



Prevalence and Correlates of Aggression in Children and Adolescents with Autism Spectrum Disorders

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The leaders in clinical care of children and adolescents with autism.

Abstract

Aggression is a clinically significant problem for many children and adolescents with autism spectrum disorders (ASD). However, there have been few large-scale studies addressing this issue. The current study examined the prevalence and correlates of physical aggression in a sample of 1584 children and adolescents with ASD enrolled in the Autism Speaks Autism Treatment Network.

The prevalence of aggression was 53%, with highest prevalence among young children. Aggression was significantly associated with a number of clinical features, including self-injury, sleep problems, sensory problems, GI problems, communication and social functioning. In multivariate models, self-injury, sleep problems, and sensory problems were most strongly associated with aggression.

Introduction

- Aggression has serious negative consequences.
- Few large-scale studies have examined the prevalence of aggression in children with ASD.
- Few studies have focused on specific clinical features that may relate to aggression, including:
 - Factors associated with aggression in the general population (e.g., age, sex, IQ, parental education, communication & social skills)
 - Symptoms that often co-occur with ASD (e.g., GI problems, sleep problems, & self-injurious behavior)

Objectives

- 1) To examine the prevalence of aggression in a large, well-characterized sample of children with ASD
- 2) To examine whether children with aggression differed from those without aggression in demographic, functional, or symptomatic factors.

Collaborating with the ATN

To obtain access to the ATN Custom Forms or for information on collaborative research activities, please go to: www.autismspeaks.org/atn

Methods

Participants:

1,584 children and adolescents (ages 2-17) with ASD enrolled in Autism Speaks Autism Treatment Network, a large North American multi-site network of 17 autism centers.

Data were collected at enrollment into the clinical registry.

Measures:

ATN Parent Survey (*parents reported whether symptoms were currently present; “Yes” or “No”*)

- Physical Aggression
- Self-Injury
- GI Problems

Parent Report Measures:

- Vineland Adaptive Behavior Scales, 2nd Ed.
- Children’s Sleep Habits Questionnaire (CSHQ)
- Short Sensory Profile (SSP)

Performance Measures

- Autism Diagnostic Observation Schedule
- Full Scale IQ

Results

Sample Characteristics and Group Comparisons^a

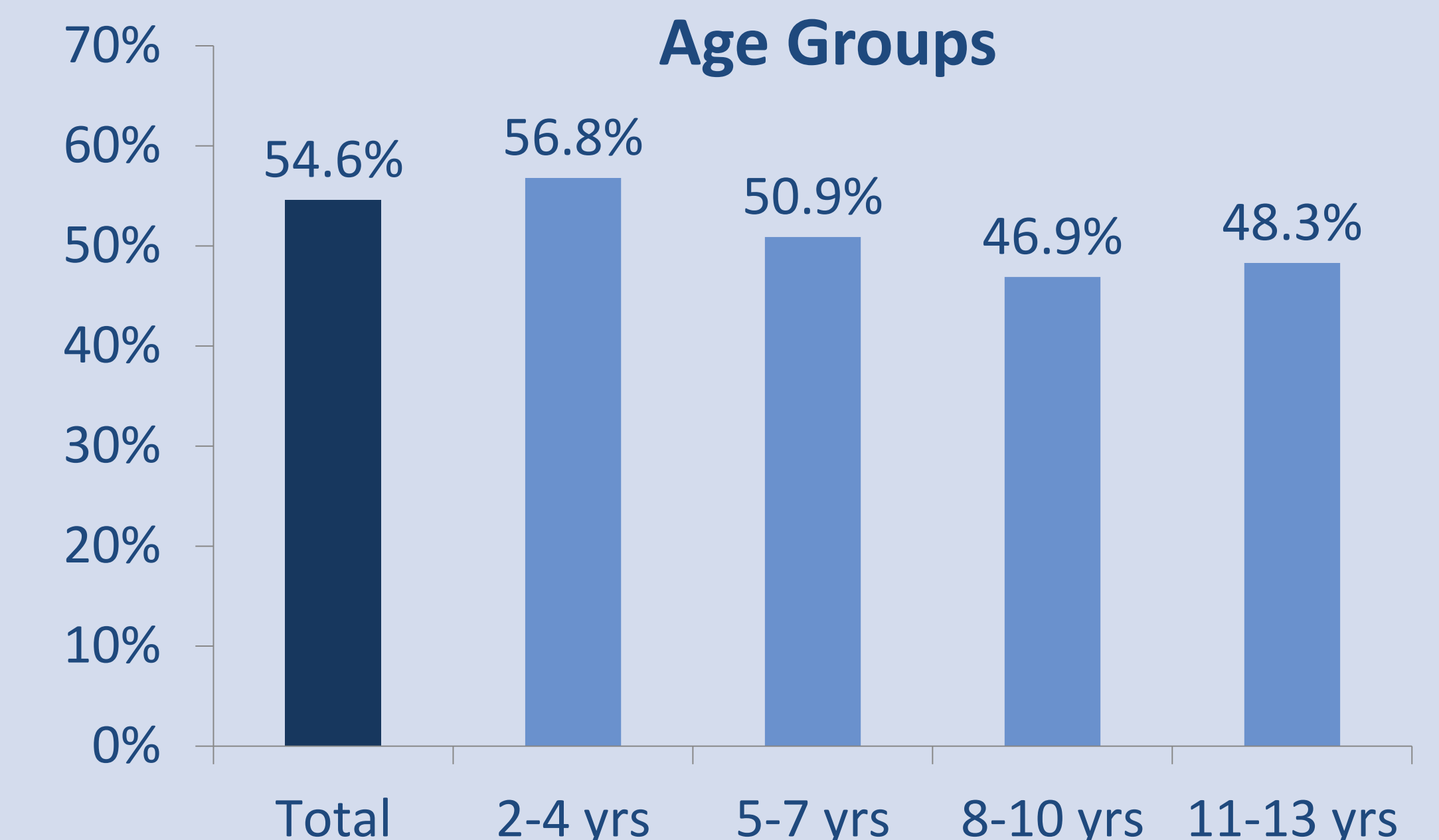
Variable	Total Sample (n = 1584)	Aggression ^b (n = 851)	No Aggression (n = 733)	<i>p</i>
Age	5.9 (3.4)	5.7 (3.3)	6.1 (3.6)	.026
IQ	76.3 (23.9)	76.0 (23.6)	76.7 (24.2)	.58
Sex (% male)	83.5%	84.4%	82.4%	.29
Parent Education (%≤HS)	14.1%	16.5%	11.5%	.001
Verbal Status (%Nonverbal)	55.7%	46.1%	42.3%	.13
Vineland Communication	73.9 (16.0)	72.5 (15.8)	75.5 (16.1)	<.001
Vineland Socialization	75.6 (14.5)	74.2 (14.6)	77.1 (14.2)	<.001
Sensory Problems (SSP)	130.6 (24.1)	125.7 (22.6)	136.4 (24.5)	<.001
Sleep Problems (CSHQ)	48.1 (9.4)	50.0 (9.9)	45.9 (8.3)	<.001
Self Injury (% present)	35.6%	51.8%	16.8%	<.001
GI Problems (% present)	43.3%	54.5%	38.9%	<.001

^aGroup comparisons were conducted with chi-square tests for categorical variables, and ANOVA for continuous variables

^bAggression was defined as present/absent based on the ATN Parent Survey (“intentionally hits, bites others, etc.”)

Results

Percentage with Aggression Across Age Groups



Results

Cross-Sectional Predictors of Aggression: Forward Stepwise Logistic Regression

Predictor	<i>B</i>	<i>p</i>	OR
Age	-.033	.043	.97
Self Injury	1.47	<.001	4.36
Sleep Problems	.027	<.001	1.03
Sensory Problems	-.013	<.001	.99

**Variables not retained included parent education, GI problems, Vineland Communication & Socialization*

Conclusions

- Aggression is markedly prevalent in children and adolescents with ASD
- Co-occurring problems are strongly associated with aggression, particularly self-injury, sleep problems, and sensory problems
- Further research is needed to examine the longitudinal course & predictors of aggression in children with ASD

Acknowledgements

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