

## Can disruptive behaviors observed from age 1½ to 5 years predict children’s adjustment in first grade?

Disruptive behaviors (DB) embedded in psychiatric’ Diagnostic Statistical Manual (DSM) categories of Attention - Deficit/Hyperactivity Disorder ( ADHD ), Oppositional Defiant Disorder ( ODD ), and Conduct Disorder ( CD ) are the most frequent behavior disorders in childhood and adolescence. Moreover, disruptive behaviors in childhood have been associated with a wide variety of health and adjustment problems in adulthood, such as depression, substance abuse and dependence, criminal behavior, unemployment, and relationships and family problems. Importantly, comorbidity – or the co-occurrence - among disruptive behaviors is frequent in childhood and leads to a higher likelihood of subsequent adaptation problems. However, the early developmental origins of this comorbidity before school entry have so far received little attention. This study investigated the developmental comorbidity of three common types of disruptive behaviors during the preschool period: hyperactivity-impulsivity, non-compliance, and physical aggression. Specifically, trajectories describing the development of these behaviors both separately and jointly between the ages of 1½ to 5 years were identified based on annual mother interviews in 2045 families from a population-representative birth-cohort.

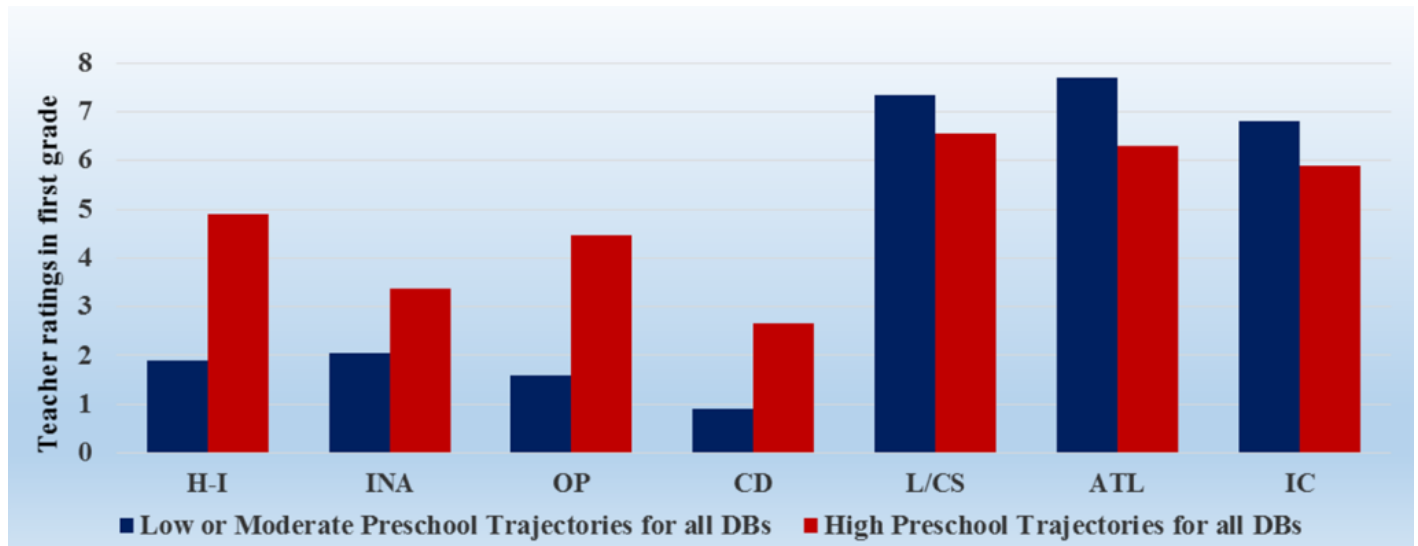


Fig. 1. Significant Associations between Comorbid Preschool Trajectories of Disruptive Behaviors and Children’s

School Adjustment in First Grade.

Teacher ratings categories are H-I: Hyperactivity-impulsivity; INA: Inattention; OP: Opposition; CD: Conduct Disorder; L/CS:

Language and cognitive skills; ATL: Attitude toward learning; IC: Implication in the classroom.

Results showed that a significant proportion of children consistently displayed high levels of hyperactivity-impulsivity (13.4%), non-compliance (20.5%), or physical aggression (16.0%) from age 1½ to 5 years. Developmental comorbidity between these different behaviors was frequent: 1) none of the children who followed a high trajectory for one type of behavior were on a low trajectory for another category, 2) the majority (51.1%) of children following a high trajectory for one disruptive behavior also followed a high trajectory for one or two other behaviors, and 3) 10% of boys and 3.7% of girls were on a stable trajectory with high levels of the three categories of disruptive behavior throughout the preschool period.

Significant associations were observed between preschool joint-trajectories of disruptive behavior and indicators of disruptive behavior and school adjustment assessed by teachers in first grade (Fig. 1). Preschoolers who maintained high levels of hyperactivity-impulsivity, non-compliance, and physical aggression according to their mother's evaluation, displayed the highest number of disruptive behaviors at the end of first grade for all categories according to their teacher. Compared to their peers who followed trajectories showing consistent lower levels of disruptive behaviors in preschool, highly disruptive children obtained in average ratings 2.6 times higher for hyperactivity-impulsivity, 2.8 times higher for non-compliance, and 3.0 times higher for conduct disorder from their first grade teacher. They also obtained lower evaluation from their teacher than their peers from lower preschool trajectories for the school adjustment indicators of language and cognitive skills (10.4% lower), attitude toward learning (18.0% lower), and implication in the classroom (13.3% lower).

In conclusion, these results suggest that manifestations of disruptive behaviors and their developmental comorbidity are highly prevalent in infancy. Preschoolers who followed a high trajectory for any disruptive behavior usually displayed a high level already at age 1½ year and were likely to follow a high trajectory for more than one category of these behaviors up until age 5 years. Thus, early childhood appears to be a critical period to prevent persistent and comorbid disruptive behaviors that lead to impairment at the very beginning of school attendance, and to long-term serious health and social adjustment problems.

## Publication

[Comorbid Development of Disruptive Behaviors from age 1½ to 5 Years in a Population Birth-Cohort and Association with School Adjustment in First Grade.](#)

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