

Bring on the Fear!

Maximizing Exposure in the Treatment of Anxiety Disorders for Youth

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Welcome and Introductions

Who am I?

- Clinical Child Psychologist
- Director, LEAP Lab
- Research focus: evidence-based treatments for youth with anxiety, depression, traumatic stress and conduct problems



Practical Stuff

- We will have two 10 min breaks—feel free to stay logged in and just turn your camera off/mute
- We will have Q/A periods, please hold questions for the breaks
 - Use chat or un-mute yourselves at those times

Our goals today

1. Review of anxiety disorders from a biopsychosocial model
2. Review of typical practices used in CBT for child/adolescent anxiety
3. Closer look at exposure-based CBT for children and adolescents
4. Strategies to maximize exposure
5. Special cases: Panic and GAD,
6. Exposure in schools

The biopsychosocial model of anxiety

Fear, Anxiety, Panic

Fear

- Emotional response elicited *in the presence of a specific threatening situation* (e.g., a dog attacking)

Anxiety

- Emotional response elicited *about possible future threatening events* (e.g., expecting to be attacked by a dog)
- May occur in the absence of danger or threat

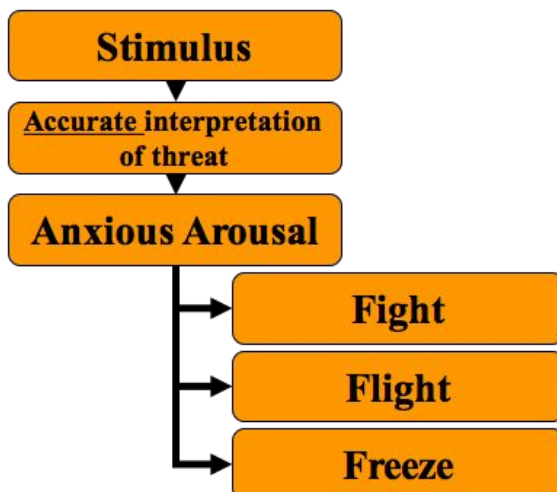
Panic

- A group of physical symptoms of fight/flight response - unexpectedly occur in the absence of obvious danger or threat

Three Interrelated Anxiety Responses

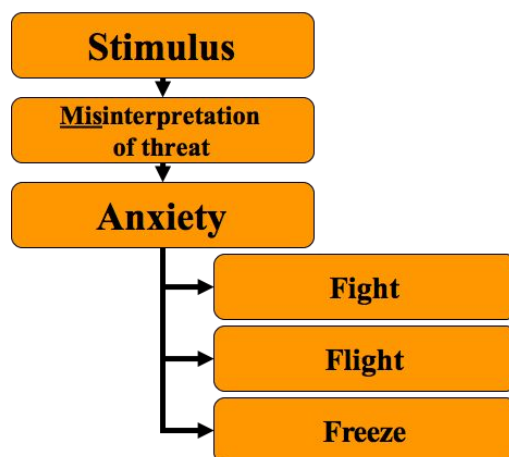
- Cognitive system
 - Neural network related to the stimuli is activated, difficulty concentrating, feelings of apprehension
- Physical system
 - The brain sends messages to the sympathetic nervous system, resulting in bodily sensations of fight/flight/freeze
- Behavioral system
 - Actions to escape the threatening situation (fight, flight, freeze)

Biopsychosocial model of anxiety

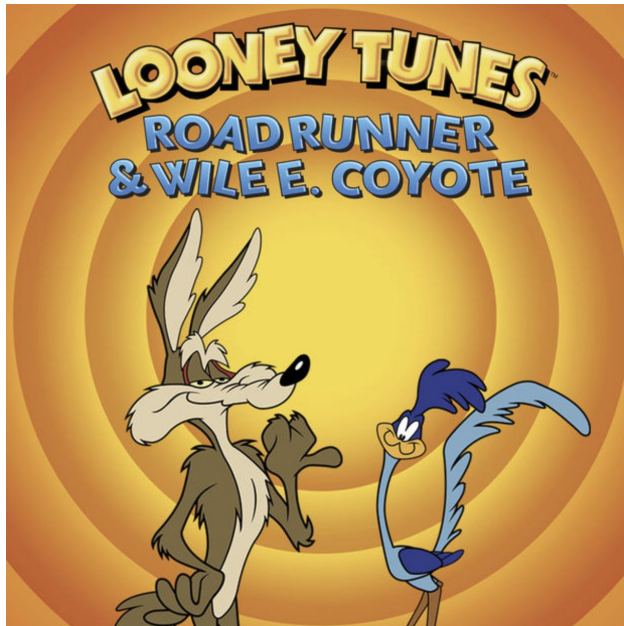




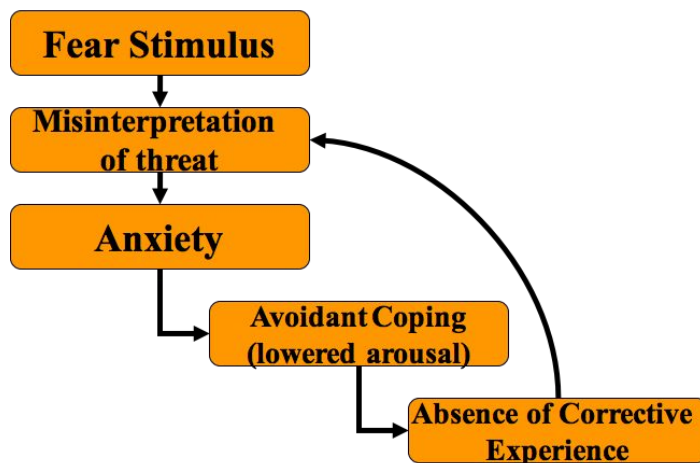
When anxiety system becomes problematic



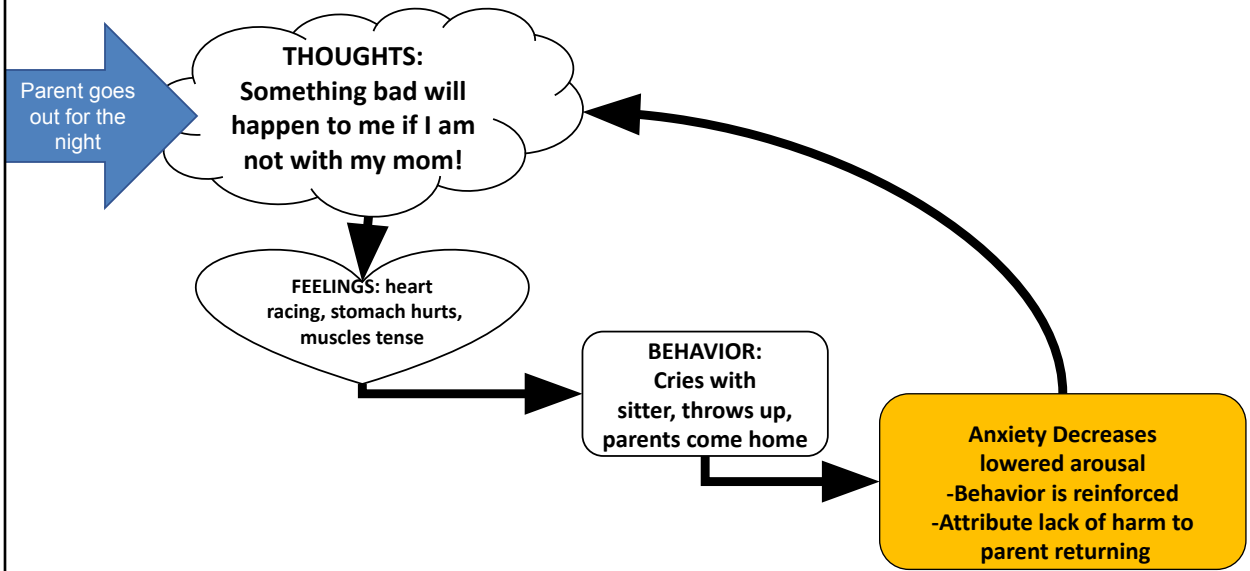




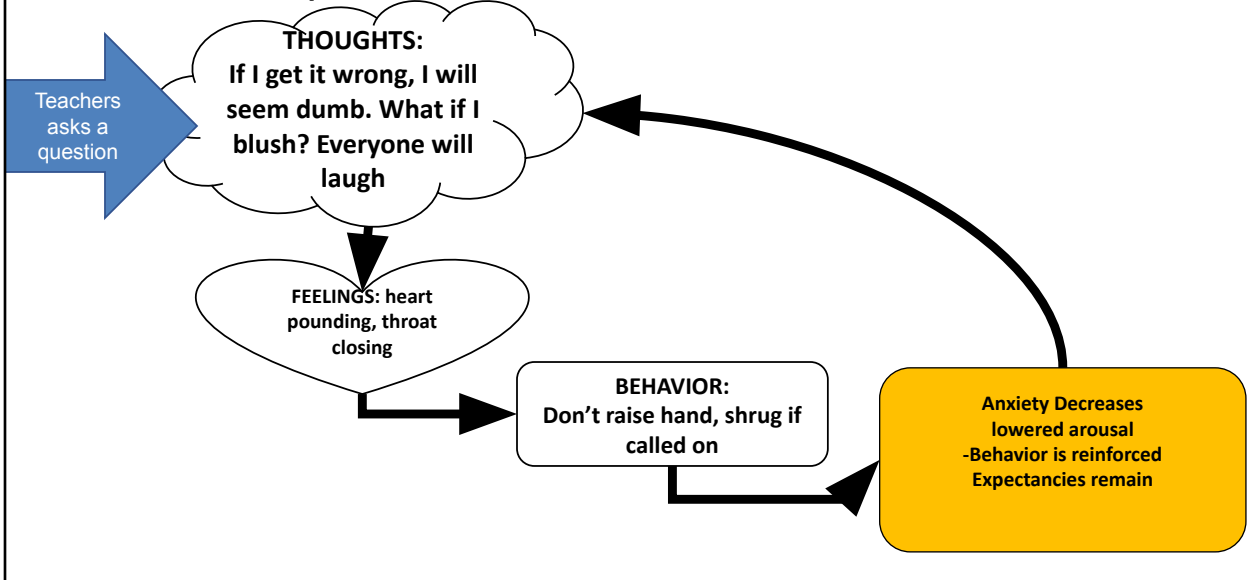
How anxiety is maintained



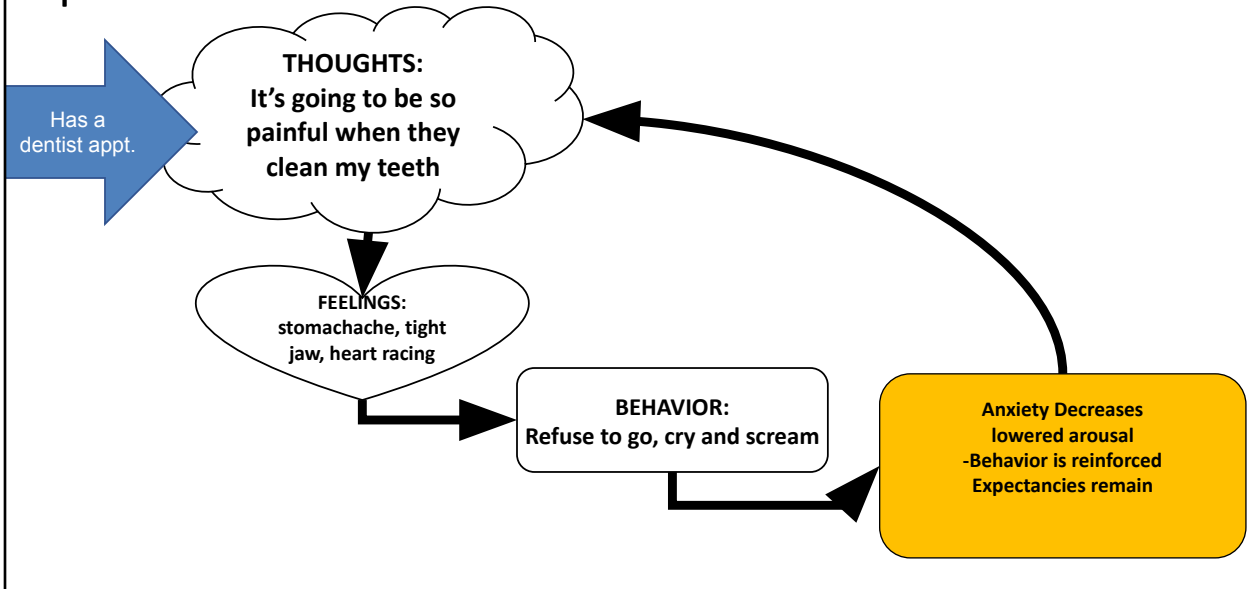
Separation Anxiety Disorder



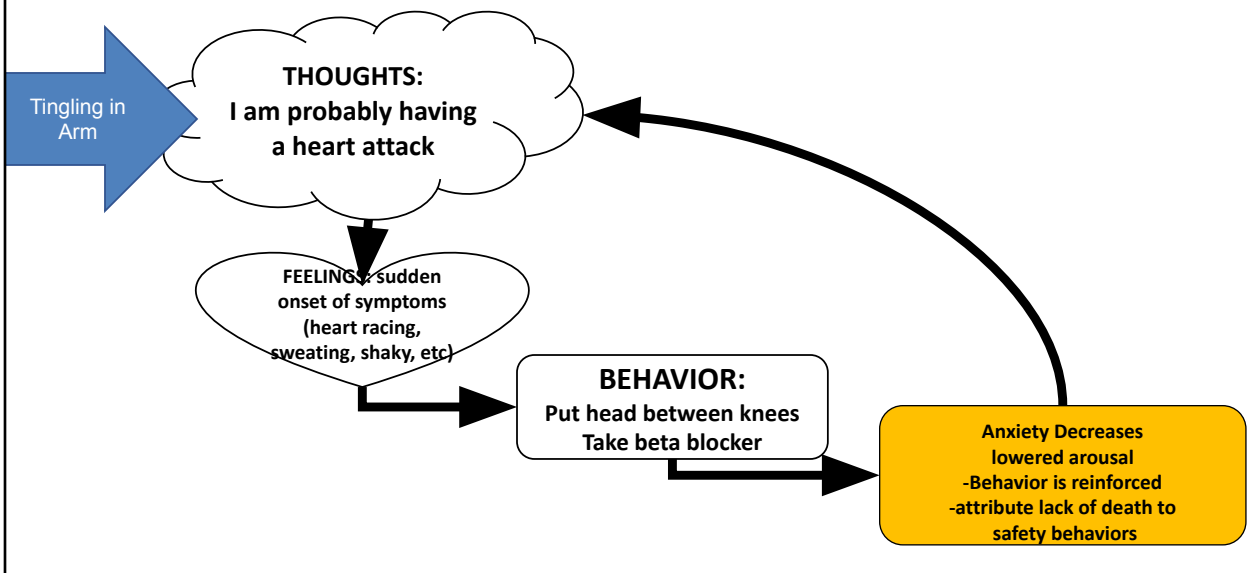
Social Anxiety Disorder



Specific Phobia



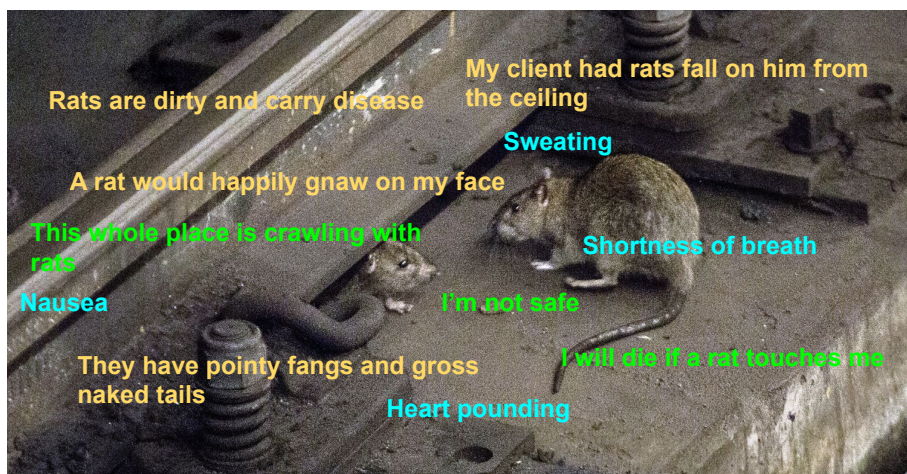
Panic Disorder



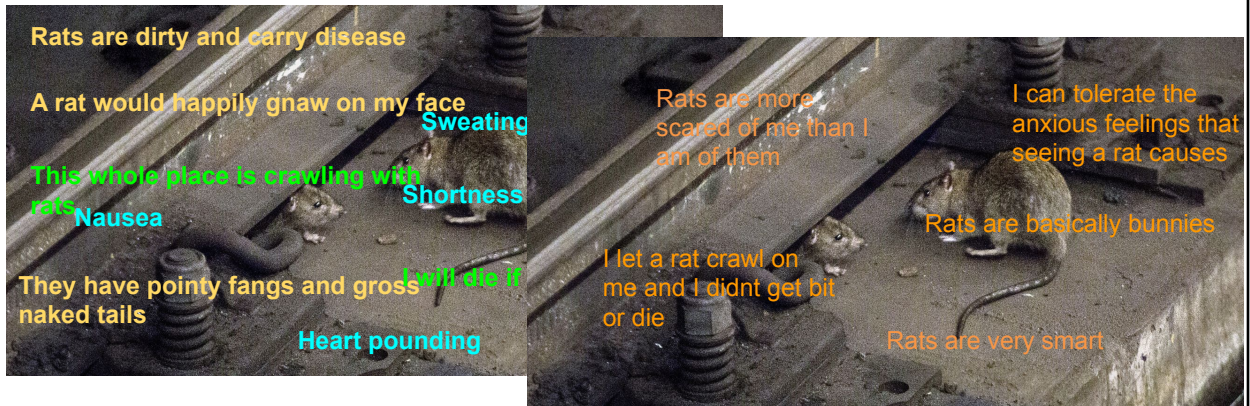
Fear Structure or Schema

- A memory structure or internal representation of the feared stimuli
 - What am I afraid of?
 - What happens to my body when I experience this fear?
 - What does this mean about me and my world?
 - Can be formed by actual experience, or via vicarious learning or misattributions

Fear Structure or Schema



The effect of new learning on Fear Structures



Exposure-based CBT for anxiety disorders

Components of standard CBT for anxiety

- Psychoeducation
- Anxiety Management Strategies (relaxation, cognitive restructuring)
- Fear Hierarchy Development
- Exposure (plus response prevention)
- Maintenance/relapse prevention

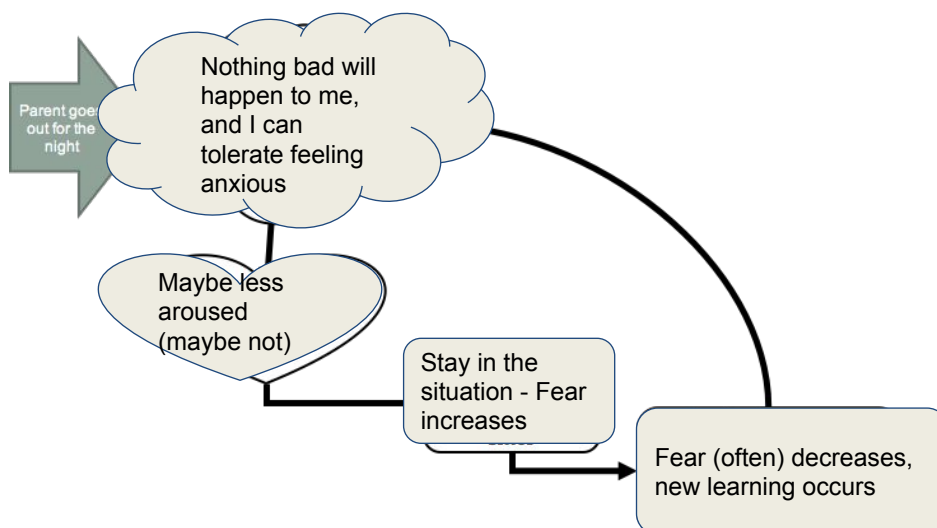
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Exposure

- Repeated, intentional introduction to the anxiety source or its context without the intention to cause any danger

Exposure



Evidence-Based Review (Higa-McMillan et al., 2016)

Level 1: Best Support/ Well-Established Treatments

CBT	46	2011	1.19 (0.94)	49%	1 year
Exposure	32	2009	1.05 (1.05)	26%	1 year
Modeling	9	2001	1.42 (0.78)	31%	1 month
CBT With Parents	7	2010	1.25 (0.92)	60%	1 year
Education	3	2009	1.26 (1.13)	50%	2 months
CBT Plus Medication	1	2008	2.37	0%	—

Evidence-Based Review (Higa-McMillan et al., 2016)

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Access to exposure-based CBT is limited!

- Despite lots of research demonstrating that it works, most people with anxiety will never receive exposure-based CBT
 - About 7-11% of people with anxiety disorders receive exposure-based CBT (Wolitzky-Taylor et al., 2015)
 - 40% of child therapists report never using exposure (Whiteside et al., 2016)
 - Therapists reported they are more likely to use strategies with little or no scientific support
 - Even among therapists who use mostly CBT techniques, exposure is less often used than other strategies (identifying emotions, problem-solving, breathing/relaxation techniques)

Evidence-Based Review (Higa-McMillan et al., 2016)

Level 4: Minimal Support/Experimental Treatments

Biofeedback	1	1996	—	0%	—
CBT with Parents Only	1	2011	0.68 (0.98)	33%	1 year
Play Therapy	1	1982	—	0%	—
Psychodynamic	1	1972	1.53	100%	2 months
Rational Emotive Therapy	1	1984	1.38	67%	1 month
Social Skills	1	2004	0.14	0%	—

Level 5: No Support/Treatments of Questionable Efficacy

Assessment/Monitoring	0	2010	0.56	0%	—
Attachment Therapy	0	1991	—	0%	—
Client Centered Therapy	0	1971	0.46	0%	—
Eye Movement Desensitization and Reprocessing	0	1998	0.67	0%	—
Peer Pairing	0	2011	0.53	100%	6 months
Psychoeducation	0	2009	0.30	100%	6 months
Relationship Counseling	0	1984	—	100%	6 months
Teacher Psychotherapy	0	1982	0.45	0%	—

Why should therapists use exposure?

Exposure is the mechanism of action in effective treatment of anxiety.

Why should therapists use exposure?

Earlier initiation of exposures is associated with better clinical outcomes (Gryczkowski et al., 2013)

Why should therapists use exposure?

Almost half of youth who respond to standard CBT show spontaneous relapse within 6 years (Ginsburg et al., 2014).

Effective exposure-based CBT. . .

. . .MUST activate the fear structure and allow for **NEW LEARNING.**

Top 10 negative beliefs about exposure

1. It's unethical!
2. You can't do exposure on my client's kind of worries/fears!
3. It's uncomfortable!
4. It's too hard & complicated!
5. The child is exposed all the time and is still scared!
6. We don't have the right tools/settings!
7. Too Time consuming!
8. The child doesn't want to do this!
9. I can't get the child do something they are afraid of!
10. It seems too simple!

A quick sprint through the non-exposure parts of CBT

Psychoeducation

Goal: Make the kiddo and caregivers experts in the biopsychosocial model of anxiety

Anxiety has three parts: what we think, feel, and do. Anxiety is our bodies' built in alarm, there to keep us safe and alert. Just like any alarm, some can get kind of glitchy or are very sensitive. Sometimes our alarms go off, even when there isn't any danger. It feels just like a real alarm, so we react to it in the same way.

Psychoeducation

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Rationale for treatment: *The only way to learn whether it is a real alarm or a false alarm is to stay in the situation and look for clues.*

Developing a fear hierarchy

Fear hierarchy/Fear ladder: A detailed, idiographic list of situations/stimuli that the client is afraid of facing in ascending order of difficulty

Developing a fear hierarchy

- Create a list of the situations or activities using a 0-10 scale
 - 0 = easiest to do, least scary, provokes the least anger etc.
 - Have some items in the low, middle, and high range
- Choose situations that the child will actually be able to practice (with you or at home)

Developing a fear hierarchy

- Break the fear stimulus into as many possible scenarios as possible to create a range of feared situations
- Therapist elicits intermediary exposures by asking questions, such as:
 - “What might make that easier for you?”
 - “What would make that even harder?”

Developing a fear hierarchy

- May have main fear ladder and then individual fear ladders for specific domains/fear sources
- Write each fear on a list or use index card/post-it
- Get fear rating from child and caregiver (as appropriate)

Anxiety Main vs. Specific Fear Hierarchies

Trying the Opposite List

- Sleeping by myself -10
- Going to School - 9
- **Dogs - 7**
- Staying with a sitter - 6
- Shots - 4



Specific Fear Ladder for Dogs

- Petting a dog - 10
- Being in room with dog (no leash) - 8
- Being in room with dog (leash) - 7
- Being in a room with dog (in crate) - 5
- Video of barking dog - 3

Fear hierarchy

What goes on it

safe scenarios that would provoke the feared response at varying degrees of intensity (e.g., video of a rat, watching therapist pet a rat, holding a rat)

What doesn't go on it

dangerous situations
the irrational worry (e.g., getting eaten by a rat)

Activity: Building a fear hierarchy

You will be split into break out rooms. Join the jamboard in the chat, find in **RED** the group number that corresponds to your room number. Working together, complete the hierarchy

The SITUATION:

- Youth client has a fear of vomit
- Avoids the cafeteria, swings, rides at amusement parks or carnivals, certain foods
- Cannot even think about or watch vomiting on TV

YOUR ROLE-PLAY GOALS:

Generate a fear hierarchy for their fear!

- Get a good range, especially numbers over 3
- Put only safe situations that would provoke fear and can be practiced
- use the probes “what would make that a little easier” “what would make that a little harder?”
- query about varying length/proximity/access to safety signals

Vomit Phobia

FEAR LADDER

- _____ - 10
- _____ - 8
- _____ - 7
- _____ - 5
- _____ - 3

The SITUATION:

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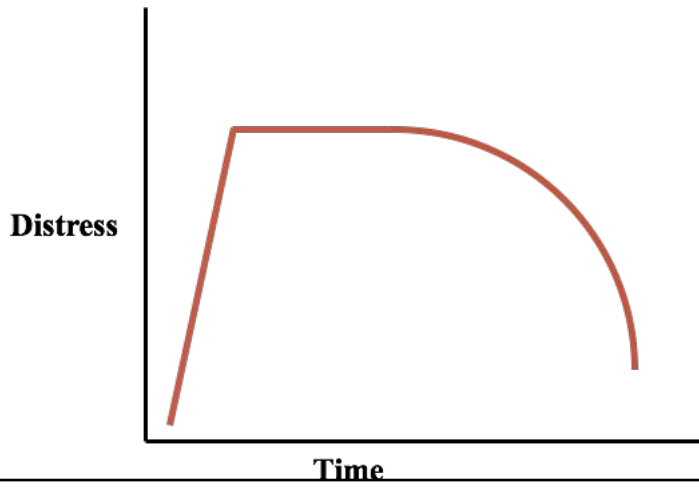
What happens during exposure

- When the client intentionally confronts feared situations, people, activities, thoughts, or memories, several things happen:
 - Initially, anxiety increases as fear structure is activated.
 - Over time, anxiety may decrease.
- If client repeatedly confronts anxiety-producing situations and their expectancy for what will happen is violated, they will have a **corrective learning experience**
 - **Learn** that the situation or memory is not dangerous.
 - **Learn** that even if things don't go well, it is not as bad as they think
 - **Learn** that the distressing feelings (emotional and physiological) are tolerable.
 - **Learn** that you can handle your fear/anxiety and feel more in control.

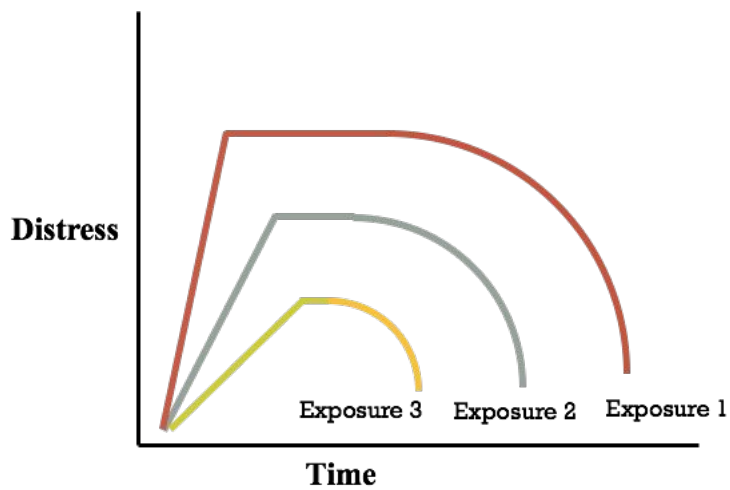
What about habituation?

- Habituation means feeling less distress/discomfort as you do exposures

Habituation



Habituation



What about habituation?

- Habituation means feeling less distress/discomfort as you do exposures
- Habituation will often happen, and it is helpful for keeping clients engaged and helping them feel a sense of master
- BUT—habituation is not the goal of exposure!
 - Violation of expectancies
 - Corrective learning

Corrective learning experience

- New information about what ACTUALLY & TYPICALLY happens in the presence of the source of the fear
 - New emotional experience: How you feel and what happens to those feelings over time
 - New physiological experience: arousal occurs but is tolerable
 - Violation of expectancies: what you expected doesn't happen OR it does but you survive and can cope
 - Feelings of competency and self-efficacy

Rationale for exposure

- To violate expectancies (what the client believes will happen)
 - Only by being in the situation can we learn that it is a false alarm
- To stop reinforcing avoidance and misperception of threat
 - Every time a situation is avoided, escaped, or reassurance is provided and safety signals introduced, it reinforces the misperception of threat
 - When adults assist in this avoidance, or provide a lot of ways to “get through it” without feeling fear, it accidentally confirms child’s misperception
- To be in control of (not controlled by) your anxieties and worries
 - Anxiety is something that can be managed, but not removed—so learning how to feel more in control is important for healthy development

Types of Exposure

- Gradual/graduated exposure: systematic exposure to feared stimuli, beginning with lower threat items and progressing through the hierarchy, with habituation
 - Imaginal exposure: exposure to imagined/visually pictured stimuli
 - In vivo exposure: exposure to real threat stimuli
 - Interoceptive/In vitro exposure: exposure to bodily sensations
 - With relaxation = systematic desensitization (don’t do this)
- Flooding: exposure to an item/situation/stimuli at the top of the fear hierarchy for sufficient time that fear is reduced and habituation occurs
- Prolonged Exposure: Typically used for the treatment of PTSD, repeated confrontation through re-telling of traumatic memories and events

Exposure 101

Exposure: Guidelines

1. Use fear hierarchy as a guide!
2. Set the first occasion for success
 - Adequate preparation with child
 - Choose something you are confident will go ok
3. Situation must be anxiety provoking
 - Intense enough to activate the fear structure
 - Adequate time/information to provide new learning opportunities
4. Take ratings
5. Pay attention to behavior cues
6. Debrief
7. Do it again (and again)

Exposure: What it looks like in session

- Talk about it!
 - Get fear rating and predictions (expectancies)!
- Do it!
- Talk about it!
 - Get fear ratings and review expectancies! Did they come true?
- Do it some more!

ROLE PLAY BASIC EXPOSURE

You will be split into break out rooms. In the first minute, determine who will play the therapist and who will play the youth client. Use the remaining 9 minutes to role play.

Client Hierarchy

Vomit 10
Touch vomit 10
Smell vomit 9
See someone else vomit 8
Read about vomit 6
Pretend to vomit 4
Hear someone make vomit noises 3

Role play goals:

- Remind your client of the rationale (why do exposure?)
- Get their fear level and predictions
- Do the exposure!
- Check in about predictions
- Do it again! (and again and again)

Maximizing Exposure

Maximizing Exposure

1. Violate Expectancies
2. Removal of safety signals
3. Deepened Extinction
4. Variability
5. Multiple Contexts
6. Occasionally reinforcing expectancies

Anxiety expectancies

What the client believes about the occurrence of the perceived threat

- What will happen
- How they will feel
- How they will cope (or not be able to cope)
- How long it will last/repercussions

“When I give a presentation, everyone will laugh and I will burst into tears. I’ll be so embarrassed and that feeling will last forever.”

Maximally violating expectancies

Expectancy violation occurs when there is a mismatch between the expectancy and what actually happens

- The scary thing doesn’t occur
- It occurs but it isn’t as bad as expected
- It occurs but they are able to manage it
- It occurs but the feelings are tolerable and temporary

The greater the contrast between expectancy and what happens, the more learning can occur

How to violate expectancies?

1. Establish explicit expectancies and be specific!
2. Craft the exposure to maximally violate expectancies
3. Discuss what actually happened and whether expectancy occurred, and how the child knows if it did or did not using objective anchors

Making expectancies specific

VAGUE EXPECTANCY

“If I see a spider I will freak out bc i will be so scared”

SPECIFIC EXPECTANCY

“If I see a spider, I will be so scared that I will pass out immediately. While I am passed out, it will bite me.”

Expectancy change

- Expectancy change happens over time as a result of expectancy violation
- People learn at different rates
 - People with anxiety may show slower expectancy change as a result of new experiences
- Helping them consolidate the information they learned from the expectancy violation can improve learning

Consolidation questions

- Did what you thought might happen, happen? How was it different?
- What did you notice about what actually happened?
- How did you feel during it? After it?
- Have you been noticing any patterns across these exposures in terms of whether your predictions come true?

Removal of Safety Behaviors/Signals

- Actions (overt or covert) designed to avert or cope with a perceived threat
 - Checking/Polling
 - Rehearsal
 - Reassurance Seeking
 - Avoidance
 - Distraction

Safety Behaviors/Signals

- Interfere with the disconfirmation of threat
 - Allow for misattributions regarding success
 - Reallocate attention away from the threat
 - Even the availability of a safety aid, regardless of use, interferes with fear reduction (Powers, Smits & Telch, 2004)

Safety behaviors/signals in session

- “Coping Thoughts”
 - Can encourage a child to approach an exposure, but should not be repeated, mantra-like, during exposure.
- Too much provision of reassurance or distraction
 - “I know you can do it, nothing bad will happen”
- The presence of the therapist
 - Should try exposures out with different people, to ensure the child is not attributing success to the role of the therapist or anything else related to being in therapy

Relaxation can act as a safety behavior

- The role of relaxation is generally thought to be unhelpful as a part of exposure
 - May actually interfere with activation of the fear structure, serve as a distraction, or be seen as a method of avoidance
 - Exposure without relaxation (in vivo and imaginal exposure alone) are crucial components of treatments for many psychological disorders
 - May be contraindicated in some cases (Panic Disorder, OCD)
- Although many people equate relaxation with anxiety treatment, it is actually not thought to be essential

Cognitive restructuring and exposure

- Cognitive restructuring can *minimize* the contrast between expectancy and new learning
 - If prior to exposure, the child has already revised expectations (“dogs don’t usually bite”) then the contrast is not so great and the new learning is not as impactful
 - Also may decrease fear activation, which is necessary for corrective experience

-

Deepened/Compound Extinction

- Multiple situations or stimuli from the fear hierarchy are worked on separately and then combined
 - caffeine induction and shopping in a crowded mall together after both have been extinguished separately
- A previously extinguished stimuli is paired with a novel stimuli.
 - Using one type of spider, then presenting it at the same time as a very different one

Variability (without habituation)

- Traditional exposure proceeds predictably from one hierarchy item to the next, repeating each several times
- In variable exposure, exposure is conducted using the hierarchy in random order, without regard to fear level or habituation, and for varying duration/frequency
- Variability typically elicits higher levels of physiological arousal and subjective anxiety during exposure that fail to habituate but produces beneficial effects in the long term

Multiple Contexts

- Conducting exposures across different contexts
- Prevents relapse due to context removal
 - Return of fear to stimulus when it is encountered in a new context that is different from the one used in exposures

Occasionally reinforcing expectancies

- Sometimes the feared expectancy does happen!!
 - The kid really does throw up, or experiences mild social rejection, or does stutter during their speech
- This can be a good thing, every now and then
 - Prevents spontaneous relapse

Stepping back (without backing down)

- Exposure begins and child is very upset or unwilling
- Comment on observed difficulty to child
- Ask child for suggestions
 - Choose a less difficult but related exposure
 - Introduce a temporary safety (and then FADE IT OUT)
 - Do not abandon exposure and reinforce avoidance!
- Praise effort
- Try to work your way back to the planned exposure

Exposure for Panic

Panic Disorder

With panic, the feared stimuli are the child's own harmless bodily sensations

- May be difficult for them to separate each of those sensations in order to create a fear hierarchy
- Use an interoceptive assessment to isolate each of the bodily feelings and get a fear rating
 - Now you have a plan for exposure!

Interoceptive Assessment

	How anxious do you feel?	How uncomfortable do you feel?	How similar to your panic attacks?
Do jumping jacks for 1 minute			
Spin in a circle or chair for 1 minute			
Hold your breath for 30 seconds			
Breathe through a small straw for 30 seconds			
Head between knees for one minute			

Exposure for Panic Disorder

- Exposure is to physiological sensations (called “interoceptive exposure”)!
 - Based on fear ladder which is based on interoceptive assessment

Fear Ladder	Exposure
Light headedness (6)	Breath through straw
Dizziness (8)	Spin in chair
Racing heart (10)	Run up and down stairs

Exposure for GAD

Worry exposure

- GAD characterized by repeated worries that are often not seen through to completion
 - Come into the mind over and over again but without real scrutiny
- Worry serves to assist with avoidance because it is expressed in language which provides distance from the images and feelings
- Deliberate, long-term focus on worried scenario exposes overestimates of threat and underestimates of ability to manage/control situations if they did arise

Steps to Worry Exposure

1. Select the worried situation
 - Unproductive worry about hypothetical situations
2. Identify the the most feared outcome
 - Ask questions to identify the worst possible expectation
4. Conjure up an image of the most feared outcome
 - Make it vivid
 - Can write a story about it
5. Focus on the feared outcome for 25 minutes as intensively as possible
6. After the exposure, ask them to identify alternative outcomes or explanations/coping thoughts

Exposure in schools

- Schools are full of fear cues for anxious children!
 - Social situations
 - Performance situations
 - Separation situations
 - Anticipatory worry
 - Germs
- Being in the school (not in a clinic) has many advantages
 - You are where the action is!
 - Opportunity to practice when it is really happening (not just pretending/planning)
 - Opportunities to enlist others (teachers, peers, parents)
 - Can provide reminders and coaching
 - Natural opportunities to provide reinforcement and increase motivation

Challenges to exposure in schools

- Less access to parents
 - Parents are “home coaches,” need to be facilitating exposures
 - Parents and other family members often accommodate anxiety
 - What can help?
 - Virtual meetings
 - Have them join for one exposure session, then communicate with them via calls/emails/handouts
- Some fear cues may not be possible in school
 - Animal phobias
 - Others?
 - What can help?
 - Imaginal, role-plays, videos, planning (with parents) for real exposures

Challenges to exposure *everywhere*

- Requires planning ahead
 - Exposure is briefer and more effective than many other approaches, but some consideration about how to design/set up exposures is necessary
- Requires therapist buy-in
 - exposure works best when therapists are committed and enthusiastic!
- Doesn't always make kids feel good in the moment
 - ...but can help them to move towards their goals

Reflective learning

1. What are the main things you learned today?
2. What are you curious to learn more about?
3. What is one step you can take to learn more?

Thank you for a great training!

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<https://sites.edb.utexas.edu/leap/>