EMDR THERAPY

The Theoretical Underpinnings of EMDR Therapy
AGENDA

- Efficacy of EMDR as a researched-based protocol
- AIP model basis for EMDR
- Arousal and Window of Tolerance
- Eight phases of EMDR
- Other factors
- Case study and video
EMPIRICAL STATUS
SHAPIRO (2014)

• Considered A level treatment for trauma

• More than 20 randomized control trials (RCT) support the use of EMDR therapy with a wide range of trauma populations

• More than 20 additional RCT demonstrate positive effects of the eye movement component
WORLD HEALTH ORGANIZATION (2013)

- Department of Veterans Affairs & Department of Defense (2010)
- National Institute for Clinical Excellence (2005) Along with TR-CBT
- SAMHSA’s National Registry of Evidenced-based Programs and Practices (2011)
EMDR RESEARCH AND CHILDREN

ACUTE ONGOING TRAUMA IN CHILDREN

- German Ministry of Health: EMDR Integrative Group Treatment Protocol (EMDR-IGTP) found to be very effective for treatment of traumatized children and adolescents after natural disasters or war (Jerero, 2016)
EMDR THERAPY

- Distinct integrative psychotherapeutic approach
- Compatible with other major orientations of psychotherapy (Shapiro, 1990-2016)
- Eight-phase approach that is led by an information processing model that guides clinical practice
CONTROLLED OUTCOME STUDIES

• Typically 3-6 sessions, 77-100% remission of PTSD with single trauma

• 12 or more session needed for multiple trauma victims

• EMDR compared to Prozac (van der Kolk et al., 2007)
Component analyses testing variety of neurobiological hypotheses have supported theories of:

- Working memory
- Orienting response
- Reciprocal inhibition
- REM sleep
RECIPROCAL INHIBITION

• “Between stimulus and response there is a space.” - Viktor Frankl
• An integral component of all effective trauma treatment
• Anxiety and relaxation cannot co-exist in the same time and place
• The pairing of exposure and relaxation
ORIENTING RESPONSE

• When human emotions have shut down (alexithymia) there tends to be an absence of the orienting response.

• The orienting response, or movement towards novel stimuli in one’s environment, allows one to stay in the present.

• Traumatized people typically have trouble sorting out relevant significant cues.
• Enormous amounts of information enters our senses each moment and could easily overwhelm our integrative capacity if we are unable to filter out irrelevant or insignificant information.

• Traumatized people may have a selection process that is biased by hyperarousal states or a corresponding dulling of the senses that interferes with the ability to select and orient to relevant cues (Ogden, 2006).
ORIENTING RESPONSE
(Odgen, Minton & Pain 2006)
EMDR

Why EMDR seems to work?

REM Sleep

Inherent Healing Mechanism
WORKING MEMORY

Input

Present Time

Working Memory

Known

New Information

Reasoning

Sensory

Decision

NEW

New Learning

Stored Information
Dual attention
Bilateral eye movements + Activated target memory network

Orienting response
REM
Inter/intra Hemispheric activation
Mindfulness Metacognitive awareness
Working memory

Leeds (2016)
ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

- Guides clinical practice
- Provides theoretical framework and principles for EMDR therapy
- Clarifies how EMDR therapy works
- Efficiently explains the consistent treatment effects being obtained and reported
POSITIVE RESOLUTION
Short Lived Symptoms
No residual effects
Coping with low residual effects

Experience
Degree of Life Threat Duration
Intensity
Natural vs. Man Made

POST-TRAUMATIC COGNITIVE PROCESSING

ENERGY-MERIDIAN
NEURO-BIOLOGY
CLASSICAL CONDITIONING
RESPONDENT CONDITIONING
APPRAISAL & MEANING
View of Self & Others
Actions & Intentions
INDIVIDUAL CHARACTERISTICS
Pre-Trauma
Personality
Coping Behaviors
Defensive Style, Etc.
RECOVERY ENVIRONMENT
Family Functioning
Social Supports
Societal Attitudes re: Events
Intactness of Community
Additional Stressors

Affective Regulation vs. Dysregulation

ADAPTATION

PATHOLOGICAL RESOLUTION
PTSD based on
1) Fear
2) Dissociation
3) Anger
4) Withdrawal
5) Embracing the Trauma

PTSD Model
ADAPTIVE INFORMATION PROCESSING (AIP) MODEL

- Innate physiological system that helps transform disturbing information into adaptive resolution and new learning

- Inherent tendency of the information processing system to move toward a state of health
ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

- Foundation for EMDR

- The present is a manifestation of the past

- Reprocessing → Adaptive Learning

- What is useful is learned and stored with the appropriate affect and is available for future use
ADAPTIVE INFORMATION PROCESSING MODEL (AIP)

Human response toward survival/health
- Physical: cut heals
- Psychological: problems resolve
- Moves disturbances to an adaptive resolution creating functional memories

Learning occurs based upon current environment, perceptions, and knowledge
- Traumatic experiences (T’s)
- Environmental conditions (t’s)
- Developmental growth
Once you have been bitten by a snake, you are cautious even of a coiled rope.

The Dalai Lama
GESTALT CYCLE OF EXPERIENCE

- Sensation
- Withdrawal
- Awareness
- Mobilisation of Energy
- Action
- Contact
- Integration and assimilation
- Withdrawal
- SELF
- Process of contact and withdrawal
• Memories consist of stored information captured by our five senses
  • Thoughts
  • Emotions
  • Images
  • Sensations
  • Action tendencies
MEMORY

IMAGES

THOUGHTS

SENSATIONS

ACTION TENDENCIES

EMOTIONS
EMDR AND TRAUMA MEMORIES

- Memories are based after an event and are based upon perceptions
- Memories are made up of multiple parts that are stored in multiple parts of the brain
- Different senses process information differently
- EMDR accesses memories or components of memories that are unresolved in the system
WHAT IS TRAUMA?
PSYCHOLOGICAL TRAUMA
Life Experience

thoughts
Images
sensations
cognitions
emotions

Experience integrated
New Learning

Future
Choices
Based On New learning

AIP MODEL
Brown (2016)
POST-TRAUMATIC GROWTH

- Greater appreciation of life
- Changed sense of priorities
- Relating - Greater intimacy and compassion for others
- Greater sense of personal strength
- New possibilities (new roles and new people)
- Spiritual change, being more connecte spiritually (Calhoun & Tedeschi 2006)
Life Experience

thoughts

images

cognitions

Emotions

sensations

Braced Against PTSD symptoms

Old Patterns Old Responses

No New learning

Repeated Patterns With Future experiences

AIP MODEL

Brown (2016)
DISRUPTION OF ADAPTIVE INFORMATION PROCESSING

• Excess arousal from a traumatic experience

• Dissociation at the time of the event(s)

• Persistent stressors constraining adaptive responses during developmental life stage

• Other factors contributing to the inability to integrate aspects of life experience(s)
DISRUPTION OF INHERENT HEALING MECHANISM

Trauma’s Affect on the Brain

Nervous system has impaired ability to stabilize and decrease sympathetic arousal

Leeds (2016)

Additional trauma further stresses a system that is already hyper-aroused

Shapiro (1995, 2001)

When the system becomes overwhelmed, the client is unable to access adaptive material

Leeds (2016)
IMPACT OF TRAUMA ON MEMORY

• Traumatic states may remain isolated from the normal integrative functioning and thus impair development (Siegel, 1999).

• The nature of traumatic memories hold heightened arousal and may interfere with declarative or explicit memory (Van der Kolk, 1994).

• Intense affect may inhibit proper evaluation and categorization of experience (Van der Kolk, 1994).
In cases of physical and sexual abuse, the greater the victim’s dependence on the perpetrator the more likely that memory for the abuse will be impaired or disrupted.

Age was not a significant predictor of memory impairment, while caretaker status was. (Freyd et al, 2001)
• Trauma is stuck in the limbic brain
• Trauma exposure affects what one may anticipate and focus on
• How they organize the way they appraise and process information
• Trauma induced alterations in threat perception are expressed in how they think, feel, behave, and regulate their biologic system

Traumatized people live their trauma, not their lives.

Bessel van der Kolk
The social, cultural, and legal definitions and expectations of safety and risk often have little to do with how our nervous system reacts (Porges, 2016)
What is Trauma?
ADAPTIVE INFORMATION (AIP) MODEL

- Memory networks form the basis of our
  - Perceptions
  - Attitudes
  - Behaviors
  - Sense of self
INHERENT HEALING MECHANISM

Problems do not go away. They must be worked through or else they remain forever a barrier to the growth and development of the spirit.

M. Scott Peck, M.D.
CHRONIC AROUSAL

Trigger

Trigger

Trigger

Trigger

Chronic Arousal
COMPLEX PTSD
(VAN DER KOLK, 1996, 2014)

• Alterations in affect regulation
• Alteration in consciousness
• Alterations in systems of meaning
• Alterations in relations with others
• Alterations in perceptions of self
• Alterations in perceptions of the perpetrator
We can not solve our problems with the same thinking we used to create them

**Insanity**: Doing the same thing over and over again and expecting different results
ROOF REPAIR

TREAT SYMPTOMS
BILATERAL STIMULATION (BLS)
(KNIPE, 2015)

• Increase the vividness of memory material that is at the center of consciousness (Christmaan et al.2003)


• Reduce mental avoidance or disturbance by taxing “working memory” while decreasing “emotionality” of memory (DeJongh et al., 2013; Hornsvelt et al., 2010)
BILATERAL STIMULATION (BLS)

(KNIFE, 2015)


• Increase interhemispheric coherence in frontal areas, possible inhibiting PTSD memory intrusions (Propper et al., 2007)
BILATERAL STIMULATION (BLS)
(KNIPE, 2015)

• Increase capacity for “distancing/noticing” (Lee, 2008; Lee and Cuipers, 2013, 2014)

• May facilitate “slow thing,” which relies less on intuition and implicit memory. And results in more objective assessment (Kahnerman, 2011)
### POLYVAGAL THEORY

- Fight/flight, self-soothing, e.g. safe place, person, symbol
- Sympathetic arousal
- Hypervigilance to the environment
- Sensing danger
- Increased blood flow to environment
- Decreased blood flow to cortex

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### FAUX

- Dual Awareness
- Attachment
- Safety
- Oriented to present

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### FAUX

- Flat affect
- Disengagement with others
- Immobilization
POLYVAGAL THEORY
STEPHEN PORGES

- Responses to trauma are physiological
- It is the response to the trauma not the traumatic event
- The defense system has more than one strategy – all are adaptive
- There are three functionally different autonomic nervous systems that are adaptive
STABILITY

• Helping sustain an optimal arousal level (Siegel, 1999)

• Must gain some ability to tolerate positive/negative affect

• Social Engagement increases patients capacity to stay within the Window of Tolerance
WINDOW OF AROUSAL
(SIEGEL, 1999)

• Arousal level too high: patient is overwhelmed and may experience intrusive symptoms
• Arousal level too low: patient will shut down, dissociate
• May experience continuous swings from one extreme to another, rapidly switching from numbing to flooding
• May experience trends of low or high with occasional switches such as occasional explosions of strong emotions
• States are not integrated and in conflict
**EXPLICIT/IMPLICIT MEMORY**

- Explicit: Your ability to recall learning; a conscious recollection of a past experience.
- Implicit: encodes smells, tastes, sounds, body sensations, perceptions, emotions.
- Cause us to form expectations about the way the world works based on our previous experiences.
• Aspects of Memories
  • Sensory
  • Thoughts
  • Emotions
  • Sensations
  • Core Beliefs: encapsulates entire memory experience

• Memory Networks
  • Touchstone memory
  • Clusters of similar memories
  • Nodes: significant (- & +) memories
MEMORY

IMAGES

THOUGHTS

SENSATIONS

ACTION TENDENCIES

EMOTIONS
EVOLUTION OF EMDR THERAPY

- **1987** Discovery of the effects of spontaneous eye movements EMD
- **1989** First controlled treatment outcome study of EMDR for PTSD
- **1990** EMD became EMDR, discovered other forms of bilateral stimulation (BLS)
PAST

- What are the experiential contributors?
- What does the client need to stabilize?
- What resources does the client need before reprocessing

PRESENT

- What are the current experiences that bring the client to therapy?
- Present circumstance
- Internal/external triggers

FUTURE

- Identify client’s positive vision of the future
- What are the client’s future challenges

- Desired future state
- Positive template

Hensley (2016)
WHAT IS EMDR?

Three-Pronged Approach

Past

Present

Future
TYPES OF TRAUMA

Impersonal – cause is impersonal
  • Accidents, natural disasters

Interpersonal
  • Abuse, neglect abandonment

Combined impersonal and interpersonal

Attachment
  • Occurs in attachment relationships: can be experienced and/or witnessed
  • Abuse of all types, neglect, abandonment and non-protection domestic violence
CASE CONCEPTUALIZATION

- Simple
- Acute Stress
- Recent Event
- Single Incident
- Comprehensive
- Complex Trauma
  - Dominant Symptom
  - Multiple Symptoms (Prioritize)
  - Chronological
ATTACHMENT CYCLE—SECURE

SENSE OF SAFETY, BELONGING, & ESTEEM

NEW NEED TRIGGERED:
Safety, Belonging or Esteem (Proximity)

ACHIEVED:
Increased sense of Safety, Belonging, Esteem for both parties; Proximity Enjoyed

PERSONAL REACTIONS:
Emotions, Bodily Sensations, Implicit/Explicit Memories

OUTCOME:
Becomes more regulated & Senses that true need is met; Relaxation

BEHAVIOR:
Words, Tantrum, Pouting, Slamming Doors, Crying, etc.

ATTACHMENT FIGURE:
Responds to & meets the true need at least 74% of the time

TRUST

ACHIEVED:
Increased sense of Safety, Belonging, Esteem for both parties; Proximity Enjoyed
AROUSAL CURVE - DYSREGULATION

- Optimal Intensity
- Arousal
- Need Triggered

Arousal ignored
Adult help insufficient/unavailable
Arousal without solution becomes stored in NS
Unmet needs of safety, belonging, and esteem triggered

Fragmented sensory channels of experience remain unintegrated and separate from ordinary awareness

Inability to tolerate affect Emotional intensity held in the body

Dysregulation
• Theory: Early experiences play an important role in changing the threshold or vulnerability.

• The newer vagal circuit (social engagement) can protect us first, if strengthened in childhood.

• If we lose regulation of this newer vagal circuit, we become defensive fight-flight machines.

• When fight-flight is not adaptive we immobilize
Losing Sense of Self
EIGHT PHASES OF EMDR
1. Client History and Treatment Planning
2. Client Preparation
3. Assessment
4. Desensitization
5. Installation
6. Body Scan
7. Closure
8. Reevaluation
PHASE 1 HISTORY TAKING

• Gather information about the client and provide client with information and informed consent

• To assess client selection and readiness

• To identify potential treatment targets (life experiences) from positive and negative events. Past, present, future
The Adaptive Information Processing Model: foundation for EMDR Case Conceptualization and Treatment

- Conduct an intake interview from an AIP perspective
- Assess client’s readiness, ability to stabilize
- Develop a targeting sequence plan
  - Symptom clusters
  - Dominant irrational beliefs
  - Past/present/future
Goal of EMDR Therapy is to achieve the most effective and efficient treatment effects while maintaining client safety within a stable system (Shapiro, 2001)

- Assess the clients current level of psychosocial functioning
- Assess the clients ability to control behaviors
- Assess the clients ability to manage emotional responses
- Assess the availability of internal/external resources
HISTORY-TAKING
EVALUATE

- Client’s integrative capacity
- Affect tolerance
- Current internal and external resources
- Attachment history
- Readiness for change – secondary gains
- Current psychosocial factors
- Level of complexity/resources to determine pace
DUAL AWARENESS
DUAL FOCUS OF ATTENTION

• Maintaining sense of present awareness
• One foot in the past and one foot in the present
• Client is able to be a non-evaluative observer
• Dual attention and bilateral stimulation (BLS) activates the Adaptive Information Processing (AIP) system. (Knipe, 2015)
• Maintaining safety in the present while accessing and stimulating negative information from the past
PHASE 2 PREPARATION

• To prepare clients for EMDR processing of distressing life experiences

• Establish a therapeutic relationship

• Education on EMDR and the Adaptive Information processing model

• Discuss EMDR mechanics and procedures
PHASE 2 PREPARATION

- Diagnostic
- Teach coping skills in session and for use outside session
- Facilitate a state change
- Affect management skills
- Life management skills
- Stabilization skills
PHASE 2 PREPARATION

• Can the client do a state change?

• Can the client maintain a dual awareness?
  – Remain present while talking about the past?

• How adaptive is their memory system?
  – Do they have resources/strengths?
  – Do they have the ability to tolerate positive affect?
PREPARATION PHASE

- Containers: Create the foundation for containment and affect management
- Safe Place/State: Identified before the trauma/losses are explored
- Making sure the client practices safe place or other resources to cope with their daily life
PHASE 3 ASSESSMENT

- Presenting Issue
- Picture or image that represents the worst parts
- Negative Cognition (NC)
- Positive Cognition (PC)
- Validity of Cognition (VOC)
- Emotions/feelings
- Subjective Units of Distress (SUDS)
- Location of body sensation

CORE
3. Assessment
4. Desensitization
5. Installation
<table>
<thead>
<tr>
<th>Negative Cognitions</th>
<th>Positive Cognitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Responsibility</strong></td>
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<td>“I’m not lovable.”</td>
<td>“I did the best I could.”</td>
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<td><strong>Safety/Vulnerability</strong></td>
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<tr>
<td>“I can’t trust.”</td>
<td>“I can take care of myself.”</td>
</tr>
<tr>
<td><strong>Control/Choices</strong></td>
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</tr>
<tr>
<td>“I am powerless.”</td>
<td>“I can succeed.”</td>
</tr>
</tbody>
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**PHASE 3 ASSESSMENT: DEVELOPING NEGATIVE COGNITION**

3. Assessment
4. Desensitization
5. Installation
POLYVAGAL THEORY
STEPHEN PORGES

Positive dissociative responses to loss of self
- Anxiety
- Fight/Flight
- Panic attacks/Flash backs
- Intrusive symptoms
- Unable to integrate new information (no new learning)

Brain can integrate new information
- Healthy secure attachment responses
- Ability to regulate
- Sensing the emotions of others through movement, touch, body language
- New learning

Negative dissociative responses to loss of self
- Paralysis
- Amnesia
- Numbing
- Unable to integrate new information (no new learning)
DESENSITIZATION

Under-accessing
- Mechanics
- Memory (TICES)

Normal processing
- BLS sets: 15-20 seconds
- Pacing - non-verbals
- “Take a breath, let it go…What do you get now?” … “Go with that.”

Over-accessing
- Mechanics
- Memory (TICES)
PHASE 4 DESENSITIZATION

- Potential Responses
  - Pictorial Processing
  - Cognitive Processing
  - Emotional Processing
  - Sensory Processing
- Associative Links
  - Feeder Memories
  - Blocking Beliefs
PHASE 5 INSTALLATION

- Integration of positive cognition with targeted information
- Validity of Cognition (VOC) check
- Strengthen connections to the positive memory networks
- Increase generalization effects within the associated network
**PHASE 6 BODY SCAN**

- Checking for residual trauma held in the body

- Ensure somatic responses are congruent with the neutralized memory and the positive cognition (PC)
OTHER FACTORS

SKILL BUILDING

- Leadership Attributes
- Social and Communication
- Assertive Skills
- Problem Solving
- Conflict Management
- Listening Skills
- Decision Making

Anger Management
TRIGGERS
- Blood
- Guns
- Being home alone
- Stress

PICTURES
- Father lying dead
- Gun

SENSATIONS
- Tension in neck and shoulders
- Knots in stomach

EMOTIONS
- Fear
- Sadness
- Anxiety
- Panic

BELIEFS
- I have no control

Traumatic Memory: Father’s Death
CASE EXAMPLE

Negative Cognitions
• I’m not normal
• I’m unlovable
• I’m always vulnerable and in danger
• I have no control

Positive Cognitions
• I’m normal
• I did the best I could
• I’m a good person
• It’s over
• I’m safe now
• I have choices
• Things happen for a reason


REFERENCES


