Examination of Aggression and Self-injury in Children with Autism Spectrum Disorders and Serious Behavioral Problems

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KEYWORDS

• Aggression • Self-injury • Autism • Disruptive behavior

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KEY POINTS

- Aggression and self-injurious behavior (SIB) are common in children with autism spectrum disorder (ASD) and impair adaptive function.
- Typologies such as proactive (cold) aggression and reactive (hot) aggression have been described, but not previously applied to ASD.
- This study identified subtypes of aggression in a sample of 206 children with ASD (aged 5–17 years) who participated in 2 risperidone trials conducted by the Research Units on Pediatric Psychopharmacology Autism Network.
- Five subtypes emerged: hot aggression only, cold aggression only, SIB only, aggression and SIB, and nonaggression. However, these groups are not mutually exclusive because children may show aggression or SIB in different categories.
- Despite some differences in clinical characteristics across subtypes, all groups showed a positive response to risperidone.

INTRODUCTION

Pervasive developmental disorders (PDDs) are lifelong neurodevelopmental conditions characterized by impairments in social interaction and communication skills, as well as repetitive behavior and unusual preoccupations.[1] In Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V), the former diagnostic classifications of autistic disorder, PDD–not otherwise specified (PDD-NOS) and Asperger disorder will be collapsed into a single category called autism spectrum disorder (ASD), reflecting their common features and potentially shared causes. Recent estimates of prevalence indicate that ASDs affect as many as 110 per 10,000 children.[2]

In addition to the core symptoms, children with ASDs may have other problems including tantrums, aggression, self-injury, hyperactivity, anxiety, or rapid changes in mood.[3] The prevalence of aggressive behavior in this population varies widely depending on the source of sample and method of assessment.[4–8] Whether directed toward the self or others, aggression may result in injury and distress for the child and caregivers. Aggression is a common chief complaint of parents and educators.[9] Behavioral treatment of aggression can be challenging, expensive, and often requires expertise that may not be available in all communities.[10] Although 2 atypical antipsychotic medications, risperidone and aripiprazole, are approved by the US Food and Drug Administration (FDA) for the treatment of irritability (tantrums, aggression, and self-injury), these medications are associated with short-term and long-term adverse effects.[5,11–13] In addition, medication withdrawal of risperidone after 6 months of effective treatment resulted in the rapid return of disruptive behaviors.[14]

Pharmacologic studies on the treatment of aggression generally do not discriminate between types of aggressive behaviors.[12,15,16] The randomized, controlled risperidone and aripiprazole trials that led to FDA approval enrolled children with autistic disorder with any combination of tantrums, aggression, and self-injury as measured by the Aberrant Behavior Checklist (ABC) Irritability subscale.[12,17–19] Although the term irritability implies an affective component, these studies did not evaluate the context of the tantrums, aggression, and self-injury. In contrast, behaviorists are focused on the context or the function of the behavior.[20] For example, the function of an aggressive outburst may be to obtain a tangible object (food or a preferred object) or to escape an environmental demand (getting dressed). Self-injury (aggression directed at the self) occurs in some children with ASDs and may occur with or without externally