Assessing and Treating Anxiety & Problem Behavior in Autism Spectrum Disorder

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What is Anxiety?

Physical Feelings

Behaviors

Thoughts
Feelings

- Heart beating fast
- Heavy/rapid breathing
- Muscles tense
- Flushed face
- Perspiration
- Nausea
Thoughts

– **Catastrophizing**: Always thinking the worst ever is going to happen

– **Mind-Reading**: Believing you know what other people are thinking about you

– **Fortune-Telling**: Believing that you know that something bad will happen in the future

– **All-or-Nothing Thinking**: Believing if you don’t do something 100% perfectly, you have failed

– **Negative Thinking**: Picking out only negative aspects of situation and not considering positive aspects

What if the spider crawls on me and then bites me and I die?
Behavior

- Avoidance/escape behavior
  - Running away
  - Cowering
- Reassurance-seeking
- Freezing
- Pacing
- Crying
Background on Anxiety in ASD

- Anxiety more prevalent in children with ASD than in TD or DD
- Anxiety often overlooked, unrecognized, or undiagnosed in ASD by behaviorists due to:
  - Difficulty of assessing or measuring anxiety
    - Communication deficits
    - Idiosyncratic behavioral expression
  - Symptom overlap & unclear differential dx
    - Diagnostic overshadowing

See Groden et al., (1994), Hagopian & Jennett (2008), and White et al., (2009) for review
Multi-method Assessment of Anxiety

- Operationally defined anxiety in ASD & ID
  - Affective/Contextual
  - Behavioral
  - Physiological

- Documented *relationship* between anxiety & problem behavior
  - For all 3 participants, fewer problem behaviors occurred in Low-Anxiety than High-Anx contexts

Moskowitz, Mulder, Walsh, Magito McLaughlin, Zarcone, Proudfit, and Carr (2013); *AJIDD*
Treating Anxiety in Neurotypical Youth
Psychoeducation

• Information about nature of anxiety
  – Define anxiety
  – Normalize anxiety
  – Anxiety has a function or purpose
  – Externalize anxiety
  – Explain rationale for treatment
    • E.g., habituation
Graduated Exposure

- Gradually exposed to increasing proximity, intensity, or amount of feared stimulus/situation
  - Learn that you will habituate
  - Learn that feared consequences do not come true

- Fear Ladder
  - Gradually tackle easy to hard
Cognitive Restructuring

• Challenging anxious thoughts
  – Do I know for certain that____?
  – Do I have a crystal ball?
  – What evidence do I have that____?
  – Is there another explanation for _____?
  – What is the worst thing that can happen? How bad is that? How can I cope with that?

• Coping self-statements/Boss-back talk
  – I’ve handled this before and I will handle it again
  – My brain is just stuck right now, I don’t have to do this!

The spider probably won’t crawl on me and, even if it does, I’ll just swat it.
Reinforcement

• “Reinforce” versus “bribes”
• What is reinforcing for your child?
• Expectations of the desired behavior
• Timing
• Consistency
• Concrete and observable progress
• Tangible rewards versus privileges

Sticker Chart for Ed for Brave Behavior

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You get 1 sticker if you are brave and don’t ask any Undertaker questions for 30 minutes.

1 sticker = 3 stickers = 4 stickers = 6 stickers = 8 stickers = 16 stickers = 24 stickers =

Mom, am I healthy?
Treating Anxiety in Youth with ASD
Differences Between Treating Anxiety in Neurotypical (NT) & ASD

- Increased **structure & predictability** in delivering treatment components
  - Use of concrete and visual teaching strategies

- Increased focus on generalization
  - Increased parental involvement

- Incorporation of children's **“special interests”**
Treating Anxiety in ASD

a) CBT procedures reduce anxiety in NT children
   - i.e., exposure, cognitive restructuring, psychoed
     (see Albano & Kendall, 2002 for review)

b) BT procedures shown to reduce avoidant responding in children with autism
   - e.g., systematic desensitization, reinforcement, modeling
     (Ellis et al., 2006; Koegel et al., 2004; Love et al., 1990; Luscre & Centre, 1996; Rapp et al., 2005; Ricciardi et al., 2005)

c) PBS antecedent-based & replacement strategies used w/ASD & DD
   (Carr et al., 2002; Lucyshyn et al., 2007)
   - e.g., choice, visual supports, social stories, noncontingent reinforcement, FCT
PBS:
Considering Function of Behaviors

- Traditional View: 4 main functions of behavior
  - Escape-Demand
  - Gain Attention
  - Obtain Tangible
  - Sensory-Seeking

- Re-conceptualizing as Reducing Anxiety:
  - Escape-Anxiety
  - Gain comfort/reassurance
  - Obtain comfort object or self-soothing activity
  - Reduce feelings of arousal associated with anxiety
PBS Replacement Strategy: Functional Communication Training (FCT)

- Teaching child to ask for what he/she wants through language instead of problem behavior or anxious behavior

- Examples of appropriate communication:
  - Function: Escape Anxiety
    - Ask for break, help, change in activity
  - Function: Attention
    - Ask for social interaction, attention, or praise
  - Function: Tangible
    - Ask for preferred items, activities, or people; ask for a turn
  - Function: Sensory
    - Ask for item that provides sensory stimulation or reduces sensory stimulation

Note: Must fade the number of “Break Cards” available or hugs we provide over time so that child is exposed to the feared situation for increasingly longer periods of time (“graduated exposure”)
PBS Prevention Strategies: Increase Predictability - Visual Schedules

- Helps make the environment, activities & tasks more predictable, less overwhelming
- Enhances sense of control over environment; promotes independence
- Reduces stress, uncertainty, anxiety
- Helps child prepare for transitions, preview what is coming next
- Builds on child’s strengths

McClannahan & Krantz (1999); Mesibov, Browder, & Kirkland (2002)
PBS Prevention Strategies: Increase Predictability – Timers/Countdowns

- Advanced warnings: Used to alert child of end of activity
  - Provides child with time to prepare
  - Prevents/reduces anxiety, frustration associated with transitions
  - Makes transition a gradual process, instead of abrupt ending
  - Increases predictability, provides greater sense of control

Dettmer, Simpson, Myles, & Ganz, 2000
Prevention Strategies: Increase Predictability - Priming

- Previewing future events, materials, or learning activities on a 1:1 basis, under relaxed conditions, so they become more predictable
- Effective for children for whom group instruction may be overwhelming
  - e.g., parents read story at home the night before
- E.g., Video priming
  - e.g., Carried camera through transition setting to show the environment as the child would see it when progressing through the transition (e.g., moving through a store and entering another store)

Priming: Wilde, Koegel, & Koegel (1992)
PBS Prevention Strategies: Provide Choices

- Provide frequent opportunities to make choices
  - Enhances sense of control
  - Child learns to become an active participant, rather than a passive, helpless bystander
  - Increases motivation to participate & behave well

Cale, Carr, Blakeley-Smith, & Owen-DeSchryver (2009); Shogren, Faggella-Luby, Bae, & Wehmeyer (2004)
CBT: Cognitive Restructuring

- Modifications for ASD: Convey Visually
  - Cognitive components de-emphasized or modified to meet developmental level
  - Psychoeducation & cognitive component of treatment conveyed using visual aids (e.g., Social Stories, illustrations, lists with pictures, reward charts), modeling, role-playing

So, to fight my anxiety, I will try not to ask Mom these questions.

And to help me fight my anxiety, mom will try NOT to answer my questions by saying, “Yes, you’re healthy” or “No, you’re not going to get sick.”

Instead, mom will say, “That’s just your anxiety talking. I can’t tell you if you’re going to get sick.”

At first, when Mom says “I don’t know” or “I can’t tell you,” I will feel scared. But, after a while, I will be less scared. Then, after a while longer, I won’t be scared anymore.

I will see that my anxiety goes down after a while, even if mom doesn’t answer me.
CBT: Graduated Exposure

- Modifications for ASD:
  - Incorporating **perseverative** interests
  - **Pairing** with highly positive stimuli (counterconditioning)
  - Incorporating **video modeling** or **video priming**
  - Most likely need parents to implement **positive reinforcement** (e.g., Reward Chart)
  - Incorporating **FCT**

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Lego Needle created by Dr. Ali Mattu

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Anxiety and Problem Behavior in Children with ASD and ID

Intervention
High-Anxiety (HA) Contexts & Behaviors

1) Jon (6yo)
   • HA Context: participating in group activity (Happy Birthday)

2) Ben (9yo)
   • HA context: fear of being left alone

3) Sam (8yo)
   • HA context: Left/right turns while riding in car
Multicomponent Intervention

Prevention Strategies (altering antecedents or setting events)
✓ Psychoeducation
✓ Increasing predictability
✓ Providing choices
✓ Incorporating perseverative interest
✓ Graduated exposure
✓ Counter-conditioning / generalized reinforcement

Replacement Strategies (teaching replacement skills)
✓ Coping self-talk
✓ Functional communication training (FCT)*
✓ Relaxation training*

Consequence-based Strategies
✓ Contingent positive reinforcement for brave behavior
✓ Extinction
✓ Differential reinforcement

Note: *these strategies were not used in this study
Case #1: Jon – Baseline of Happy Birthday

Watch Video
Case #1: Happy Birthday Intervention

- Increasing Predictability
- Graduated Exposure
- Counter-conditioning
- Positive reinforcement
- Incorporating perseverative interest
- Escape extinction
Intervention for Happy Birthday:
Exposures
Case #2: Separation Anxiety Intervention

- Psychoeducation
- Increasing Predictability
- Providing Choice
- Graduated Exposure
- Counter-conditioning
- Incorporating perseverative interest/activity
- Coping self-talk
- Extinction
Case #3: Driving Intervention

- Increasing Predictability
- Providing Choice
- Graduated Exposure
- Counter-conditioning
- Incorporating perseverative interest
- Extinction
Limitations & Future Directions

- Limitations
  - Anxiety vs. fear vs. negative affect
  - “Active” Tx components
  - Lack of child self-report
  - No follow-up data

- Future Directions
  - Develop & validate measures to assess anxiety in ASD
  - Counterconditioning vs exposure
  - Anxiety as a setting event for PB
  - Precursor behaviors paired w/ physiological
  - Maintenance, durability, and sustainability
Summary

• Individuals with ASD do experience anxiety, though it’s often misunderstood
• Standard CBT interventions need to be made more concrete, visual, and engaging for children with ASD
• Positive behavioral support can augment standard CBT
• Treatments should also address social, emotional, and communication skills
Resources: Books

Written for Parents of Children without ASD or DD (but should still be useful for youth with ASD or DD):

• *Freeing Your Child From Anxiety*, by Tamar Chansky
• *Freeing Your Child from Obsessive Compulsive Disorder*, by Tamar Chansky
• *You and Your Anxious Child*, by Anne Marie Albano
• *Helping Your Anxious Child*, by Ronald Rapee, Ann Wignall, Susan Spence, Vanessa Cobham, and Heidi Lyneham

Designed for Children with ASD and their Parents:

Resources: Websites

• Child and Adolescent Anxiety Disorders Clinic at Temple University www.childanxiety.org
• Children’s and Adult Center for OCD and Anxiety: www.worrywisekids.org
• The Child Anxiety Network: www.childanxiety.net
• Association for Behavioral & Cognitive Therapies: www.abct.org
• Anxiety Disorders Association of America: www.adaa.org
• Parent Training Resources: http://www.copingcatparents.com/