PREVALENCE OF ANXIETY SYMPTOMS IN YOUTH WITH **AUTISM SPECTRUM DISORDER**

Christina Carrier & Adrienne Perry

York University, Toronto, ON



BACKGROUND

- Recent systematic reviews and meta-analyses (e.g., Lai et al., 2019, van Steensel et al., 2011) reveal that psychiatric comorbidities are highly prevalent in youth with Autism Spectrum Disorder (ASD), particularly anxiety disorders
- However, reported prevalence rates of anxiety in youth with ASD vary from 7.5 to 84% (van Steensel et al., 2011)
- The variation in prevalence rates may result from:
- Sample differences (e.g., variation in sex, age, and IQ across studies)
- Difficulty distinguishing anxiety and ASD symptoms
- Use of different assessment methods for anxiety (e.g., structured diagnostic interviews vs. questionnaires completed by different informants such as parents or teachers)

PURPOSE

- Report the % of significant anxiety symptoms among a large, heterogenous sample of youth with ASD
- Report the % in subgroups within the sample based on sex, age, and IQ
- Compare parent and teacher perspectives

METHODS

Database

Secondary analyses of data from the Simons Foundation for Autism Research Initiative (SFARI), specifically the Simons Simplex Collection dataset (Gotham et al., 2013) collected from 24 North American sites

Participants (N = 2,745)

	Sample Characteristics
Age	Early childhood (4-5:11 years): $n = 635$ Middle childhood (6-10:11 years): $n = 1,358$ Adolescence (11-18 years): $n = 752$
Sex	Males ($n = 2,373$) Females ($n = 372$)
IQ	No Intellectual Disability (ID): $n = 1,408$ Borderline: $n = 508$ Mild/moderate ID: $n = 533$ Severe/profound ID: $n = 296$

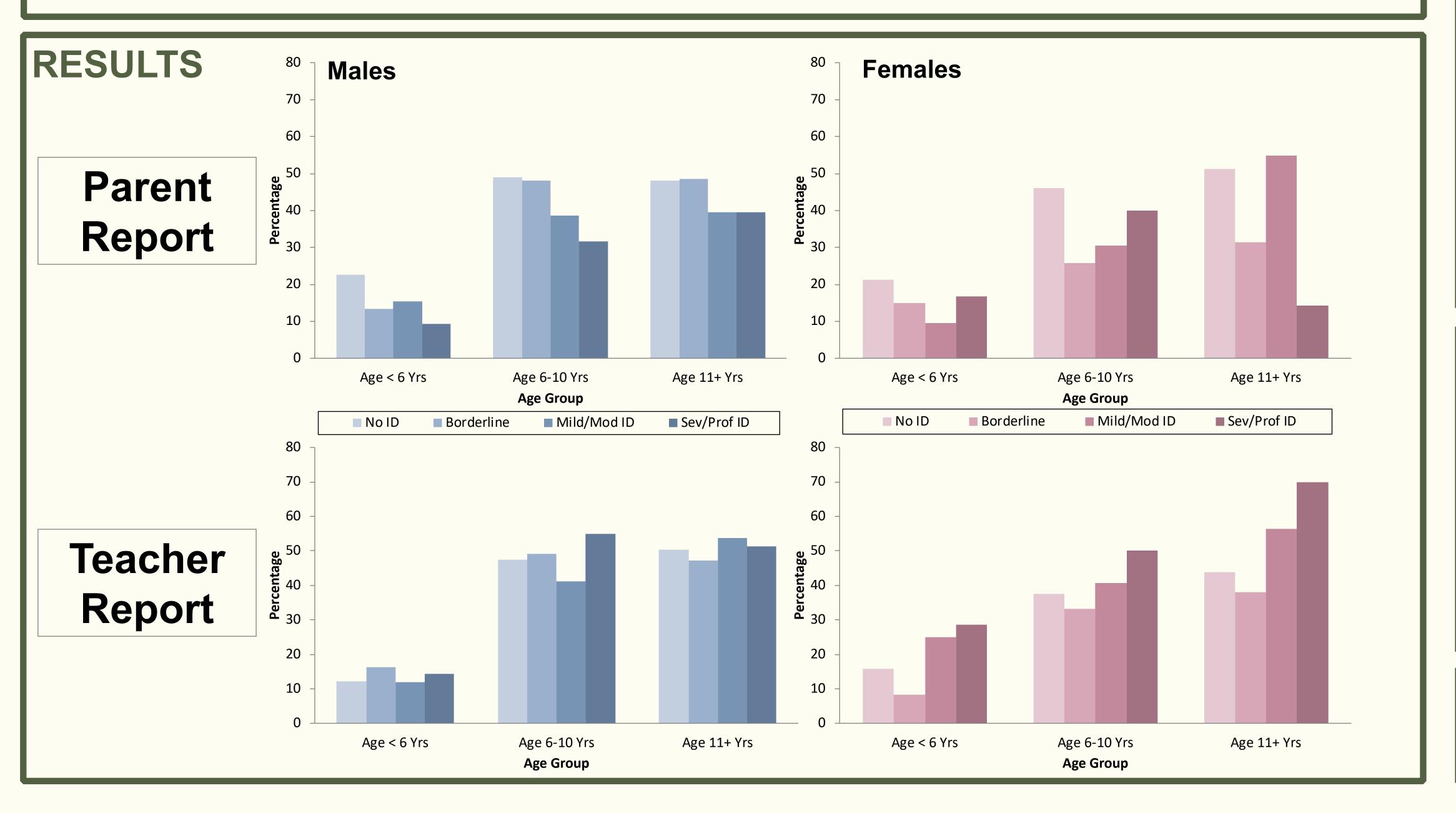
Measures

Achenbach System of Empirically Based Assessment (ASEBA) forms

- Anxiety scores based on the Anxiety DSM-oriented scale of the:
- Child Behaviour Checklist for ages 1.5-5 or 6-18 years (parents) n=2,743
- The Caregiver-Teacher Report (ages 1.5-5) or Teacher Report Form (ages 6-18) (teachers) n=1,234
- Anxiety operationalized as T scores ≥ 65 (borderline+clinical range)

IQ Level

Range of different IQ tests (DAS, Stanford-Binet, etc.)



RESULTS

Sex?

Parent Ratings:

- 33% Females
- 39% Males

 $\chi^2(1)=4.41, p<.05$ Males > females

Teacher Ratings: 37% Females

- 39% Males
- No sex difference between males and females

combined across all IQ and age groups

 $(\chi^2(1)=0.33, p=.564)$ Early < middle = adolesc.

Age?

Parent Ratings:

- 18% Early Childhood
- 44% Middle Childhood
- 45% Adolescence

 $\chi^2(2)=145.59$, p<.001

Teacher Ratings:

- 14% Early Childhood
- 46% Middle Childhood
- 51% Adolescence

 $\chi^2(2)=119.53, p<.001$ Early < middle = adolesc.

Did Anxiety Rates Differ by...?

Informant?

Parent Ratings:

- 43% No ID
- 38% Borderline
- 33% Mild/Moderate ID
- 37% Mild/Moderate ID

IQ?

- 28% Severe/Profound ID
 45% Severe/Profound ID

Teacher Ratings:

39% Borderline

• 38% No ID

 $\chi^2(3)=31.42, p<.001$ No ID > Mild/Mod ID No ID > Sev/Prof ID

Borderline > Sev/Prof ID

No significant difference among IQ groups $(\chi^2(3)=2.84, p=.417)$

Parents vs. Teachers:

- 38% Parents Overall
- 39% Teachers Overall

No significant difference in actual *T* scores for those with both parent and teacher report (t = 1.66, p=.097):

- \circ Parents: M = 60.30, SD = 9.17
- \circ Teachers: M = 60.78, SD = 7.99

DISCUSSION

- A significant percentage of youth with ASD in this sample display anxiety symptoms (~38%)
- Parent and teacher reports of anxiety rates are similar, however, parents and teachers may not be identifying the same children as having anxiety symptoms
- Overall, based on the subgroups:
- Both males and females have similar rates of anxiety (although male rates are slightly higher according to parent report)
- Adolescents have higher rates of anxiety compared to younger children
- Youth with no ID have higher rates of anxiety compared to other IQ groups according to parent report, however, youth with severe/profound ID have higher rates of anxiety according to teacher report

LIMITATIONS

- . The ASEBA forms have not been validated with an ASD population; therefore, there is a lack of validity data on the anxiety DSMoriented scale of the forms in youth with ASD (Gotham et al., 2013; South et al., 2017; Vasa et al., 2013) → may inadvertently miss symptoms of anxiety in youth with ASD because anxiety may present differently in this population (e.g., repetitive behaviour exacerbation) (White & Roberson-Nay, 2009)
- 2. The ASEBA forms are neither a comprehensive measure of anxiety nor a specific anxiety measure compared to other studies in the literature \rightarrow it's inconclusive whether these forms can accurately identify anxiety (Gotham et al., 2013; Vasa et al., 2013)
- 3. The present study lacks a control group of youth without ASD experiencing anxiety > limits our understanding of the similarities and differences between youth with and without ASD, which would further illustrate the impact of anxiety on this population (Factor et al., 2017)

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