Unmasking the Fear: The Use of Systematic Desensitization to Alleviate Acute Stress Reactions to Trauma Reminders in TF-CBT

Chase Sanders, MS
Thomas Mitchell, LPC-MHSP, NCC
Etiology of the Conditioned Response

• Classical Conditioning / Associative Learning
  o Unconditioned Stimulus (US) = Unconditioned Response (UR)
  o Neutral Stimulus (NS) = No Conditioned Response
  o Unconditioned Stimulus (US) + Neutral Stimulus (NS) = Unconditioned Response (UR)
  o Conditioned Stimulus (CS) = Conditioned Response (CR)
    • US = UR
    • NS = No Response
    • US + NS = UR
    • CS = CR

• Mower’s Two Factor Model
• Generalization
• Rescorla Wagner Model
Classical Conditioning

Classical conditioning is one way in which animals (including humans) learn: learning by association. Previously neutral stimuli become associated with naturally occurring reflexes. Classical conditioning can happen by itself or it can be done deliberately.

Before conditioning
Before conditioning the unconditioned stimulus (US) produces an unconditioned response (UR). Essentially, a stimulus in the environment has caused an unlearned response in the animal.

- **Virus (US)** → Feeling nauseous (UR)
- **Food (US)** → Salivating (UR)

During conditioning
During the conditioning a conditioned stimulus (CS) is presented at the same time as the unconditioned stimulus (US) and produces an unconditioned response (UR)

- **Virus (US) + Drink (CS)** → Feeling nauseous (UR)
- **Food (US) + Bell (CS)** → Salivating (UR)

After conditioning
After conditioning the conditioned stimulus (CS) leads to a conditioned response (CR).

- **Drink (CS)** → Feeling nauseous (CR)
- **Bell (CS)** → Salivating (CR)

Reversing the conditioning process
The process of conditioning can be reversed by (repeatedly) presenting the CS without the US. If the CS is presented on its own then the association between the CS and the US becomes weaker. This process is known as extinction. With time the CS stops leading to the CR and the CR is said to be extinguished.

Why is classical conditioning important to therapists?
Often neutral stimuli become associated with fearful situations and cause difficulties in people’s lives. 
E.g. John is driving on a rainy day (CS) when he is involved in a car crash (US) - he finds this terrifying (UR)

- **Fire (US) + Cloud (CS)** → Feeling nervous whenever it rains (CR). He stops driving altogether

Afterwards, John feels nervous whenever it rains (CR).

John sees a therapist who explains that he can overcome his fear by extinguishing his conditioned response. The therapist recommends that John needs to go driving repeatedly, particularly if it is raining. He is reassured that his fear will reduce over time if he does so.
Factors that maintain PTSD Symptoms

• Inaccurate Fear Networks (classical conditioning)
  o Things that are similar to trauma have been connected to fear response
  o Memories have been connected to fear response
  o Neutral stimuli have become paired with trauma, resulting in CR (behavioral symptomology)
  o Amygdala and Hippocampus produce interconnected responses
  o Glutamate is key neurotransmitter in conditioning fear

• Avoidance (operant conditioning – negative reinforcement)
  o When I become reminded of the trauma, I feel “bad.” When I avoid the trauma reminder, I feel less “bad,” thus avoidance is reinforced.

• Higher Order Conditioning
Case Study

• Neutral Stimulus (Mask) = no conditioned response

• Unconditioned Stimulus (Sexual Abuse) = Unconditioned Response (Fear, Panic, Aversion)

• Unconditioned Stimulus (Sexual Abuse) + Neutral Stimulus (Mask) = Unconditioned Response (Fear, Panic, Aversion)

• Conditioned Stimulus (Mask) = Conditioned Response (Fear, Panic, Aversion)
Counterconditioning

• The reverse side of classical conditioning is counterconditioning. Counterconditioning reduces the intensity of the conditioned response (panic) by establishing an incompatible response (regulation) to the conditioned stimulus (a specific room, for example).

• Joseph Wolpe observed anxiety symptoms could be reduced (inhibited) when conditioned stimuli were presented in a graded order and systematically paired with a relaxation response. Wolpe’s Reciprocal Inhibition came to be called Systematic Desensitization.
Systematic Desensitization

- There are five steps in administering effective systematic desensitization
  - 1.) Establishing Baseline
  - 2.) Construction of the Hierarchy
  - 3.) Relaxation and Regulation Skills / Incompatible Responses
  - 4.) Systematic Pairing / Counterconditioning Process
  - 5.) Post-Treatment Follow Up / Monitoring of Responses

- Teaming with the caregiver is crucial in establishing the hierarchy for treatment.
Case History
Ashley’s Background

- 6 year-old white female
- Removed from bio home at the age of 2
- Approximately 10 placements in the year preceding the beginning of tx
- Victim of severe physical and sexual abuse at multiple placements
Ashley’s Symptoms

- Physical aggression toward children and adults
- Frequent enuresis and encopresis
- Sexualized play with siblings
- Rapidly fluctuating moods
- Extreme reactivity to trauma reminders
- Evidence of dissociation/psychosis
- ULCA PTSD RI – 64
TX Summary

• Caregiver self-referred to CAC.
• Ashley transitioned to Chase during affective modulation.
• Treatment was slow and unpredictable.
• Youth successfully completed all TF-CBT modules.
• UCLA PTSD RI Posttest - 22
What Were the Signs?
Connecting the Dots…

- A perpetrator wore a “red, black, and white” mask while violently sexually assaulting Ashley. She would later identify this as “scream mask.”
- She was threatened that “the boogeyman” would hurt her if she told anyone.
Reactivity

• Ashley’s reactivity was generalized to anything that covered the face or mimicked the expression of the scream mask.
• She worried that inanimate objects would hurt her.
• She had extreme anxiety about potential exposure to a mask.
Planning
Why Are We Doing This?

- Does the client have a problem that is negatively impacting her?
- Is this a good solution?
- Are there any ulterior motives?
- Am I following ethical and best practice guidelines.
The Hierarchy

1. Talk about Masks
   • What is a mask?
   • Varieties of masks?
   • Why do people wear masks?

2. Exposure to Innocuous Mask
   • Purple mask
     o See, touch, wear
   • White mask
     o See, touch, paint, wear
The Hierarchy

3. Link Mask to Abuse
   • Why does the mask scare you?
   • Who hurt you?

4. Imagine and Describe the Mask
   • What shape is it?
   • What color is it?
   • How does it make you feel?
The Hierarchy

5. Create a Picture of the Mask
6. Remain in Room with Scream Mask in Box
7. Remain in Room with Scream Mask on Table
8. Approach Scream Mask
   • 10ft, 5ft, 2ft, 1ft
The Hierarchy

9. Touch the Mask
   • Brief touch
   • Lingering touch

10. Hold Mask in Hand
Preparing the Child

- Review affective modulation skills.
- Relaxation, Relaxation, Relaxation
- Explain the benefits.
- Make it fun.
- Be honest.
Preparing Caregivers

• Explain the rationale and potential benefits.
• Provide a brief explanation of conditioning.
• Honestly discuss the intervention.
• Assure them of their control.
• Revisit regularly.
Preparing Yourself

- Trust that systematic desensitization works.
- Prepare to overcome your discomfort.
- Budget extra time (at least 2 hours).
- Schedule sessions at the end of the day if possible.
Session 1
Goals

• Acclimate youth to therapy environment
• Facilitate a general discussion about masks (Objective #1)
• Expose youth to innocuous mask (Objective #2)
Special Considerations

• How will the youth respond to the change of environment?
• How do we present the masks in the most non-threatening way possible?
• Will the white mask be too much too quickly?
Takeaways

• Ashley became far more escalated during Objective #1 than we could have imagined.
• When the child becomes sidetracked, the therapist must keep the goal in mind.
• Be flexible.
Session 2
Goals

• Process the connection of the mask to Ashley’s sexual abuse (Objective #3)
• Lead visualization and description of the mask (Objective #4)
• Facilitate the creation of an artistic rendering of the scream mask (Objective #5)
Special Considerations

• Avoid becoming bogged down in the story/reopening the trauma narrative.

• How will Ashley respond to increasingly aversive stimuli?
Takeaways

• Be prepared for resistance.
• Be aware of the line between facilitating progress and enabling avoidance.
• Pay attention to the details - e.g. blood and eyes.
• Do not be afraid to “go there.”
Session 3
Goals

• Remain in the room with the mask in a box (Objective #6)
• Remain in the room with the mask outside the box (Objective #7)
Special Considerations

• How do we introduce the mask into the youth’s presence in a way that will allow her to maintain control but also limit the likelihood that she will refuse to continue?