

Treatment of PTSD - Listening to the Wisdom of Trauma

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Type I Trauma (Terr)

- Single, catastrophic, unanticipated events.
- “Critical incidents”
- Often have a clear, detailed memory.
- Frequently accompanied by a desire to explain what happened.

- Omens – reworking & rethinking of event to explain why it happened to them; preoccupied with “how will I avoid it next time?”
- Misperceptions – misidentifications, visual hallucination & time distortions

Dynamics of Fear (Solomon)

1. Here comes trouble (awareness of threat)
2. Oh **** !! (aware of vulnerability, lack of control)
3. I've got to do something (focus shifts externally to danger)
4. I have to survive (response, reaction)
5. Here I go (commitment to action)
6. Oh **** !! (recollection of fear)

Complex PTSD

Altered Affect and Impulse Control (self-harm, sexual indiscretions, substance abuse, high-risk behavior)

Altered Attention and Consciousness (dissociation, depersonalization, amnesia)

Somatization (digestive system, chronic pain, sexual disorders)

Altered Self-Perception (chronic guilt, shame, low self-worth)

Altered Relations with others (mistrust, victimizing, being revictimized)

Altered Systems of meaning (hopelessness, foreshortened future)

Type II Trauma

- “Disorders of Extreme Stress NOS”
- Complex PTSD
- Type II trauma-repetitive, ongoing , early in life, interpersonal
- The first event creates surprise, but the subsequent events create a sense of anticipation, so that the psyche attempts to preserve the self
- Defense mechanisms / coping include massive denial, repression, dissociation, self-anesthesia, self-hypnosis, identification with the aggressor, and aggression turned into self
- EMDR, CBT with and without Exposure therapy have been found effective.

Emotions Associated with Childhood Psychic Trauma

- Terror
- Rage
- Denial and Numbing
- Unresolved Grief
- Shame and Guilt

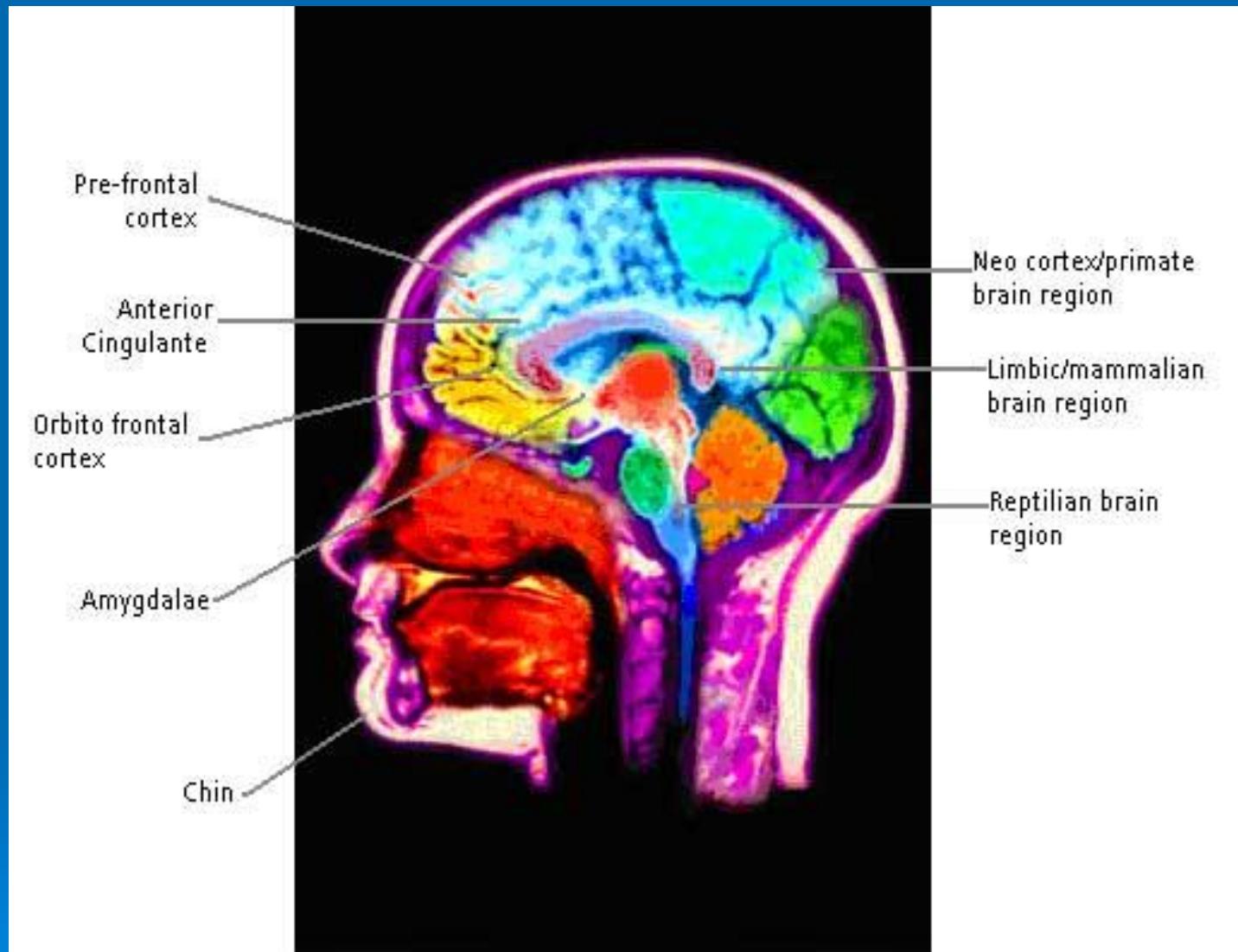
- **Preschool children** to early elementary school children may show regressive behaviors (e.g., babble, bed-wetting, tantrums)
- **Late elementary through high school aged children** may have a decreased sense of trust and more negative perceptions of others, particularly those perceived as being “different”.
- They may also have discomfort with feelings related to the perpetrators of the event, particularly revenge thoughts
- **Older children** may have repetitive thoughts about death and dying or exhibit high risk behavior.

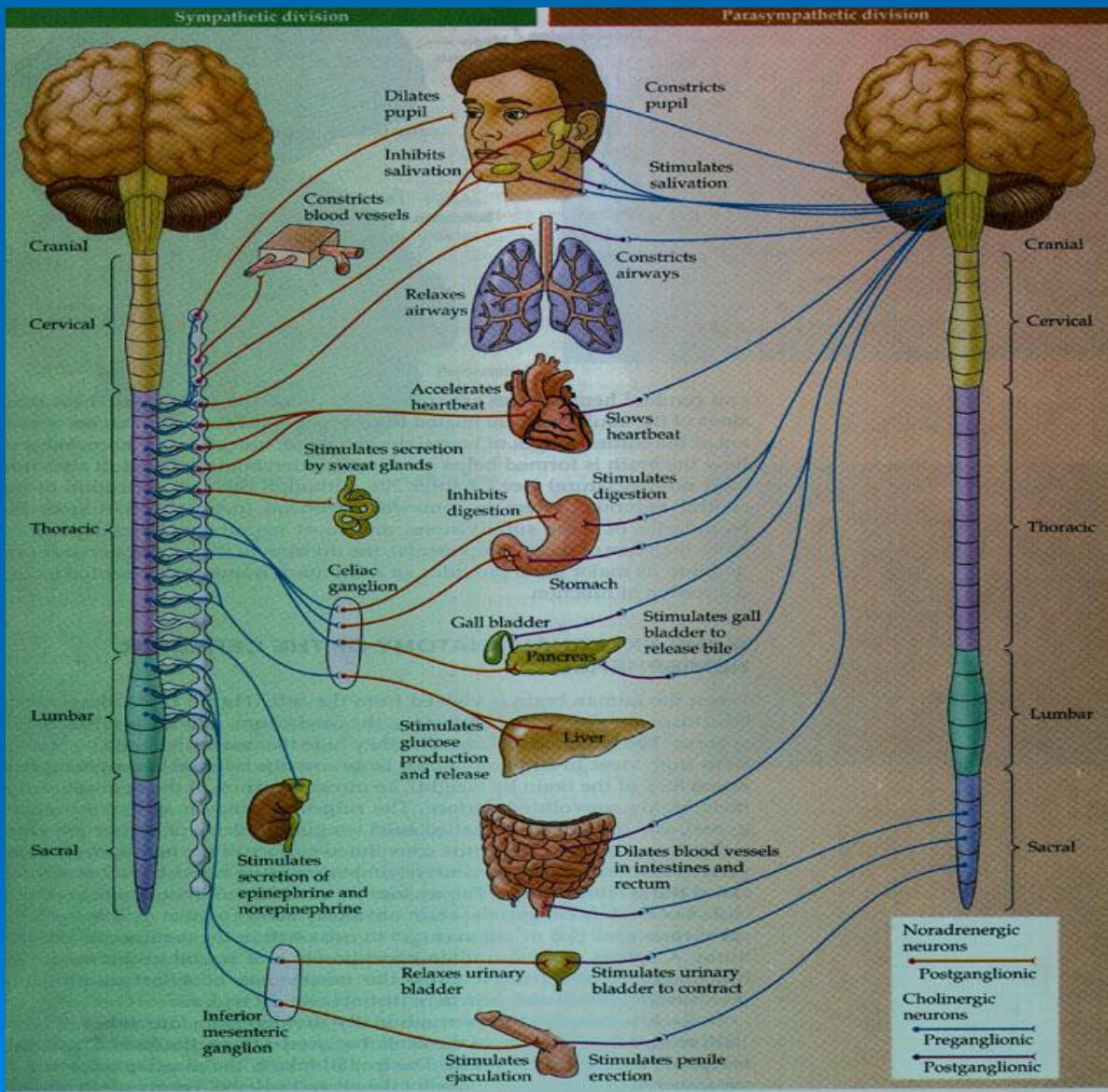
Post Traumatic Stress Disorder

- **Re-experiencing**
- young children: repetitive play with traumatic themes
- reenactment of traumatic events in play, drawing, or verbalizations.
- Nightmares, flashbacks, distress and reactivity at exposure to cues

PTSD

- **Avoidance or numbing** – avoiding reminders or not remembering trauma,
- having diminished interest in normal activities, feeling detached or removed from others
- **Hyperarousal:** difficulty sleeping or concentrating, irritability, angry outbursts, hypervigilance, and an exaggerated startle response





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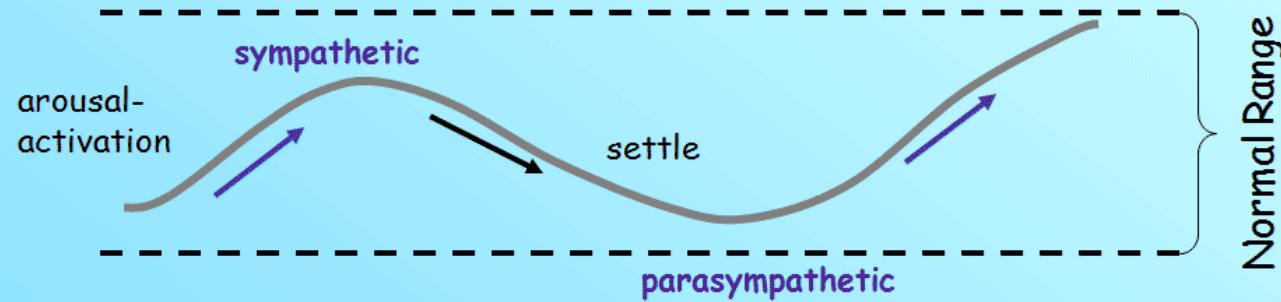
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"It was the classic fight or flight response.
Next time, try flight."

A Healthy Nervous System



When my Nervous System is balanced and my activation is low

I feel:

Open, curious

Relaxed yet alert

Embodied

Appropriately reactive

Available for connection

Able to be present

Fluid, resilient

Emotionally stable

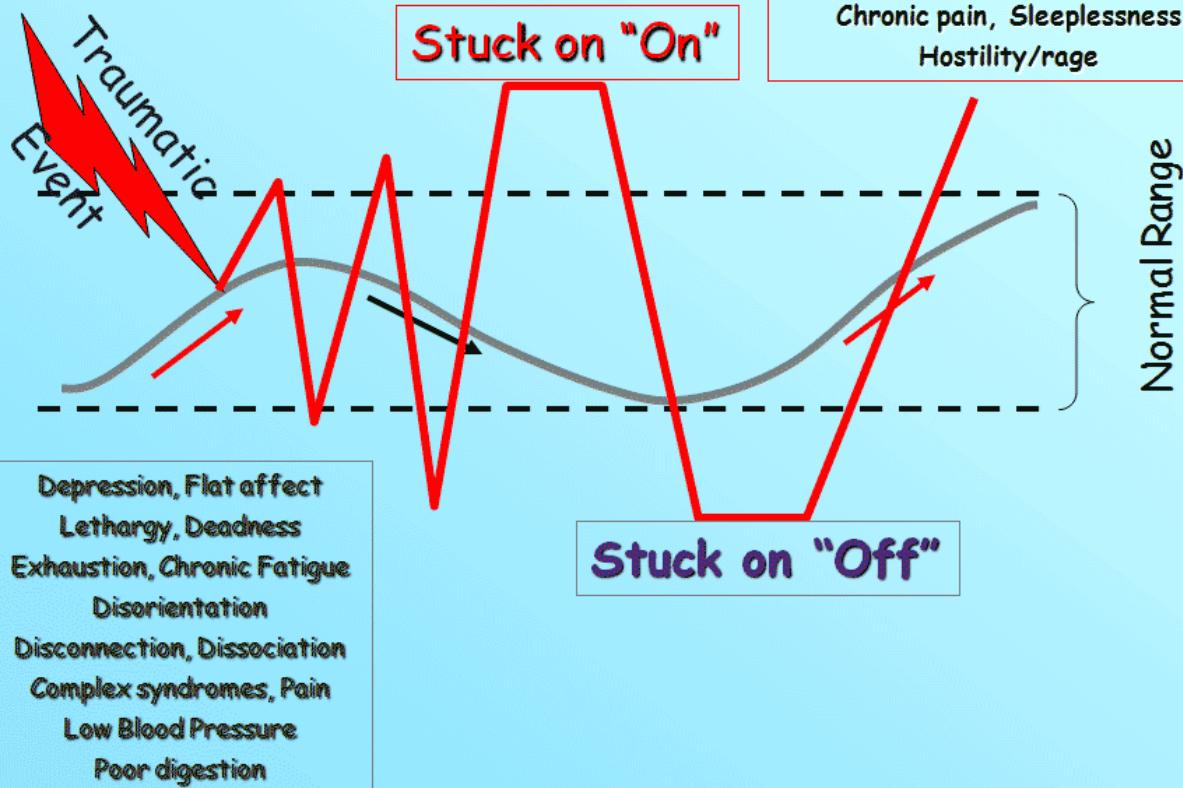
Competent - a sense of mastery Healthy - symptoms are manageable

I have choices and options

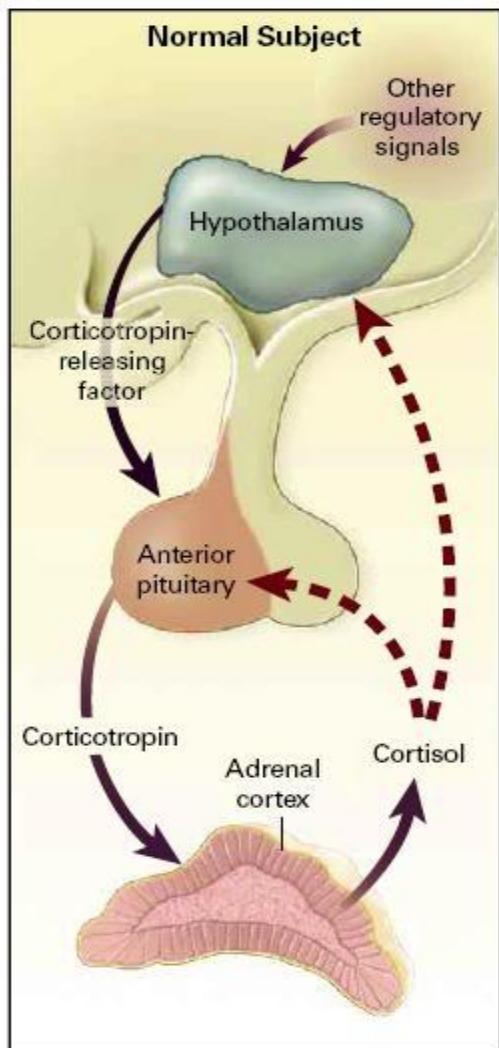
I recognize when I am moving out of my functional range
and have tools to return to stability and stabilization

I know when to reach out for support
when I can't do it on my own

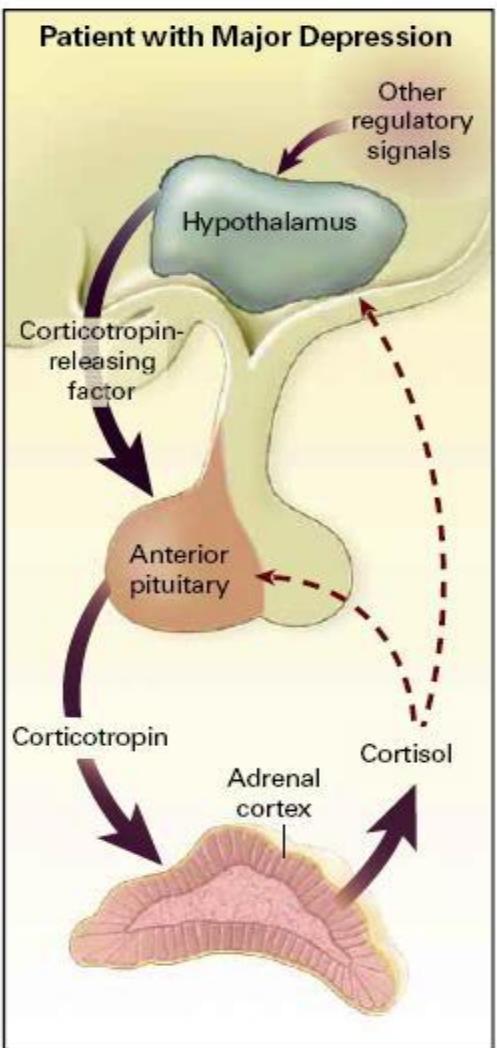
Symptoms of Un-Discharged Traumatic Stress



A



B



C

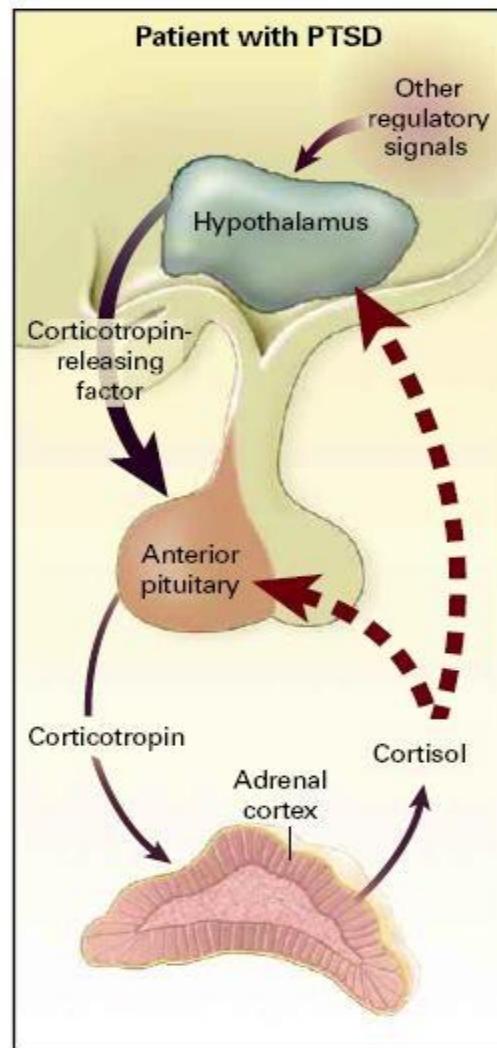


Figure 1. Response to Stress in a Normal Subject (Panel A), a Patient with Major Depressive Disorder (Panel B), and a Patient with PTSD (Panel C).

In normal subjects (Panel A) and in patients with major depression (Panel B), brief or sustained periods of stress are typically associated with increased levels of both cortisol and corticotropin-releasing factor. In each panel the thickness of the interconnecting arrows denotes the magnitude of the biologic response. Corticotropin-releasing factor stimulates the production of corticotropin, which in turn stimulates the production of cortisol. Cortisol inhibits the release of corticotropin from the pituitary and the release of corticotropin-releasing factor from the hypothalamus. It is also responsible for the containment of many stress-activated biologic reactions. In patients with PTSD (Panel C), levels of cortisol are low and levels of corticotropin-releasing factor are high. In addition, the sensitivity of the negative-feedback system of the hypothalamic–pituitary–adrenal axis is increased in patients with PTSD rather than decreased, as often occurs in patients with major depression.³¹

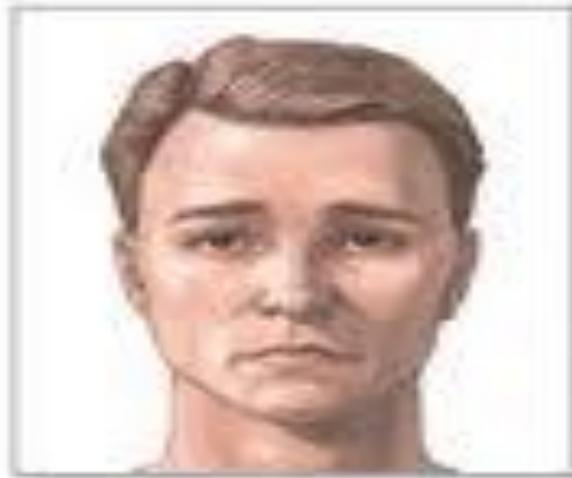
Link between Trauma and PTSD

- Most people who are exposed to a traumatic, event experience some PTSD symptoms in the days and weeks following exposure.





**Stress is caused
by an existing
stress-causing
factor or
"stressor"**



**Anxiety is stress that
continues after the
stressor is gone**

8% of men and 20% of women go on to develop PTSD,

- 30% of these individuals develop a chronic form

Brain Damage from PTSD

- PTSD related to child abuse or domestic violence is associated with smaller cerebral volume and smaller Corpora Colossa with the severity of these changes being proportional to the duration of the children's trauma exposure.
- childhood PTSD is associated with lower academic achievement compared with children who have been exposed to trauma but have not developed PTSD.

RESPONSE FACTORS

- Immediate Response: Recoil Phase
- psychic shock, anxiety, dissociative behavior
- Post-impact Phase: (within 3 months)
- Intense fear, helplessness or horror, disorganized or agitated behavior
- Acute Stress Disorder – lasts minimum 2 days and maximum 4 weeks

Risk Factors

- RISK AND PROTECTIVE FACTORS
- Female gender,
- previous trauma exposure
- multiple traumas
- greater exposure to the index trauma,
- presence of a preexisting psychiatric disorder (particularly an anxiety disorder),
- parental psychopathology,
- lack of social support

Risk Factors (Disasters)

- Increased television viewing of disaster-related events,
- Delayed evacuation,
- extreme panic symptoms
- having felt that one's own or one's family member's life was in danger
- genetics

Protective Factors

- parental support,
- lower levels of parental PTSD,
- resolution of other parental trauma-related symptoms

PREEEXISTING CHARACTERISTICS OF THE CHILD

- **gender differences** – boys tend to display more aggressive responses than girls
- **minority youth** report higher levels of PTSD and more difficulty recovering
- **Preexisting levels of anxiety and depression** are significant risk factors for development of PTSD
- Also a **ruminative coping style, preexisting academic difficulties and attention problems** and poor peer relations predict a worse outcome

PREEXISTING CHARACTERISTICS OF THE PARENT

- A parental history of anxiety disorders is the best predictor of the development and persistence of posttraumatic stress disorder (PTSD) in children and adolescents who have undergone a traumatic event.

ASPECTS OF RECOVERY ENVIRONMENT

- Parental Response: validation/invalidation
- Parental Distress – parents trauma-related symptoms
- Parental Psychopathology – level of psychosocial functioning
- Individual, systemic strengths and resources
- **Protective Factors:** Intelligence, communication skills, sense of self-efficacy, coping abilities, talents, feelings of bonding.

Comorbid Conditions

- Anxiety disorders – separation anxiety disorder and agoraphobia that arise out of concerns about safety and security.
- Depression may emerge later on, especially for those youth who have lost loved ones.
- Depression is more likely among youth who display chronic PTSD.
- Anger outbursts and substance abuse and other forms of acting out.
- Problems with Academic Achievement are included by problems with sleep and lack of concentration.

PTSD Treatment

- Exposure therapy
- Trauma Based CBT
- EMDR
- Innovative Therapies
- Pharmacotherapy

Trauma Focused CBT

- trauma-focused therapies, that specifically address the child's traumatic experiences, are superior to nonspecific or nondirective therapies in resolving PTSD symptoms.
- children in child centered therapy rarely spontaneously mentioned their personal traumatic experiences.

AACAP Recommendations

Trauma-Focused Psychotherapies Should Be Considered First-Line Treatments for Children and Adolescents With PTSD.

Therapies that specifically address the child's traumatic experiences are superior to nonspecific or non-directive therapies in resolving PTSD symptoms.

True across developmental stages

Encompasses diverse theoretical approaches

Children in child-centered therapy rarely spontaneously mentioned their personal traumatic experiences.

Trauma Focused Therapies

- (1) directly address children's traumatic experiences
- (2) include parents in treatment in some manner as important agents of change
- (3) focus not only on symptom improvement but also on enhancing functioning, resiliency, and/or developmental trajectory.

➤ TF-CBT was designed for children with PTSD in addition to depression, anxiety, and other trauma-related difficulties such as shame and self-blame typically delivered individually to children and their nonperpetrator parents, although it has also been provided in group formats.

PRACTICE acronym

- P= Psychoeducation, Parenting skills
- R= Relaxation skills
- A= Affective modulation
- C= Cognitive coping skills
- T= Trauma Narrative
- I= In Vivo Mastery
- C= Conjoint Parent/Child Sessions
- E= Enhancing Future Safety/Development

PRACTICE

- Psychoeducation is provided to children and their caregivers about the impact of trauma and common childhood reactions.
 - Parenting skills are provided to optimize children's emotional and behavioral adjustment.
- Relaxation and stress management skills are individualized for each child and parent.
- Affective expression and modulation are taught to help children and parents identify and cope with a range of emotions.
- Cognitive coping and processing are enhanced by illustrating the relationships among thoughts, feelings and behaviors. This helps children and parents modify inaccurate or unhelpful thoughts about the trauma.
- Trauma narration, in which children describe their personal traumatic experiences, is an important component of the treatment.

PRACTICE

- *In vivo* mastery of trauma reminders is used to help children overcome their avoidance of situations that are no longer dangerous, but which remind them of the original trauma.
- Conjoint child-parent sessions help the child and parent talk to each other about the child's trauma.
- The final phase of the treatment, Enhancing future safety and development, addresses safety, helps the child to regain developmental momentum, and covers any other skills the child needs to end treatment.

Trauma Focused CBT

TF-CBT has been tested in several randomized controlled trials involving more than 500 children.

Evidence of clinically significant improvement compared with usual community treatment, nondirective supportive therapy, child-centered Therapy and wait-list control conditions for children 3 to 17 years old.

Treatment gains were maintained at 1-year follow-up in several of these studies.

TF-CBT has been adapted for Hispanic youth and Native American families.

TF-CBT has also been adapted for childhood traumatic grief, an emerging condition in which children lose loved ones in traumatic circumstances.

Trauma Focused CBT

- works for children who have experienced any trauma, including multiple traumas.
- • is effective with children from diverse backgrounds.
- • works in as few as 12 treatment sessions.
- • has been used successfully in clinics, schools, homes, residential treatment facilities, and inpatient settings.
- • works even if there is no parent or caregiver to participate in treatment.
- • works for children in foster care.
- • has been used effectively in a variety of languages and countries.

When is TF-CBT Not Indicated

- When predominant problems are disruptive behaviors such as defiance, disobedience, aggression, or rule- or lawbreaking.
- Children who are severely depressed or suicidal, or who have active substance abuse.
- TF-CBT will often be an appropriate intervention for these children once the above presenting problems have been addressed.

TF CBT-Stress Management

- Controlled Breathing
- Relaxation Training
- Thought Stopping

Controlled Breathing

- Education on the role of breath- control over body sensations, tension reduction
- Body Awareness- Two hand technique
- Belly breath- props (balloons, paper cup)
- Slowing breath while deepening
- Exhalation longer than inhalation
- Once mastered can add words/images
- Homework
- Teaching parents

Progressive Muscle Relaxation

Education- why do our muscles tense?

Dorsal and ventral aspects of our anatomy

Experience tension vs. relaxation in each muscle group

Teaching how to tense to relax

Younger children- spaghetti noodle, lemon, kitten, turtle, bubble gum, fly, baby elephant, fence, mud puddle

Teenagers- use their own terms, poses

Teach parents

Thought Stopping

- Targets intrusive thoughts
- Allows for sense of mastery and control over thoughts
- First teach the relationship between thought, emotion and behavior
- Use the word STOP or snap a rubber band to startle and distract
- Evoke a positive replacement thought
- If resistant, allow for a worry bucket
- Wisdom of intrusive thoughts

Affect Modulation

- Teach children how to identify accurately and talk comfortably about a range of emotions, through using a variety of techniques including role-play, games, and drawings.
- Help children identify differing levels of intensity of emotion and strategies for expressing emotions appropriately.
- Assign homework so that children practice feelings identification and appropriate feelings expression in real-world situations.

Technique for Teaching Affect Expression and Modulation

- Explain rationale for feelings identification
- Have the child identify as many feelings as possible
- Teach the child how to rate the intensity level of an emotion
- Teach the child the function of the emotion
- Teach the child how to express feelings appropriately in various situations

Name the Feelings

























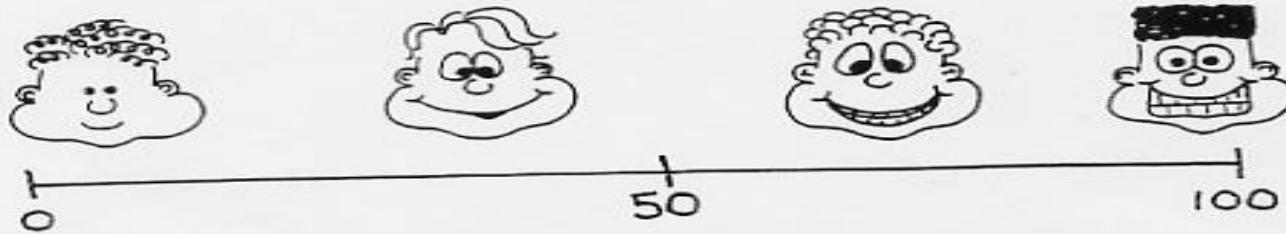






Rating feelings

-Happy-

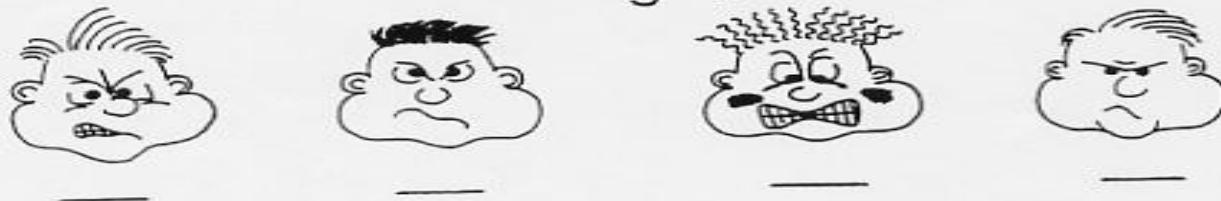


How would you rate these?

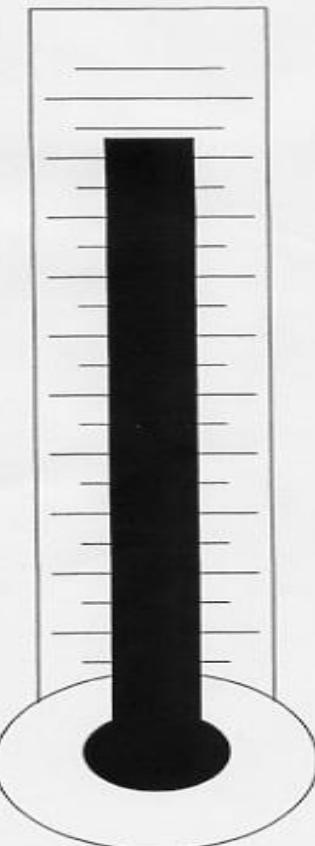
-Sad-



-Angry-



● Emotions Thermometer



10 _____

9 _____

8 _____

7 _____

6 _____

5 _____

4 _____

3 _____

2 _____

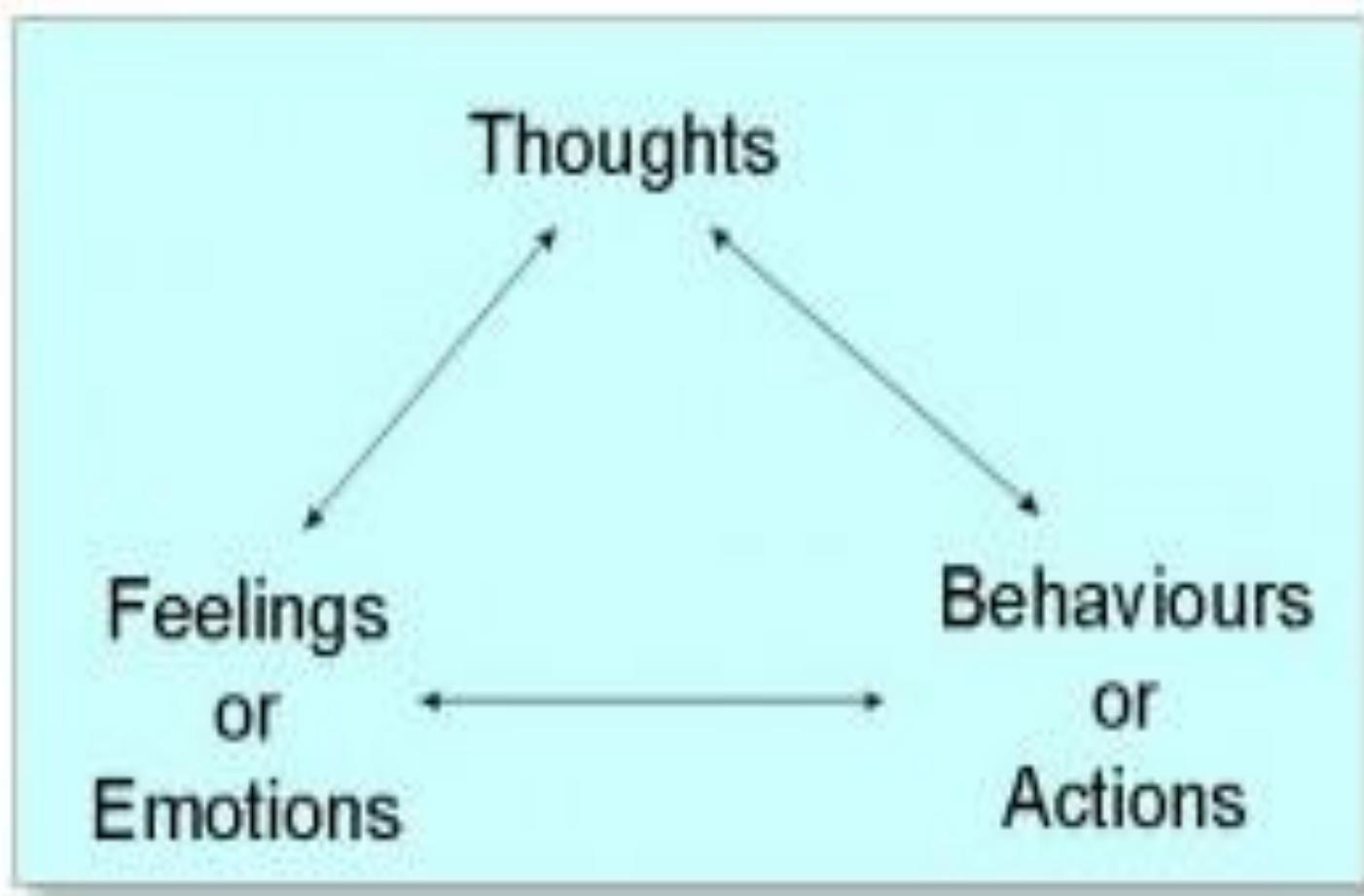
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Affect Modulation-Parent Sessions

- Educate Parent regarding the function of Emotion
- Help Disentangle Parents Emotions from those the Child (Split Screen)
- Label Emotions for the Child
- Reinforce the Childs Appropriate Expression of Emotion

Cognitive Coping



Cognitive Coping- Parent Session

COGNITIVE DISTORTIONS

- I can only be happy if my child is happy.
- I can't trust anyone any more.
- Being strong for my child means I should never feel upset.
- Good parents always know the right thing to say to their children.

REPLACEMENT THOUGHTS

- I can find things to be happy about, and this will set a good example for my child.
- Most people are good at heart and many are trustworthy.
- Being strong means doing what you have to do, and I am doing that.
- All parents wonder what the right thing is sometimes, and I do lots of good things for my child, including bringing her to therapy even though it is painful.

Trauma Narrative

GOALS

- To control intrusive and upsetting trauma related imagery.
- To reduce avoidance of cues, and identifying unhelpful cognitions about trauma events
- To recognize and prepare for reminders of trauma.
- To break apart unpleasant associations between thoughts, reminders, or discussion of a trauma from overwhelming negative emotion.
- To break the pattern of avoidance

Creating the Trauma Narrative

- Books, tapes, drawings, music, puppets, laptops can be used.
- Story should have a beginning, middle and ending but the start point is variable.
- The trauma narrative should include not only the identified trauma(s), but also related things that happened that could be confusing or upsetting.
- Ask questions that increase the level of detail included.

Creating the Trauma Narrative

- After the child has completed each segment of writing, have the child read what he or she has written thus far
- Ask the child to add thoughts and feelings he or she was having during the events described in the narrative.
- Include the worst part of the trauma in as much detail as possible, including drawing a picture of this memory.
- Include a SUDS rating after each reading and after any relaxation methods used.
- Praise the child after each reading
- Encourage the children to include ways in which the child is different now from when the traumatic events happened and when therapy began
- Elicit what they have learned and advice they might give to other children who have experienced similar types of trauma.

Trauma Narrative

- The trauma narrative should be created in session with the therapist. To avoid any extreme distress by the caregiver or child, it is recommended that this work *not* be done at home.

Once the child has completed the trauma narrative and has talked about their thoughts and feelings about what happened, it is important to work with the child to correct errors or distortions in thinking that the child has.

- With multiple traumas start with events that cause lower levels of anxiety, gradually increasing to those that cause more distress.

Trauma Narrative

- Processing of the trauma narrative should continue and be repeated until the memories no longer elicit extreme fear, anxiety, or avoidance
- If distress is becoming overwhelming
 - *normalize the process
 - *slow down
 - *practice stress management skills

Trauma Narrative - Parents

- Predict more nightmares or sleep problems, more "acting out", more clingy behavior increasing and then resolving for good.
- Encourage parents not to question their child about the trauma narrative until the conjoint session.
- Ensure parent responds in helpful and supportive manner
- Sharing the trauma narrative should not be seen as a one-time event, but as an ongoing process
- As the child continues to create the trauma narrative, the parallel parent session should be devoted mainly to having the parent read the child's book

Cognitive Processing- Goals

help children and parents to understand the difference between accurate and inaccurate cognitions related to their traumatic experience

- help children and parents to correct cognitive errors to encourage more healthy thought processes around the child's traumatic experience
- help parents examine their own thoughts about the child's traumatic experience for both accuracy and helpfulness
- teach parents how to effectively challenge the child's cognitive errors

Common Distorted Thoughts- Children

- shame and/or stigmatization,
- feelings of responsibility (either for the trauma itself or for events that occurred subsequent to the discovery of the trauma),
- unhealthy changes in trust of others,
- attributions about the offender or trauma, and
- unhelpful changes in perceptions about the body or personal safety

Common Distorted Thoughts- Parents

- I should have known this would happen.
- I should have kept my child safe.
- My child will never be happy again.
- Our family is destroyed.
- My child's childhood is ruined.
- The world is terribly dangerous.
- My child can never recover.

Cognitive Processing-Technique

Review the trauma narrative to plan for the session.

In session, go over the trauma narrative.

As each thought that was written down (or verbalized) is expressed, inquire about whether that thought was **accurate and helpful**

Challenge inaccurate , unhelpful thoughts

- Socratic Method
- Best Friend Technique/Double Standard Technique
- Reattribution (Responsibility Pie)
- Paradoxical Magnification
- Acceptance Paradox- Reality of vulnerability

Cognitive Processing of the Trauma Narrative

- "One thought you mentioned is thinking that if you would not have gone to your uncle's house, you would not have been sexually abused by him again, and that it was your fault for being sexually abused by him again. Is that correct? OK, now let's talk about this thought for a little bit. When you had that thought, how did it make you feel?"
- Child responds: I feel guilty.
- Nice job connecting that thought with that feeling. Well, let's look at that thought again. Why did you go to your uncle's house?
- Child responds: Well, my parents took me there for Thanksgiving because that's where we go every year.
- So did you ask to go to your uncle's house that year?
- Child responds: No
- And you were very young when they were taking you there for Thanksgiving, right?
- Child responds: Yes
- So you were really young, and you did not really have a lot of control over where your parents took you, correct?
- Child responds: I guess not. I hadn't thought of that. Now, I'm big and they would not take me if I said "no".

Behavioral Management- Goals

- teach parents how to manage disruptive, aggressive, and non-compliant behavior.
- help parents decrease any unhealthy or ineffective discipline techniques.
- teach parents the correct use of praise, timeout, contingency management plans, and other effective reward and punishment techniques.
- practice these skills with parents to prepare them to use these strategies effectively in the home, neighborhood, supermarket, and elsewhere.

Behavioral Management Techniques

- Psychoeducation- normalcy of child's overreactivity
- Specificity in giving praise
- Active ignoring
- Timeouts
- Behavior Charts

Parent- Child Sessions

- parents have the opportunity to demonstrate their comfort in hearing and talking about the trauma, while also modeling appropriate coping;
- the child has an opportunity to share the narrative and experience a sense of pride further alleviating feelings of shame and distress associated with the trauma;
- parent-child communication about the trauma is enhanced, and misunderstandings and areas of confusion can be cleared up; and
- the groundwork is laid for therapeutic parent-child interactions to continue after formal therapy is over. For children, you should emphasize the importance of communicating openly to eliminate any possible misunderstandings, and the parent's desire to be helpful and supportive.

Parent-Child Sessions

When is the Parent ready?

When the parent can effectively dispute upsetting thoughts and tolerate hearing you share the child's trauma narrative.

When they can actively support the child using verbal/nonverbal communication.

After specific concerns are addressed with the parent privately.

Parent Preparation

- praising the child
- asking open-ended, non-threatening questions ("How did you decide to tell someone about what happened?") as opposed to ("Why didn't you tell me before?");
- rehearsing responses to the trauma narrative with role play
- preparing to discuss the child's questions for the parent. ("Is my mom mad at me because her boyfriend got in trouble?"). Parents should practice responding to these questions in an empathic, effective way.

CBITS

Cognitive Behavioral Intervention for Trauma in Schools

Includes all PRACTICE components, with the exception of the parental component,

provides a teacher component to educate teachers about the potential impact of trauma on students' classroom behavior and learning. provided in a group format in the school setting (i.e., group therapy sessions are held in school, but not within children's regular classroom periods).

The trauma narrative component is typically conducted during individual "breakout" sessions during which each child meets one on one with their usual group therapist.

Seeking Safety

A manualized individual or group CBT protocol for PTSD and comorbid substance-use disorders includes sequential interventions for affective modulation substance-abuse risk reduction trauma-specific cognitive processing Superior to treatment as usual in a small randomized controlled pilot group study for adolescent girls with PTSD and substance-abuse disorder.

UCLA Trauma/Grief Therapy

➤ UCLA Trauma and Grief

Component Therapy is an individual or group based, adolescent-focused intervention that uses CBT in addition to other evidence-based components to alleviate PTSD and traumatic grief and to restore developmental progression.

It was found to decrease PTSD, traumatic grief, and depressive symptoms in a study of Bosnian adolescents.

Surviving Cancer Competently Intervention Program

A cognitive and family therapy-based treatment model

provided in four group and family sessions over a single day, was superior to a wait-list control

condition in decreasing hyperarousal symptoms in adolescent cancer survivors.

Befriending Trauma

- You listen to friends not enemies
- Distinguishing between trauma and response to trauma
- Distinguishing between alarm and danger
- Distinguishing between pain and damage
- “Key to arousal modulation is “befriending” internal sensations and gaining awareness of the transitory nature of all sensory experience.” (Van Der Kolk)
- Learning to tolerate sensations and feelings (body) and thoughts (mind) without holding /pushing, judging or rejecting
- Two types of suffering . . .
- Avoid inhibiting or simply understanding

Behavioral Approaches

- Based on Learning Theory
- Arousal features viewed as a conditioned fear response to a threatening event.
- Avoidance symptoms viewed as strategies to escape feared stimuli and paired painful emotional responses.
- In vivo exposure and imaginal exposure both used.

Cognitive-Behavioral approaches

- PTSD results from a “fear network” in memory. (Foa, Kozak)
- Network includes Stimuli, Responses and Meanings related to the Event
- Any part can be activated by information associated with the trauma
- This activates all levels of the network

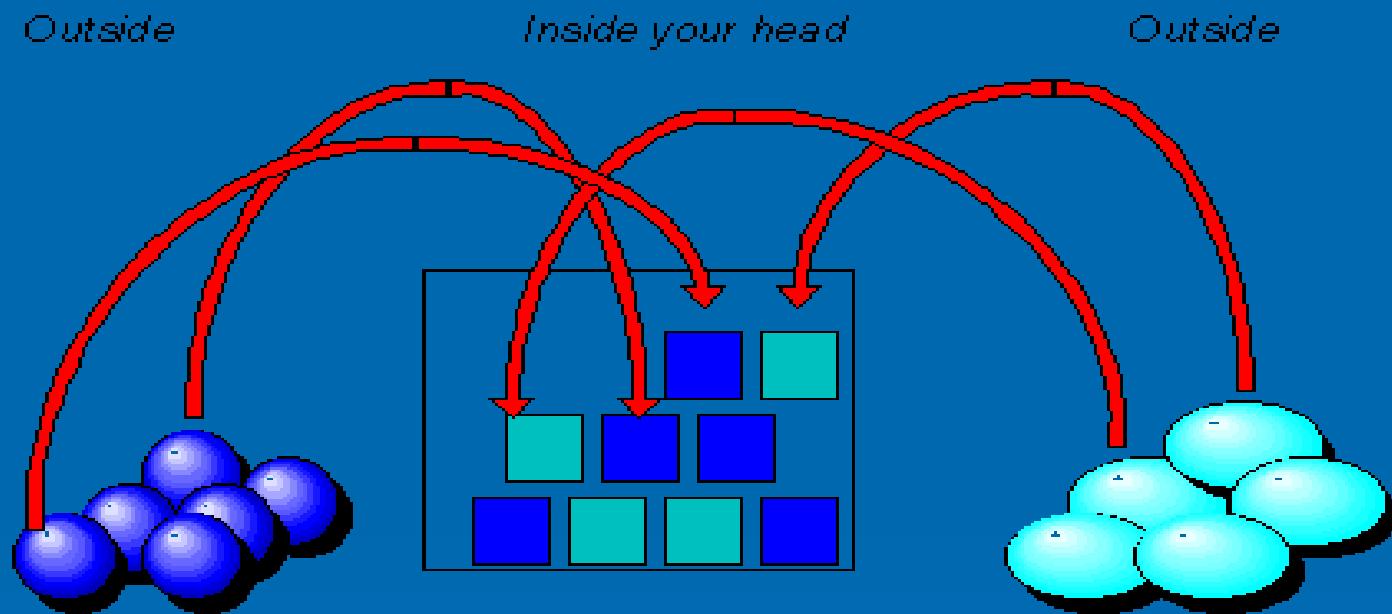
Emotional Processing Theory

- Successful PTSD therapy involve:
 1. Activation of the traumatic memory and fear network (ie through exposure)
 2. New information involving cognitive and affective elements modifies the trauma memory.

Cognitive Theories of PTSD

- Trauma “shatters” long held beliefs of safety and control over ones life.
- “I thought I had control over the important things that happened to me in my life”
- With successful treatment, trauma experiences are balanced by other life experiences.
- “I have control over some, but not all things in my life”

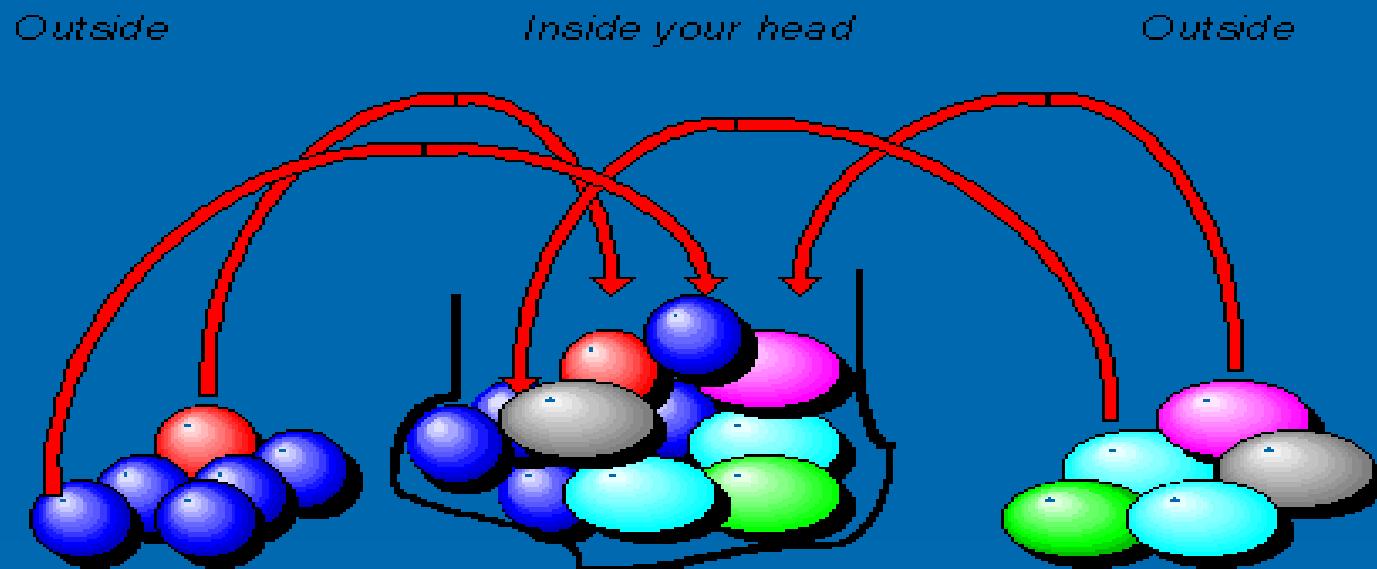
Assimilation



Assimilation: fit practice to theory

Complex but familiar external objects are simplified to fit pre-existent categories in your head

Accommodation



Accommodation:
fit theory to practice

You have to change the ideas in your head to fit the realities of
external objects

Cognitive Processing Theory

- PTSD is a result of a failure to assimilate trauma events into an existing belief system
- Or it occurs with over-accommodation of the belief system to the trauma event.
- Therapy facilitates assimilation of trauma events into existing systems and/or accommodation of trauma into a new belief system.
- Focus is placed on the meaning of the event and revising extreme, nonspecific and global beliefs
(I am weak, incompetent, the world is dangerous, people are untrustworthy)

Cognitive Processing Theory

- In 2006, Monson et al. (38) cognitive processing therapy in 60 combat veterans revealed significant improvements in both PTSD and co-occurring depressive symptoms. At completion of the study, 40% of those in the intention-to-treat group receiving cognitive processing therapy no longer met criteria for a PTSD diagnosis, and 50% had a reliable decrease in their PTSD symptoms.
- The effectiveness of cognitive processing therapy was also examined in a controlled study reported in 2005 by Chard (39) of 71 adult sexual abuse survivors with PTSD.
- Analysis demonstrated that cognitive processing therapy was superior to waitlist in reducing PTSD symptoms and that reductions were maintained for at least 1 year.

Cognitive vs Exposure

- Resick et al. attempted to dismantle the components of cognitive processing therapy and determine their relative contributions.
- 1) full cognitive processing therapy, which included both exposure (i.e., writing and reading a detailed account of the trauma) and cognitive therapy (i.e., challenging patient assertions about the meaning of the trauma and the implications for the patient's life)
- 2) cognitive therapy without the writing and reading component; and
- 3) the writing and reading component without cognitive therapy.
- Cognitive therapy without exposure was associated with greater improvement than the exposure-only condition.
- This suggests the cognitive component of this therapy (i.e., altering the meaning of the traumatic event) may be an active treatment mechanism that may occur without repeated and explicitly evoked fear memories.

Exposure therapy

- Complements cognitive therapy by activating the fear network, combination works better.
- State-dependant learning and the role of medicine
- Focuses on Fear (primal, automatic)
- Cognitive based approaches focus on Shame, Guilt and Anger, (derivative emotions influenced by culture, self-appraisal and personal values)
- Requires exposure to review of the trauma.
- Flooding, Gradual Exposure, Response Prevention, Distraction (EMDR, EFT)
- Memory Rescripting

Prolonged Exposure Therapy

- Prolonged exposure therapy was studied in a randomized controlled trial reported in 2007 by Schnurr et al. (41) of female veterans (N = 277).
- Patients were randomly assigned to receive prolonged exposure therapy (N = 141) or present-centered therapy (N = 143) delivered in 10 weekly 90-minute sessions.
- Immediately after treatment, the prolonged exposure group was more likely than the present-centered therapy group to no longer meet PTSD criteria
- These results were maintained at 3- and 6-month follow-up. It should be noted that although this was a study of military personnel and veterans, 70% of participants indicated sexual trauma as their index (worst) traumatic experience
- 17% differential dropout rate between prolonged exposure and present-centered therapy, with more participants dropping out of the prolonged exposure arm.

EMDR

- *Eye Movement Desensitization and Reprocessing* (EMDR) is a treatment for traumatic memories that involves elements of exposure therapy and cognitive-behavioral therapy combined with techniques (eye movements, hand taps, sounds) that create an alternation of attention back and forth across the person's midline.
- While the theory and research are still evolving for this form of treatment, there is some evidence that the therapeutic element unique to EMDR, attentional alternation, may facilitate the accessing and processing of traumatic material.

Prolonged Exposure vs EMDR

- A controlled study reported in 2005 by Rothbaum et al. ([42](#)) evaluated the relative efficacy of prolonged exposure therapy and EMDR with 74 adult female rape victims
- Immediately following treatment, the groups receiving prolonged exposure and EMDR both demonstrated statistically significant improvement.
- Posttreatment, 95% of participants who received prolonged exposure therapy and 75% of participants who received EMDR no longer met criteria for PTSD.
- Individuals who received both treatments showed significantly reduced depressive symptoms and dissociative symptoms immediately and at 6 months.
- Results were maintained at 6-month follow-up for the prolonged-exposure group across PTSD, depressive, and dissociative symptoms but maintained to a significantly lesser extent for the EMDR group with regard to PTSD

Brief Exposure Therapy

- The effectiveness of brief exposure therapy has been demonstrated in two recent studies reported in 2005 and 2007 by Basoglu et al.

Psychological First Aid

- The 2004 guideline described the failure of psychological debriefing as an effective strategy for preventing the later development of PTS
- A new preventive approach for disaster survivors, called "psychological first aid," will prove effective
- The essential principles: including fostering safety, calmness, self- and community efficacy, social connectedness, and optimism in the aftermath of disaster.
- Supported by considerable empirical evidence (Hobfoll et al.)
- However, questions remain regarding how a public health intervention such as psychological first aid should be delivered.
- Psychological first aid must be considered an evidence-informed rather than evidence-based intervention. Further research is needed.

Anxiety Management

- Superior to supportive counseling and placebo
- Inferior to cognitive and exposure therapies
- Stress Inoculation Treatment
(muscle relaxation, breathing retraining, guided self-dialogue, thought stopping, role playing, covert modeling, graduated in vivo exposure)



Innovative Treatments

- Yoga
- Massage
- Martial Arts
- Biofeedback/Neurofeedback
- Moving Meditation
- Team Sports

Historical healing patterns

- Movement
- Harmony
- Music (voice/instrument)
- Repetition
- Upward focus
- Circumambulation
- Breath

Strength Based PTSD diagnosis

- What are the labels given to someone who has been traumatized. By themselves? Others?
- Survivors
- Intrusive symptoms= Alarm system, something precious inside
- Hyperarousal = Protection
- Anger = Justice
- Numbing: Pain Relief
- Mistrust = Wisdom

Hypnotherapeutic Olfactory Conditioning

- First, an olfactory history clarified what smells the soldiers set off unpleasant memories. Then the soldier was taught to associate his selected aromatic oil with pleasant memories and a sense of control and calm.
- In the second session the soldier, after an hypnotic induction, was encouraged to recall past experiences in which he was stressed but functioned well. Post-hypnotic suggestions were offered to deal successfully with flashbacks to horrific traumatic events.
- Together the therapist and the patient construct an imaginary but highly detailed "safe place." While hypnotized, the soldier repeatedly goes in his mind to this safe place while at the same time inhaling his chosen aromatic oil. (Thus conditioning him to associate feeling safe and calm with the smell).
- In the 4th and 5th sessions the patient -- in hypnosis and smelling the pleasant scent -- is encouraged to remember the trauma, especially the smells. The therapist reframes the experience over and over, replacing the olfactory content of the traumatic memory with the pleasant scent.
- In session 6 the soldier practices what he has learned. Furthermore, he is taught to carry the vial of aromatic oil with him as a tool to combat anxiety or panic attacks in relevant situations.

[Abramowitz and Lichtenberg, 2010].

Psychiatric Service Dogs





Yoga

- HRV (heart rate variability)
- Measures the interaction between sympathetic and parasympathetic tone.
- Low HRV- anxiety, depression, CVD
- High HRV- positive emotions, stress
- In PTSD- lower HRV, increased sympathetic and decreased PS tone
- Less vagal control over heart rate.
- Correlates with lack of arousal modulation
- 2 studies (Van der Kolk) showed reductions in HRV and reduced intrusive thoughts and hyperarousal



Mindfulness

- In PTSD decreased activity of
- Medial Prefrontal Cortex- Regulates generalization of fear response by attenuating stress hormones
- Anterior Cingulate Gyrus, which helps integrate emotion with cognition
- Correlates with difficulty attending to inner perceptions
- fMRI study (Lazar) at MGH found thicker brain regions in the prefrontal cortex than controls
- Theory- enhanced connectivity between sensory and emotion cortices may enhance adaptive decision making (Damasio)
- Meditation may improve ability to attend to internal sensations.
- Awareness “Body sensations are in constant flux”
- Enhanced Capacity to control physiology
- Experience that they will not get “stuck” or overwhelmed by emotion.

MEDICATION



SSRI's

- In a 2006 Cochrane meta-analysis, Stein et al. reviewed 35 short-term randomized controlled trials (of 14 or fewer weeks in duration) involving a total of 4,597 participants. In 17 of the trials, symptom severity was significantly reduced in the medication groups relative to placebo. Evidence of efficacy was most convincing for the SSRIs, across all symptom clusters and for co-occurring depression and disability.

Sertraline

- In a 2006 reanalysis of two previously published trials, Stein et al. examined 395 adult patients with PTSD who were randomized to double-blind treatment with flexibly dosed sertraline (50–200 mg/day) or placebo.
- After 12 weeks, Sertraline was significantly more effective than placebo on most primary efficacy variables including Part 2 of the CAPS, irrespective of whether the patients had experienced childhood abuse or interpersonal trauma
- This suggests the utility of medication treatment in individuals whose precipitating trauma is either childhood abuse in particular or interpersonal trauma in general.

- In a 2005 study, Davidson et al. compared the relapse rates of 57 of 62 total patients who responded to 6 months of open-label fluoxetine and who were subsequently blindly randomized to continue receiving fluoxetine (mean dosage = 42.1 mg/day) or placebo. Relapse rates were 22% for fluoxetine compared with 50% for placebo ($p = 0.02$); the odds ratio for relapse on placebo relative to fluoxetine was 3.50, and time to relapse on fluoxetine was longer than on placebo ($p = 0.02$, log rank statistic).

Venlaxafine

- In a 2006 study, Davidson et al. randomly assigned 329 adult outpatients with PTSD to receive venlafaxine, extended release (37.5–300 mg/day), or placebo.
- At 24 weeks, improvement was significantly greater for the venlafaxine group in symptom cluster scores for reexperiencing and avoidance/numbing but not for hyperarousal.
- A 12-week, multicenter double-blind trial compared venlafaxine extended release (37.5–300 mg/day) to sertraline (25–200 mg/day) or placebo in adult outpatients with PTSD. Only venlafaxine separating from placebo in a statistically significant manner ($p <0.05$).

Bupropion, Nefazodone

- In a 2007 study, Becker et al. found no between-group differences in 30 patients with civilian- or military-related PTSD who were randomized to placebo or bupropion, sustained release, in addition to usual pharmacological care. About half of these patients were already receiving an SSRI at the time of randomization.
- In a 2004 study, Davis et al. randomized 41 predominantly male combat veterans with PTSD to nefazodone or placebo. After 12 weeks, they found significant improvement in percentage change of total CAPS score from baseline in those receiving nefazodone compared with those receiving placebo in a repeated analysis of variance with last observation carried forward ($p = 0.04$, effect size = 0.6).

Mirtazapine

- 29 patients with PTSD reported in 2003 by Davidson et al. Mirtazapine (up to 45 mg/day) was found to be more effective than placebo on the Global Improvement item of the Short PTSD Rating Interview as on the Structured Interview for PTSD and anxiety subscale of the Hospital Anxiety and Depression Scale.

Beta Blockers

- Pilot study reported in 2002 by Pitman et al. in which 32 emergency department patients received a 10-day course of propranolol or placebo, beginning within 6 hours of a trauma.
- Propranolol treatment did not change CAPS scores at 1 month but did decrease physiological response to script-driven imagery 3 months after the trauma.
- However, a 14-day randomized controlled trial reported in 2007 by Stein et al. of propranolol compared with gabapentin compared with placebo failed to demonstrate the superiority of either medication over placebo.

Prazosin

- Among the most promising advances in the pharmacological treatment of PTSD have been a series of placebo-controlled augmentation trials demonstrating the efficacy of the α -adrenergic antagonist prazosin for the treatment of trauma-related nightmares and sleep disruption (24–26). In these trials, patients were allowed to continue maintenance medications, including SSRIs, as the primary outcome variables were related to sleep disturbance rather than daytime PTSD symptoms. However, the studies also assessed total PTSD symptoms using either the CAPS or the PTSD Checklist–Civilian Version (PCL-C).

Second Generation Atypicals

- **Second-Generation (Atypical) Antipsychotic Medications**
- In 2006, Padala et al. reported 20 women with PTSD from sexual and domestic abuse randomized receive risperidone or placebo. A significant difference was observed TOP-8 total scores ,CAPS, the HAM-D, and the Hamilton Anxiety Scale.
- Risperidone was also studied in an 8-week RCT reported in 2004 by Reich et al. of 19 women with PTSD due to childhood abuse. Significant differences in reduction from baseline total CAPS and significant reductions in CAPS-2 intrusive and hyperarousal subscores
- 73 combat veterans reported in 2005 by Bartzokis et al. This trial demonstrated risperidone's superiority to placebo in increasing response to SSRIs.
- In summary, these data are encouraging for adjunctive treatment with a second-generation antipsychotic in patients who have partially responded to an SSRI or an SNRI, including for co-occurring psychotic symptoms

Anticonvulsant Medication

- Despite the fact that anticonvulsant medications have been well tolerated in all studies and despite the promising results of some open-label studies, limited evidence of efficacy precludes any recommendations for change in practice.