Overview

1. Anxiety, Stress, and Challenging Behavior
   - Positive Behavior Intervention and Supports
     • Function-based, multi-component planning

2. Cognitive Behavioral Therapy for Anxiety

Case Example: Functional Behavior Assessment

Saul is 12 years old and uses phrased speech. Saul’s parents note that he gets stressed easily when he is in new/less familiar places. He also expresses his need for sameness by becoming upset and/or avoidant (he will either meltdown or shutdown)—he gets very anxious when something is different or does not go as expected. Often times this results in him running off (eloping). His mother also explained that he becomes anxious when his dad wears button down T-shirts, and will scream until dad removes the shirt.

These types of challenges are more likely to happen if he misses a meal, does not sleep through the night, or had to deal with a stressful situation earlier in the day. These setting events make him less tolerant.

The behavior analyst collaborated with Saul’s parents clarify the topography of the behaviors, the associated environmental variables, and finally the behavior functions.
Contextualizing Anxiety & Stress Responses

- 4 primary behavior functions

Multi-component behavior support plans:
- Prevention strategies
- Teaching communicative replacements and skills
- Consequence management

Features of Positive Behavior Support

- Uses principles of Applied Behavior Analysis (ABA)
- Positive, prevention focus
- Reinforcement rich
- Reduced role of punishment; no aversive stimuli
- Function-based
- Multi-component
- Ecologically valid and generalizable
- Acceptable and feasible by stakeholders
- Collaborative involvement
- Person-centered
- Evidence-based, data-driven

Why does challenging behavior happen?

Behavior is (often) communication!

- Limited communication/social repertoires can contribute to development and maintenance of problem behavior
- The function of behavior refers to the message that is ultimately conveyed through the behavior
  - Obtain
  - Escape/Avoid

Why does challenging behavior happen?

Functions of Challenging Behavior
- To obtain (Positive reinforcement)
  - Attention
  - Tangible
  - Sensory stimulations
- To escape (Negative reinforcement)
  - Demanding tasks
  - Social interactions
  - Attention
  - Activity, event, or place
Why does challenging behavior happen?

**Common Functions of Behavior for Children**

- **Escape** from demands
  - Tantrums when asked to do get dressed
- **Obtain** attention from an adult or peer
  - Throwing toys to get someone to play with them
- **Obtain** access to a preferred item or activity
  - Throwing cup on floor to get more milk

**Data!**

- BCBA and expertise in FBA needed to assess, design, and implement
- Used to develop a behavior support plan (BSP)
- Without understanding why the behavior is happening, it is difficult to create an effective intervention plan
- Consistently noted as an evidence-based practice

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**EATS**

- **Escape**
- **Attention**
- **Tangible**
- **Sensory (automatic)**

**Data Examples**

**Direct Data**

- Observation of contexts, antecedents, behaviors, consequences
  - ABC Chart
  - Scatter plot
  - Frequency, duration data
  - Functional analysis

**Indirect-Informant Data**

- Functional Assessment Interview
- FBA scales and screeners
  - FAST (Iwata & DeLeon, 1996) – 67% reliability
### ABC Analysis

**Date:** / /  

**Name of Person Observed:** __________________________  

**Observer:** __________________________________________

**Behavior(s):** ____________________________________________

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Antecedent</th>
<th>Behavior</th>
<th>Consequence</th>
<th>Possible Function</th>
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### The A-B-Cs of PBS

**Antecedent:** Before the behavior  

**Behavior:** What the behavior looks like  

**Consequence:** After the behavior

#### Functions of Behavior

- Behavior Support Plan!

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### Scatterplot

**George's Scatter Plot**

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**Time:**  

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- 3 or more books thrown  
- 1-2 books thrown  
- No books thrown

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### Behavioral Analysis

**Name:** __________________________  

**Date:** / /  

**Behavior(s):** ____________________________________________

**Antecedent:** Before the behavior  

**Behavior:** What the behavior looks like  

**Consequence:** After the behavior

**Comment:** __________________________

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**Date Time Antecedent Behavior Consequence Possible Function**

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**Name:** __________________________  

**Date:** / /  

**Behavior(s):** ____________________________________________

**Antecedent:** Before the behavior  

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**Consequence:** After the behavior

**Comment:** __________________________
Anatomy of a Behavior Support Plan

Based on FBA, we: Prevent – Teach – Reinforce.

**Prevention Strategies**
- Antecedent changes

**Behavior Teaching & Replacement Skill Strategies**
- Consequence management

**Reinforcement Strategies**

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A. Prevention

Avoiding and altering setting events and triggers
- Clarifying expectation and predictability
  - Priming/pre-exposure and preparing
  - Warnings, foreshadowing, timers, activity schedules, checklists
  - First, then

Increasing understanding
- Social narratives, role playing/modeling

Gradual approaches
- Systematic fading
- Gradual demand exposure

Altering control and motivation: Choices & Preferences; Leisure

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B. Skill Teaching

- Teach functionally-equivalent communicative replacement behaviors

- Teach coping and calming down strategies
  - Key chains or Toolboxes

- Increase related-skill competencies

- Practice and reinforce behavioral flexibility
C. Consequence Management

Gradual exposure and systematic desensitization
- Response hierarchy and competing reinforcement

Motivational systems
- Differential reinforcement
- Token economies
- Self-monitoring and self-management
  - Self-evaluation and self-awareness
  - Self-reinforcement

Self-evaluation and self-awareness

Self-regulation

Newer Research Avenues in PBS

- Rigorous, large-scale RCT data elaborated on decades of research showing that parents can learn and implement these programs (Bearss et al., 2015)

- Useful to use CBT techniques to increase optimism in parents and teachers learning PBS strategies (Durand & Moskowitz, 2015; Durand et al., 2013)
  - High degrees of pessimism interferes

CBT for Anxiety

- Present-focused
- Time-limited
- Problem-solving oriented

1. Identify distorted thinking
2. Modify beliefs
3. Change behaviors
CBT programs for youth with ASD

- Individual (w/ parents)
  - Behavioral Interventions for Anxiety in Children with Autism (BIACA; Wood et al., 2009)
  - Coping Cat (Kendall et al., 1997)

- Group
  - Facing Your Fears (Reaven et al., 2011)

- Combined
  - Exploring Feelings (Atwood, 2004)
  - Multimodal Anxiety and Social Skills Intervention (White et al., 2010)

Coping Cat

- Designed for typical youth; ages 7-13 years
- 16-week, 60-minute sessions
  - Wks 1-8: Teaching skills
  - Wks 9-16: Practice/Exposure

  **Elements**
  - Recognizing anxious feelings (e.g., bodily cues)
  - Identifying thoughts in anxious situations (e.g., unrealistic or negative expectations)
  - Developing coping plans (e.g., modify self-talk)
  - Practice/exposure (fear hierarchy)
  - Evaluating performance/self-reinforcement (points)

- Inexpensive; available at http://www.workbookpublishing.com

BIACA

- Designed for children with ASD; ages 7-13 years
- Based on Building Confidence
- 16-week, 90-min (45-child, 45-family)

  **Elements**
  - Identify/label emotions in self and others
  - Psychoeducation about ASD and anxiety
  - Identify anxious thoughts, create competing coping thoughts
  - Structured rewards (emphasize special interests)
  - Gradual exposure + persistence = habituation
  - Supplementary social skills training

  **NOT YET PUBLICLY AVAILABLE**

Facing Your Fears

- Designed for children with ASD; ages 8-14 years
- 12-week, 90-min (Parent+child and separate)
- Modified from mainstream CBT programs (e.g., Coping Cat)

  **Child elements**
  - Intro to anxiety (individual expression) and CBT strategies
  - Graded exposure/implementation of strategies
  - Token reward system

  **Parent elements**
  - Psychoeducation about anxiety, intro to CBT
  - Identifying child’s anxiety symptoms and target behaviors
  - Discuss parent anxiety, parenting style
Exploring Feelings

- Designed for children with ASD; ages 10-12 years
- 6-week, 2 hour sessions (child groups)

- Elements
  - Explore strengths, feelings of happiness; identifying relaxed states
  - Explore anxiety and bodily responses, relaxation techniques
  - Strategies for supporting those who are anxious
  - Review use of relaxation techniques
  - Social story highlighting anxiety-inducing situations, negative thoughts and alternative thoughts
  - Consider most relaxing strategies; write social story with plan

- Published in Australia; Available from Amazon

What’s the evidence base?

- Review Ung et al., 2015
  - 12 RCTs, 2 Open-Trial
  - 11 different interventions
    - 4 studies on BIACA; 2 on Exploring Feelings
    - Many mention adaptations of Coping Cat
  - CBT superior to TAU/waitlist (g=-.76, CI=-1.2, -.31)
    - Driven by outlier study with large effect
    - Individual study effect sizes varied from -3.48 to -.07

Hedges g <.5 = small effect; g=.5-.8 = moderate effect; g >.8 = large effect size

Common elements of CBT programs

- Topics
  - Recognition of anxious feelings/bodily responses, triggers
  - Cognitive restructuring
  - Relaxation techniques
  - Fear hierarchy (ladders/thermometers)
  - Exposure
  - Social skill development

- Other common elements
  - Multimodal teaching (visuals, social stories, video models, role play, worksheets)
  - Reward systems

Limitations to extant research

- Small, heterogeneous samples
  - 6 to 71 children
  - specific anxiety dx varied
- Most focus on children with IQ > 85
- Limited age (7 to 17 years, but primarily 8-14)
- Limited independent replication
  - BIACA n=4 by authors and collaborators
  - Exploring feelings n=2 (+ recent school study)
Thank you!

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