INNOVATIONS IN CARE: ASSESSING AND TREATING ANXIETY IN PEDIATRIC POPULATIONS

Jennifer Freeman, PhD and
Hannah Frank, MA
Pediatric Anxiety Research Center, Bradley Hospital
October 24, 2019

DISCLOSURES

- Dr. Freeman and Ms. Frank have no financial relationship with a commercial entity producing health-care related products and/or services
- Dr. Freeman receives royalties from Oxford University Press and grant funding from the NIMH and PCORI

THANK YOU AND CREDIT TO

- Kristen Benito, PhD, Jenny Herren, PhD, Abbe Garcia, PhD, and Elizabeth Brannan, MD, FAAP in the Pediatric Anxiety Research Center for sharing slides

LEARNING OBJECTIVES

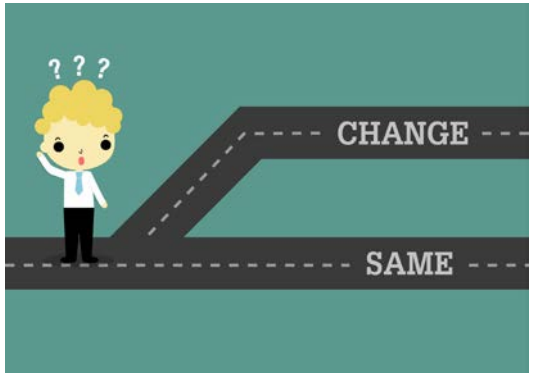
- Recognize and identify the **signs and symptoms** of common pediatric anxiety and OC-Spectrum Disorders
- Understand and utilize basic **assessment instruments** for pediatric anxiety and OC-spectrum disorders
- Understand and apply time-limited **evidence-based treatment strategies** for pediatric anxiety and OC-spectrum disorders

Outline

Anxiety Disorders Overview

Assessment of Anxiety

Behavioral Model



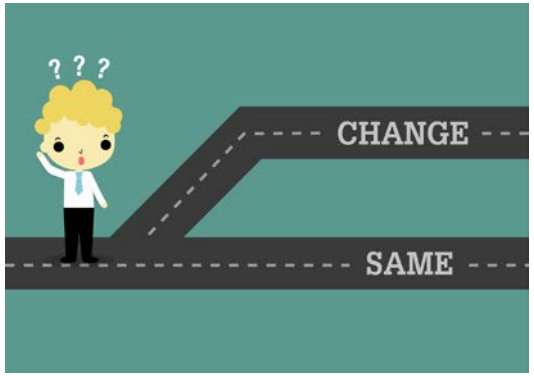
Anxiety Treatment

Outline

Anxiety Disorders Overview

Assessment of Anxiety

Behavioral Model



Anxiety Treatment

Facts about child anxiety

Often disregarded

-Stress placed on others may pale in comparison to that caused by externalizing disorders or other concerns

-Over-attribution of developmentally appropriateness and belief that it will go away on its own

It is a natural emotion that can be helpful

-Protective function

-Mild to moderate levels can enhance performance

Typical Anxiety Content Changes with Age

Developmental Period	Typical Content
Infancy (0-2yrs)	• Separation anxiety • “Stranger danger” • Loud noises • Large objects
Early Childhood (3-6yrs)	• Imaginary creatures, sleeping alone, darkness • Bodily injury, Doctors/hospitals • Animals • Thunder and other natural events
Middle Childhood	• Thunder and other natural events • School performance • Health, Death • Social competence
Adolescence	• New experiences • School performance • Health • Natural disasters • Social competence

NATURE AND PREVALENCE OF ANXIETY DISORDERS IN PEDIATRIC POPULATIONS

- Between 10-30% of kids suffer from anxiety disorders
  - Most prevalent of psychiatric disorders for youth
- Leads to significant impairment in adulthood if untreated
  - Highly comorbid (especially with depression)
  - May lead to other problems in adulthood (substance use)
  - Fewer than 20% of children receive appropriate treatment for anxiety disorders

DSM-5 ANXIETY DISORDERS

Separation Anxiety Disorder

Selective Mutism

Specific Phobia

} Typical onset before age 12 yo

Social Anxiety Disorder (Social Phobia)

Late childhood & adolescence

Panic Disorder

Agoraphobia

Generalized Anxiety Disorder

} Late adolescence & early adulthood

Substance/Medication-Induced, Due to Another Medical Condition, Other Specified, and Unspecified

DSM-5 OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

Obsessive-Compulsive Disorder (OCD)*

Body Dysmorphic Disorder (BDD)

Hoarding Disorder

Trichotillomania (Hair-Pulling Disorder)

Excoriation (Skin-Picking) Disorder

Substance/Medication-Induced, Due to Another Medical Condition, Other Specified, and Unspecified

1/3 of adults with OCD report onset in childhood/early adolescence, most by age 18 yo

*Focus today is on OCD within this group

SEPARATION ANXIETY DISORDER

- **Core Fear: Worry that something bad will happen to parent or self if separated**
  - May experience recurrent nightmares
  - Avoidance of separation
- Age inappropriate (after age 6 yo), excessive anxiety about being apart from parents or away from home
- Often associated with school refusal or trouble sleeping alone
- Requires 3 of 8 symptoms for at least 4 wks

SELECTIVE MUTISM

- **Core fear: Worry that something negative will happen if patient speaks (fear of embarrassment akin to social phobia)**
- Persistent failure to speak in *specific social situations* where speaking is expected, *despite speaking in other situations*
- Shyness, fear of embarrassment, social withdrawal; common precursor to social phobia
- Lasting at least 1 month, excluding the 1st month of school

SOCIAL ANXIETY DISORDER/SOCIAL PHOBIA

- **Core Fear: Fear of scrutiny or embarrassment in specific or global social situations**
  - Exposure almost always causes anxiety—may be similar to feelings of a panic attack
- Avoidance or endurance with intense distress
- Symptoms at least 6 months; significant interference

SPECIFIC PHOBIA

- **Core Fear: Severe disproportionate fear of negative outcomes in the presence of specific stimulus.**
  - Circumscribed to that stimulus
- Avoidance or endurance with EXTREME distress
- Common phobias:
  - Animal – dog, spider, bees
  - Natural elements – heights, storms
  - Blood
  - Needles/Injection/Shots
  - Situational – airplanes, elevators

PANIC DISORDER

- **Core Fear: Intense dread and fear of uncomfortable physiological sensations**.
  - Sudden, abrupt onset
  - “Out of the blue”
- At least 1 month of persistent concern about recurrence or consequences, or significant behavior change
- **Note**: Panic attacks can occur in context of any mental health disorder (e.g., depression, other anxiety disorders) and can be used as a specifier

AGORAPHOBIA

- **Core Fear: Avoidance of situations from which escape might be difficult/help unavailable, should uncomfortable physiological sensations or other incapacitating or embarrassing symptoms occur.**
- Marked fear or anxiety about two (or more) of following:
  - Use of public transportation (planes, cars, buses)
  - Being in open spaces (bridges, parking lots)
  - Being in enclosed spaces (shops, theaters)
  - Standing in line or being in a crowd
  - Being outside of the home alone
- Persists for at least six months
- Does not have to have Panic Disorder

GENERALIZED ANXIETY DISORDER (GAD)

- **Core Fear: Excessive and uncontrollable anxiety and worry about negative outcomes associated with past, current, and future events and activities.**
  - > than 6 months
  - Occurs more days than not and is uncontrollable
  - Occurs with other symptoms (1 required for children): restlessness, fatigue, difficulty concentrating, irritability, muscle tension, sleep disturbance
- Tends to be chronic and will wax and wane over lifespan

OBSESSIVE-COMPULSIVE DISORDER (OCD)

- **Core Fear in OCD is idiosyncratic and can be challenging to understand**
- The prominent features of OCD are obsessions and compulsions
  - Obsessions: Unwanted thoughts, images, or impulses that cause marked anxiety/distress; sometimes a feeling of intense discomfort or “not just right”
  - Compulsions: Repetitive behaviors or mental acts
    - Functionally related to obsessions
    - Aimed at reducing distress or preventing dreaded event
    - Cardinal feature is neutralizing
- Time consuming (>1hr/day)
- Must cause marked distress or significant interference in functioning

OCD: IMPORTANT POINTS

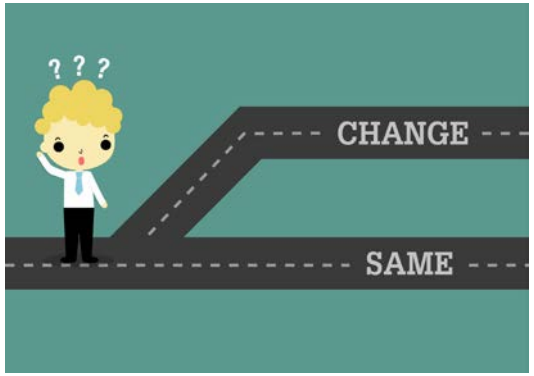
- Obsessions are **unwanted** and **distressing** (therefore ego-dystonic); they are not “fixed interests” or topics from which the individual derives pleasure or enjoyment
- **Insight varies** significantly from patient to patient
  - Modifier in DSM-5 to specify degree of insight
  - Can be poor/absent

Outline

Anxiety Disorders Overview

Assessment of Anxiety

Behavioral Model



Anxiety Treatment

CLINICIAN MEASURES OF SYMPTOM SEVERITY

- **Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)**
  - Gold standard for assessing OCD severity
  - Assesses presence/absence of obsessions and compulsions as well as severity and impact of OCD symptoms
- **Pediatric Anxiety Rating Scale (PARS)**
  - Assesses severity of anxiety symptoms associated with common anxiety disorders (social phobia, separation anxiety disorder, and generalized anxiety disorder)
- **Anxiety Disorders Interview Schedule (ADIS)**

ADDITIONAL ASSESSMENT MEASURES

- **Youth/Parent Report**
  - Multidimensional Anxiety Scale for Children (MASC)
  - Screen for Child Anxiety Related Emotional Disorders (SCARED)
  - Revised Children's Manifest Anxiety Scale (R-CMAS)
  - Fear Survey Schedule for Children – Revised (FSSC-R)
- **Observation**
  - Behavioral Approach Tests (BATs)
  - Youth Speech Sample

For a review of anxiety assessment for youth, see Schniering et al. (2000)

COMMON CORE FEARS

- **OCD**
  - Safety/health-self
  - Safety/health-others
  - Incompleteness
  - Disgust
  - Physical Symptoms/Pain
  - Morality
  - Uncertainty/Doubt

- **Specific Phobia**
  - Safety/health-self
  - Safety/health-others
  - Disgust
  - Physical Symptoms/Pain

- **Social Phobia**
  - Embarrassment/Judgment

- **Separation Anxiety**
  - Safety/health-self
  - Safety/health-others

- **Panic Disorder**
  - Physical Symptoms/Pain
  - Safety/health-self
  - Embarrassment/Judgment

COMMON EXAMPLES OF OBSESSIONS AND COMPULSIONS

Obsessions (intrusive thought/image)

Contamination (e.g., dirt, illness, chemicals)

Harm/Death (e.g., bringing harm to self or others, safety)

Numbers (e.g., lucky numbers)

Scrupulosity (e.g., right/wrong)

Sexual

Fear of losing something

Need for balance or symmetry

Incompleteness or “just right”

Compulsions (ritualized behavior)

Washing/Cleaning

Checking

Repeating (e.g., rereading, rewriting)

Counting

Ordering/Arranging

Hoarding

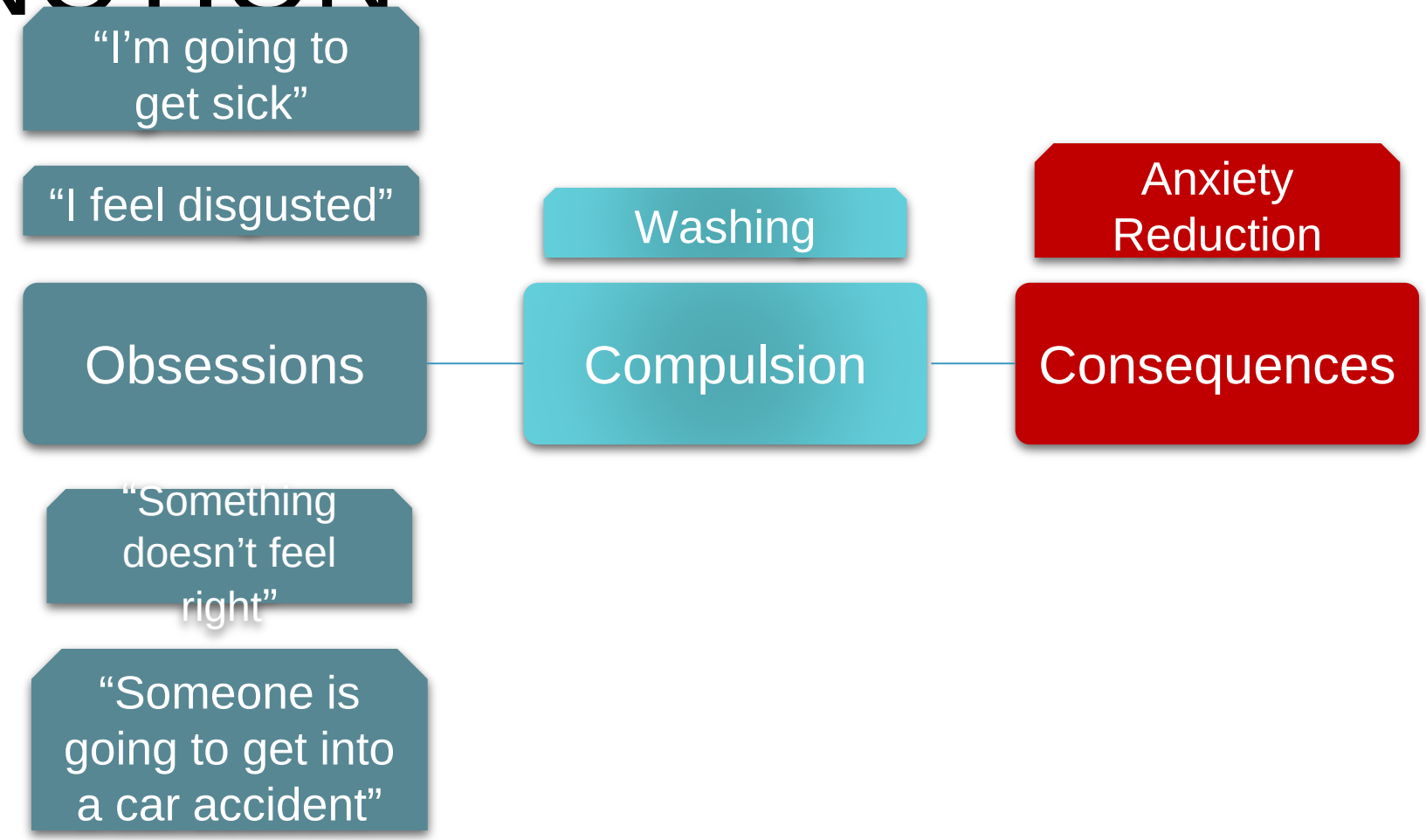
Reassurance-seeking

Mental rituals (e.g., praying)

Confessing/Need to tell

Need to tap/touch

OCD TOPOGRAPHY VS FUNCTION



QUESTIONS TO IDENTIFY FUNCTION

- **Obsession or worry is known (trying to identify associated compulsions or avoidance):**
  - You said that you worry about [stimulus]. When you do/see/touch [stimulus], what do you worry could happen?
  - When you have [obsession/worry], what makes it better/go away/reduces your anxiety?
  - Are there things you do?
  - Are there things you think or tell yourself to feel better?
  - Are there things you ask or want other people to do?
  - Are there things you avoid when you have this [worry/obsession]? How do you avoid them?
  - Are there things you try to not do when you have this [worry/obsession]?
  - Are there things you do to make things “just right” or “perfect”?
  - Is there anything you feel that you must do in a “set way”?

QUESTIONS TO IDENTIFY FUNCTION

- **Avoidance or Compulsion is known (trying to identify obsession or worry):**
  - Why do you [do compulsion/avoid]?
  - If you didn't [do compulsion /avoid], what do you worry could happen?
  - What kinds of things/places/activities make you feel like you need to do [compulsion /avoid]?
  - Could something bad happen when you are around/doing those things?
  - Does [compulsion/avoidance] keep you safe from something?
  - Does [compulsion/avoidance] make something better?
  - Does [compulsion/avoidance] stop something bad from happening?
  - Does [compulsion/avoidance] change something in your body or in your brain?
  - Before you do [compulsion/avoidance], what does your brain tell you? What do you feel in your body?
  - Is it hard to put the feeling into words? If yes: Does it feel like something is “not just right”? What does that feel like to you?
  - How do you know when [compulsion] is “done”?

USE THE DOWNWARD ARROW TECHNIQUE

Question 1

- You said that you won't open the kitchen cabinet because something bad might happen. What would happen?
- "I could accidentally touch my parents."

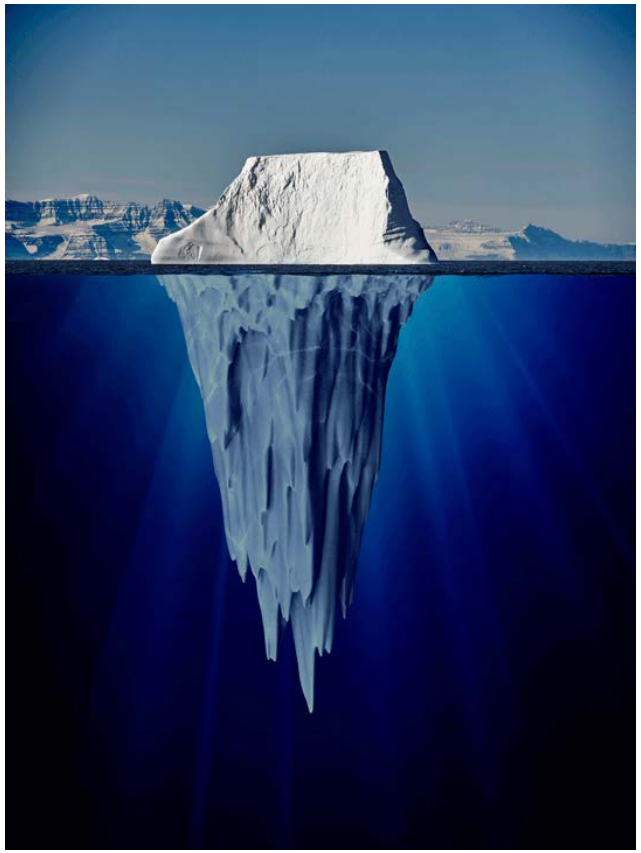
Question 2

- What would happen if you touched your parents?
- "They could get chemicals on them."

Question 3

- What would be bad about them getting chemicals on them?
- They might get sick and die. [Core Fear: Health of Others]

BUT IT'S NOT THAT BAD…OR IS IT?



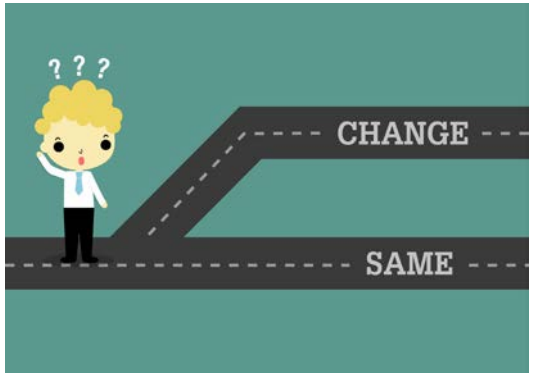
- Anxiety interference and severity may be masked by **avoidance** (patient) or **accommodation** (family)
- Important to **assess** for accommodation and avoidance around symptoms
  - ASK: What are the patient and family doing/not doing now that would be different if patient did not have this fear?
  - ASK: If the patient/family did NOT avoid/accommodate, what would happen?

Outline

Anxiety Disorders Overview

Assessment of Anxiety

Behavioral Model



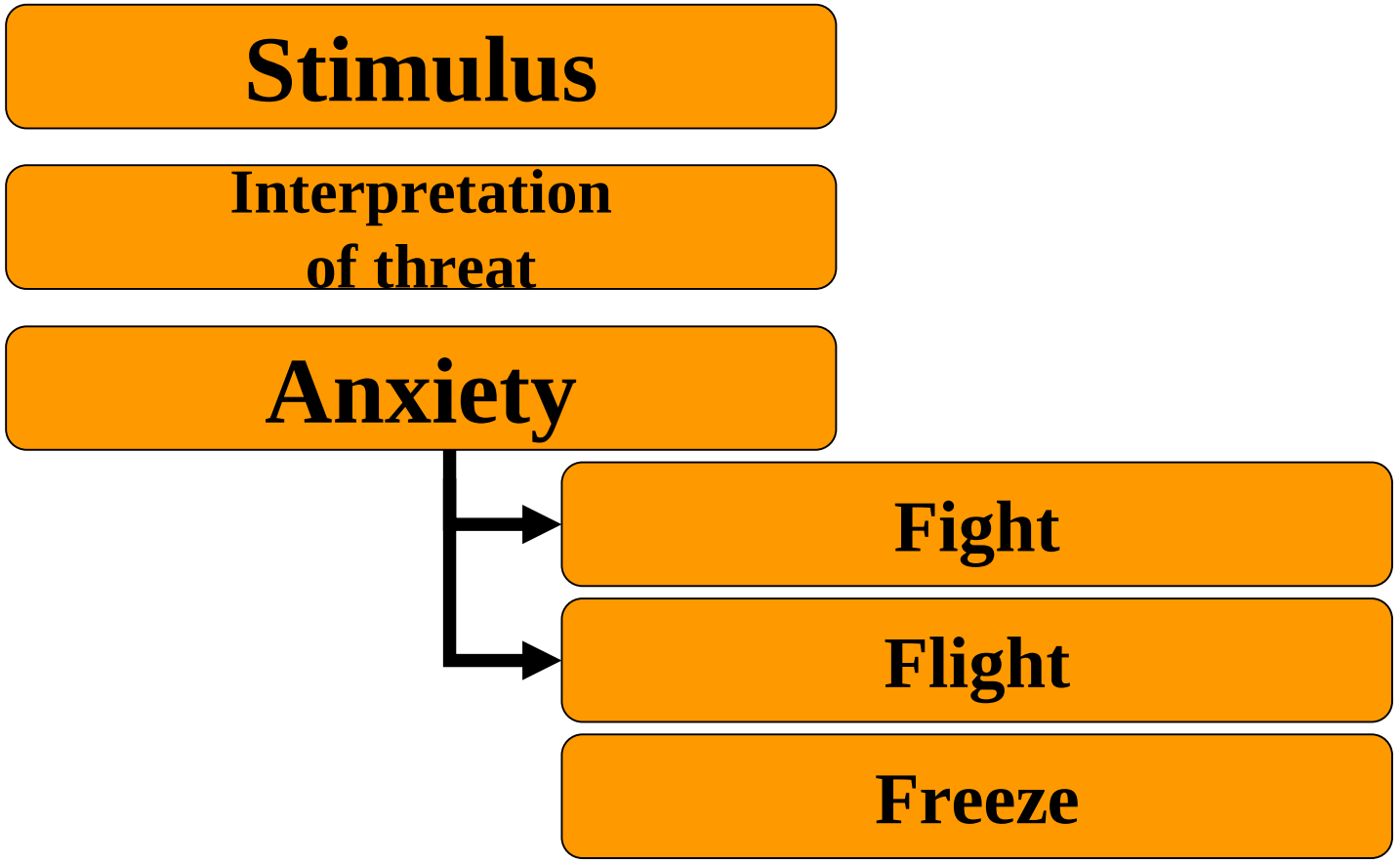
Anxiety Treatment

HOW DO WE UNDERSTAND WHAT IS HAPPENING?

IMAGINE YOU'RE TAKING A NATURE WALK AND YOU COME UPON…

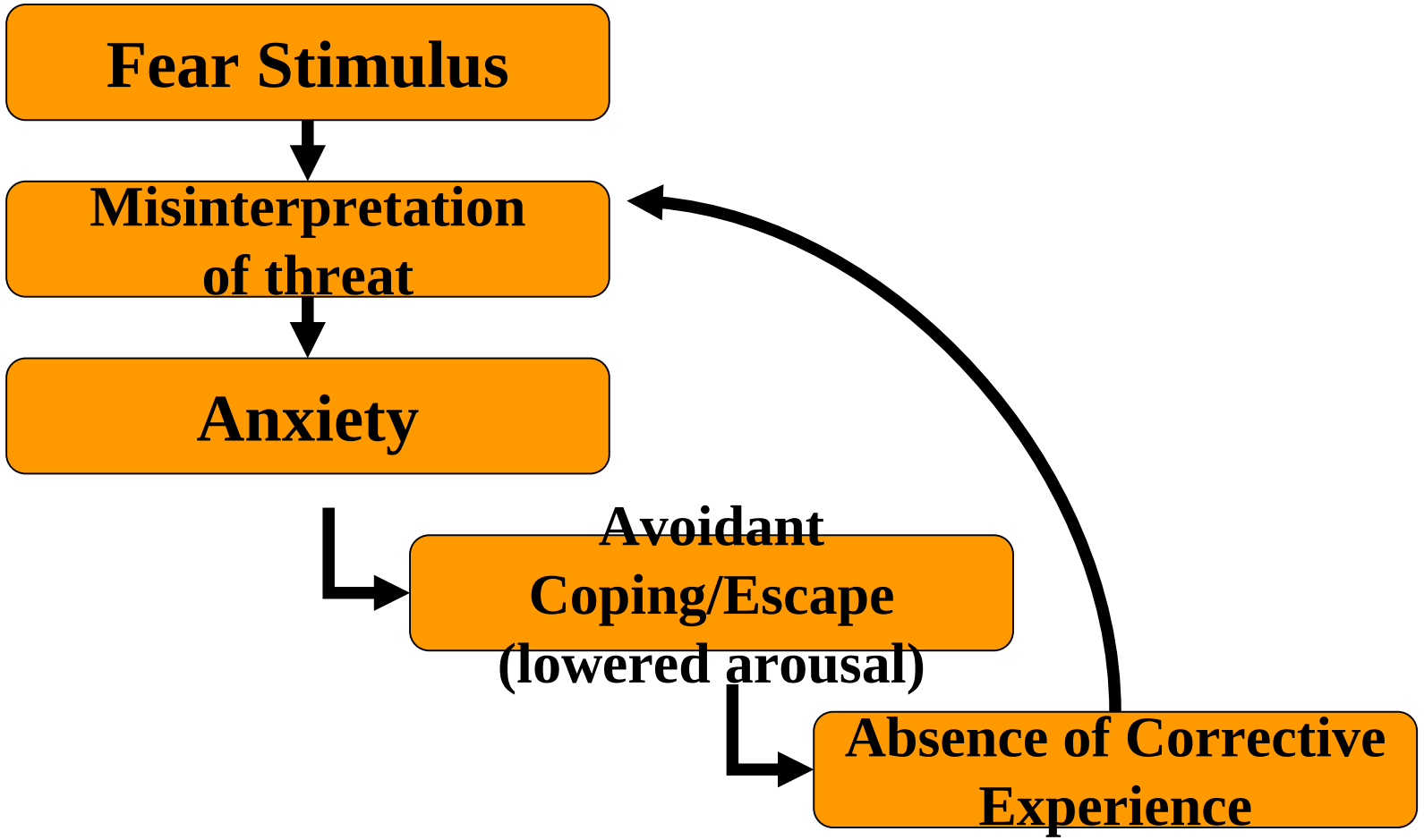
This SHOULD activate our body's natural alarm system!!

THE CBT MODEL OF ANXIETY



THEN THERE ARE FALSE ALARMS

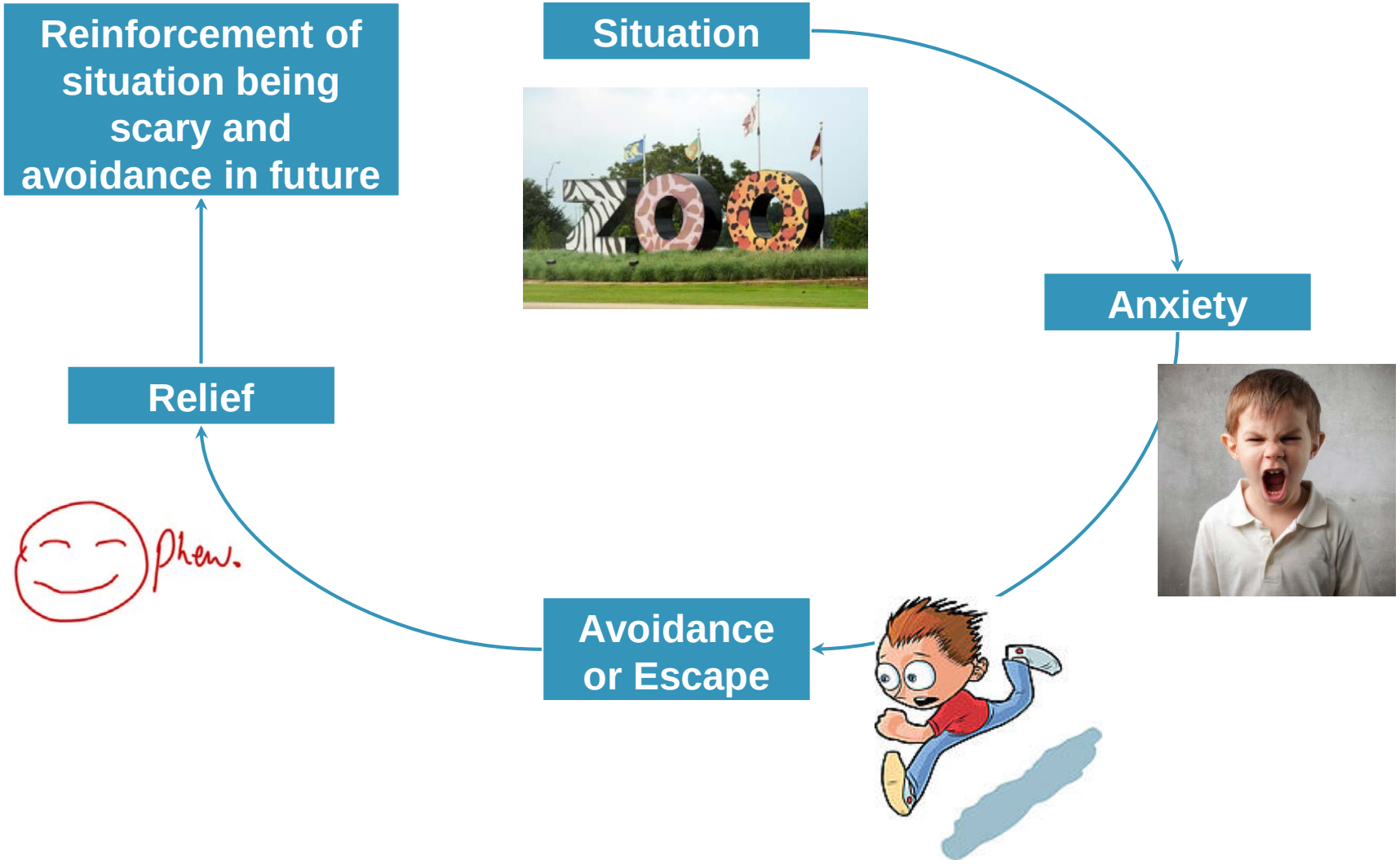
THE CBT MODEL OF ANXIETY DISORDERS



BEHAVIORAL MODEL OF ANXIETY AND OCD

- Model focuses on the processes that maintain OCD and anxiety (not necessarily what caused it to start in the first place)
  - OCD and excessive anxiety is a pattern of maladaptive behavior
  - This pattern of behavior interferes with the natural process of overcoming a fear
  - We can help patients learn healthier patterns that promote natural fear reduction process

HOW ANXIETY IS MAINTAINED OVER TIME



KEY BEHAVIORAL PRINCIPLE

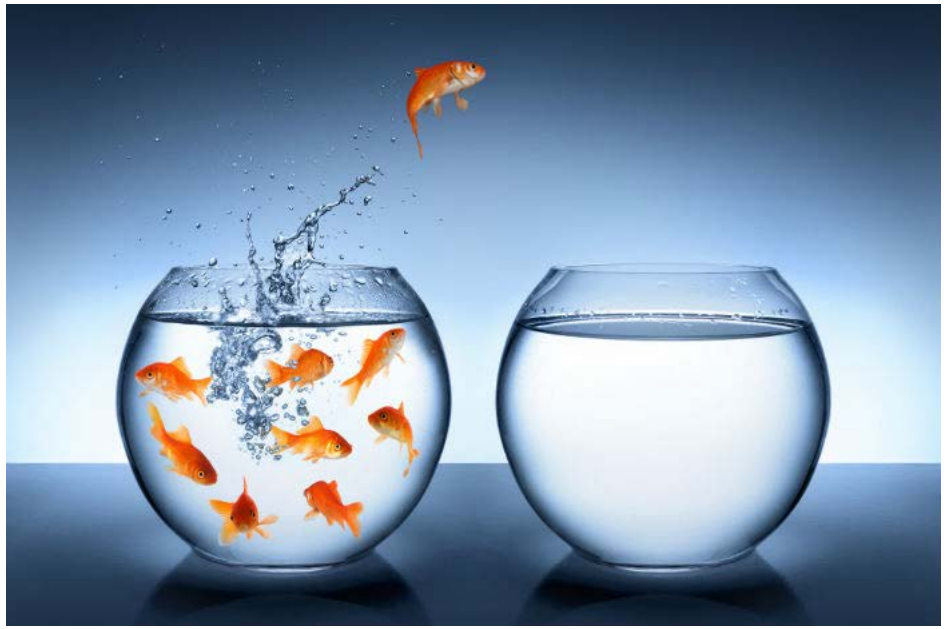
- **Negative Reinforcement** = anxiety is maintained over the long term by escape/avoidance

By escaping/avoiding the situation that causes anxiety, the person feels better <u>in the short term</u> because anxiety decreases

→ **<u>BUT</u>**, this <u>reinforces/increases</u> the link between that situation and anxiety, and between reductions in distress and the behaviors used to reduce it

WHAT ARE ESCAPE AND AVOIDANCE EXACTLY?

- Actual escape (leaving the situation) or avoidance (not getting into it in the first place)
- But also…
  - Ritualizing to neutralize it
  - Distracting away from it
  - “Coping” through it (which can include reasoning/logic-ing through it in some cases)

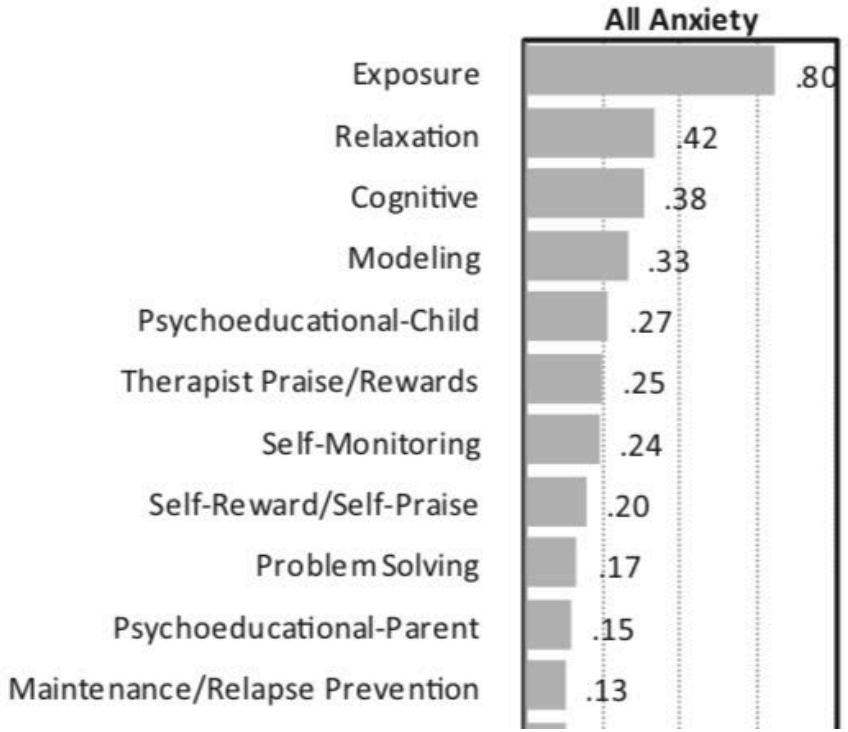


GENERALIZATION OF FEARS

WHAT IS THE MOST EFFECTIVE TREATMENT?

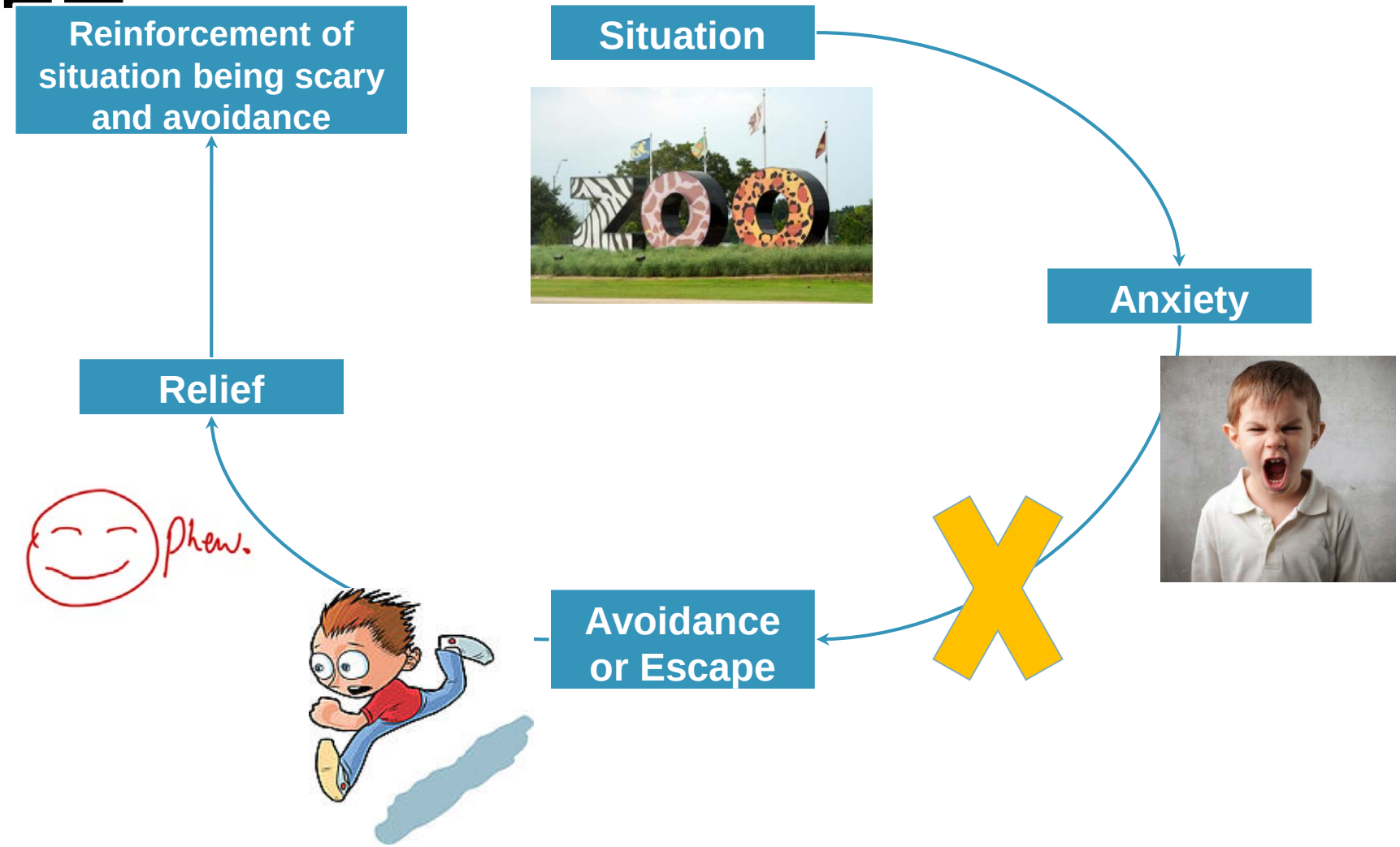
- CBT and exposure therapy are first line treatment for most anxiety disorders and OCD as it has the strongest evidence base
- Exposure therapy is the most common treatment ingredient across all treatment protocols for anxiety & the main driver of change
- Research shows that youth improve most in CBT after exposure is introduced
- More exposures during treatment strongly predicts better outcome

EXPOSURE THERAPY

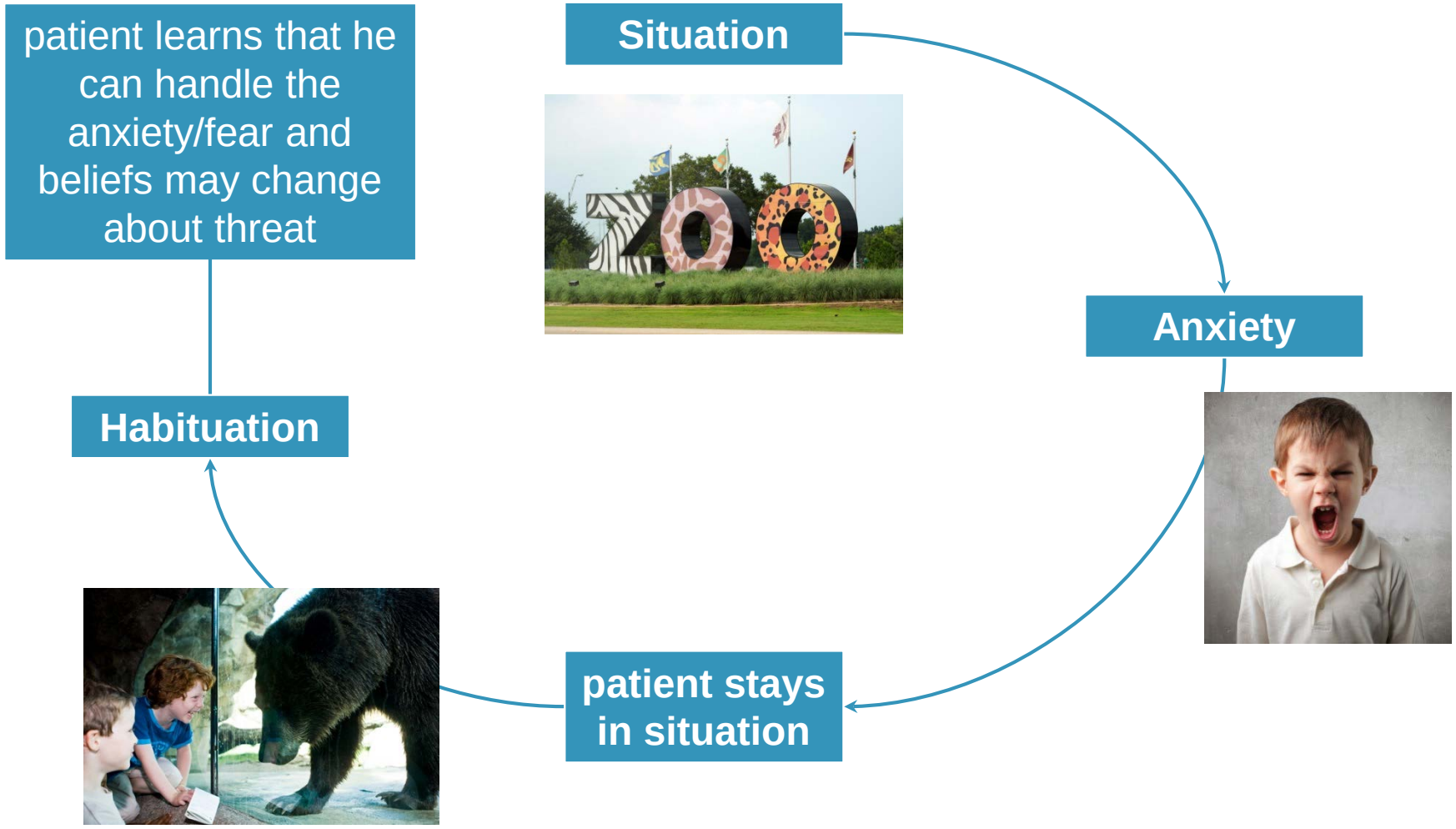


CHORPITA & DALEIDEN (2009)

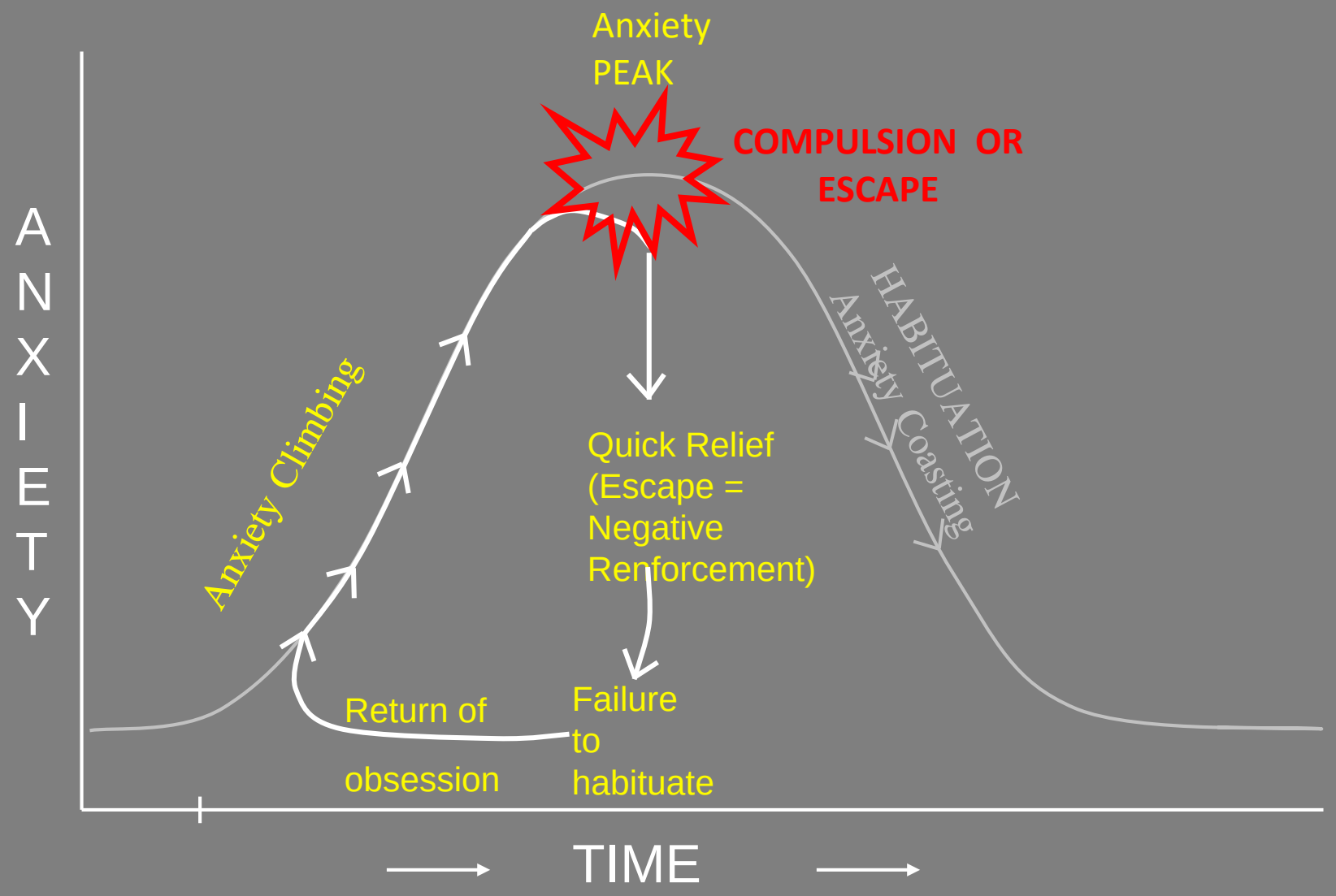
HOW EXPOSURE BREAKS THE CYCLE



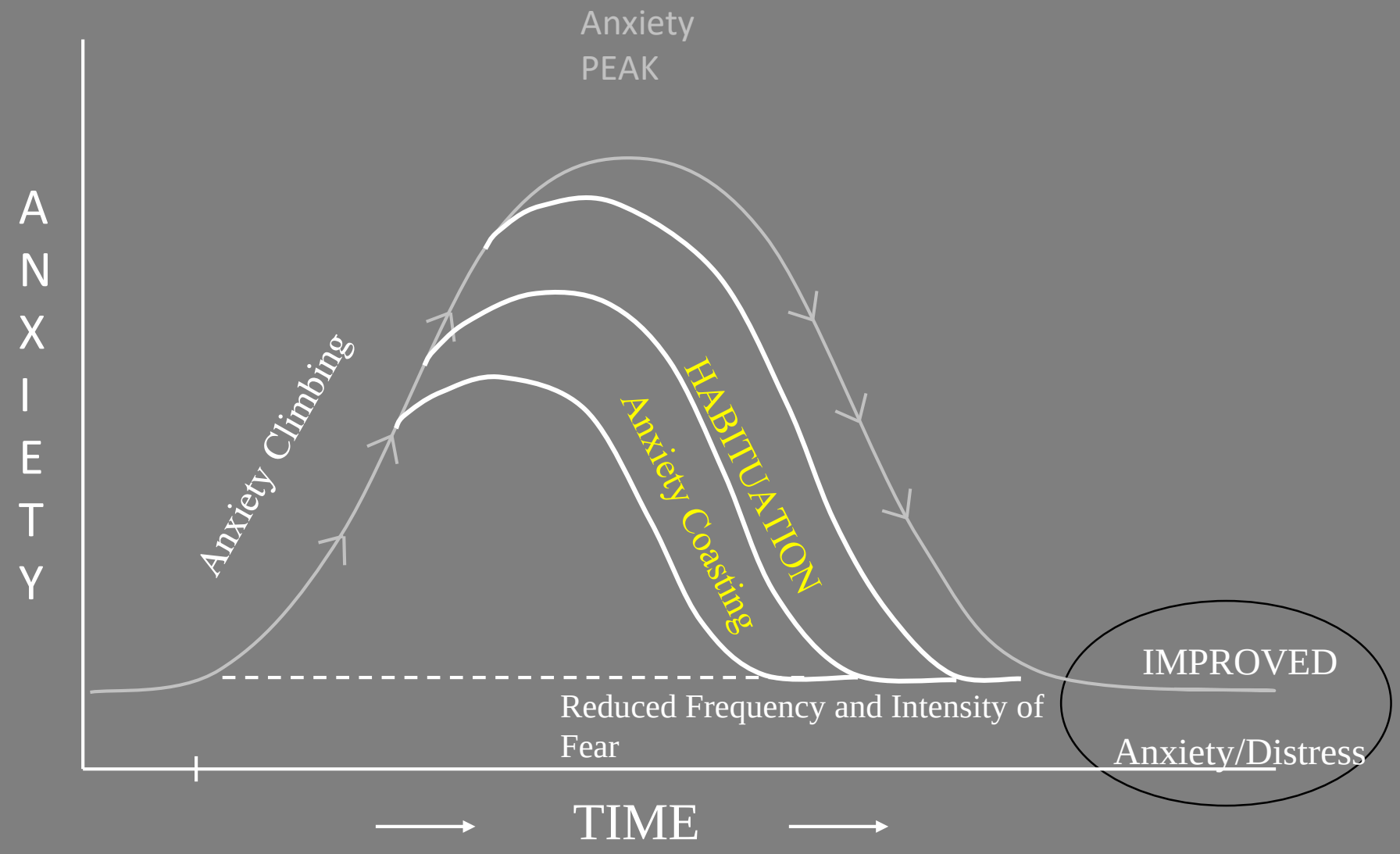
HOW EXPOSURE BREAKS THE CYCLE



The Anxiety Cycle



Breaking the Anxiety Cycle

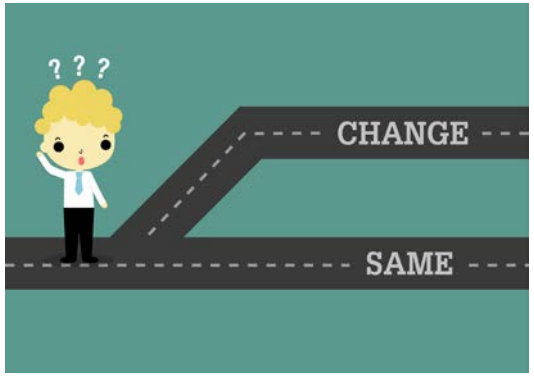


Outline

Anxiety Disorders Overview

Assessment of Anxiety

Behavioral Model



Anxiety Treatment

EXPOSURE MODEL

- Exposure involves repeatedly confronting a feared stimulus
- The intensity of anxiety produced declines substantially over time = **Habituation**
- Exposure with Response Prevention (ERP) is a specific type of exposure therapy used in the treatment of OCD = Exposure to feared stimuli **while refraining from ritualizing**

WHICH PATIENTS MIGHT BENEFIT FROM EXPOSURE?

- All ages: exposure is effective for children, teens, and adults
- A main problem that is fear/anxiety-based
  - Variations include incompleteness/'not right' feelings, disgust
- Any other main problems, so long as they aren't more urgent
  - Comorbidities: depression, substance use, interpersonal difficulties, oppositional behavior in children
  - Patients with markedly poor distress tolerance that results in significant aggression, self-injury, or suicidality are difficult to do exposure with because it is inherently distress-inducing

EXPOSURE IS THE ACTIVE INGREDIENT

- Exposure therapy is the most common treatment ingredient across all treatment protocols for anxiety
- Research shows that youth improve most in CBT after exposure is introduced
- More exposures during treatment strongly predicts better outcome

EXAMPLES OF EXPOSURES

- Touching objects in a trash can (OCD)
- Holding a spider (Specific Phobia)
- Parent hires a baby sitter (Separation Anxiety)
- Having a conversation with a stranger (Social Anxiety Disorder)
- Breathing through a straw = interoceptive exposure (Panic Disorder)
- Going to the grocery store alone (Agoraphobia)
- Imagining family dying in a car crash (Generalized Anxiety Disorder)

PSYCHOEDUCATION FOR ANXIETY AND OCD: GOALS

- Provide information about anxiety or OCD and maintenance of symptoms
  - Discuss the crucial role of parental/familial accommodation in maintaining symptoms
- Identify and address misperceptions about anxiety or OCD
- Give an overview of CBT and rationale for exposure
- Externalize symptoms

PSYCHOEDUCATION ABOUT ANXIETY

- **What is ANXIETY?**
  - Emotion that everyone feels
  - Has three main parts
    - CBT model – thinking, feeling, doing
  - Younger clients
    - *Body*: what we FEEL!
    - *Brain*: What we THINK!
    - *Behavior*: What we DO!

- **Anxiety is NORMAL and can be helpful!**
  - Anxiety is our body's natural alarm system
  - Can be both good and bad

- **Difference between a true alarm and a false alarm**
  - Sometimes our alarms are too sensitive and go off when there is no real danger
  - False alarms are scary, but not dangerous
  - Can get in our way

PSYCHOEDUCATION ABOUT ANXIETY

- Exposure is when we gradually face situations that make us nervous and uncomfortable to help us overcome and manage fear.
  - Testing out situations to make alarm less sensitive
  - Practice facing things that make patient anxious in small steps and at their pace
  - Use an example, such as fear of dogs
- Going into cold ocean/pool helps to explain habituation
- Importance of practicing
  - The more you practice the easier it gets.
  - Relate to learning to play a new sport, instrument, video game, new job
  - "Riding the Wave" or "Pedaling Up the Hill" or other metaphors meaningful to the client
- Team approach
- Externalize anxiety by giving it a name (if developmentally appropriate)

PSYCHOEDUCATION FOR OCD

OCD is conceptualized as a neurobehavioral problem

- It is not anyone's fault!
- Medical analogies are used (e.g., diabetes)
- Emphasis is placed on the importance of medication, behavioral change, and coping with residual symptoms once formal treatment is over
- Symptoms can wax and wane

Define OCD: see what patient understands it to be

- "Brain hiccup" can be useful metaphor for younger patients

Prevalence of OCD

- 1 or 2 in every 100
- Apply to current school to show that others in their same school have OCD or Gillette Stadium (66,000 capacity – if full, 660 to 1320 people would have OCD)

PSYCHOEDUCATION: POINTS FOR CAREGIVERS

- Nature of anxiety and what it looks like in kids
  - Some anxiety is good and developmentally appropriate
  - Comorbidity
- What works, what doesn't work in treatment
  - Talking or telling patient to relax doesn't help much
  - Practicing facing anxiety provoking things and handling them helps
- Anxiety impacts the entire family
  - Repeated rescues (ie. "errors of kindness")
  - Difficulty tolerating patient distress
  - Inadvertent messages about patient's ability to handle situations
  - Importance of family involvement in treatment

How do you sell it?

- Validate and educate:

  Our instinct as parents is to protect our children from harm, but anxiety is not actually harmful or dangerous, even though it feels like it. For a child predisposed to or already manifesting anxiety, our efforts to protect them from feeling distress or to relieve their distress when it occurs are ***errors of kindness****, because they actually reinforce the anxiety cycle and the child's understanding that they need to do something or have someone else do something in order to feel better*

How do you sell it?

- Instead of protecting them from it or fixing it for them, our job becomes to validate their feelings, and support and encourage them as they learn to tolerate distress and work through difficult situations. This is how we reduce anxiety in the long term and build resilience and confidence.
- E.g. “I know this is really hard AND (not but!) I know you can do it and I’m right here supporting you in bossing back your anxiety”

WHAT ABOUT COPING?

Coping model typically utilizes:

- Relaxation strategies (deep breathing, progressive muscle relaxation)
- Cognitive restructuring: recognizing and altering “thinking errors” that occur related to anxiety (e.g., catastrophic thinking, black and white thinking, etc.)
- Problem solving strategies
- Overall goal is to use coping strategies to reduce anxiety, thereby improving functioning in the presence of anxiety triggers

**This is not inherently bad, and may have a complementary role in treating some anxiety disorders (esp. GAD), but patients should NOT be “coping” their way through exposures, and some “coping skills” can end up serving as rituals or avoidance/distraction

PSYCHOPHARMACOLOGY

- Studies/articles to know for background:
  - Child/Adolescent Anxiety Multimodal Study (CAMS)
  - Pediatric OCD Treatment Study (POTS I)
  - POTS II

Takeaway: the **combination of an SSRI plus CBT (specifically ERP for OCD) is more effective than either one alone for **moderate to severe** pediatric anxiety disorders and OCD

WHEN SHOULD AN SSRI BE STARTED?

- For moderate to severe OCD and anxiety disorders, research shows the **combination** of CBT plus SSRI is superior to either one alone
  - Consider <u>functional impairment</u>
- CBT is the **durable, gold-standard** treatment, but sometimes it's not enough or the patient is too impaired to participate
- SSRIs are a "tool" to reduce overall anxious distress and facilitate more effective engagement in and learning from psychotherapy

FDA APPROVAL FOR CHILDREN/ADOLESCENTS

- **SSRIs:**

  Fluoxetine (Prozac) – OCD

  Fluvoxamine (Luvox) – OCD

  Sertraline (Zoloft) – OCD

- **SNRIs:**

  Duloxetine (Cymbalta) – GAD

- **TCAs:**

  Clomipramine (Anafranil) – OCD

IN REAL LIFE

- Three SSRIs are considered first line for treatment of pediatric OCD and anxiety disorders
  - **Fluoxetine**
  - **Sertraline**
  - **Escitalopram**
- More benign adverse effect profiles than SNRIs and TCAs
- Indications in adults for many of the anxiety disorders so we extrapolate

Improving Access to Child Anxiety Treatment

Comparison of Patient-Centered vs. Provider-Centered Delivery of CBT for Pediatric Anxiety and OCD

Principal Investigator: Jennifer Freeman, Ph.D.

IMPACT
Improving Access to Child Anxiety Treatment

PEDIATRIC ANXIETY RESEARCH CENTER (PARC)

- Started in 1999, devoted to the research and delivery of evidence-based treatments for children (and their families) struggling with OCD and anxiety disorders
- Three main components:
  - Partial Program
  - Outpatient Services
  - Research

IMPACT
Improving Access to Child Anxiety Treatment

WHAT CAN YOU DO?

- Refer patients to call our study line if interested in outpatient treatment
  - (401) 432-1469
- Help us advertise for this study using flyers and brochures
- If you are unsure if a patient is eligible:
  - Refer them to call the study line
  - Call or email Briana (*Clinical Research Assistant, Leader of recruitment efforts*)
    - Email: bpaulo@Lifespan.org
    - Phone: (401) 432-1469 (*also the IMPACT Study Line*)

QUESTIONS?