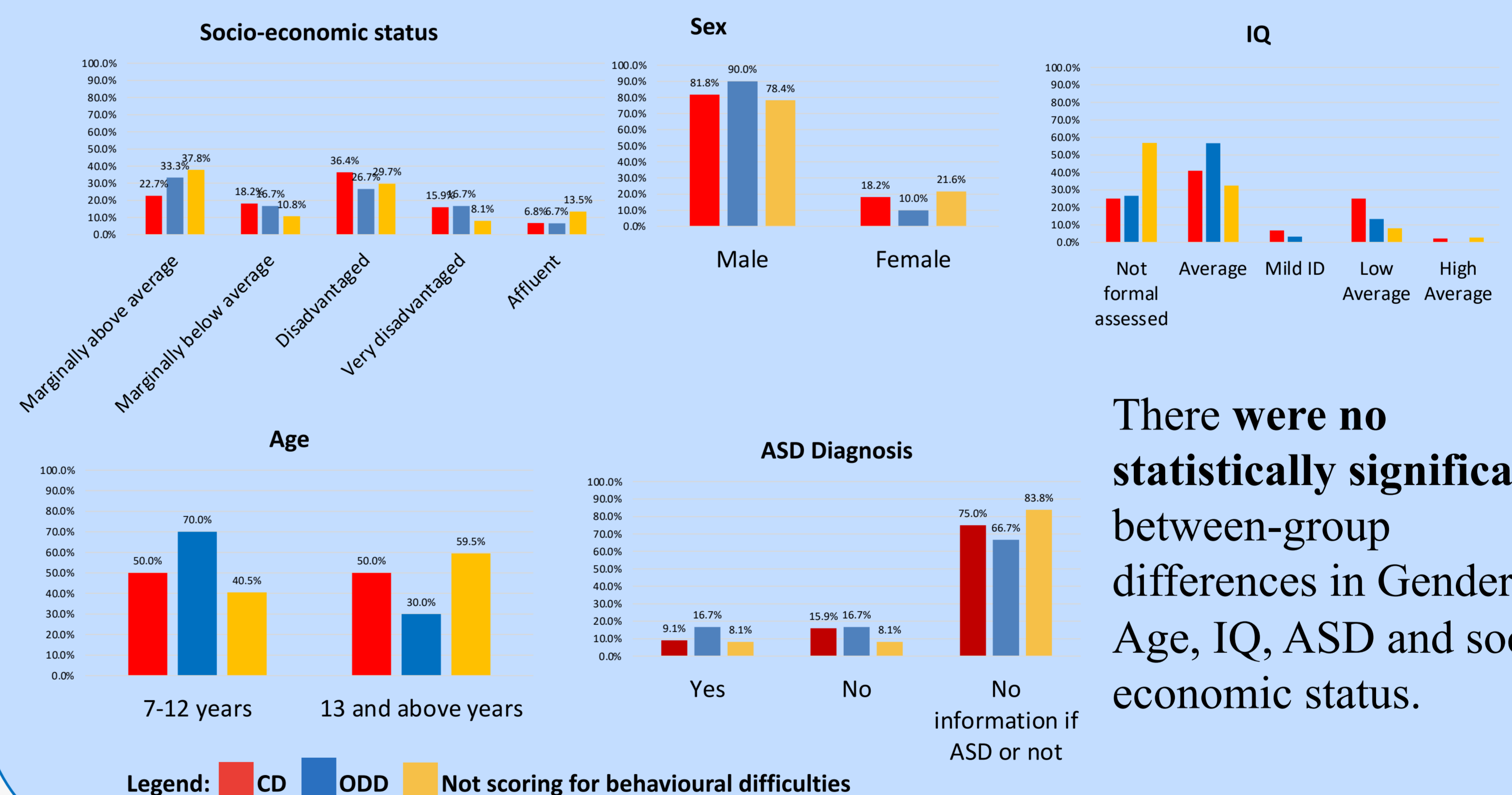
Proportion of YP presenting with significant traits of ODD/CD



- 27% had significant traits of ODD.
- This is **2.4 times higher** than the estimated prevalence of ODD in the general population.

- 40% had significant traits of CD. This is **5 times higher** than the estimated prevalence of CD in the general population.

Impact of factors on ODD/CD traits:



There were **no statistically significant** between-group differences in Gender, Age, IQ, ASD and socio-economic status.

Discussion and Future Directions

- This study found extremely high levels of ODD and CD traits in a population of young people with a formal diagnosis of ADHD.
- The prevalence of ODD traits in this study is 2.4 times higher than the highest prevalence estimate (11%) for a diagnosis of ODD in the general population and 5 times higher than the prevalence estimate for a diagnosis of CD in the general population (8%).
- When used to treat core symptoms of ADHD, stimulant medication has been shown to also lead to a significant reduction in oppositional behaviour and conduct problems⁴.
- Clinicians should be aware of the high co-occurrence of ODD / CD in young people with ADHD and should be aware of the important influence that stimulant medication can have in reducing behavioural difficulties.
- There is a need for more research in ODD, CD and ADHD to increase our understanding of how effective treatment of ADHD can positively impact on behavioural difficulties.

References:

1-Polanczyk et al.(2007).The Worldwide prevalence of ADHD: a systematic review and metaregression analysis. AM J Psychiatry. 2007 Jun; 164 (6):942-8. Doi:10.1176/app.164.6.942. PMID:17541055. 2- Mohammadi, R., Salmanian, M., & Keshavarzi, Z. (2021). The Global Prevalence of Conduct Disorder: A Systematic Review and Meta-Analysis. Iranian Journal of Psychiatry, 16(2), 205-225. 3- M.Aebi et al (2010). Predictability and construct validity of oppositional defiant disorder in children and adolescents with ADHD combined type, Psychological Medicine, 4- Pringsheim T, Hirsch L, Gardner D, Gorman DA. The pharmacological management of oppositional behaviour, conduct problems, and aggression in children and adolescents with attention-deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder: a systematic review and meta-analysis. Part 1: psychostimulants, alpha-2 agonists, and atomoxetine. Can J Psychiatry. 2015 Feb;60(2):42-51.