



ASSESSMENT AND TREATMENT OF ANXIETY DISORDERS IN YOUTH ON THE AUTISM SPECTRUM

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Disclosure and Funding in Past 5 Years

	Research Funding	Advisor/ Consultant	Employee	Speakers Bureau	Books, Intellectual Property	In-kind Services (travel)	Stock or Equity	Honorarium or expenses for this presentation or meeting
	NICHD, NIMH, CIHR, SSHRC, Hampton Fund, CFI, Kennedy Krieger Institute	CAHS; UC Davis MIND Institute; Baylor College of Medicine; BYU; UC Denver; USC; U Calgary; U Reading; UCLA; Temple University	UBC	None	Kerns, Renno, Storch, Kendall, & Wood (2017). <i>Anxiety in Children and Adolescents with ASD</i> . Elsevier.	None	None	Yes

What is anxiety? What is an anxiety disorder?

- **Nervous, scared, afraid and worried**
- **Developmental considerations**
- **Anxiety is often normal, transient and adaptive**
- **~25% of children meet criteria for an anxiety disorder prior to age 18**



Prevalence of Anxiety in ASD

- **Diagnostic overshadowing (Mason & Scior, 2004)**
- **Emotion dysregulation in ASD (Mazefksy et al., 2013)**
- **Common co-occurring difficulty in ASD**
 - ~ 40% overall (van Steensel et al., 2011)
 - **Range of 11-84%** (White et al., 2009; Kerns & Kendall, 2012)

Anxiety Adds to ASD

In children with ASD, anxiety difficulties are associated with:

- Poorer social skills, problem behaviors, & long-term functioning (Bellini, 2006; Chang et al. 2012; Evans et al., 2005; Kim et al., 2001; Farrugia & Hudson, 2006)
- More self-injury, depression, family stress, but stronger functional communication (Kerns et al. 2015)
- More gastrointestinal illness (Mazurek et al., 2012)
- Poorer overall health outcomes, unmet needs/ dissatisfaction with care (Ahmedani & Hock, 2012; BAS DPW, 2011)



Subtler Costs



- **Pain, challenge, disability v. distress and suffering**
- **Anxiety prevents you from overcoming challenges**
- **Anxiety may limit participation in ASD interventions, such as social skills and early intervention (Pellecchia et al. 2016)**

Childhood Anxiety Disorders

Anxiety is adaptive: anxiety disorders occur when this protective mechanism becomes maladaptive and interfering

Separation Anxiety Disorder

Social Phobia

Generalized Anxiety Disorder

Specific Phobia

Obsessive Compulsive Disorder*

Post-traumatic Stress Disorder*



When does anxiety amount to an anxiety disorder?

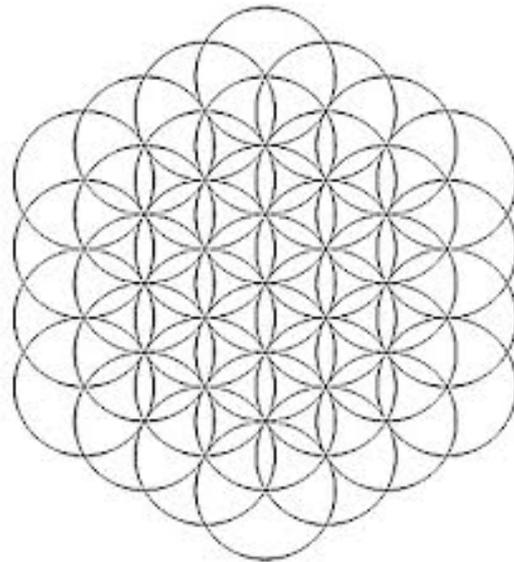
- Both the **deviation & dysfunction** of anxiety symptoms must be considered
 - Deviation = duration, intensity, frequency, trajectory, quality
 - Dysfunction = gets in the way of life or development

Anxiety Disorders in Children: General Info

- **Children with anxiety disorders are much less frequently referred for help than those with externalizing problems**
- **Anxiety disorders frequently go hand in hand with other internalizing and some externalizing problems**
- **Detection of anxiety disorders in children on the autism spectrum may be particularly challenging**

Diagnostic Challenges

- Diagnosis of anxiety disorders in ASD complicated by:
 - Overlapping symptoms
 - Developmental considerations
 - Communication challenges
 - Emotional insight and communication
 - Ambiguous or distinct expressions of anxiety in ASD



Kanner, 1943

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 5, 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...He is upset because the moon does not always appear in the sky at night...”

Case 10, John: “marked obsessiveness...daily routine must be adhered to rigidly; any slightest change calls fourth bursts of panic”

ANXIETY DISORDERS

Differential diagnosis and presentation in ASD



Separation Anxiety Disorder

Excessive fear of separation from caregiver

Fears of never seeing caregiver again

Difficulties sleeping alone, avoidance,
physical symptoms



In ASD:

Increased dependence on caregiver

Unusual attachment to objects

Examples: toothbrush, piece of refrigerator door, peg, stone, pipe cleaner, pieces of paper, dish brush, letter D magnet, figurine

Social Anxiety Disorder

Excessive fear of social ridicule and rejection

Social Avoidance

Social difficulties

Can be specific or generalized

In ASD:

Social motivation

Bullying, peer rejection and etiology of social avoidance

Theory of mind

Social opportunity



Specific Phobia

Common fears: animals, heights, shots

Also: Loud sounds, storms, “other”

In ASD:

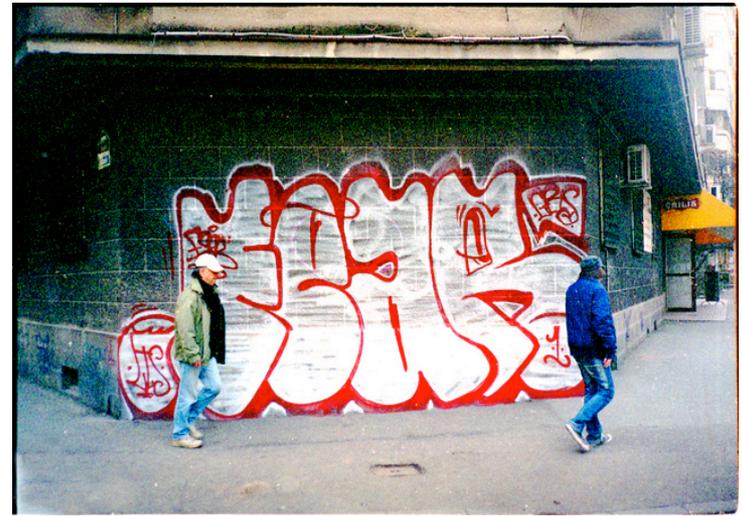
Unusual, specific reaction to sensory or visual stimuli

General sensitivity

Examples: fear of graffiti, water draining, Walmart, pop songs, gas burners, microwave beep

Differential: OCD (disgust)

Examples: fear of hot dogs, food textures, bubbled pizza cheese, gloves, feeding issues



Generalized Anxiety Disorder

“Worry du Jour”

Excessive worry about performance, future, illness, school, crime, etc.

May prevent willingness to take on new things or challenges

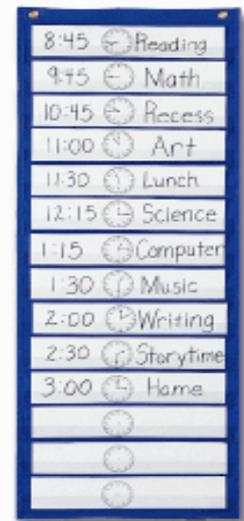
Sleep disturbance, somatic symptoms

In ASD:

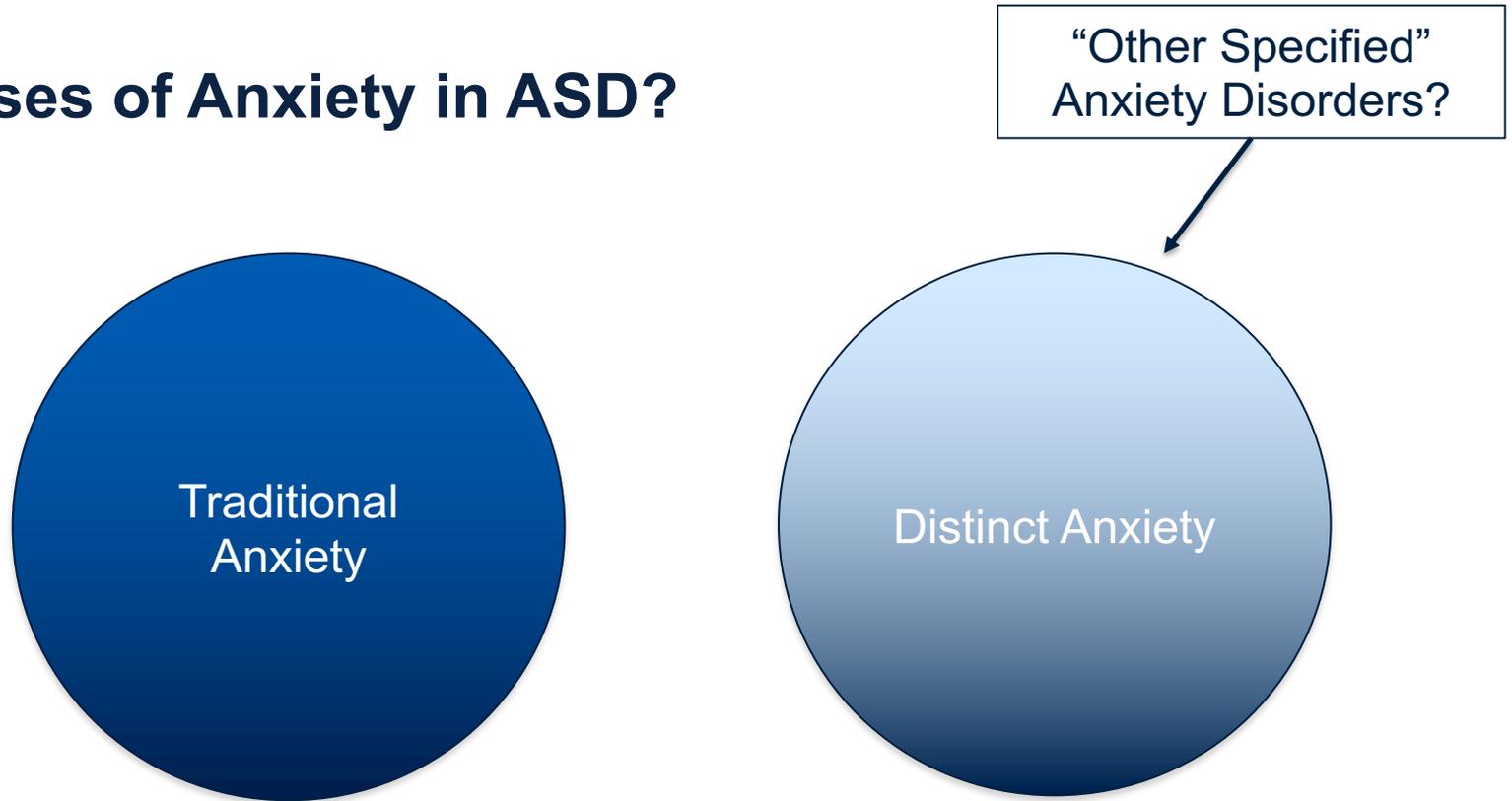
Special interest fears and worries

Fear of change/novelty

Excessive negative reactions to change/novelty

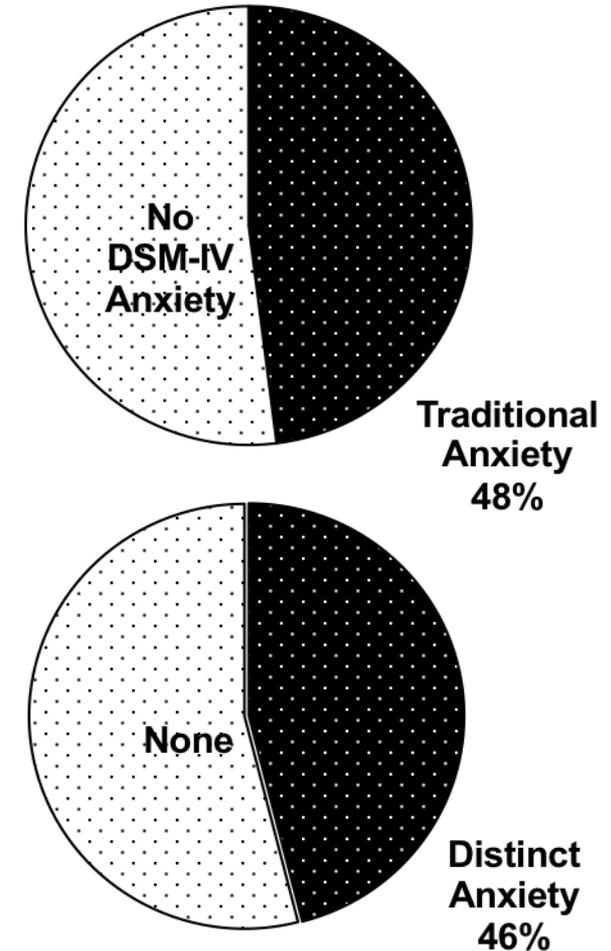
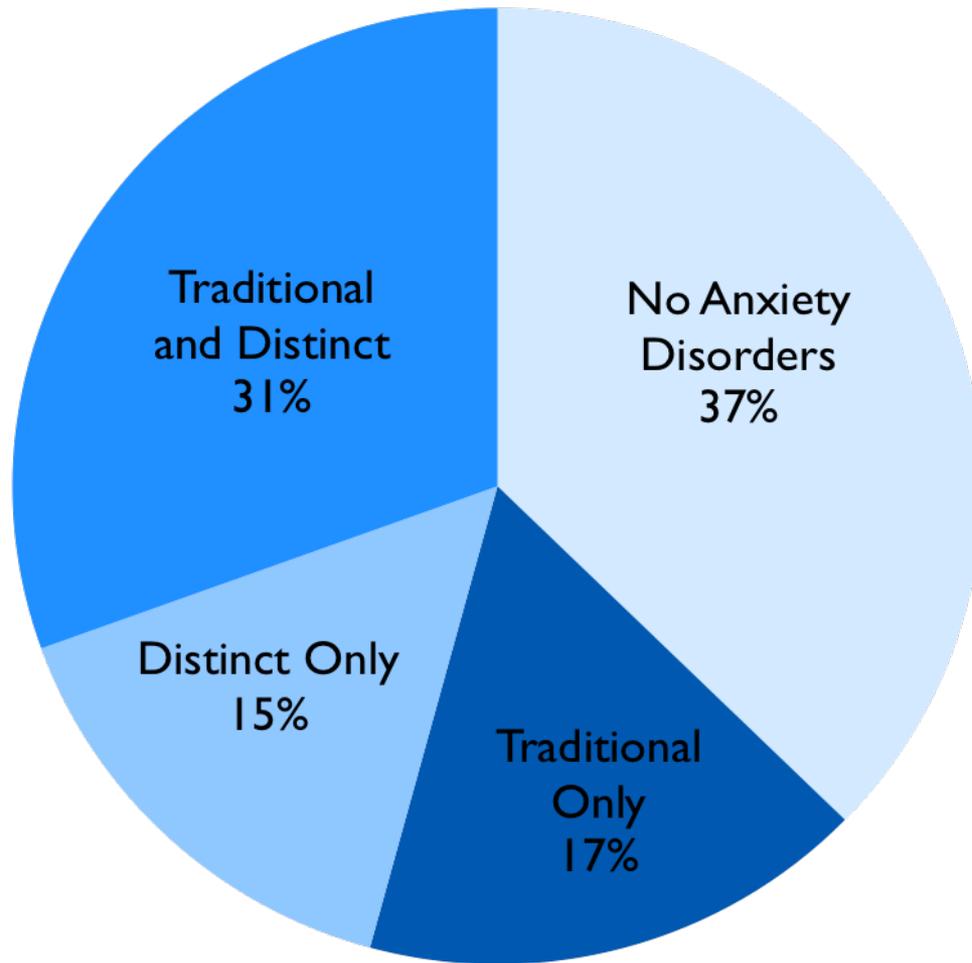


2 Classes of Anxiety in ASD?



(Kerns & Kendall, 2012: *Clinical Psychology: Science & Practice*)

Traditional and Distinct Presentations of Anxiety in ASD



Screening for Anxiety Disorders in Youth on the Autism Spectrum

- **Screeners:** CBCL, BASC, SCARED, SCAS, MASC
- Useful starting point but clinical judgement and follow up is key
- Be wary of “ruling out” anxiety in ASD based on a brief measure
- Be mindful of parent's knowledge of anxiety v. ASD symptoms when considering their reports. Follow up is key.
- Self-report, when possible to collect, can yield critical information, particularly for teens



Anxiety Screening Tools for Autistic Youth

Parent Rated Anxiety Scale – ASD (PRAS-ASD)

- Developed by Dr. Lawrence Scahill, Emory University, US

Anxiety Scale for Children – ASD (Rodgers et al., 2016)

- Freely available through Newcastle University's Neurodevelopment and Disability Research Centre.
- <https://research.ncl.ac.uk/neurodisability/leafletsandmeasures/anxietscaleforchildren-asd/>

COGNITIVE BEHAVIORAL THERAPY FOR CHILD ANXIETY





Child Anxiety Multimodal (CAMS) Trial

Walkup et al (2008)

TX Response:

Sertaline – 55%

CBT – 60%

Combined – 81%

Placebo – 24%

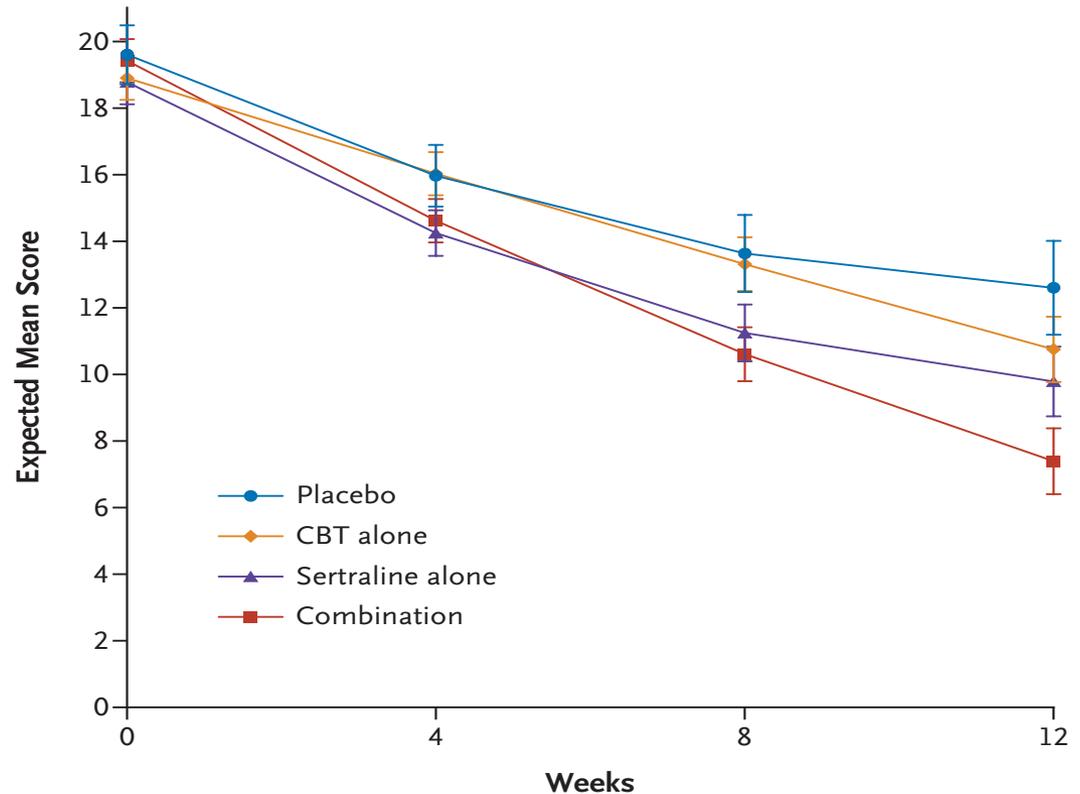
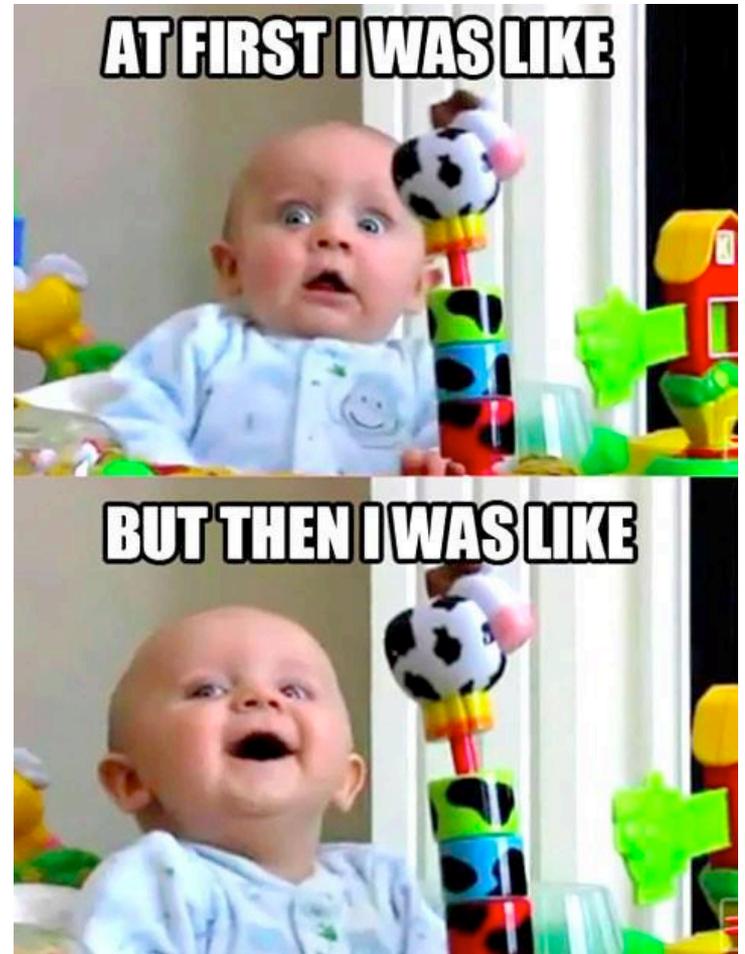
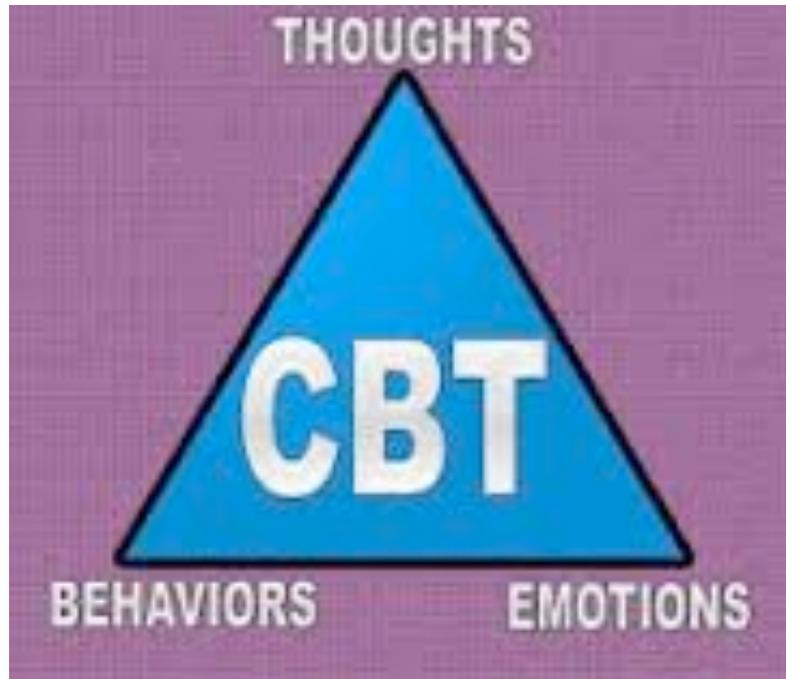


Figure 2. Scores on the Pediatric Anxiety Rating Scale during the 12-Week Study.

Scores on the Pediatric Anxiety Rating Scale range from 0 to 30, with scores higher than 13 consistent with moderate levels of anxiety and a diagnosis of an anxiety disorder. The expected mean score is the mean of the sampling distribution of the mean. The I bars represent standard errors.

Tripartite Model

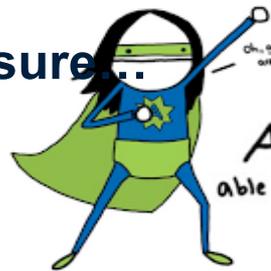
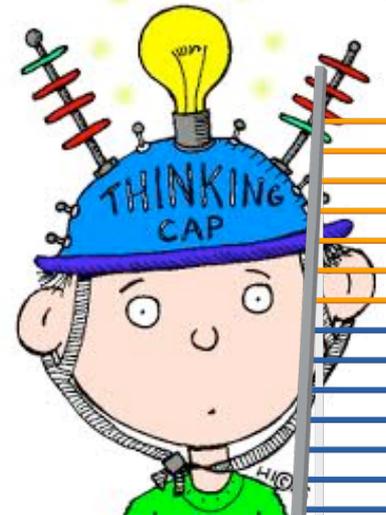
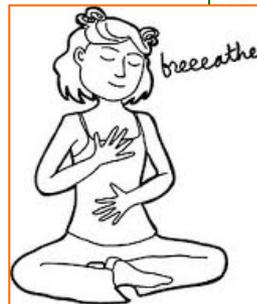
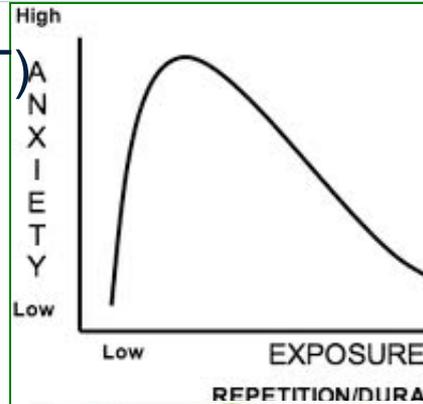


Components of CBT for Anxiety


 KEEP CALM
 AND
 TRY PROGRESSIVE
 MUSCLE RELAXATION

- Cognitive Behavioral Therapy (CBT)

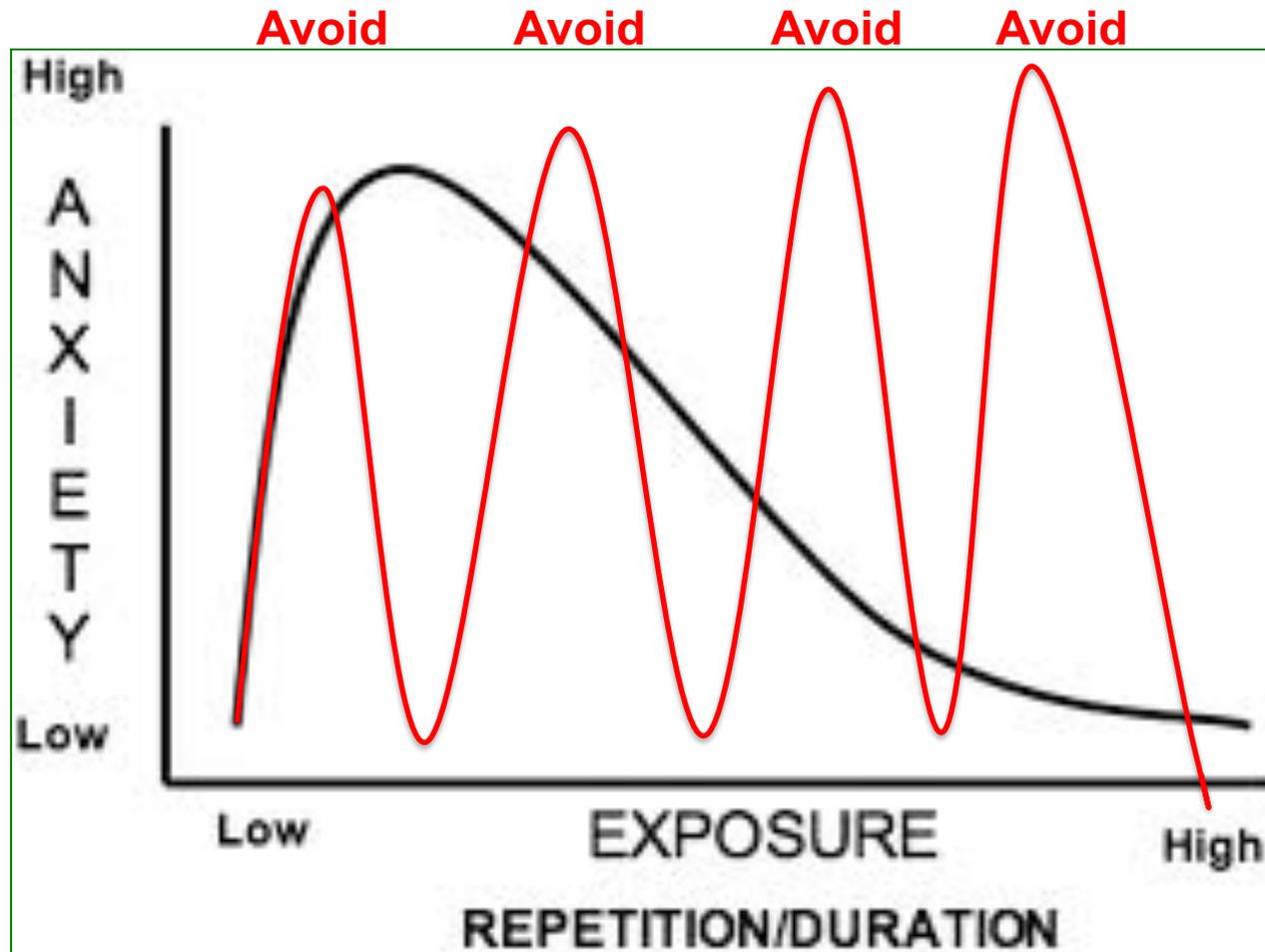
- Psychoeducation
- Emotion Recognition
- Relaxation
- Cognitive Restructuring
- Problem Solving
- Exposure...
- Exposure...
- Exposure...



ANXIETY GIRL!
 able to jump to the worst conclusion
 in a single bound!



Avoidance v. Exposure



Key Elements of Adapted CBT for ASD

Adaptations:

Enhanced parent involvement

Multi-sensory/interactive learning

Cognitive and executive functioning supports

Use of special interests

Expanded/Modular programs:

Add modules to address anxiety *and* related difficulties in ASD

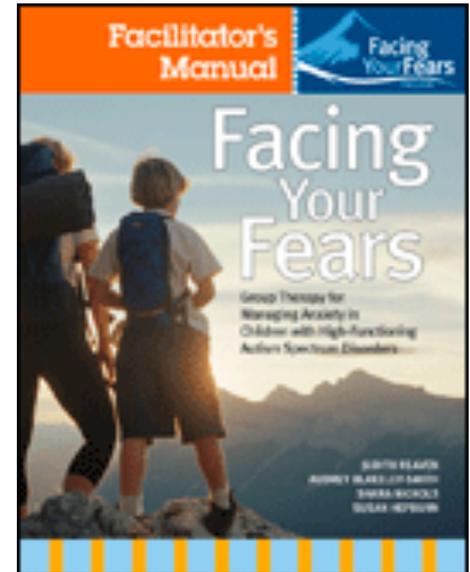
Use Special Interests to Your Advantage

- Rewards
- Models of coping
- To teach a lesson
- To celebrate achievements



Evidence-Based Therapy Programs for Anxiety in ASD

- *Facing Your Fears** (Reaven et al., 2011; University of Colorado)
- *Behavioral Intervention for Anxiety in Children with Autism* (Wood et al. 2009; 2013; UCLA)
- *Coping Cat Program** (McNally et al. 2013; Wood et al., 2019)
- **For children with intellectual disability:** adapted CBT (Blakely-Smith et al., 2021) & graded exposure/systematic desensitization supported for phobic avoidance (Rosen et al. 2016)



Thank you! Questions?



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A large outdoor sculpture of the words "THE UNIVERSITY OF BRITISH COLUMBIA" is displayed in a pond. The letters are three-dimensional and arranged in a slightly curved line. The sculpture is reflected in the water, and the scene is illuminated by the warm, golden light of a sunset. In the background, there are trees and modern university buildings. A circular stone path is visible in the water behind the sculpture.

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