You gain strength, courage and confidence by every experience in which you really stop to look fear in the face.

You are able to say to yourself, "I have lived through this horror. I can take the next thing that comes along.“

You must do the thing you think you cannot do.

- Eleanor Roosevelt

Exposure Therapy for Fear & Anxiety

Caleb W. Lack, Ph.D.

Clinical Psychologist (OK HSP #1143, APIT #6643)

Professor and Program Coordinator, University of Central Oklahoma

www.caleblack.com

What is an Anxiety Disorder?

- Class of psychiatry disorders that share *features of responding*

- Prototypical fear
  - Comprised of escape behaviors, physiological arousal, thoughts of imminent threat
- Prototypical anxiety
  - Comprised of avoidant behaviors, tension, and thoughts of future threat

Craske et al. (2009)

Fear

Immediate threat

Sympathetic arousal

Escape

Anxious

Future threat

Muscle tension

Avoidance

Anxiety vs Fear

- Separate, yet highly correlated
- Some disorders are a mix of fear and anxious, but the others are more distinct
- Anxiety-disordered show differences from controls in both experimental and clinical ways
  - Conditioning, attention to fear stimuli, info processing

Craske et al. (2009)

Phobias

Panic Disorder

Agoraphobia

OCD

Social Anxiety

Separation Anxiety

Selective Mutism

PTSD

Generalized Anxiety Disorder

Anxiety & Fear Disorder Characteristics

- Elevated sensitivity to threat
- Preconscious attentional bias toward personally relevant threat stimuli
- Bias to interpret ambiguous information in a threat-relevant manner
- Elevated amygdala responses to specific and general threat cues

Craske et al. (2009)

Impact of Anxiety & Fear Disorders

- Highest overall prevalence rate among psychiatric disorders
  - 12-month rate of 18.1%; lifetime rate of 28.8%
- 31.5% of total expenditures for mental health, around $46.6 billion
- Huge impact on QoL and functioning

Olatunji et al. (2007)

Evidence-Based Treatment

- Major advances in treating a wide spectrum of anxiety/fear problems over last 30 years
- Common thread in effective treatments is hierarchy-based exposure tasks
- But what are they, why do they work, and how to do them?

Avoidance & Fear

- At the core of many forms of psychopathology, especially ones related to fear

- *Exposure* is the process of confronting previously avoided stimuli of all kinds
  - External (people, places, objects, situations)
  - Internal (thoughts, emotions, memories, physiology)

- Can be done via graded tasks or flooding

What are Exposures?

- Placing a client in an anxiety or fear inducing situation (exposure), and not allowing them to use avoidance or escape behaviors (response prevention)

- Client stays in the presence of the fear stimulus until it no longer causes anxiety or distress
  - This is called habituation, and breaks the negative reinforcement cycle of the escape behaviors

Types of Exposure

- *In vivo* (real life)
  - Most effective and efficient form, use whenever possible and safe
  - Used later in treatment and for real life situations/objects

- Imaginal
  - Used if *in vivo* isn't possible, or is dangerous
  - Majority of exposure in PTSD

Types of Exposure

- Virtual reality
  - If available, can be used for more immersive exposures to situations that aren't easily accessible
  - Flying, combat (for PTSD)

- Interoceptive
  - Exposure to physiological triggers (panic symptoms)

- Exposure to thoughts
  - Often used in OCD and related problems

How does ERP work?

(mechanisms of action)

History

- Controversy over exactly *why* exposure therapy works so well for anxiety, but no controversy that it *does*

- Many possible mechanisms have been proposed:
  - Counterconditioning
  - Extinction
  - Habituation*
  - Cognitive change
  - Coping skills development
  - Inhibitory learning*

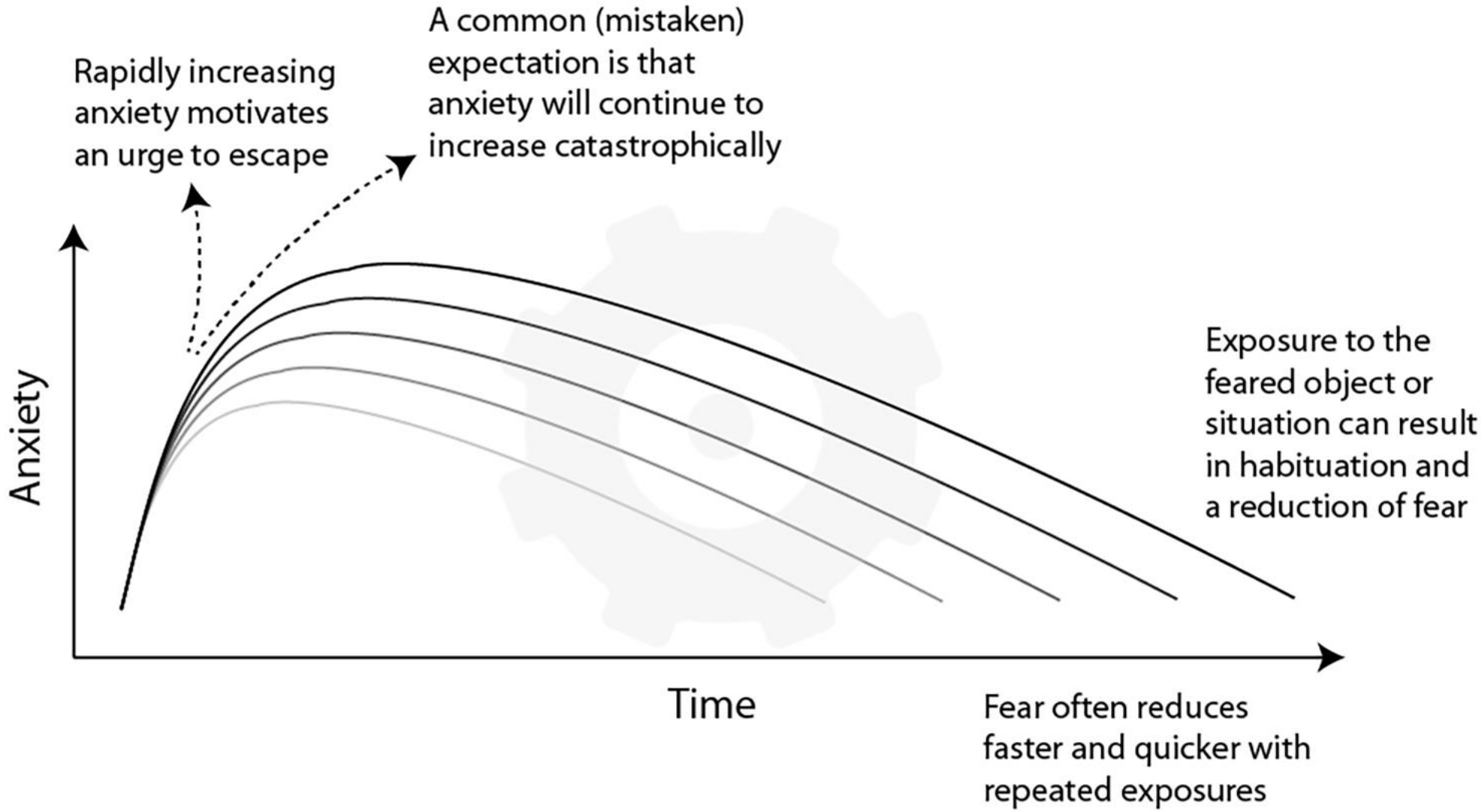
Habituation

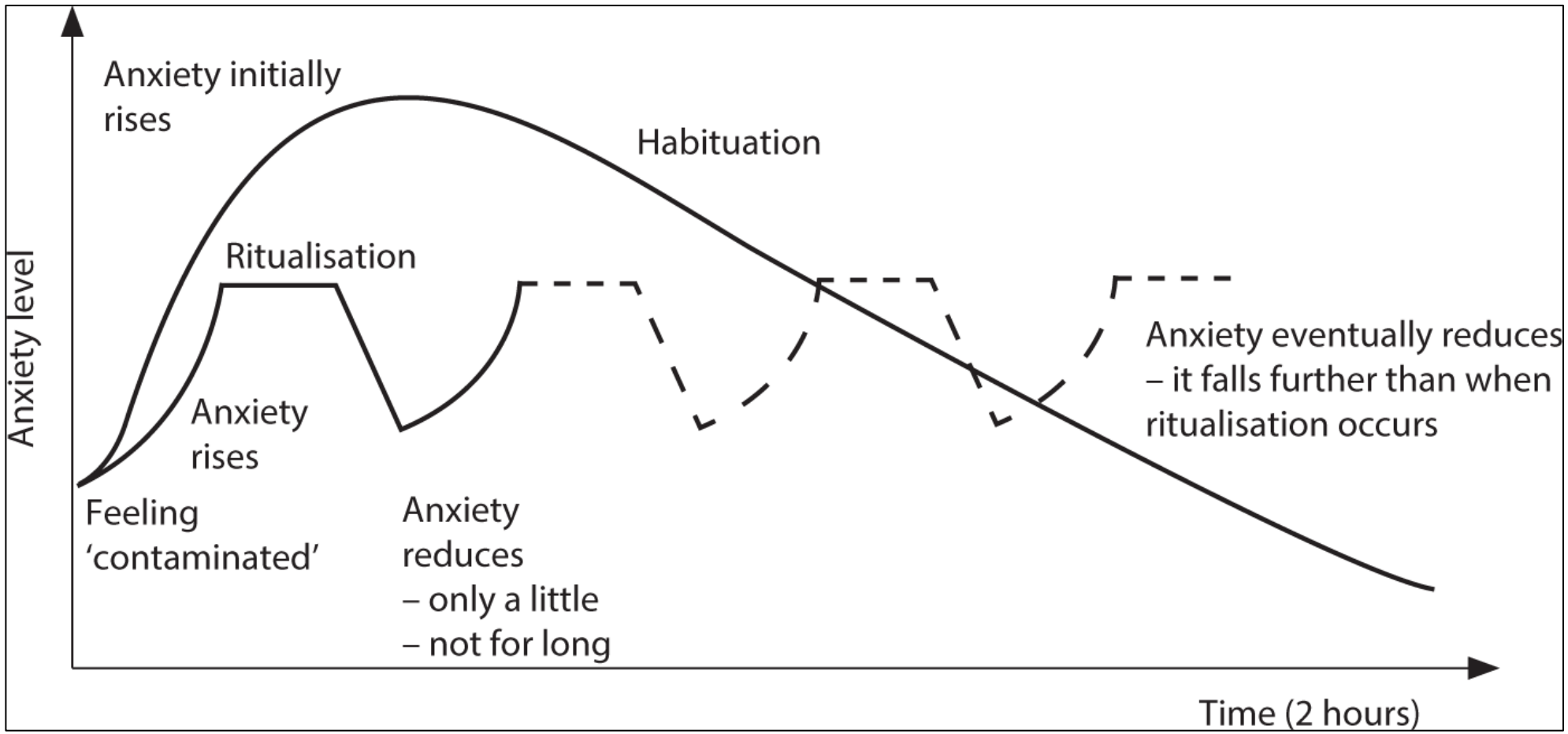
- Occurs when someone stays in the presence of the fear stimulus until it no longer causes anxiety or distress
  - E.g., hold the snake until you aren't scared or nervous any longer
- This is the basis for flooding techniques
  - E.g., stay in the room full of snakes until you aren't scared or nervous any longer

Inhibitory Learning

- When one learning experience interferes (inhibits) another
  - We don’t “unlearn” fears, we learn new things that can “override” that fear

- Exposure may really be promoting fear *tolerance* rather than fear *reduction*
  - Fear is manageable, doesn’t last forever, has no lasting negative impact


Rapidly increasing anxiety motivates an urge to escape
A common (mistaken) expectation is that anxiety will continue to increase catastrophically
Anxiety
Exposure to the feared object or situation can result in habituation and a reduction of fear
Time
Fear often reduces faster and quicker with repeated exposures


Anxiety initially rises
Habituation
Ritualisation
Anxiety level
Anxiety rises
Anxiety eventually reduces – it falls further than when ritualisation occurs
Feeling 'contaminated'
Anxiety reduces – only a little – not for long
Time (2 hours)

Which is It?

- All have some empirical support, but none is the clear favorite
- Reality may be a combination of multiple factors, or different ones for different clients
- This plays an important role in how to plan and conduct exposures

ERP Nuts & Bolts

(what & how)

How to Do It?

- Different programs and therapists approach exposures in different ways

- Some do extensive preparation for the exposures (systematic desensitization), some just let it happen (extinction / habituation), others focus on what new information is generated (inhibitory learning)

- Here are some broad guidelines

Exposure Steps

1. Pitch it properly
2. Develop a hierarchy
3. Eliminate safety behaviors
4. Conduct it in session
5. Repeat it in session
6. Assign homework of it

“Pitching” Exposure

BE ON BOARD WITH EXPOSURE YOURSELF

ASSESS THEIR EXPECTATIONS

EMPHASIZE THE RATIONALE

PROVIDE REAL-LIFE EXAMPLES OF HABITUATION

STEP OUTSIDE OF THE CLIENT’S FEAR

Groundwork for ERP

- Conveying effectiveness and competence
  - Use past clinical examples as well as research data to show that the treatment works
- Forming an effective therapeutic alliance
  - Praising client for entering therapy
  - Including client-specific examples when during psychoeducation
  - Taking a strong, nonjudgmental stance
  - Collaborative efforts to design exposures

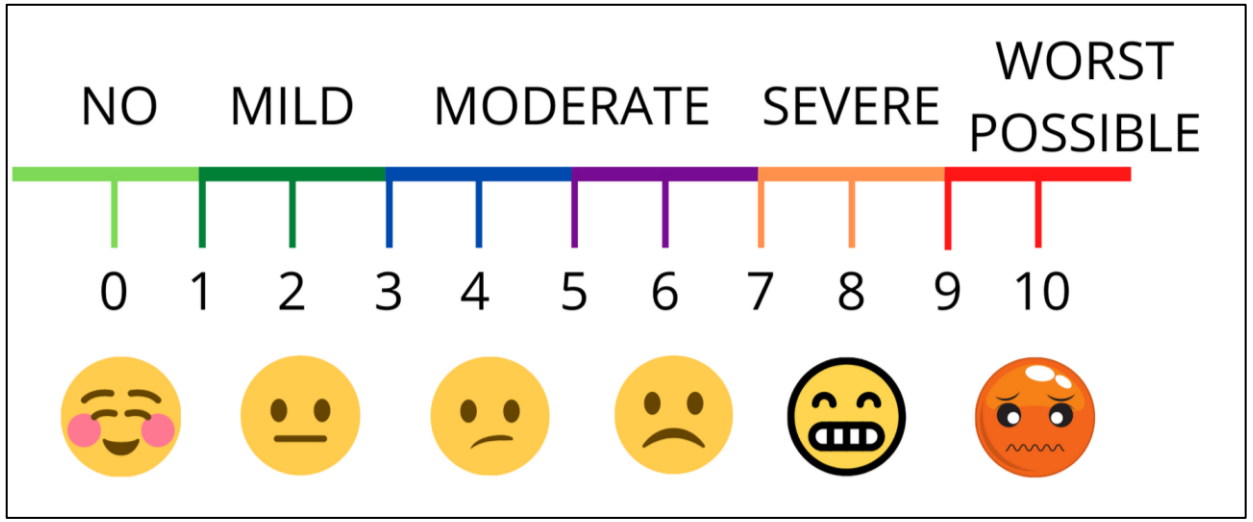
Groundwork for ERP

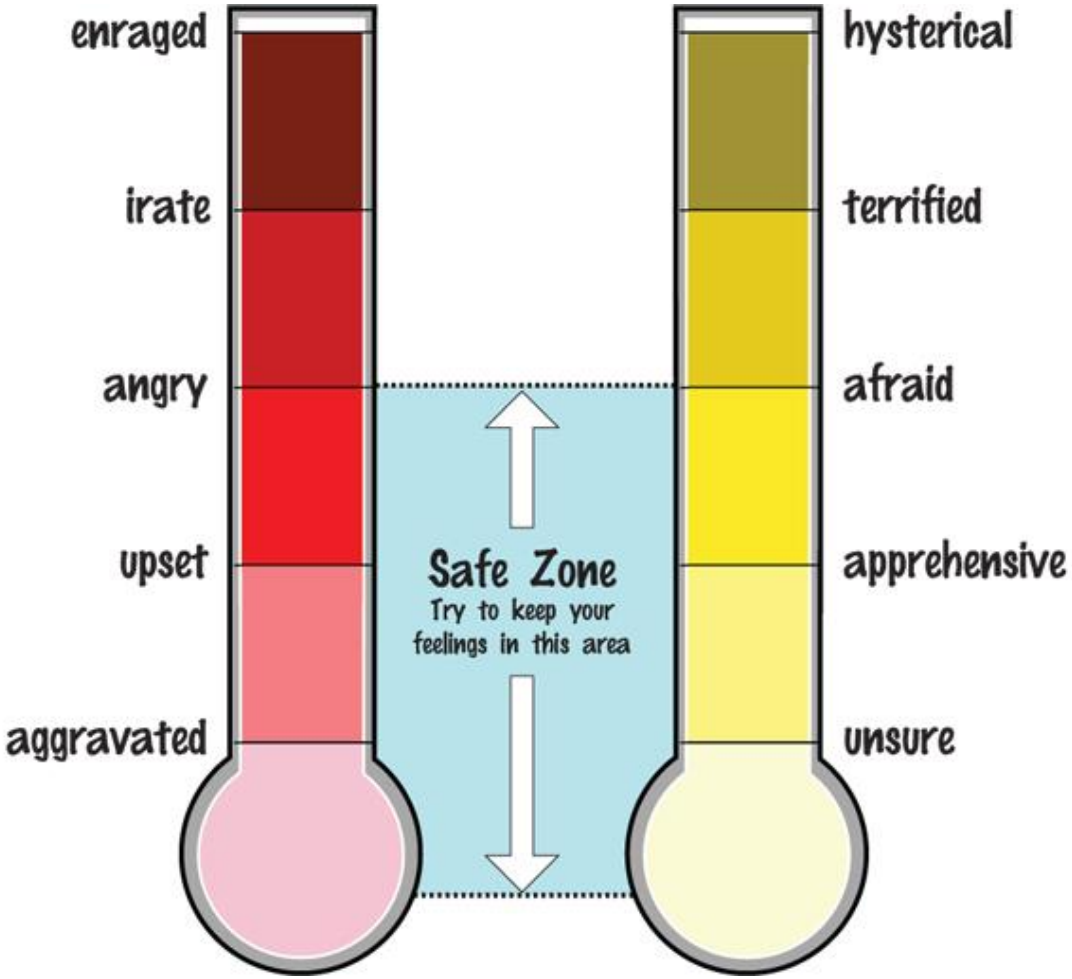
- Selling the rationale
  - Describe therapy procedures clearly
  - Reassure client that it is okay to be afraid during the exposures, but that she will get better
  - Using analogies to increase understanding
  - Accept she may have tried something before, but emphasize the different nature of ERP
- Tailor treatment to the individual

Developing an Exposure Hierarchy

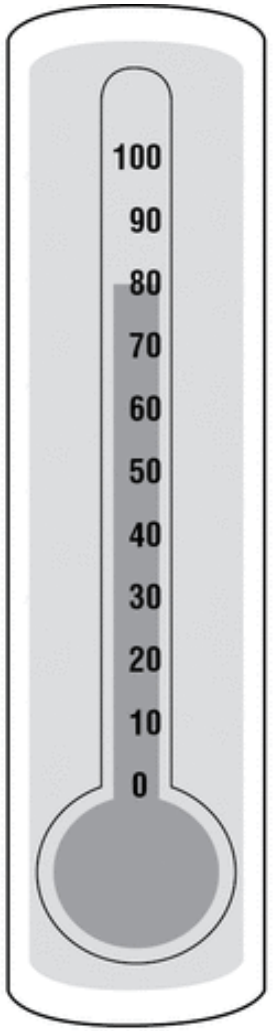
- Developed in collaboration with the client and their family (if possible)
- Begin with listing activities that aren't *objectively* dangerous, but are *subjectively* so to the client and cause avoidance
- For each item, we then quantitatively rank them using *subjective units of distress* (SUDs)

SUDs with Children





SUDs with Adults



100 – Highest anxiety/distress that you have ever felt

90 – Extremely anxious/distressed

80 – Very anxious/distressed; can't concentrate. Physiological signs present.

70 – Quite anxious/distressed; interfering with functioning. Physiological signs may be present.

60 – Moderate-to-strong anxiety or distress

50 – Moderate anxiety/distress; uncomfortable, but can continue to function

40 – Mild-to-moderate anxiety or distress

30 – Mild anxiety/distress; no interference with functioning

20 – Minimal anxiety/distress

10 – Alert and awake; concentrating well

0 – No distress; totally relaxed

Keys to a Good Hierarchy

- Includes a wide range of fears (low to high)
- Fears are broken down into multiple *discrete* and *concrete* steps
- Want enough fears to help work up gradually, but not so many they will never complete it
- Will look different for everyone, needs to be highly idiographic

Creating a Fear Hierarchy

- Therapist must accurately assess the feared situations using self and other report, as well as behavioral observations
- A dynamic process that continues throughout therapy
- Generate and then sort the *specific* situations that cause anxiety, including how often they are avoided

Sample Phobia Fear Hierarchy

Situation	*Fear Rating*
Driving over the Steel Bridge at rush hour	100
Driving on the highway at rush hour, at dusk, and in poor weather	90
Driving on the highway at rush hour, in good weather	80
Being a passenger on the highway during rush hour	75
Driving on the highway in the middle of the day, in good weather	65
Driving on a city street at midday, when it is raining	65
Driving on a city street at midday, when the sky is clear	50
Turning onto a city street during traffic hours	45
Driving in a busy parking lot during business hours	35
Driving in an empty parking lot during "off" hours	25

Sample Social Anxiety Fear Hierarchy

ACTIVITY	FEAR	AVOIDANCE
Job Interview	10	0
Applying for Jobs	9	9
Going to a party	8	7
Dinner party w/friends	6	3
Calling someone for the first time	6	4
Returning a call	3	4
Asking a question of a stranger	2	4

Sample B-I-I Fear Hierarchy

Step	Situation	Fear Rating
11.	*Having blood drawn from a vein*	10
10.	*Getting a shot in the upper arm or fleshy part of leg*	9
9.	*Slightly pricking one's skin with a needle*	8
8.	*Watching someone else get a needle*	7
7.	*Resting needle against vein*	7
6.	*Resting the needle against one's skin*	6
5.	*Rubbing an alcohol swab against one's skin*	5
4.	*Holding a needle*	4
3.	*Watching an apple being injected*	3
2.	*Watching video clips of someone getting a needle*	3
1.	*Looking at a picture of a needle*	2

Sample Fear Hierarchy For Contamination OCD

Step	Situation	Fear Rating
13.	*Use toilet at mall*	10+
12.	*Use hands to open and close stall door*	10
11.	*Touch counter and taps in mall bathroom*	9
10.	*Touch knob on mall bathroom door*	9
9.	*Touch garbage can in the mall*	8
8.	*Use public phone at mall*	8
7.	*Use hands to push open doors to mall entrance*	7
6.	*Touch table in the food court*	7
5.	*Sit on bench at mall and touch bench with hands*	6
4.	*Touch railing at mall*	6
3.	*Touch items in a store*	5
2.	*Sit on bench at mall*	4
1.	*Walk around public places, such as the mall*	3

Exposures Go Beyond

- We push past “normal” behavior with exposures to…
  - Prepare them for the future and unexpected events
  - Make sure they aren’t engaging in conditional safety

- Exposure helps clients learn unconditional safety
  - No “buts” when you go beyond typical behavior
  - Learn that you can do even previously terrifying things

Safety in ERP

- Large concern for many patients *and* therapists

- Life is not 100% safe…but it is *safe enough*
  - Does this kill or hurt large numbers of people?
  - Do other people do this and survive?
  - Is there a medical condition that would make it risky?
  - Do the benefits outweigh the costs?

Implementing Effective Exposures

- During imaginal exposures, have clients keep eyes closed, use present tense, and describe full range of sensory experiences
- Should be grounded in now, but reliving the past as well
- Record or write out the exposure so that clients can repeatedly be exposed to it outside of session

Eliminating Safety Behaviors

- When people avoid and the feared situation doesn't occur, they misinterpret that as evidence they should continue to be avoidant
  - Maintains wrong beliefs and increases fear across time

- Safety behaviors tend to be more subtle than avoidance
  - Compulsions in OCD
  - Distraction
  - Worrying about other things
  - Substance use
  - Only doing certain activities when particular conditions are met

Eliminating Safety Behaviors

- Major safety behaviors to watch for during ERP
  - Distraction
  - Increasing a sense of safety
  - Relaxing and “feeling better”
  - Bringing things or people

- Each of these will lead to more “yes-but” thinking
  - “Yes, I was able to go to the mall…but only because I had my spouse/took a Xanax/stayed near the exits/was totally relaxed.”

A Note on Safety Behaviors

- For some people and problems – like disgust-based contamination OCD – you may need to work on gradually reducing safety behaviors instead of eliminating them immediately

- Incorporate fewer and fewer safety behaviors into your fear hierarchy and exposures in session
  - Start by touching “gross” stimuli with thick gloves on until no need to do a compulsion, then have thinner gloves you use to do the same
  - Work gradually towards touching with bare hand and not doing compulsions

Basics of Exposure

- Exposure occur both in and out of session
- Often requires cooperation of parents/significant others to facilitate successful homework exposures
- Should be similar to what is being done in session, using a hierarchy and SUDs ratings
- Internal and external rewards for successful exposure completion should be discussed beforehand

ERP Details

- Exact times of exposures aren't what's important – change is what's important

- A general rule of thumb is a 50% decrease in fear from the start of the exposure, but…
  - Any decrease is a good decrease
  - Look for changes in arousal level or behavior
  - New self-efficacy statements are a good indicator

ERP Details

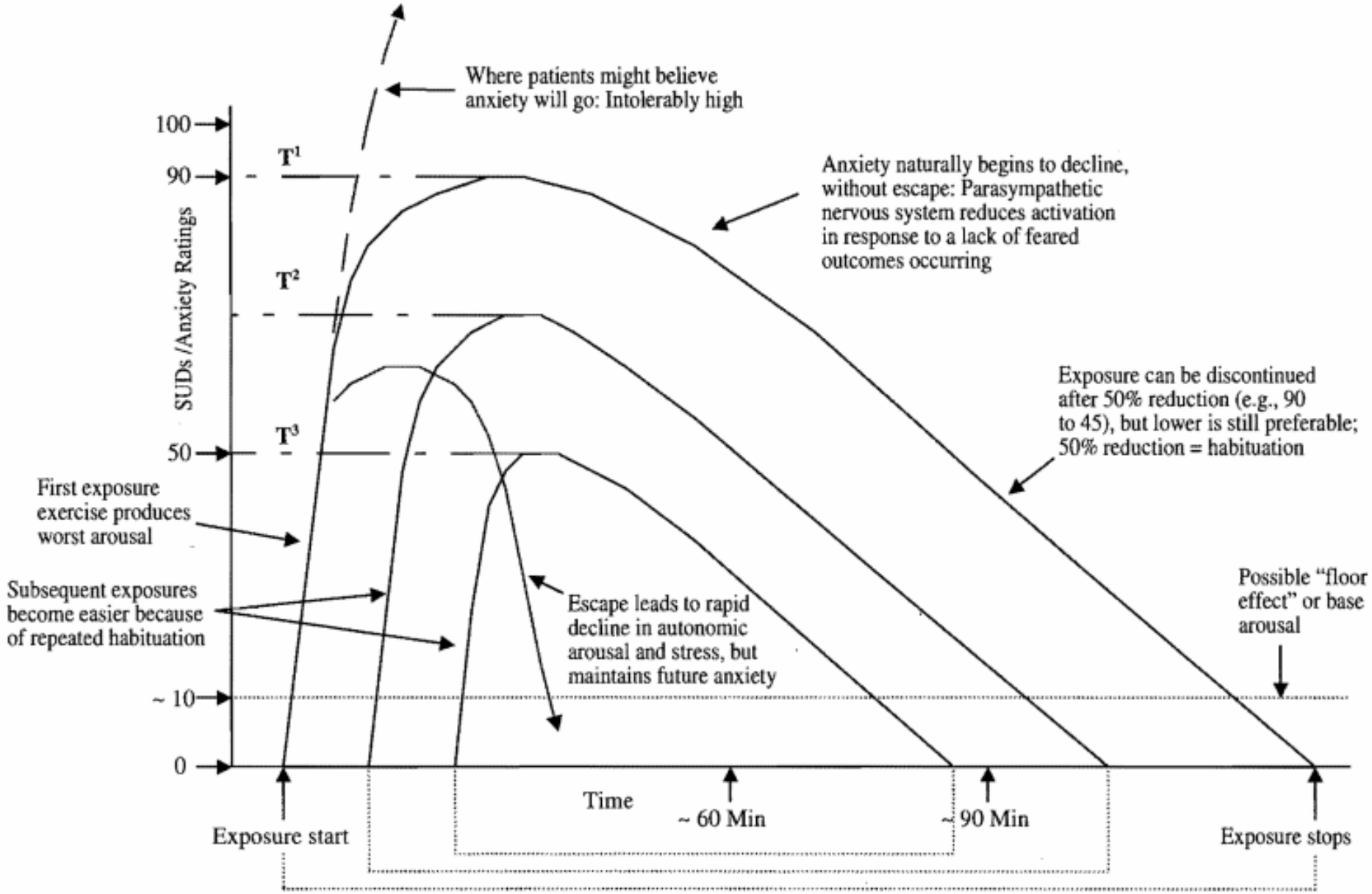
- Exposures should be highly varied to result in the most generalization, not just the same thing over and over
- They should also be repeated, many times, across time
- Early exposures should be easily completed to build confidence and motivation
- Sometimes the exposures don’t work as planned…then you have to modify them to be more effective

Therapist Tasks

- Realize long-term benefits outweigh short-term distress, and communicate this effective to the family
- Work collaboratively with the client and family to plan and execute the exposures
- Maintain rapport during exposures by building upon pre-established rapport

Therapist Tasks

- Do not allow avoidance or distracter behaviors during the exposure
- Modeling how to conduct appropriate exposures for significant others, so that they can perform them outside session
- Be flexible and creative when dealing with less than optimal exposures and resistance


Where patients might believe anxiety will go: Intolerably high
100
90
50
~ 10
0
SUDs /Anxiety Ratings
T1
T2
T3
Anxiety naturally begins to decline, without escape: Parasympathetic nervous system reduces activation in response to a lack of feared outcomes occurring
Exposure can be discontinued after 50% reduction (e.g., 90 to 45), but lower is still preferable; 50% reduction = habituation
First exposure exercise produces worst arousal
Subsequent exposures become easier because of repeated habituation
Escape leads to rapid decline in autonomic arousal and stress, but maintains future anxiety
Possible "floor effect" or base arousal
Time
Exposure start
~ 60 Min
~ 90 Min
Exposure stops

Highly Effective ERP

- *Expectancy violation* - set up discrepancies between what client expects will happen and what really happens

- Before exposure, have client say what she expects to experience, rate how likely she thinks that will happen, and rate her ability to tolerate the exposure

- After exposure, have client record and rate their actual experience; therapist helps client reflect on the difference to help with new learning

Highly Effective ERP

- *Deepened extinction* - combine multiple fear cues or pair a new fear cue with a previously extinguished cue

- Exposure sessions should involve complex, naturally distressing scenarios with multiple obsession cues

Highly Effective ERP

- *Occasional reinforced extinction* – sometimes include the client's most feared outcome in the exposure trial

- In some of the *in vivo* exposures, have clients imagine that they are responsible for a feared outcome because they did not do a compulsion

Highly Effective ERP

- *Removal of safety signals* – all forms of safety signals, neutralizing, and reassurance seeking are prevented before and after exposures

- Encourage prevention of overt *and* covert compulsions, avoidance, and “having mental control” of obsessions

Highly Effective ERP

- *Multiple contexts* – conduct exposures across multiple settings to offset context renewal (return of fear because of a change in context)

- Exposures should take place in multiple locations and situations, especially between sessions, with clients encouraged to evaluate what they learned from their experiences

Obstacles for the Therapist

- I’m making my client *more* upset / anxious
- It’s difficult to see people in distress
- Hearing the accounts of trauma can be emotionally draining for some people
- May have to do exposures that *you* are not comfortable with

How to do ERP…

Poorly

- Be squeamish
- Have an unambitious hierarchy
- Minimize client's anxiety during exposure
- Be lenient with safety behaviors

Like a champ

- Model appropriate coping
- Include high-fear exposure items
- Encourage the client to tolerate distress
- Eliminate safety behaviors quickly

Questions?

General Resources

- Abramowitz, Deacon, & Whiteside's *Exposure Therapy for Anxiety: Principles and Practices* (link)

- Springer & Tolin's *The Big Book of Exposures* (link)

- Fear hierarchy samples - https://www.anxietycanada.com/sites/default/files/Examples_of_Fear_Ladders.pdf

Specific ERP Protocols

- Phobias
  - One Session Treatment (OST) by L-G. Öst (link and link)
- PTSD
  - Prolonged Exposure Therapy by E. Foa (link)
  - Written Exposure Treatment by D. Sloan & B. Marx (link)
- OCD
  - CBT-ERP by Foa, Clark, and others (link and link and link)

Specific ERP Protocols

- Selective mutism
  - PCIT-SM by S. Kurtz (link)
  - CBT (link)
- Generalized anxiety
  - CBT (link and link)
- Panic disorder and agoraphobia
  - Barlow and others (link)

Specific ERP Protocols

- Social anxiety disorder
  - CBT (link and link)