

CBT Treatment for Youth with ASD and Anxiety

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Thanks to...

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Psychiatric Comorbidity in ASD

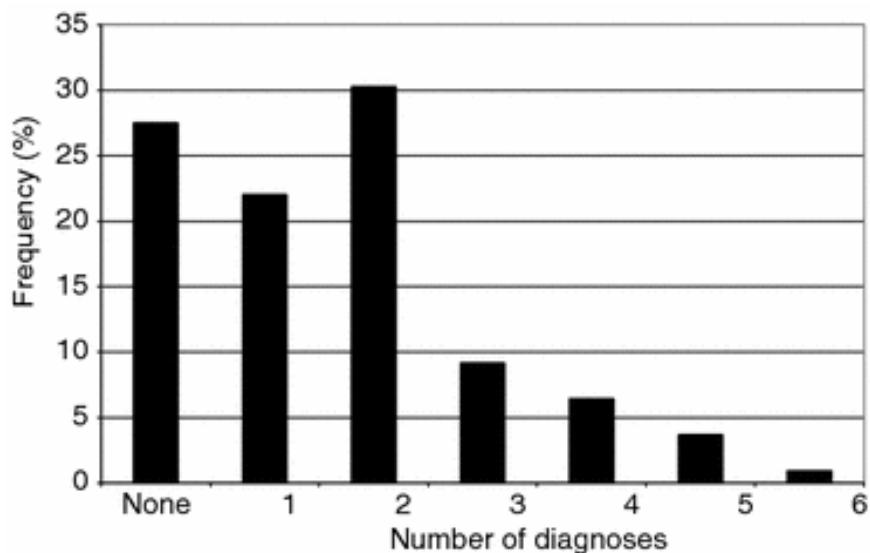
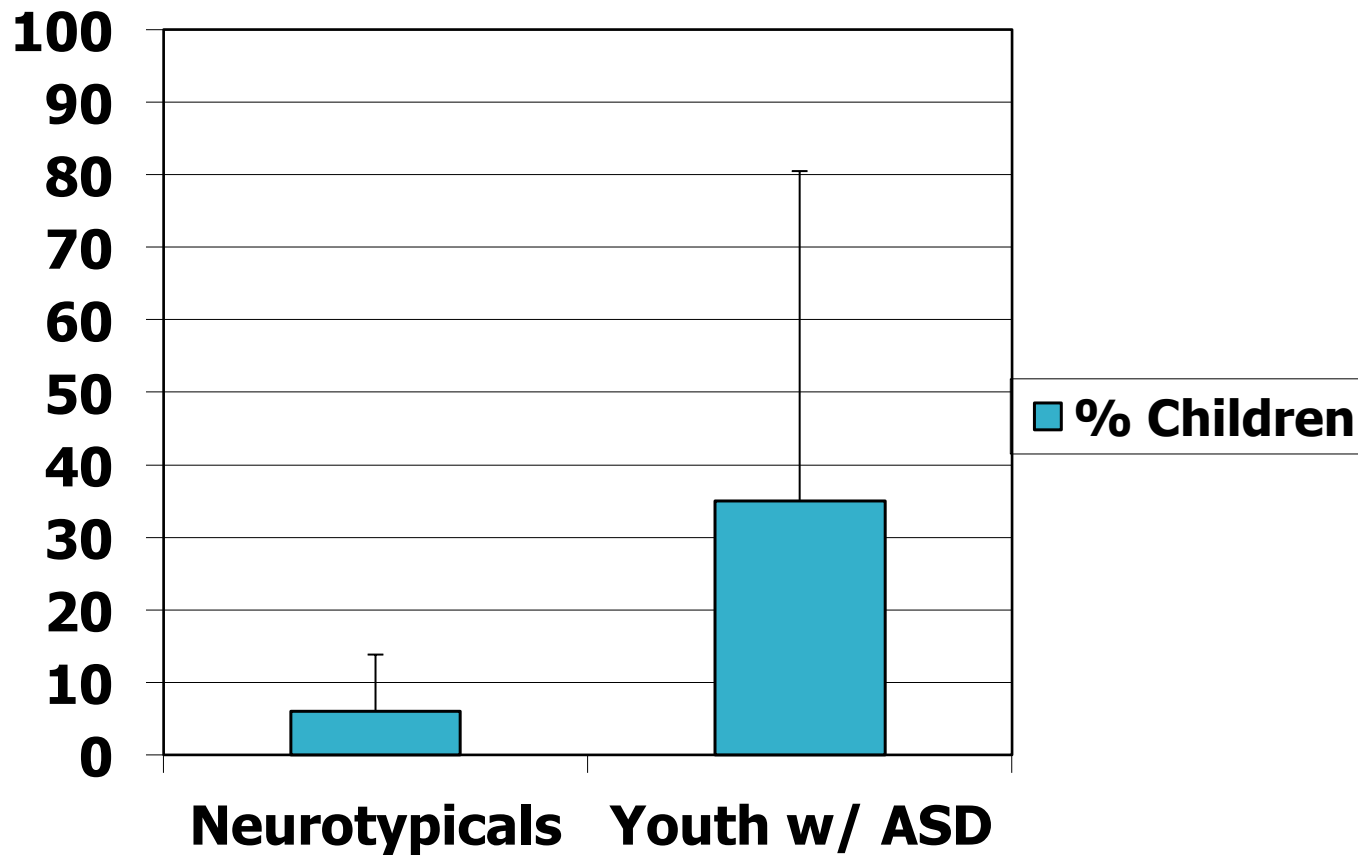


Fig. 1 Frequency of the number of comorbid lifetime psychiatric diagnoses per child with autism. Only DSM-IV diagnoses are included (Leyfer et al. 2006)

Anxiety is Common in Autism Spectrum Disorders (ASD)



What Types of Anxiety? Validity?

- ▶ Studies of youth with ASD have consistently found heightened rates of:
 - Separation anxiety
 - Social anxiety
 - Generalized anxiety
 - Phobias
 - Trait anxiety
 - OCD symptoms
- ▶ Emerging evidence of construct validity of anxiety in ASD in our research:
 - Convergent/discriminant validity (Renno & Wood, 2014)
 - Factorial equivalence (White... & Wood, 2015)
 - Elevated baseline skin conductance (Sterling et al. 2015)
 - Elevated diurnal cortisol levels (Renno et al., 2015)
 - Linkage with ASD-related stressors (Renno, 2014)
 - Expected treatment response (Wood et al., 2015)

Understanding the Linkage

- ▶ **Common neurocognitive mechanisms.**
 - ▶ Executive functioning deficits are characteristics of autism and a number of psychiatric disorders (anxiety, ADHD, etc.) (Geurts et al., 2004)
 - ▶ Poor attention shifting and executive dysfunction underlies both prolonged negative emotion (anxiety).
- ▶ **Other traits and their biological substrates that serve as vulnerabilities for psychiatric disorder may be more common in ASD, too.**
 - For example, genetic factors that are markers of negative affectivity/anxiety in typical youth are also present in children with ASD and anxiety; e.g. dopaminergic gene polymorphisms such as DAT1 intron8; serotonin transporter 5-HTTLPR.
(Colan et al., 2003; Gadow et al., 2014, 2008, 2009, 2010; Roohi et al., 2009)

At Least 2 Roads to Anxiety

- ▶ 1. A child with ASD who is primarily dysregulated in general (e.g., broad executive function impairments) producing emotional dysregulation across the spectrum including fear, anger, frustration, joy, etc.
- ▶ 2. A child with ASD and more focal anxiety (e.g., secondary to high amygdala output and/or specific learning experiences and/or stressors that selectively increase anxiety but not necessarily other emotional reactions)

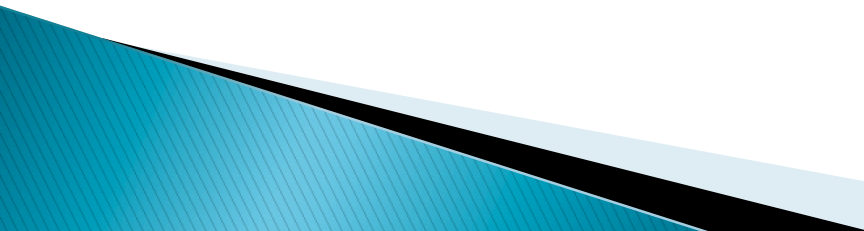
BIACA Intervention (Behavioral Interventions for Anxiety in Children with Autism)

- ▶ 16 weekly outpatient meetings, 90 minutes each
 - 45 minutes with the youth
 - 45 minutes with the parents and/or family
 - Core focus: coping with anxiety and facing fears
- ▶ Optional school visits & consultations

Modifications to CBT

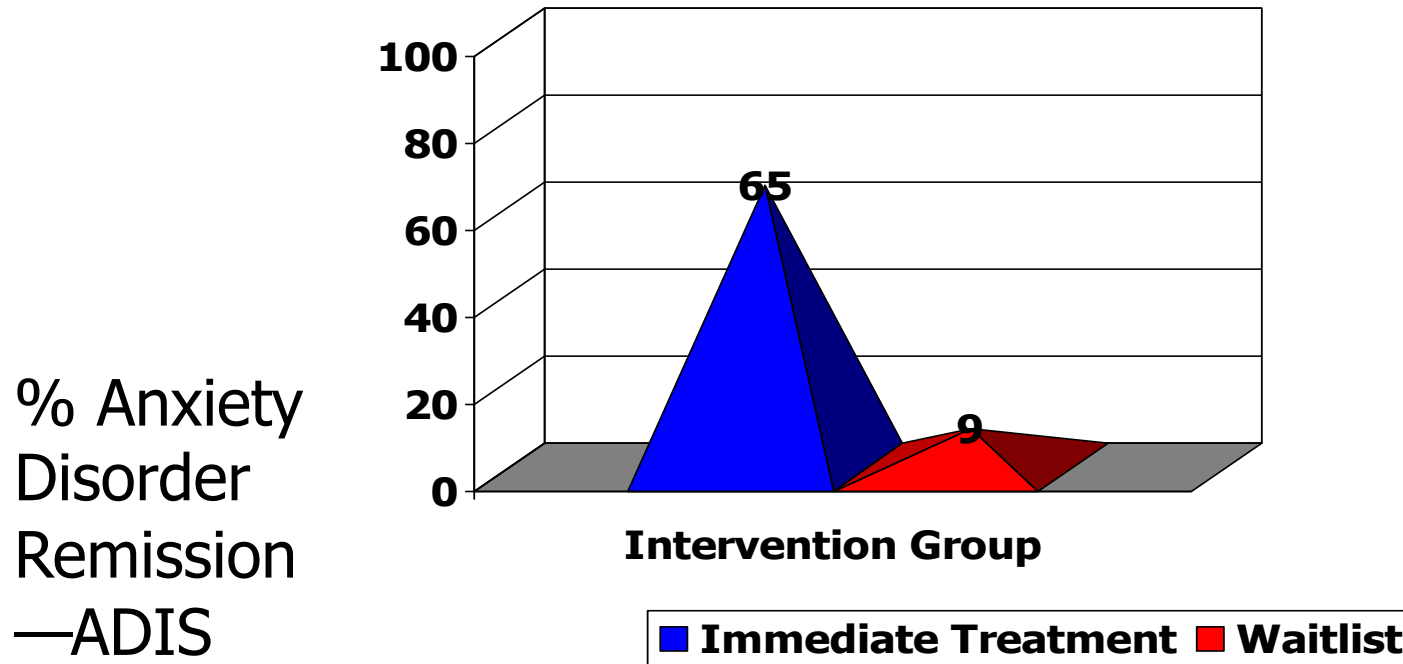
- ▶ Adaptations to a CBT program (Wood & McLeod, 2008) were based on research & clinical experience in ASD.
 - Broaden hierarchy to include social communication, repetitive behaviors, and undercontrolled behaviors
 - Partially reverse cognitive and behavioral elements
 - Playdates, peer “buddy” programs at school
 - “Social coaching” at home and school
 - Large scale rewards system; home–school note
 - Using visual stimuli and special interests

Parent's Role

- ▶ Administer reward system consistently
 - ▶ Encourage / remind about daily tasks (exposures and social practicing)
 - ▶ Overseeing playdates, promoting good hosting
 - ▶ Social coaching as philosophy all day long
 - ▶ Modeling adaptive thoughts and social behavior
 - ▶ Interfacing with school on home-school note
 - ▶ Promoting independence in daily self-help skills and providing related positive feedback
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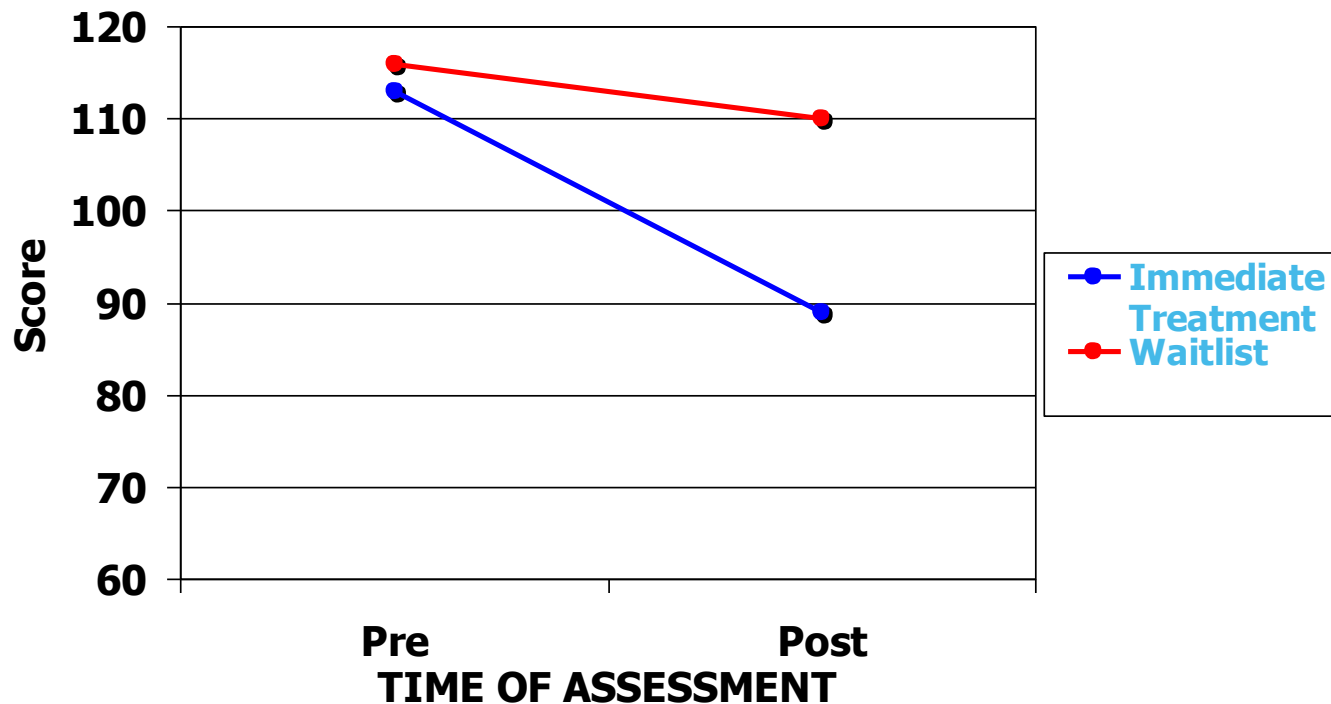
First Study (N = 40, 7–11 year olds)

Diagnostic Remission (Wood et al., 2009)



$$\chi^2 [1] = 12.28, p < .0001$$

First Study, Social Responsiveness Scale



N = 19

$F(1,16) = 5.39, p < .05;$

ES = .76

Early Adolescent Study Design

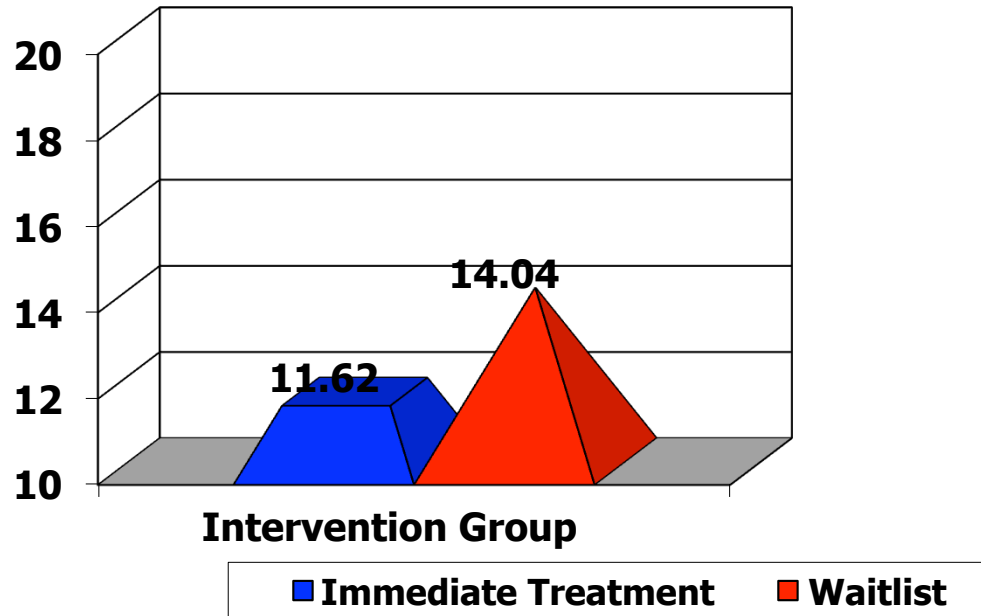
- ▶ 33 youth and their parents
- ▶ Ages range from 11 to 15 years
- ▶ 17 youth at the University of Southern Florida (USF) (11 males, 6 females) and 16 youth at the University of California – Los Angeles (UCLA) (12 males, 4 females)
- ▶ All youth had estimated or WISC full scale scores ≥ 70 .
- ▶ Met criteria for at least PDD on ADI-R
- ▶ Youth randomly assigned to immediate treatment or 3-month waitlist
- ▶ Independent evaluators blind to treatment condition conduct diagnostic interviews at pre- and post-treatment and make CGI ratings of treatment response at post

Sample Characteristics

	IT No. (%) n = 19	WL No. (%) n = 14
Youth sex (male)	13 (68)	10 (71)
Youth age	12.4 (SD = 1.3)	12.2 (SD = .98)
Autism spectrum disorders		
Autistic disorder	12 (63)	10 (72)
PDD-NOS	1 (5)	2 (14)
Asperger syndrome	6 (32)	2 (14)
Baseline anxiety disorders		
SoP	8 (41)	5 (36)
SAD	2 (11)	4 (29)
OCD	2 (11)	1 (7)
GAD	4 (21)	3 (21)
Other comorbid diagnoses		
ADHD	14 (74)	9 (64)
Dysthymia / MDD	5 (26)	0
ODD / CD	4 (21)	1 (7)
PTSD	1 (5)	0
Psychiatric medication use		
SSRI	9 (47)	5 (36)
Atypical antipsychotic	6 (32)	2 (14)
Stimulant or atomoxetine	10 (53)	4 (29)

Pediatric Anxiety Scale (PARS) at Post-Treatment

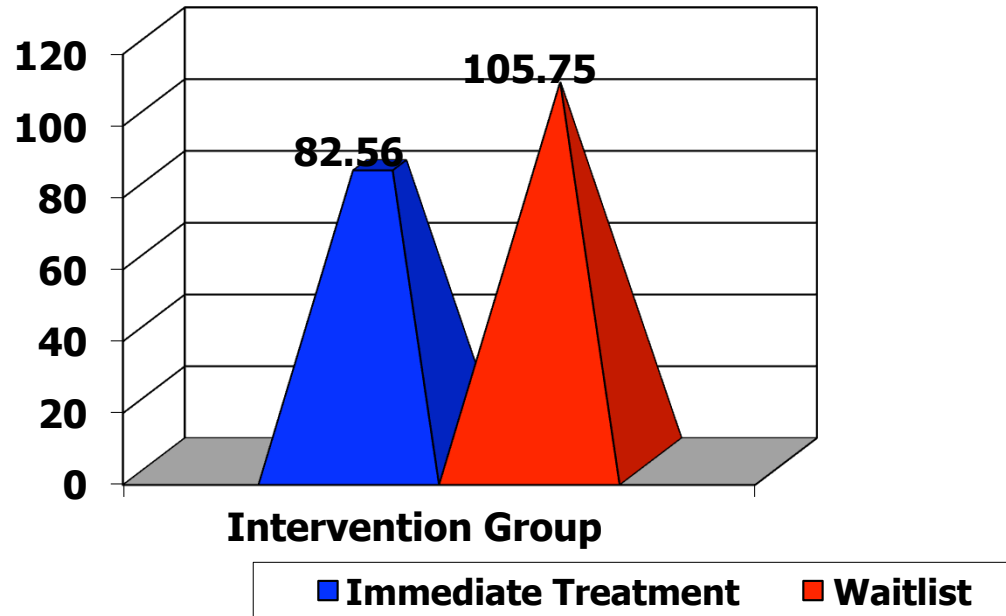
PARS scores at post



$p = .044$, Cohen's d ES = .74

Social Responsiveness Scale (SRS) at Post-Treatment

SRS scores at post



$p < .01$, Cohen's d ES = 1.17 (large)

Final Thoughts: What Next?

- ▶ CBT may be helpful in addressing anxiety in children with ASD.
 - ▶ Our new study, funded by NIH, is comparing this treatment with another evidence-based anxiety treatment to provide a more stringent test.
 - ▶ To participate in the study, please call our UCLA lab at: 310-882-0537
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