

# Cognitive Behavioral Therapy for Anxiety in Autism Spectrum Disorder

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## Acknowledgements

- UCLA Graduate Students: Marilyn Van Dyke, Kelly Decker, Cori Fujii, Patty Renno
- The HELP Group-UCLA Research Alliance
- Sponsors:



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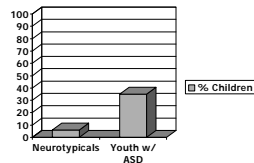
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## Anxiety is Common in ASD

- Why is the prevalence of anxiety so high (35%+) in ASD?



- Brain mechanism / genetics
  - Role of the amygdala in both syndromes?
  - Increased rate of mood disorders in parents of children with ASD
- High levels of stress due to ASD

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## Diagnostic Overshadowing

- Refers to clinicians' tendency to overlook psychological and behavioral syndromes such as anxiety or aggression in children with developmental disabilities like MR or autism (Reiss et al., 1982).
  1. Symptoms such as anxiety may be viewed as less important than the primary disability and not addressed
- "Co-occurring" symptoms are often misattributed to the primary disability, promoting a fallacious assumption:
  1. "Treating the primary disability is the only way to reduce anxiety/aggression, etc."

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## Implications & Example

- Implications: Symptoms of children with ASD may be misclassified and mismanaged if anxiety is not properly diagnosed.
- E.G.: a child w/ ASD who fearfully avoids interactions with peers in most settings...
  - ...may receive traditional "social skills training" that is unlikely to improve sociability because it fails to address a key target problem.
  - ...s/he may need a treatment that can address anxiety as well as social skills to improve sociability.

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## Example #2

- A child w/ ASD and compulsive routines may be assumed to be engaging in the core autism symptom of "repetitive behaviors..."
  - ...s/he is likely to have received at most an applied behavioral analysis or communication-focused intervention ignoring the possibility that OCD rather than autism is driving the behavior
  - ...s/he needs a thorough assessment, and possibly, a hierarchical CBT intervention for OCD that addresses the emotional basis for the maintenance of the behavior.

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**Traditional ICBT Approach**

- Phase 1: Understanding anxiety
  - E.G.: (1) Learning bodily cues, (2) recognizing facial expressions, etc.
- Phase 2: Skills training
  - E.G.: (1) Relaxation, (2) positive “self-talk” (coaching oneself), (3) self-reward
- Phase 3: Skills practice (50%+ of sessions)
  - E.G.: Children gradually attempt increasingly “challenging” feared situations to develop confidence & mastery.

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**Modifications to CBT**

- Adaptations to our original 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

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**Intervention Parameters**

- 16 weekly outpatient meetings, 90 minutes each
  - 45 minutes with the child
  - 45 minutes with the parents and/or family
- Involving teachers and aides
  - Aim: incorporating home-school note, social coaching, peer buddies, and gamesleading opportunities into child’s school program

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## Study Sample (Wood et al., 2009)

	<b>Immediate Tx</b>	<b>Waitlist</b>
	<b>(N=17)</b>	<b>(N=23)</b>
Age	9.58	10.39
Sex (% male)	63%	61%
% Caucasian	47%	48%
% Multiracial	18%	26%
% SAD	47%	70%
% Social Phobia	76%	96%
% OCD	47%	39%
% GAD	65%	35%
% ADHD	53%	65%

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## Study Design

- Children 7-11 years old with confirmed diagnosis of autism, Aspergers, or PDD
- ADIS-C/P comorbid diagnosis of Separation Anxiety, Social Phobia, or OCD
- Children 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

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## Measures

- Anxiety Disorders Interview Schedule—Child and Parent Versions (ADIS-C/P)
- Child-Report Multidimensional Anxiety Scale for Children (MASC; March, 1998)
- Parent-Report Multidimensional Anxiety Scale for Children (MASC-P)
- Social Responsiveness Scale (SRS)
- Clinical Global Impressions (CGI)

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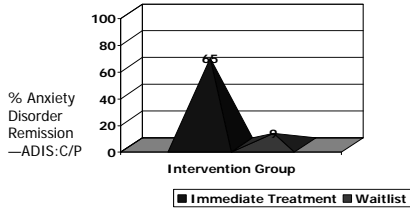
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## % Diagnostic Remission @ Post (any anxiety disorder)



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

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## Independent Evaluator Ratings

Anxiety: CGI Global Improvement (1-8 Scale)

Optimal outcomes:

- 1 = Completed Recovered
- 2 = Very Much Better
- 3 = Much Better

Group	N	%	$\chi^2$
Immediate	13/17	77	24.70**
Waitlist	2/23	8	

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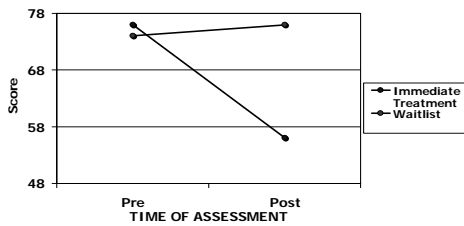
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## Parent MASC



$F(1,32) = 19.50, p < .0001$

ES = 1.23

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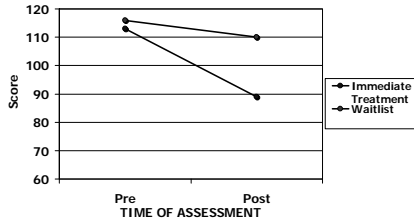
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## Social Responsiveness Scale



N = 19

$F(1,16) = 5.39, p < .05;$   
ES = .76

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## Anxiety-Social Responsiveness Linkage

### ■ Regression models:

□ ADIS-C/P change score → SRS post-treatment score...  $\beta = .53, p < .01$

□ SRS change score → ADIS-C/P post-treatment score...  $\beta = .63, p < .01$

### ■ When anxiety decreased over treatment, so did autism symptoms (and vice versa).

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## 3-Month Follow-up

### ■ IT only; $n = 10$

■ 8 of 10 (80%) were free of any anxiety disorder diagnosis

■ 9 of 10 (90%) children met CGI criteria for good response

■ MASC and SRS means were at or below the posttreatment level, with *ns* change, indicating anxiety scores did not increase during follow-up.

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## New and Ongoing Research

- Disseminating the treatment to school-based settings—the Help Group-UCLA Research Alliance (Village Glen campus).
- Expanded CBT (32 sessions) vs. usual care focusing on reducing core autism symptoms in children with ASD
- New NIH-funded study: expanding the treatment to 11-14 year olds with autism spectrum disorder.
- Contact Cori Fujii, study coordinator, for more information: [cfujii@ucla.edu](mailto:cfujii@ucla.edu)

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