

MODIFIED COGNITIVE BEHAVIORAL THERAPY FOR ANXIETY IN CHILDREN WITH AUTISM SPECTRUM DISORDER

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Outline

- 1. The presentation of anxiety in youth with autism
- 2. Cognitive behavioral therapy principles to treat anxiety in children with autism
- 3. Modifications to CBT for children with autism
- 4. Resources for families and practitioners



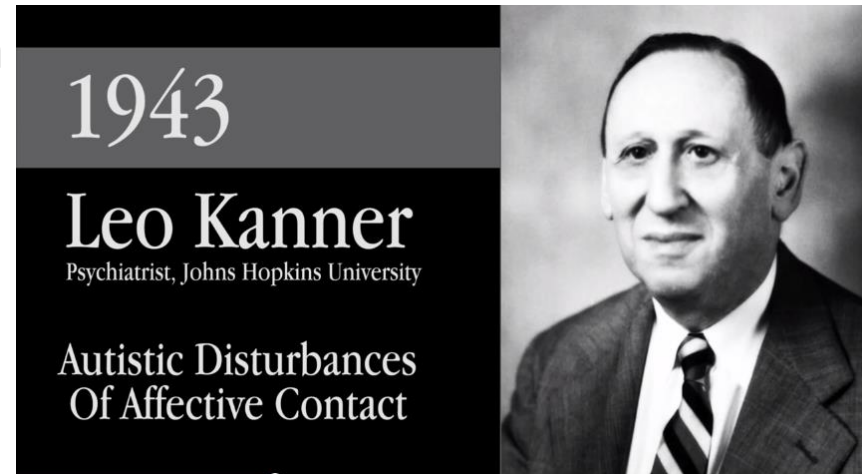
Anxiety versus Anxiety Disorders

- **Anxiety:** A mood state of mixed negative emotion and neural arousal that occurs when anticipating a future threat. A normal mood state experienced by everyone at times. Has adaptive (motivational) value.
- **Anxiety Disorders:** Unrealistic, disabling anxiety associated with personal distress and substantial impairment in social, academic, or family functioning.



Background

- Case 1, Donald: “we brought him to a playground slide... when other children were sliding on it... he would not get on it... he seemed horrorstruck.”
- Case 2, Barbara: “very timid, fearful of various and changing things, wind, large animals, running water, gas burners, and many other things.”
- Case 8: Alfred: “... a good deal of ‘worrying.’ He frets when the bread is put in the oven to be made into toast, and is afraid it will get burned and be hurt...”



Significance of Anxiety in ASD

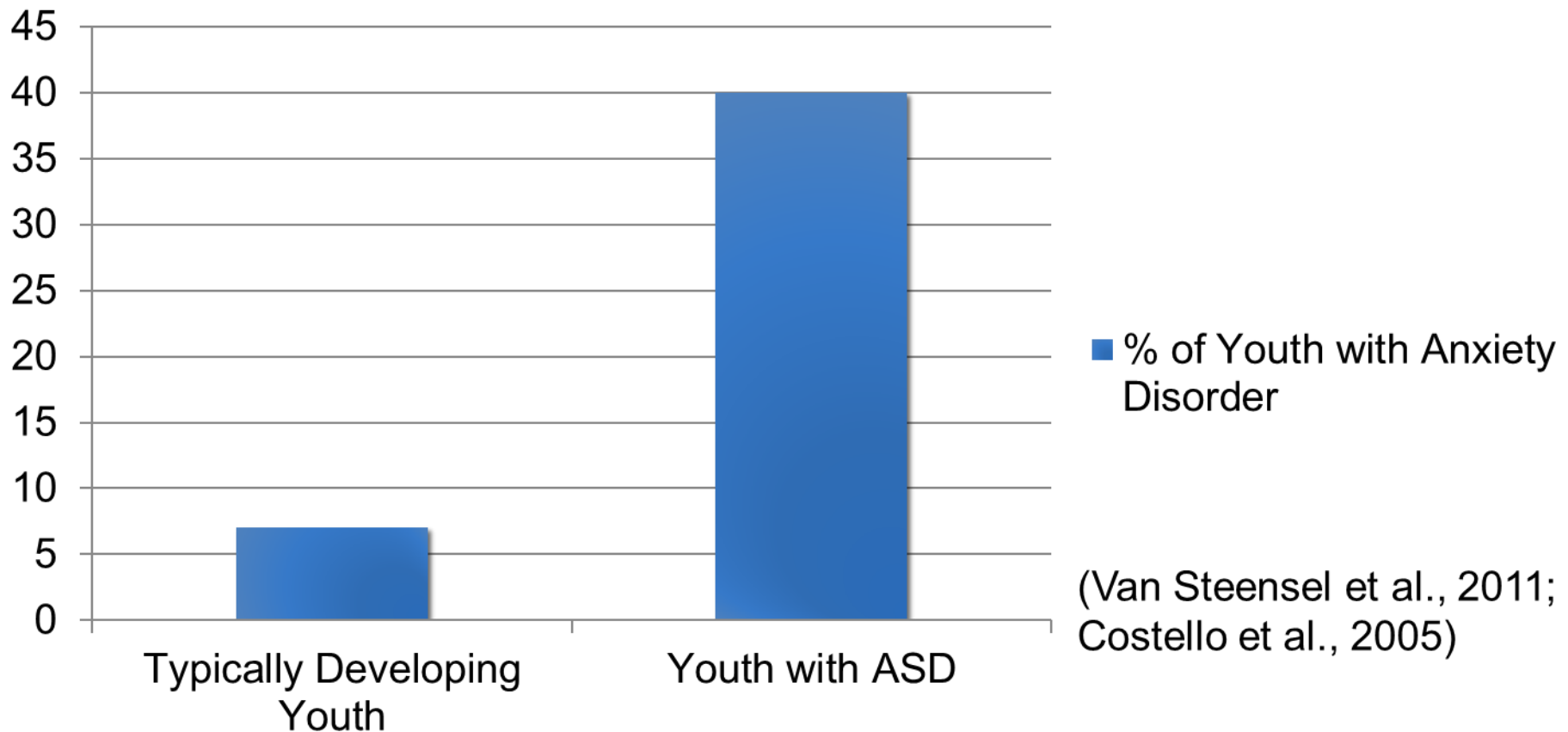
- One of the most common associated psychiatric concerns among individuals with ASD.
- Associated with a number of physical and psychosocial symptoms:
 - Negative effect on school performance, peer relationships, family functioning
 - Exacerbation of core ASD symptoms
 - More problem behavior
 - Gastrointestinal illness
 - Self-injurious behavior
 - Depressive symptoms



(e.g., Evans et al., 2005; Reaven, 2009; Wood & Gadow, 2010; de Bruin et al., 2006; (van Steensel, Dirksen, & Bögels, 2013)

Prevalence of Anxiety in Youth

% of Youth with Anxiety Disorder



Separation Anxiety Disorder

- Occurs in up to 9% of youth with autism
 - Distress when separating from loved ones
 - Worry about harm or loss of loved one
 - Worry of an event that would cause separation from loved one
 - Reluctance to go out
 - Nightmares, co-sleeping, resistant to being alone



Van Steensel, Bogels, & Perrin (2011)
[Meta-analysis]

Social Anxiety Disorder

- Occurs in up to 17% of youth with autism
- Fear of being negatively evaluated by others
- Avoid social situations
- May cry, throw a temper tantrum, freeze-up, fail to speak



Van Steensel, Bogels, & Perrin (2011)
[Meta-analysis]

Generalized Anxiety Disorder

- Occurs in up to 15% of youth with autism
 - Excessive anxiety and worry that is difficult to control
 - Worries about school, family, the weather, health, finances
 - Accompanied by physiological symptoms (e.g., muscle tension, sleep disturbance, irritability)



Van Steensel, Bogels, & Perrin (2011)
[Meta-analysis]

Specific Phobia

- Occurs in up to 30% of youth with autism
 - Very specific fears
 - Animals
 - Natural environment
 - Shots
 - Doctors
 - Costumed characters
 - Significantly interferes in the child's life



Van Steensel, Bogels, & Perrin (2011)
[Meta-analysis]

Obsessive Compulsive Disorder

- Occurs in up to 17% of youth with autism
 - Unwanted thoughts and images that are distressing and cause anxiety and discomfort
 - Individual may engage in repetitive behavior (compulsion) to reduce anxiety
 - Common types: fear of contamination, exactness/symmetry, checking, repeating



Van Steensel, Bogels, & Perrin (2011)
[Meta-analysis]

Recent Research on Ambiguous Anxiety Symptoms in ASD

- Atypical Specific Fears
 - E.g., fear of toilets, vacuum cleaners, happy birthday song, bubbles, running water
- Atypical Social Fear
 - Social fearfulness without awareness of social judgment or negative social evaluation
- Fear of Change
- Special Interest Fear
 - Fear around not being able to access special interest
- Fears around Sensory Sensitivities



(e.g., Kerns & Kendall, 2012)

Presentation of Anxiety

- Physiological manifestation
 - Increased arousal: “Fight or Flight” Response
 - Pounding heart, sweating, headaches, stomach upset, dizziness, muscle tension, shortness of breath, shaking
 - Anxious facial expression and body language
 - Crying/screaming
 - Sleep/eating disturbances
- Behavioral manifestation
 - Avoidance, escape, reassurance, distraction
- Cognitive manifestation
 - Cognitive distortions (Catastrophizing, all or nothing thinking)
 - Worrying about perceived threats



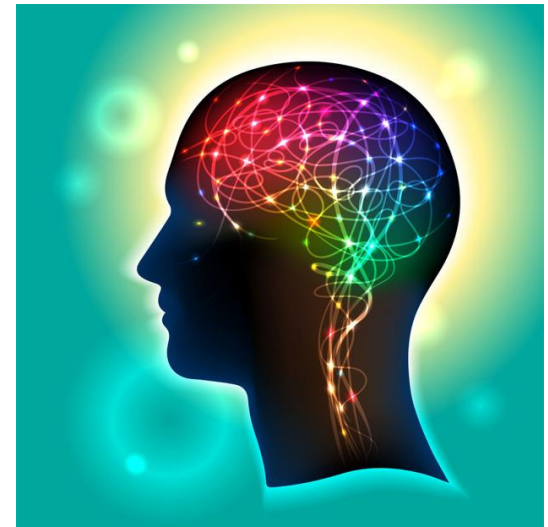
What it may *also* look like in ASD

- Behavioral manifestation:
 - Increases in:
 - Sensory behaviors
 - Repetitive behaviors
 - Ritualistic behaviors
 - Socially inappropriate behaviors
 - Challenging behaviors
- Cognitive manifestation:
 - May be no clearly identifiable threat cognition

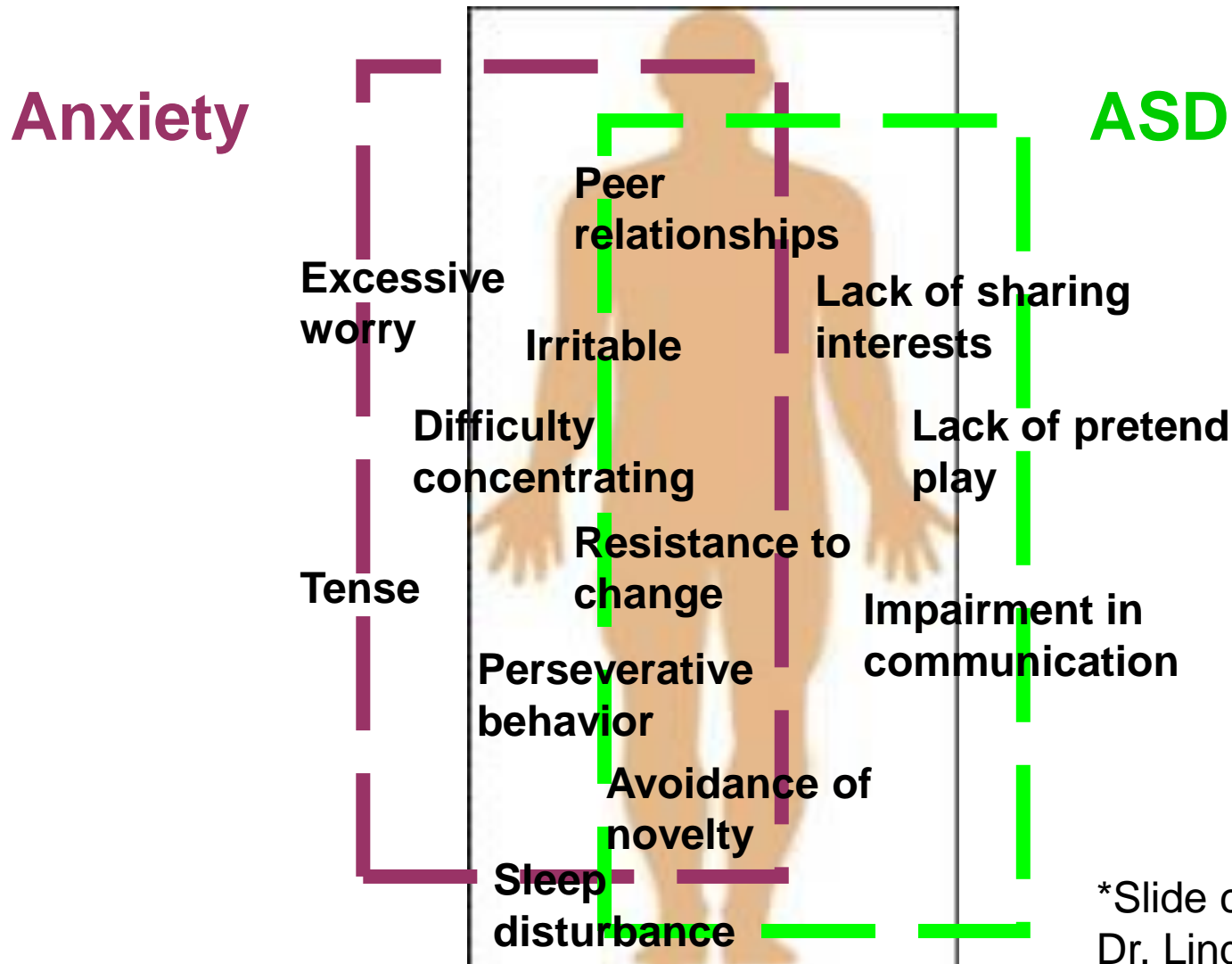


Why so Common in ASD?

- Brain mechanism/Genetics?
 - Role of the amygdala in both syndromes
 - Herrington et al, 2017 (JADD)
 - Increased rate of mood disorders in parents of children with ASD
- Common neuro-cognitive mechanisms?
 - Executive functioning deficits
 - Cognitive rigidity
 - Difficulty shifting one's attention
 - Cognitive "stickiness"
 - Perseverative thinking style
 - Rumination on negative thoughts
- High levels of daily stress due to ASD?



Assessment of Anxiety in ASD



*Slide courtesy of
Dr. Lindsey Sterling

Assessment of Anxiety in ASD

- Challenging!
- Many overlapping symptoms
- Impaired communication of youth with ASD
- Impaired insight
- Ambiguous manifestations of anxiety in ASD
- Co-occurring intellectual disability

Construct Validity of Anxiety in ASD

- Symptoms can be reliably differentiated!
- Emerging evidence of Construct Validity:
 - Convergent and discriminant validity (Renno & Wood, 2013)
 - Elevated baseline skin conductance (Sterling et al., under review)
 - Expected treatment response (Wood et al., 2009)
 - Genetic markers of negative affectivity/anxiety in TD youth are also present in children with ASD and anxiety (Gadow et al., 2014, 2008, 2009, 2010)

Treatment of Anxiety in ASD

RCTs conducted at UCLA

THE JOURNAL OF

CHILD PSYCHOLOGY AND PSYCHIATRY



Journal of Child Psychology and Psychiatry 50:3 (2009), pp 224–234

doi:10.1111/j.1469-7610.2008.01948.x

Cognit
child

School Mental Health (2013) 5:25–37
DOI 10.1007/s12310-012-9090-0

ORIGINAL PAPER

Jeffrey

Intensive Cogniti in School-aged Cl with Treatment-a



Available online at www.sciencedirect.com

ScienceDirect

Behavior Therapy 46 (2015) 7–19

Behavior
Therapy

www.elsevier.com/locate/bt

Background: Chil that cause signific (CBT) program for treatment compon children with ASD old) were random waitlist). Therapis mentation, parent dition conducted symptom checklis 78.5% of the CB treatment respons performed the wai self-reports. Treat employed in this s autism spectrum high-functioning disorders, anxiety

Cori Fujii · Patricia Renno
C. Enjey Lin · Kelly Decker
Jeffrey J. Wood

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© Springer Science+Business Med

Abstract Children with (ASDs) frequently present wi der that can cause significant ticularly at school. An ir behavioral treatment (CBT) address anxiety, self-regulatic school and in the community placed on increasing generali positive social behavior by in the treatment process. Chil randomly assigned to an im (IT) that included 32 sessions treatment-as-usual (TAU) cc sessions emphasized behav

Cognitive Behavioral Therapy for Early Adolescents With Autism Spectrum Disorders and Clinical Anxiety: A Randomized, Controlled Trial

J Child Fam Stud
DOI 10.1007/s10826-016-0372-2

ORIGINAL PAPER



The Treatment of Anxiety in Autism Spectrum Disorder (TAASD) Study: Rationale, Design and Methods

Connor M. Kerns^{1,6} · Jeffrey J. Wood³ · Philip C. Kendall² · Patricia Renno³ · Erika A. Crawford² · Rogelio J. Mercado² · Cori Fujii³ · Amanda Collier⁴ · Alexandra Hoff² · Elana R. Kagan² · Brent J. Small⁴ · Adam B. Lewin⁴ · Eric A. Storch^{4,5}

Other Studies

J Autism Dev Disord
DOI 10.1007/s10803-006-0318-4

ORIGINAL PAPER

**Treating
Autism**

Anne Marie



HHS Public Access

Author manuscript

J Child Psychol Psychiatry. Author manuscript; available in PMC 2015 April 10.

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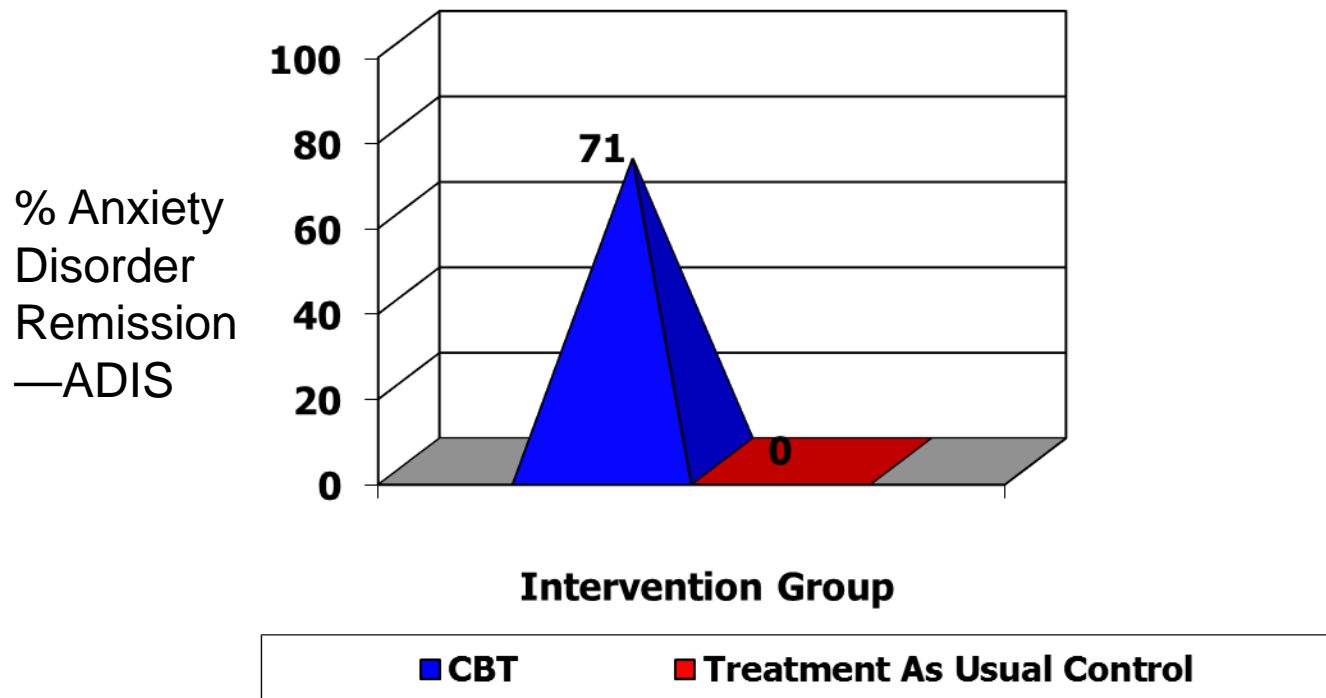
NEW RESEARCH |

The Effect of Cognitive-Behavioral Therapy Versus Treatment as Usual for Anxiety in Children With Autism Spectrum Disorders: A Randomized, Controlled Trial

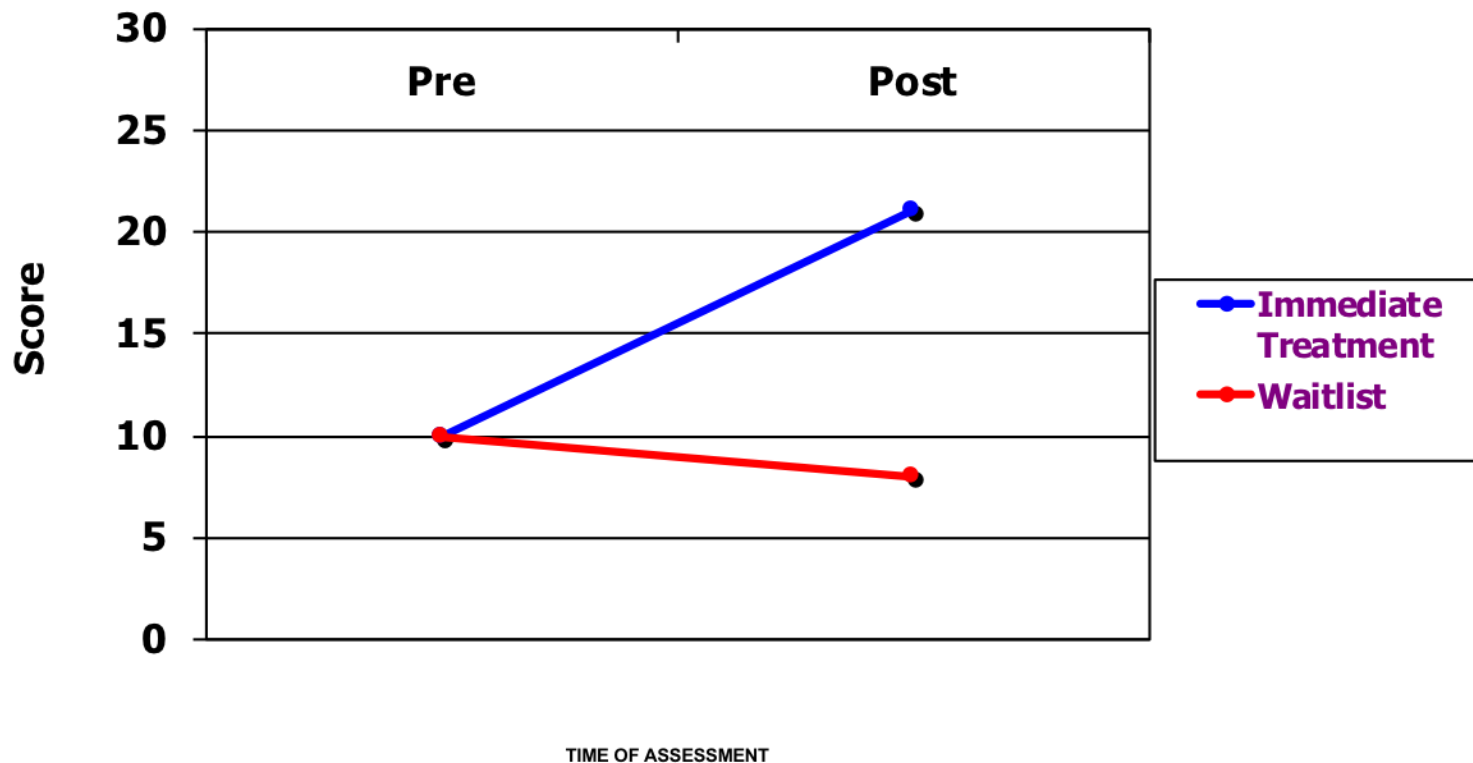
Eric A. Storch, Ph.D., Elysse B. Arnold, B.A., Adam B. Lewin, Ph.D., Josh M. Nadeau, Ed.S.,
Anna M. Jones, B.S., Alessandro S. De Nadai, M.A., P. Jane Mutch, Ph.D.,
Robert R. Selles, B.A., Danielle Ung, B.A., Tanya K. Murphy, M.D.

Brief Empirical Evidence of Effectiveness of CBT Trial in Children with ASD

- % Diagnostic Remission @ Post (Wood et al., 2014)



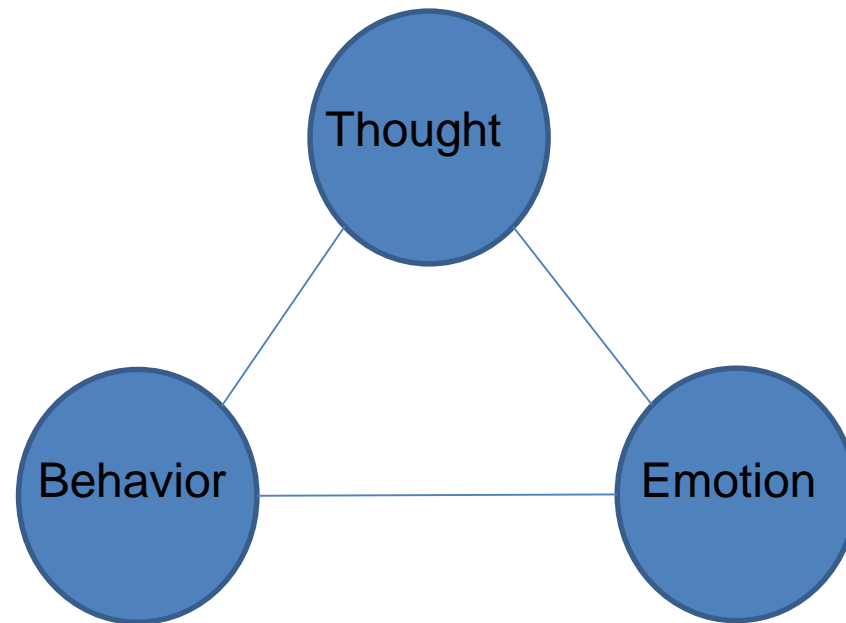
Observed Positive Peer Social Engagement



$F(1,10) = 8.86, p < .05;$
Cohen's d Effect Size = 1.62

Treatment of Anxiety in ASD: Cognitive Behavioral Therapy (CBT)

What we *think* affects
how we act and feel.



What we *do* affects how
we think and feel.

What we *feel* affects how
we act and think.

Phase One: Psychoeducation

- What is Anxiety?
 - Brain-based, activation of the amygdala, fight/flight response
 - Learn Bodily cues of anxiety
 - Learn Facial expressions
 - Parents learn common patterns of child anxiety



Phase 2: Skills Training

- Build Coping Skills
 - Relaxation
 - Identifying irrational/maladaptive thoughts
 - Cognitive Restructuring: replacing catastrophic thoughts with more rational thoughts
 - Positive “self-talk”





Identifying Negative Thoughts

- Learning to identify negative thoughts and cognitions that we have about different situations.
- What “bad things” we think are going to happen.

If I make a mistake everyone is going to laugh at me and nobody is going to want to be my friend.

There is nobody who wants to be my friend...I don't fit in and I never will.

I'm going to fail this test and never get into college.

If my parents leave me, they are going to get in a car accident and I'll never see them again.



Identifying Calm Thoughts

- Fighting back against “irrational thoughts”
 - Ex.: What’s the likelihood of it happening?
 - Ex.: If it does happen, how bad is it really going to be?

Probably nobody will even notice. People make mistakes all the time.

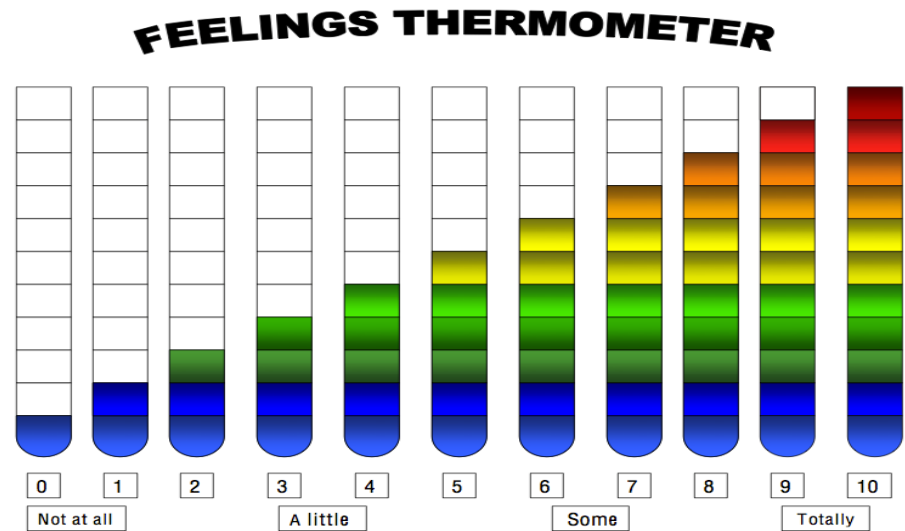
It’s not very likely they’d get in a car accident. They’ve never been in an accident before.

Nobody is perfect. I’m doing the best that I can.

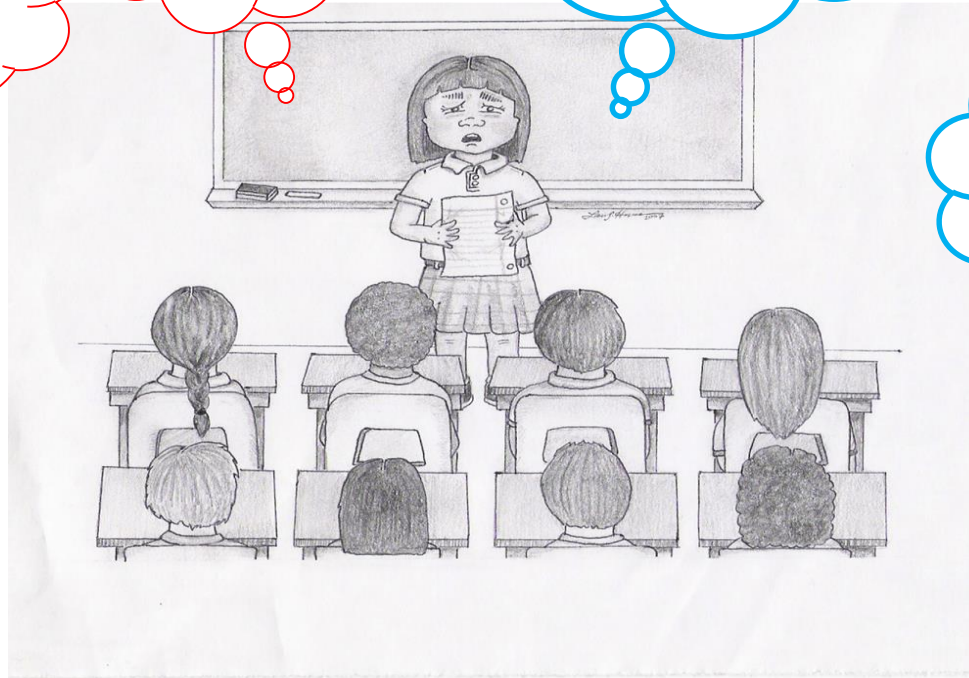
I just haven’t found the right friend yet. There are lots of people I haven’t met yet.

Phase 3: Skills Practice

- Hierarchy of fears with “fear ratings”
- Break feared situations into “baby steps”
- Children gradually attempt increasingly “challenging” feared situations to develop confidence and mastery.
- Practice in session and throughout the week
- “What did we teach our brain today?”
- Positive Reinforcement for hard work!



Case Example



Background about BIACA

Behavioral Interventions for Anxiety in Children with Autism

- Family-based Cognitive Behavioral Therapy
- 16 weekly sessions, 90 minutes each.
- Modular-based
- Phase 1: Psychoeducation
- Phase 2: Skills Training
- Phase 3: Skills practice (50%+ of sessions)



Modifications for ASD: Large Scale Reward System

- Necessary!!
- Idea: Compensation for hard work
- Verbal Praise
- Must be motivating to the child
 - Not socks 😊



Rewards and Privileges Menu

Daily rewards & privileges

1. _____
2. _____
3. _____
4. _____

Medium rewards & privileges

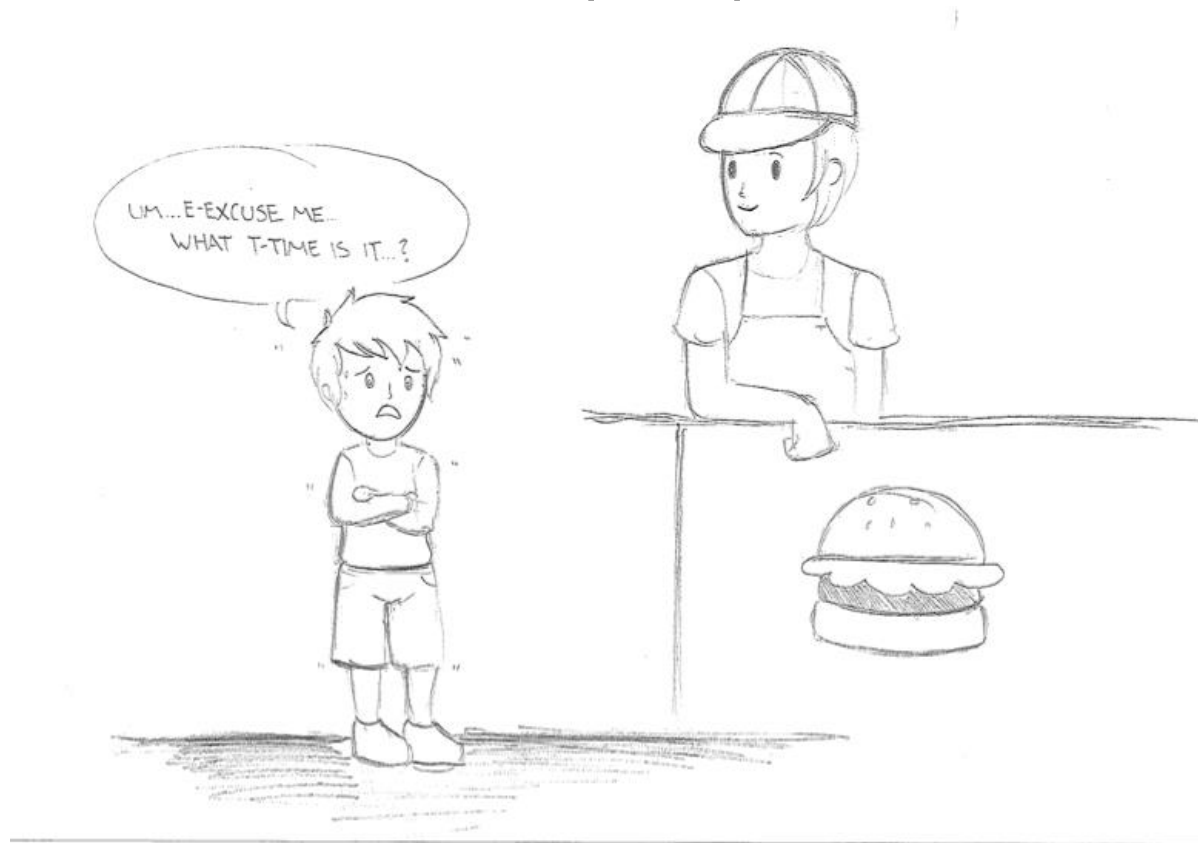
1. _____
2. _____
3. _____
4. _____

Long term rewards & privileges

1. _____
2. _____
3. _____
4. _____

Modifications for ASD: Visual Aides

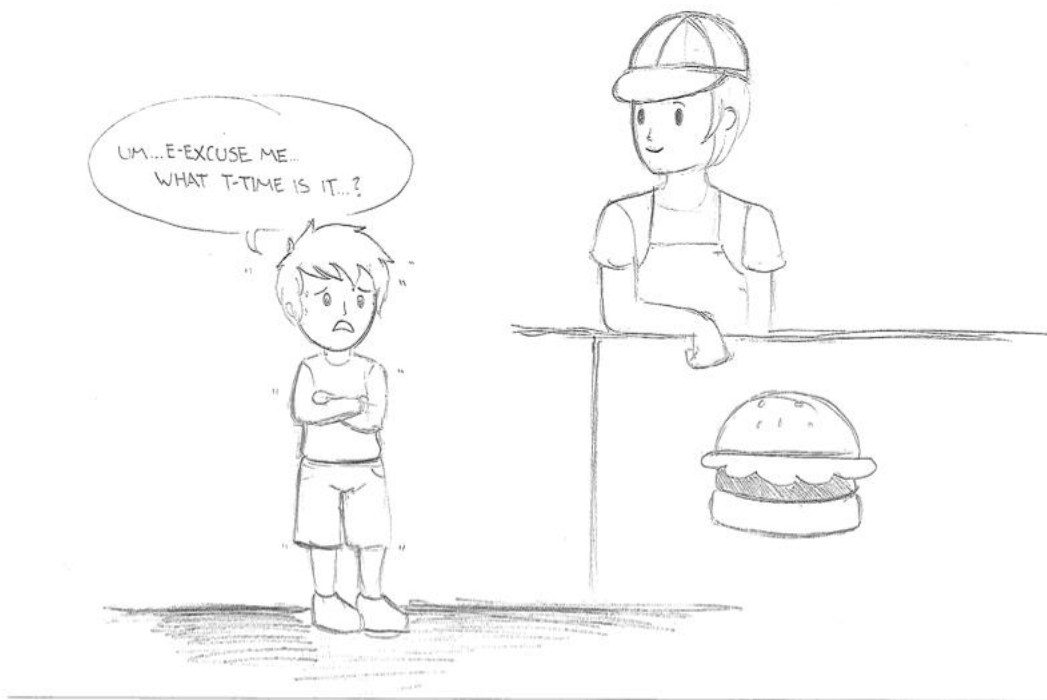
- Lots of cartoons and visual prompts!



Modifications for ASD: Use of Special Interests



Modifications for ASD: Include Social Communication Goals



Modifications for ASD: Independence and Self-Help Skills Focus



Important Ingredients: Homework



Celeste's UCLA Chart



	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1. Follow directions by the 2 nd time I'm asked.							
2. Read a paragraph to my family members while standing up. Choose something different to read each day.							
3. When out in the community, be the "Family Ambassador" by greeting people, asking questions and/or ordering for the family.							

15 POINTS = _____

Specialized Parenting Techniques

- Model staying calm and using coping skills
- Accept and label the emotion
- Give your child time to cool down and work through the anxiety on his/her own
- Provide choices
- Reward



Limitations to the Evidence-Base

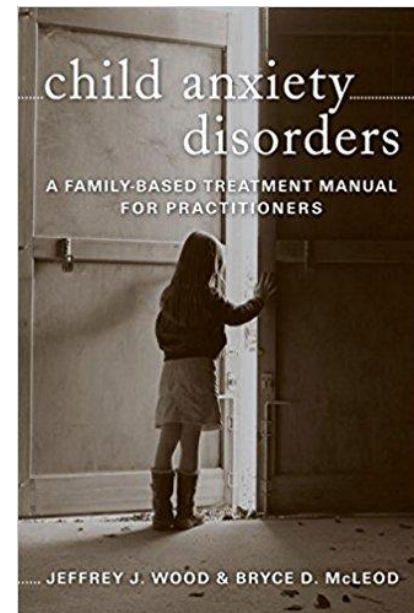
- Research conducted in the clinic setting
 - Lots of supervision/eyes on the case
 - Highly invested families
 - Need to be tested in schools and the community
- Research limited to youth with ASD and IQ > 70
 - RCTs so far have excluded children who are minimally verbal and have IQs < 70.
 - Some research has started modifying CBT for use with minimally verbal youth with ASD and IQ < 70 (Dr. John Danial)

Behavioral Interventions for Anxiety in Minimally Verbal Individuals with ASD

- Graduated exposure plus positive reinforcement
 - Modeling
 - Prompting
 - Visual aides
 - Mantras
-
- Examples in the literature: fear of dogs, water, social activities, swimming pools, blood draws

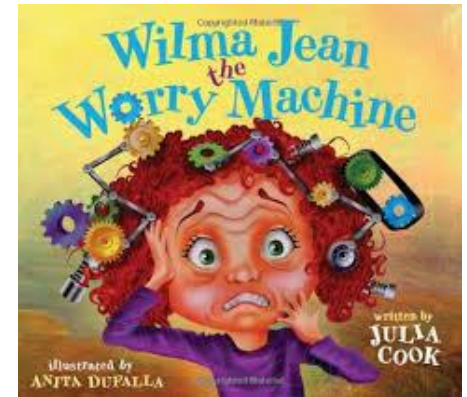
CBT Resources: Professionals

- Treatment guide for parents, teachers, and mental health professionals:
 - *Managing Anxiety in People with Autism* by Anne Chalfant
- Published manuals for Clinicians:
 - *CBT for Children and Adolescents with High-Functioning Autism Spectrum Disorders* by Angela Scarpa, Susan White, & Tony Attwood
 - *Child Anxiety Disorders: A Family-Based Treatment Manual for Practitioners* by Jeffrey J. Wood & Bryce D. Mcleod (for TD)
- Research Study: Internet-Based CBT training for clinicians in the community working with children with ASD
 - If interested: contact Dr. Jeffrey Wood
jwood@gseis.ucla.edu



Anxiety Resources: Families

- Published manual for anxiety in people with autism:
 - *Managing Anxiety in People With Autism: A Treatment Guide for Parents, Teachers and Mental Health Professionals* by Anne M. Chalfant
- Child Anxiety Tales (Phil Kendall)
 - Online parent training program to help anxious youth (not specific to ASD)
- Children's Books
 - *Wilma Jean the Worry Machine* by Julia Cook
 - *Is a Worry Worrying You?* by Ferida Wolff
 - *Wemberly Worried* by Kevin Henkes
 - *What to Do When You Worry Too Much* by Dawn Huebner
- Teen Books
 - *My Anxious Mind: A Teen's Guide to Managing Anxiety and Panic* by Michael Tompkins



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Thank you!