

TREATING EARLY LIFE DEVELOPMENTAL TRAUMA

← SCIENCE-BASED PERSPECTIVE
↑ PRACTICE-BASED RESEARCH ↓



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Social Engagement System

- 10th Cranial Nerve-Vagus
- Body-brain feedback
- Central component of ANS
 - Polyvagal Theory
- Involves
 - Endorphins
 - Dopamine
 - Vasopressin
 - Oxytocin

Social Engagement System

- Extends from the amygdala, anterior cingulate and orbitofrontal cortex
- Regulates
 - Attachment
 - Pair bonding
 - Empathy
 - Altruistic behavior

Default Mode Brain

- Supports individual and species survival at most basic level
- Behavioral drivers include:
 - SUBCONSCIOUS NEURAL CONTENT
 - MEMORY
 - EMOTIONS
 - REWARD CIRCUITRY
 - RISK CIRCUITRY

Default Mode Brain

- "Here and Now"
- Sensory stimuli elicit
 - ENGAGEMENT
 - AVOIDANCE
 - INDIFFERENCE



Engagement or Avoidance

- Sensory data internalized
- Brain edits data according to:
 - EXPECTATIONS
 - USING INTERNAL CONTENT TO FILL "GAPS" AND RESOLVE DISCREPANCIES
- Feature Detectors, internal states and cognitive and emotional processes define "meaning"

“Meaning” One-Half Second Lag

- Between receiving a stimulus and becoming aware
- Multiple reflection of the stimulus in the “mirror of memory” (EGO)
- Stimulus becomes a reflection of our EGO-Identity

Mirror of Memory

- We think that sights, sounds, etc. from outside of us constitute reality
- It is the brain that constructs reality based on what it perceives reflected on *the mirror of past experience*
- Nerve cells running from our brain to our senses outnumber the ones from the senses to our brain by a ratio of 10 to 1

Mirror of Memory

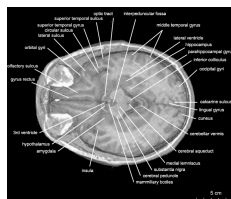
- Perception is manipulated by expectation
- Health resides within us
- Client must be convinced that it is not the system but their perception
- Therapist helps client utilize neural “plasticity”

Feature Detectors

- Trauma survivors may lack adequate feature detectors
- They may not have representations for empathy, love and/or happiness
- Such words could have little or no meaning and elicit no corresponding body states.
- Incredibly lonely

Maladaptive Brain Development

Paralimbic areas of the right hemisphere are preferentially involved in the storage of traumatic memories



Gender

- Male
 - Limbic system has different connectivity patterns
 - Delayed cerebral maturation
 - More susceptible to “relational” abuse
 - Hyperarousal pattern
 - Externalizing disorders
 - Conduct Disorder



Gender

- Female
 - Dissociation
 - Internalizing disorders
 - Affective Disorders
 - Anxiety Disorders
 - Somatoform Disorders
 - Conversion Disorder
 - Pain Disorder
 - Hypochondriasis



Treatment Goals

- ***Stabilization, Trust and Safety***
- ***Learn to Live Gracefully in the Present***
- ***Develop Higher Order Functions***
- ***Establish a Sense of Self***

Stabilization, Trust and Safety

- What has changed?
- Closed contract
- Stabilization
 - Physiological
 - Psychological
 - Social
- Trust
 - Validate feelings
 - Map of the World
 - Rapport

Trust

- Validate feelings
 - Anger
 - Self-critical
 - Depression
 - Withdrawal
- Enter the map of the world
 - “World has fundamentally changed”
 - “World is unfair”

Trust

- Past history of assessment
- Past experience with rules
- Power issues in therapeutic relationship
- Case
 - 35 yo female (Marsha) having difficulty at work with supervisors that she fears may interfere with future promotions

Safety

- Suicidal/Parasuicidal Behavior
 - Assessment
 - Elaborate
 - Contract
 - Patient responsibilities
 - Clinician responsibilities
 - Alternatives
 - Level of care

Learning To Live Gracefully In The Present

- ***Present consciousness***
 - Where attention goes, neural firing occurs
 - When neural firing occurs, new neural connections are made
 - This harnesses neural plasticity allowing new patterns of neural activation (as opposed to old automatic modes)

Learning To Live Gracefully In The Present - Treatment Considerations

- Mindfulness Meditation
- Positive Connections to Others
 - Mirror Neurons
- Positive Connection to a Higher Power of our Choice
- Learning from Therapeutic “Ruptures”

Positive Connections To Others How We Communicate

- VERBALLY
 - Declarative Memory (Explicit)
 - Procedural Memory (Implicit)
- NON-VERBALLY
 - Posture
 - Jaw, mouth, eyes and mouth
- VISCERAL
 - “Gut” Feeling

Face Appraisal

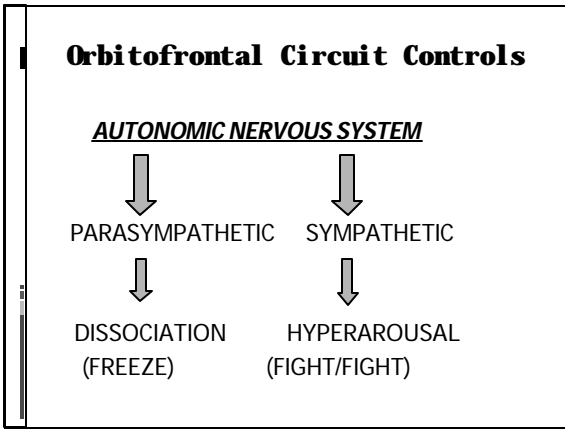
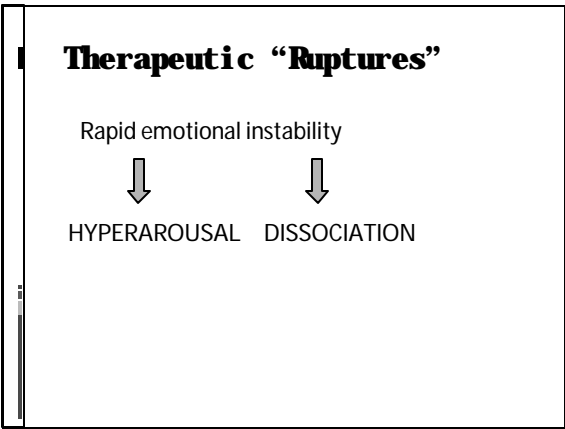
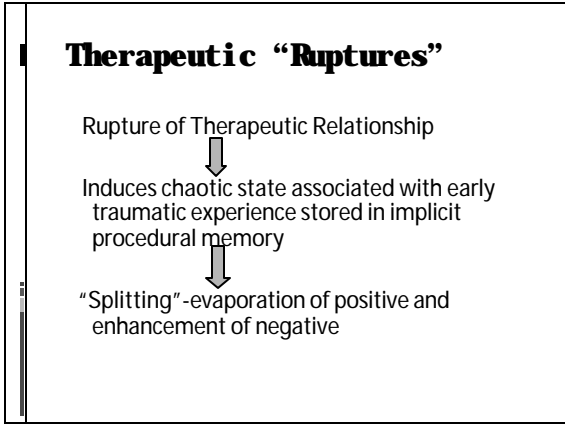
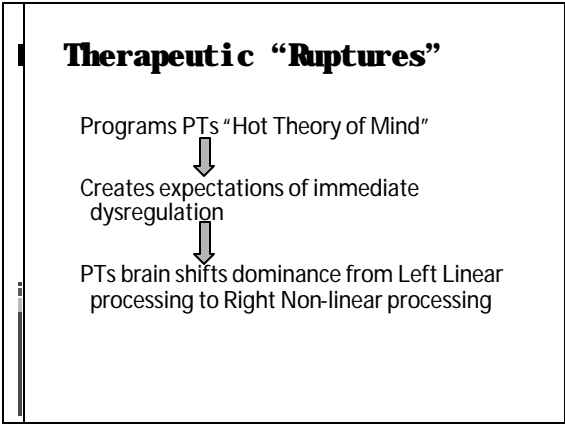
- Inner Images are important source of emotional self-regulation
- Without internalized Right Brain parental strategies for self-soothing become stress vulnerable
 - Negative Look
 - Increases Cortisol stops DA and endorphin release

Face Appraisal

- Positive Look
 - Increase B-endorphin release
 - Helps neurons grow by regulating glucose and insulin
 - Increases Dopamine
- Disapproving look can cause shift from sympathetic to arousal creating effects often called ***SHAME***
 - Reduced BP
 - Shallow breathing

Therapeutic “Ruptures”

PT appraises TH face
↓
Generates empathic failure
↓
Activates right brain imprinted pathological internal object relations



Response To Threat

HYPERAROUSAL	DISSOCIATION
HYPERVIGILANT	DISENGAGE
REACTIVE	SUSPENSION OF TIME
TACHYCARDIA	BRADYCARDIA
NOREPINEPHRINE	ENDOGENOUS OPIOIDS
FLIGHT: Panic	FREEZE: Fear
FIGHT: Terror	DEREALIZATION
OLDER CHILDREN	DEPERSONALIZATION
MALES	COMPLIANT
	YOUNG CHILDREN
	FEMALES

- Repairing Therapeutic “Ruptures”**
- Therapist must recognize and regulate the negative affect within self and client
 - Therapist on a non-verbal level must detect, monitor and self-regulate countertransference
 - “Reparative withdrawal” for self-regulation

Repairing Therapeutic “Ruptures”

- Model for CT that self-disorganization can be regulated
- Use psychoeducation to express verbally what just happened moving from right hemisphere to left
- Increase organization in limbic structures that mediate the emergence of adaptive capacities (Schore)

Develop Higher Order Functions

- *Allows for pursuit of reward consistent with:*
 - Contextual considerations
 - Societal rules
 - Vision for the future
- *Allows for the development of a conscience*
- *Allows for Executive Functioning*

Neural Integration

- Complexity
- Working with Hyperactivity and Dissociation
- Mindfulness Meditation
- Meditation
- Mindful Tolerance
- Horizontal Integration
- Vertical Integration
- Behavioral Exposure Therapy

Anticipated Results

- Balance the sympathetic and parasympathetic branches of the ANS
- Ability to tune into others including the experience of empathy
- Emotional balance including the ability to inhibit impulses
- Self-Knowing Awareness thru autobiographical narrative

Anticipated Results

- Fear Extinction from GABA fibers extending down to amygdala-calming the conditioned fear response
- Becoming aware of the input from our bodies (gut, heart, etc.) allowing intuitive wisdom
- The capacity to think of the larger good and act in a pro-social manner

Working With Hyperarousal And Dissociation

- Medications
- Symptom list
 - What are you feeling?
 - What is happening around you?
- Help client make connection between internal state and external reality
- “Mindfulness” and tolerance of feelings

Horizontal (Narrative) Integration

- | | |
|---|--|
| <p>▣ LEFT BRAIN</p> <ul style="list-style-type: none">▪ Vertically integrated▪ Linear▪ Linguistic▪ Cause-effect▪ Literal▪ Logical | <p>▣ RIGHT BRAIN</p> <ul style="list-style-type: none">▪ Horizontally integrated▪ Holistic▪ Spatial▪ Ambiguous▪ Integrated map of entire body▪ Spontaneous▪ Empathy▪ Autobiographical▪ Non-verbal |
|---|--|

Telling YOUR Story

- Autobiographical memories are at the core of our sense of self
- Storytelling weaves together body sensations, feelings, thoughts and behaviors
- Stories provide an opportunity for self-reflection

Telling YOUR Story

- Stories provide an opportunity to learn things about yourself you did not know
- Understanding YOUR story can help make you a better person and break multigenerational patterns of disorganized attachment

Behavioral Exposure Therapy

- International Society for Traumatic Stress Studies
 - ▣ Behavioral Exposure Therapy
 - Imaginal Exposure
 - Repeated recounting of traumatic memories
 - In Vivo Exposure
 - Confronting trauma related situations
 - Virtual Reality
 - Computer simulation
 - ▣ May be mediated by Prefrontal Cortical inhibition of Amygdala

Behavioral Exposure Generally Combined With

- Relaxation Training
 - ▣ Controlled Breathing
 - ▣ Muscle Relaxation
- Psychoeducation
- Cognitive Restructuring
 - ▣ Safety, trust, power, esteem and intimacy

Clinical Case Study

- 29 yo female (Peggy) in early recovery for cocaine addiction with history of early life trauma
 - Use of grief letter with elements of Imaginal and In Vivo Behavioral Exposure
 - What do you remember?
 - How has it impacted your life?
 - How do you feel about it now?
- Decrease hyperarousal and intrusive symptoms

Trauma Treatment In Early Recovery from Addictive Disorder

- Estimated 30-60 percent of individuals with substance abuse disorders have PTSD
- Joint Treatment of PTSD and Cocaine Abuse
 - Therapy combines
 - Substance abuse treatment
 - Behavioral exposure for PTSD
 - 39 participants, 15 completed course of therapy
 - 66% reduction in intrusive symptoms
 - 70% reduction in avoidance symptoms
 - 47% reduction in hyperarousal symptoms

(NIDA Notes, Vol.18, No.1)

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- Information for Professionals
 - <http://www.childtraumaacademy.com>
- The National Center for PTSD
 - <http://www.ncptsd.org/publications>

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