



Effective Use of Exposure: Novel Use of an Old Tool

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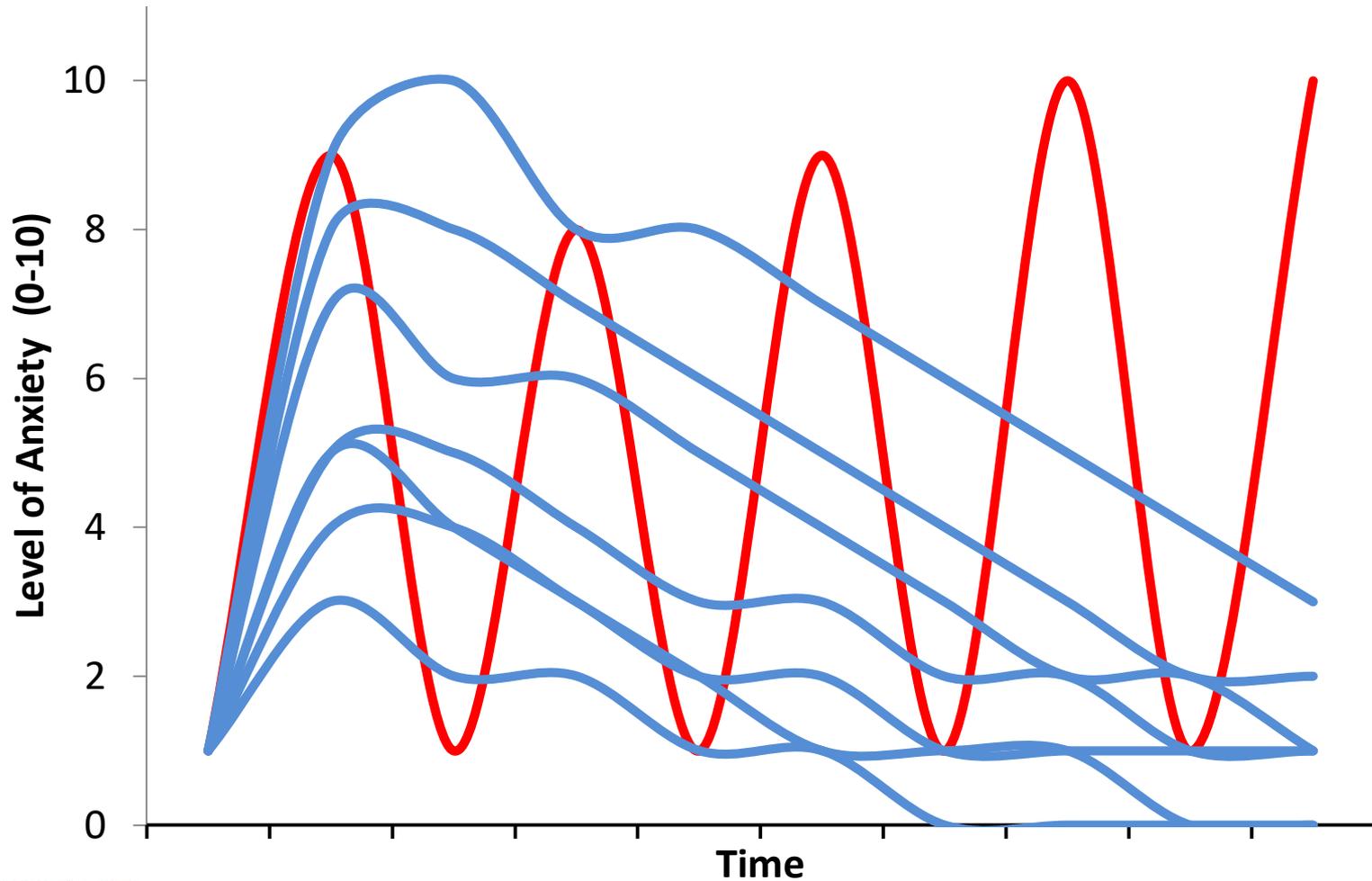


Disclosures

My spouse/partner and I have the following relevant financial relationship with a commercial interest to disclose:

I receive royalties from Oxford University Press for co-authoring a book.

Rationale Behind Exposure



Theoretical Model of Anxiety Disorders

- Classical & operant conditioning both play a role in anxiety disorders
 - Well-validated models for learning across species
- Initial Learning
 - Classical conditioning
 - Operant Conditioning
- The more repeated the pairing and/or the more intense the anxiety response, the stronger the association
- Gradual processes

Classical Conditioning Model

BEFORE CONDITIONING:

CS (Tone)



No Fear

UCS (Shock)



UCR (Fear)

DURING CONDITIONING:

UCS (Shock)+ CS (Tone)



CR (Fear)

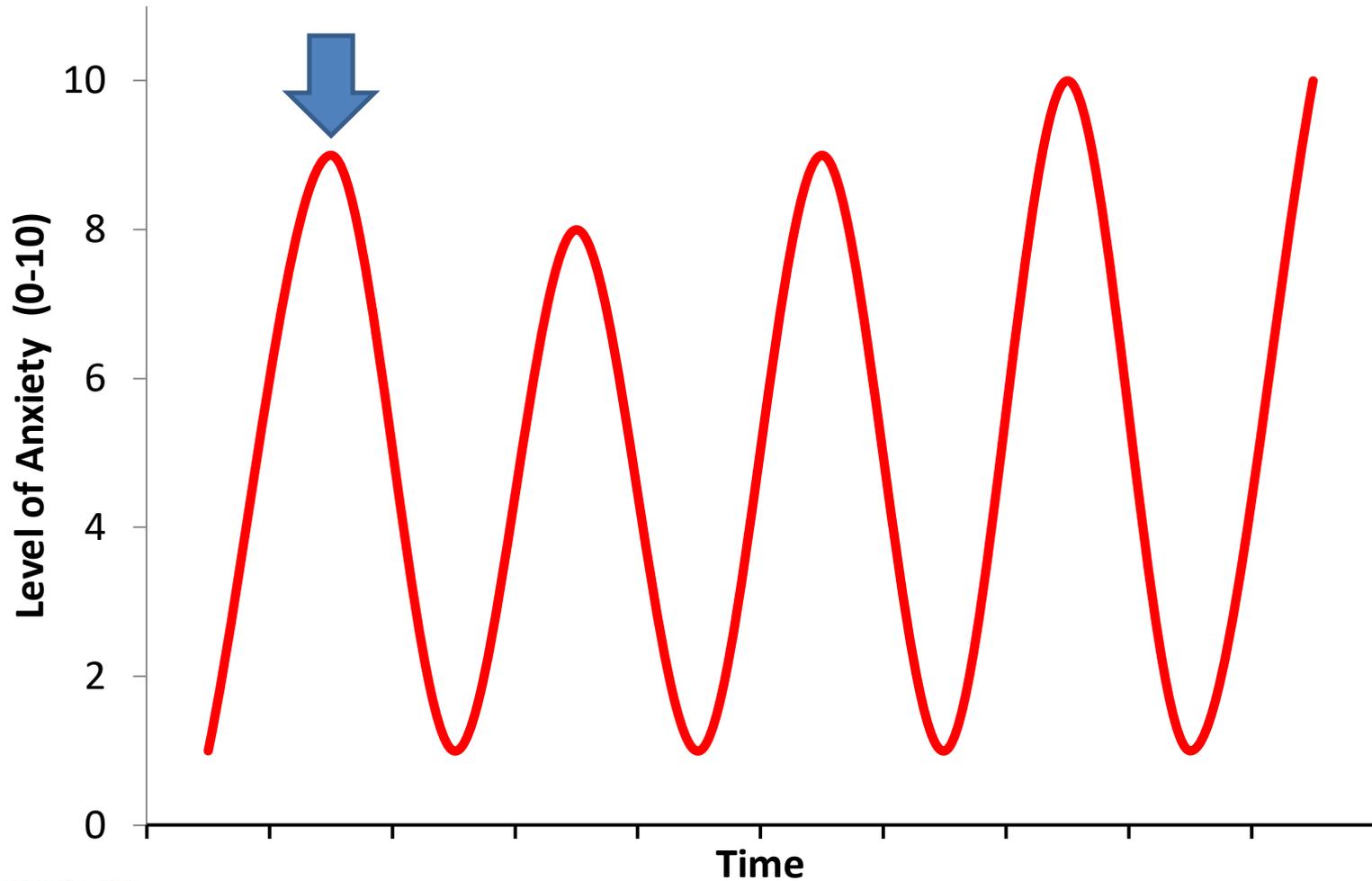
AFTER CONDITIONING:

CS (Tone)

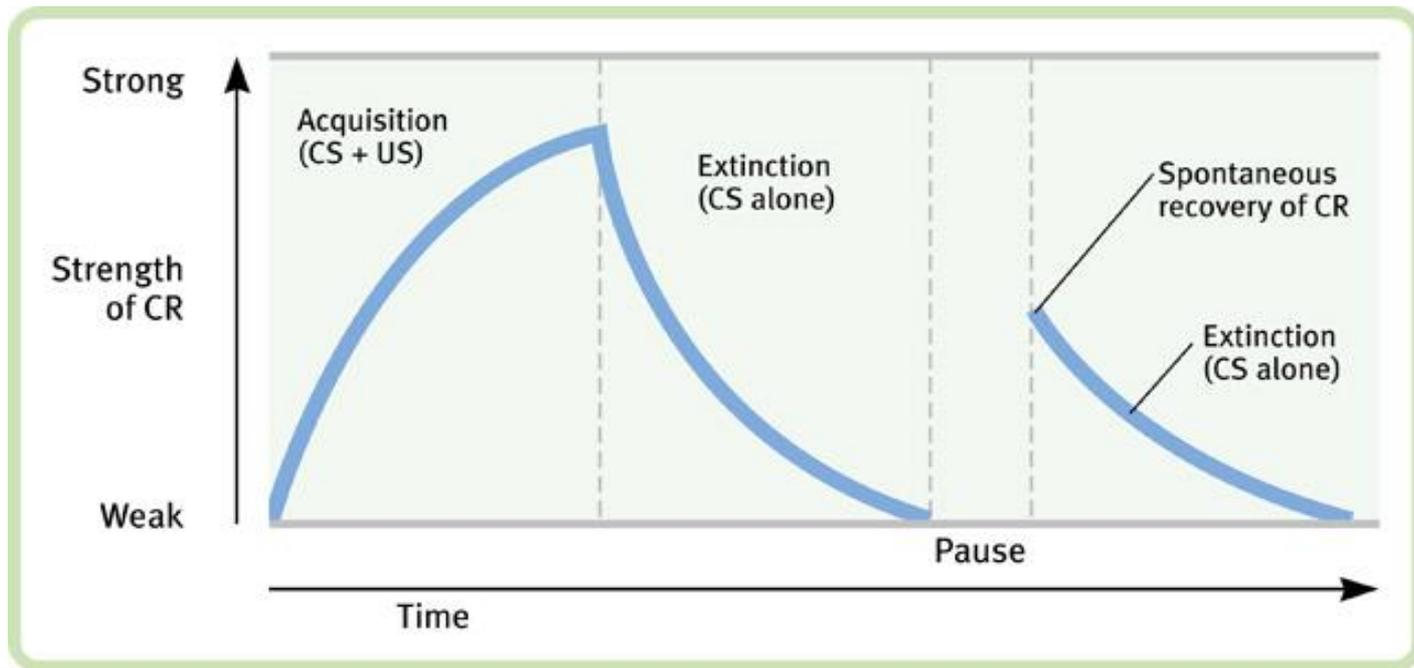


CR (Fear)

Operant Conditioning Model of Anxiety



Fear Extinction as a Model for E/RP



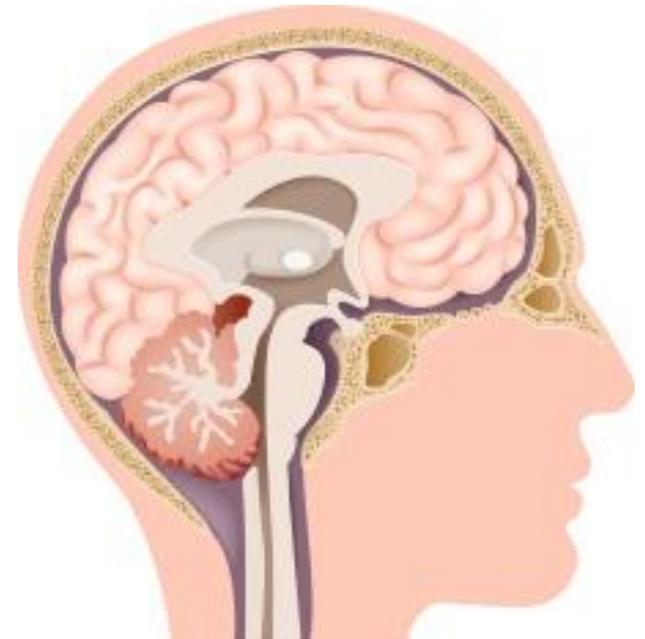
- Fear extinction occurs when the CS is repeatedly presented in the absence of the UCS
- Extinction recall is assessed by representing the CS and examining whether the CR is expressed (or not)
- Inhibitory learning is key to extinction

Implications for Treatment

- Learning processes
 - Are context-dependent
 - Must be done consistently
- The initial fear acquisition is not unlearned and does not disappear; instead fear extinction represents new, inhibitory learning.
 - Therefore, relapse & fear resurgence can occur
- Habituation may not be as important as promoting new learning opportunities

Neuroanatomy & Neurochemistry

- Neuroanatomy:
 - Amygdala central to fear conditioning and extinction.
 - Orbitofrontal cortex and anterior cingulate cortex (ACC) implicated in extinction learning via inhibition of amygdala
 - Hippocampus implicated in context specificity of extinction



Possible mechanisms of E/RP

- Extinction learning: learning to stop associating stimulus with anxiety response
- Habituation
- Experimentally learning that catastrophic predictions are incorrect
- Building skills for coping with the stimulus

How to conduct exposure

- Focus is on behavioral exposure and behavioral experiments
- Develop a fear hierarchy
- Conduct progressive imaginal and in vivo exposures
- Inhibit avoidance behaviors and rituals
- Exposure assigned between sessions
- Attempts are rewarded
- Parents may be involved as “coaches” if appropriate

Details of exposure

- Generally includes “arranged” practices
- Can include more naturalistic exposure practice
- These are introduced in the session, usually in or near the office.
- The idea is to refrain from avoidance behaviors during exposure rituals altogether, but early steps in the hierarchy can include some avoidance behaviors if complete elimination is not possible.
- The exposure done or rehearsed in the session are then practiced between sessions.

Graded exposure

- Teach kids to face their fears



Slightly
feared
situation

Mildly
feared
situation

Moderately
feared
situation

Much feared
situation

Most
feared
situation

- Practice each step until anxiety decreases
- Use contingent reinforcement

Example Fear Hierarchy: Contamination

Touch light switch; no washing	4
Touch doorknob; no washing	5
Touch bathroom doorknob; no washing	6
Eat food off of the table	7
Eat from same bag as someone else	8
Eat food that fell on floor	9

Structure of Exposure Sessions

- Review of the past week and homework practice (5-10 mins)
- Setting up exposure (5 mins)
- Exposure practice (30-45 mins)
- Assignment of homework and troubleshooting potential difficulties (5 mins)



Role of the Therapist During Exposure

- Plan for and prepare ahead for exposure session
- Structure the exposure
- Review skills the individual will (and won't) use to manage anxiety during exposure
- Assess anxiety levels prior to and during exposure exercise
 - SUDS Ratings
- Encourage and cheerlead the patient
- Identify and address any avoidance behaviors/rituals
- Address any family/parent concerns

Tolerating Ambiguity and Uncertainty



- Thought to be a central theme in many anxiety disorders
 - Religious concerns/scrupulosity
 - Harm-related symptoms
 - Perfectionism
- Helpful to consider this in planning exposure
 - Goal is to tolerate the uncertain rather than/in addition to facing fears

Methods to Enhance Fear Extinction

(Craske et al., 2014; Behav Res Ther. 58: 10-23)

- Create opportunities for violating fear-based expectancies
 - New learning occurs when there is a mismatch between expectancy and outcomes
 - Increase awareness of the CS-noUS relationship
 - Conduct post-exposure questioning to highlight this mismatch
- Vary the contexts in which exposure is conducted
- Vary exposure stimuli and fear levels
- Maximize session time devoted to exposure
- Focus on diverse exposure practice within and between sessions
- Decrease focus on habituation
- Eliminate safety signals and distraction
- Label emotions during exposure

Importance of Going Beyond the Typical

- “Twisting the knife”
 - Pushing the limits of typical behavior
 - Avoiding any reassurance
- Reduces the chance that the patient will attribute the lack of feared outcomes to having avoided the most feared situation
- Important to prevent relapse of anxiety



Exposure With Younger Children

- Rationale for treatment is usually explained to parents first, before involving the child in treatment
- Parent attends all treatment sessions with the child and learns to conduct exposure with child
- Therapist models coaching for parent
- Child may not be able to rate anxiety accurately, so must rely on therapist and parent judgment.
- Through the exposure the parent learns to tolerate their own anxiety about the child's distress.

Exposure with Younger Children



- May be more playful or silly
- May incorporate games, e.g. being Oscar the Grouch (child climbing in trash can, playing with food prior to eating it, playing on a dirty floor, getting candy dirty, etc.)
- Not all content can be fun; when not fun, ensure that the child is earning rewards for trying it.
- As with exposure for older kids, avoid pitfalls like distraction and reassurance.

Addressing Family Accommodation



- Family accommodation is very common
 - Describes changes that families make to their behavior to help the anxiety sufferer feel better *in the short term*
 - Modifying family routines
 - Facilitating avoidance
 - Participating in compulsive rituals
 - Offering reassurance
- Associated with symptom severity, functional impairment, & response to treatment
 - Correlated with parental anxiety
- Assessment Measures: Family Accommodation Scale

Maximizing Practice Between Sessions

- Critical to success of CBT interventions
- If non-adherence:
 - Examine contributing factors
 - Problem-solve around solutions
 - Involve others if appropriate
 - Institute rewards
 - Examine motivational enhancement strategies
- Make sure to review homework at the beginning of each session; this is one of the best predictors of compliance

