Working with the body in EMDR therapy

Presenter: Gus Murray
EMDR Therapy

- EMDR therapy emphasizes the **Physiological Information Processing System** in the origin and treatment of mental health issues.

- The Adaptive Information Processing (AIP) model.. holds that **the primary source of psychopathology is the presence of memories of adverse life experiences that have been inadequately processed.**

- These inappropriately stored memories can be triggered by current internal & external stimuli, contributing to ongoing dysfunction.

  Shapiro, 2016
Adaptive Information Processing (AIP)

- Distressing / Traumatic experiences may become stored with the sensations, emotions, and beliefs encoded during the original experience, frozen in time in its own neural network, unable to connect with other memory networks that hold adaptive information.

- Original perceptions can continue to be triggered by internal and external stimuli .. Resulting in inappropriate emotional, cognitive, and behavioural reactions,

Solomon & Shapiro 2008
As a result of effective EMDR treatment, previously impaired linkage or binding mechanisms in the information processing system are repaired. 

EMDR therapy facilitates the effective processing of traumatic or disturbing life experiences to an adaptive resolution.

...Facilitating real-time access to appropriately linked emotional, cognitive, somatosensory, and temporal systems.
Neural linking

“Neurons that fire together, wire together” (Shatz 1992 referencing Hebb 1949)

“Where Attention Goes, Neural Firing Flows and Neural Connection Grows”

Siegel 2017
Trauma and the body

- Trauma is not about the events that happened in the past, it is about the **imprint of these events currently in the body** – emotions that are still experienced, physical sensations that are activated and motor patterns of fight/flight/freeze that dominate internal organisation.

- …We need to work with body responses to bring them to completion & feel like it’s over.

- …a way must be found to enable client to reorganise these physical states into new action patterns.

  (van der Kolk 1995 - 2015)
The triune Brain

**CORTEX**
- Thinking Brain
- Regulation
- Executive functioning
- Cognition
- Language
- Reasoning
- Imagination
- Analysis
- Learning
- Top Down
- Inhibits impulse

**LIMBIC BRAIN**
- Feeling Brain
- Five senses
- Emotional & Sensorimotor Memory
- Attachment

**REPTILIAN BRAIN (stem)**
- Sensation & Impulse
- Autonomic Arousal
- Instinctive responses

- Basic body functions, alertness, temp, hunger

(MacLean 1990)
Impact of trauma on “Thinking Brain”
A “new” paradigm

Mind

Brain

Body

Relationship

Interpersonal Neurobiology
- Dr Daniel Siegel
An emergent, self-organizing process emerging from & also regulating the flow of energy and information within the Body and within our Relationships

The extended nervous system throughout the body

The sharing of energy and information flow

Mind, Brain/Body & Relationship

Mind

Embodied Brain

Relationships

Siegel 2012
The brain in the body
The brain in the body
Autonomic Nervous system

Traditional view

Autonomic Nervous System

Involuntary Action Impulses from CNS to Organs and Glands

Sympathetic Branch
Whole Body Mobilization

Parasympathetic Branch
Reduces Expenditure of Energy

ACCELERATOR  BRAKE
<table>
<thead>
<tr>
<th><strong>Parasympathetic</strong></th>
<th><strong>Sympathetic</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Unwind, reorganize &amp; regenerate after threat/stress</td>
<td>Gets body ready for action.</td>
</tr>
<tr>
<td>Helping let go muscle tension</td>
<td>Prepares us to meet emergencies &amp; threats</td>
</tr>
<tr>
<td>Lowers heart rate &amp; blood pressure.</td>
<td>Increases heart rate, respiration &amp; blood pressure.</td>
</tr>
<tr>
<td>Warms skin &amp; returns blush.</td>
<td>Shifts blood away from digestive system to muscles for quicker movement.</td>
</tr>
<tr>
<td>Aids digestion.</td>
<td>Constricts blood vessels &amp; drains blood from skin periphery (which turn pale &amp; cold) to prepare for potential injury</td>
</tr>
<tr>
<td>Slows/deepens breathing.</td>
<td>Dilates pupils, retracts eyelids &amp; focuses eyes.</td>
</tr>
<tr>
<td>Blood to peripheral vessels (skin flushed &amp; warm again)</td>
<td></td>
</tr>
<tr>
<td>Allows immune system to fully function again.</td>
<td></td>
</tr>
<tr>
<td>Secreting bodily fluids.</td>
<td></td>
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</tbody>
</table>
Autonomic Nervous System

Polyvagal view Stephen Porges

Ventral Vagal

Social Engagement

Dorsal Vagal

Immobilise Shut down

Sympathetic

Mobilisation & Fight / Flight

Parasympathetic Branch

Reduces Expenditure of Energy

Involuntary Action Impulses from CNS to Organs and Glands
Sympathetic hyperarousal

- Tightening of muscles in front of neck and upper shoulders,
- Stiffened posture,
- General jumpiness,
- Darting eyes,
- Increase in heart rate (which can be seen in the carotid artery in the front of the neck),
- Dilation (widening) of the pupils,
- Choppy rapid breathing
- Coldness in the hands, which may appear bluish particularly at the finger tips, as well as pale skin and cold sweat in hands and forehead

Levine 2010
Ventral Vagal - Social engagement

- Facilitates communicate via eye contact, facial expressions, tone of voice, & ability to listen & Face-to-face interactions
- Calms the heart - vagal tone refers to the regulation of heart rate - Resting heart rate low to mid-seventies
- Modulates sympathetic arousal - defuses aggression and tension.
- Relaxed full breathing,
- Pleasantly warm hands
- Mild to moderate pupil aperture.
- Intonation (prosody) of vocalizations
- Provides safety through connection.

Levine 2010
Dorsal Vagal Shutdown

- Numbing, drifting, floating, Phasing out
- Fixed or spaced-out eyes,
- Markedly reduced breathing,
- Abrupt slowing and feebleness of heart rate, and
- Constriction of the pupils.
- Skin often turns a pasty, sickly white or even gray.
Sympathetic Nervous System
Self Protection – Active Defense Fight & Flight
Hyperarousal

Hyperarousal
Hyper-orienting and defending
Emotional reactivity
Hypervigilance
Intrusive imagery
Obsessive/cyclical cognitive processing

Window of Tolerance
Optimal arousal Zone
Able to think and feel

Hypoarousal
Shut down freeze, submit,
Passive Defense Immobilise

Life Threat
Siegel 1999, Ogden & Minton 2000

Dorsal Vagal
Safety (Ventral Vagal) Social Engagement

Hypoarousal
Flat affect
Inability to think clearly
Numbing
Disabled orienting/responses
Autonomic Nervous System Balance

Reciprocal Relationship between Sympathetic and Parasympathetic systems – When Sympathetic reaches its peak, parasympathetic is engaged to bring system back to balance – activation followed by deactivation

Levine 2006
Following a relatively brief stressful experience, parasympathetic responses is delayed slightly, parasympathetic response takes a little longer to bring system back to balance
Following a more prolonged or repeated stressful experience, residual or accumulated stress remains in the system, keeping the system ‘tuned’ or ‘kindled’ and not returning to balance.

Levine 2006
Symptoms of Un-Discharged Traumatic Stress

Symptoms:
- Anxiety, panic, hyperactivity, exaggerated startle, inability to relax, restlessness, hyper-vigilance, digestive problems, emotional flooding, chronic pain, sleeplessness, hostility/rage

Stuck on ON

Traumatic event!

Symptoms:
- Depression, flat affect, lethargy, deadness, exhaustion, chronic fatigue, disorientation, disconnection, dissociation, complex syndromes, pain, low blood pressure, poor digestion

Stuck on OFF

Sympathetic

Normal Range

Parasympathetic

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Chronic Trauma
Concurrent or Coactivated (non-reciprocal) Sympathetic and Parasympathetic Activation

As sympathetic arousal increases, parasympathetic response also increases. Parasympathetic overrides sympathetic giving rise to symptoms that look like relaxation. But apparent relaxation is masking high arousal. So clients with chronic trauma can constantly oscillate between sympathetic and parasympathetic.

Levine 2006
Somatic Therapy building blocks

- Sensory awareness - Support initial exploration and acceptance of sensation - helping them find their way home to their bodily sensations and capacity to self-soothe & to learn to access, tolerate and utilize their inner sensations.

- Pendulation and containment – engaging the body's innate organismic rhythm of expansion and contraction

Levine 2010
Somatic Therapy building blocks contd.

- Use titration to create increasing stability, resilience and organization - by carefully touching into the smallest "drop" of survival based arousal, and other difficult sensations to prevent retraumatization.

- Restoring active responses – re-establish / complete active self protective responses.

- Resolve hyper-arousal states by gently guiding the discharge & redistribution of survival energy mobilized for life preserving action while freeing that energy to support higher level brain functioning.
Differentiating simpler and more complex clinical presentations
PTSD IS THE TIP OF THE ICEBERG

PTSD

CHRONIC TRAUMA

SOMATIC SYMPTOM DISORDERS
Complex Clinical Issues

- Difficulties in relationships – co-depandant, counter-depandant, conflict, etc.
- Self esteem, shame, self-criticism etc.
- Self function – inability to cope, collapse etc.
- Emotional Dysregulation – Hyper (fight/flight) or Hypo (freeze, numb, collapse) or both
- Anxiety and Panic
- Depression
- Eating issues/disorders
- Addiction and dependency issues
- Sexual issues
- Complex grief
Complex Clinical Issues Examples (Contd)

- Physical/Health issues – Chronic pain, gastrointestinal issues – irritable bowel, ulcerative colitis, crohn's disease; Sleep problems, Low energy; Fibromyalgia; Vertigo, etc. etc.

- Personality styles and disorders- Borderline, schizoid, Narcissistic, Obsessive compulsive, antisocial etc.

- Dissociation & splitting – Ego state blending & disconnection, confusion, conflict, regression, defenses etc.

- Developmental arrests and deficits

- Attachment issues and disorders

- Complex developmental trauma – big T and/or Small T

Gus Murray 2017
Aversive Childhood Experience (ACE) categories

- **Abuse**
  - Emotional
  - Physical
  - Sexual

- **Neglect**
  - Physical
  - Emotional

- **Household dysfunction**
  - Mother treated violently
  - Substance abuse
  - Imprisonment
  - Mental illness
  - Not raised by both biological parents

Felitti et al 1998
Complex Trauma

- Systems of Meaning
- Regulation of Affect/impulses
- Somatization – pain, body issues
- Attention and consciousness (Dissociation)
- Relations with Others
- Self perception

(van der Kolk et al. (Am. J. Psychiatry, 1996))
**Trauma and Medically unexplained symptoms**

- Medically unexplained symptoms (MUS) are generally defined as numerous and varied somatic complaints for which conventional biomedical explanations cannot be provided by examination or further investigation.

- Categorised into group of syndromes including:
  - Fibromyalgia,
  - Rheumatoid arthritis (RA),
  - Reflex sympathetic dystrophy (complex regional pain)
  - Hashimoto’s thyroiditis (overactive thyroid),
  - Graves’ disease (underactive thyroid),
  - Lupus,
  - Sjögren’s syndrome (dry eyes & mouth etc.),
  - Crohn’s disease,
  - type 1 diabetes,
  - multiple sclerosis (MS),
  - chronic fatigue syndrome (CFS)
Somatic Clinical Presentations - Examples

- Client A –
  i. Vertigo
  ii. Loss of feeling on one side of face,
  iii. Feet really heavy/leaden,

- Client B – Trainee therapist whose legs shook uncontrollably during therapy practice with young male client

- Client C - Repeated choking/smothering sensation

- Client D - Legs feel too weak to hold her up

- Client E – admitted to hospital on Christmas eve with dizziness
Functional & Dissociative Neurological Symptoms

Symptoms which are:

- Neurological (e.g. weakness, numbness or blackouts)
- REAL (and not imagined)
- Due to a PROBLEM with FUNCTIONING of nervous system, and NOT due to neurological disease.

- Many names (including dissociative symptoms and conversion symptoms) but are often described as "functional symptoms" or "functional disorders"

- Surprisingly common but can be difficult for patients and health professionals to understand.

Jon Stone http://www.neurosymptoms.org/
Functional & Dissociative Neurological Symptoms

Functional Limb Weakness
Functional Tremor
Functional Dystonia/Spasm
Blackouts / Attacks
Sensory Symptoms
Functional Walking Problems
Pain
Word Finding Difficulty
Tiredness / Fatigue
Slurred Speech
Bladder Symptoms
Sleep Problems
Poor Memory / Concentration
Bowel Symptoms
Drop Attacks

Dissociation
Swallowing Problems
Worry / Panic
Complex Regional Pain
Dizziness
Headache
Health Anxiety
Post-Concussion Syndrome
Low Mood
Functional Jerks and Twitches
Facial Spasm
Other Symptoms
Visual Symptoms

Jon Stone http://www.neurosymptoms.org/
1. History Taking
2. Preparation
3. Assessment
4. Desensitization
5. Installation
6. Body Scan
7. Closure
8. Reevaluation

EMDR 8-Phase Protocol
EMDR Phase 1

Clinical Assessment

Bio-Psycho-social History

Presenting problems/issues/symptoms

Establish Rapport

Treatment Planning

Onset
Duration
Severity
Triggers
Impact

Attachment
Family
Developmental
Educational
Traumas
Successes

Self Regulation
Risk
Developmental/Attachment
Character Style e.g.
Schema, Life Script, Personality, Object Relations
Trauma; PTSD
Self States - Dissociative process
Clinical issues e.g.
Grief, addictions, Bipolar, OCD, Shame, Relationship etc

Gus Murray 2017
Accessing and Activating Memory Networks

Explicit and Implicit Memories

Explicit
- Declarative
- Episodic

Implicit
- Emotional
- Procedural ("Body Memory")

Most Conscious

Least Conscious
Emotional memory

- Emotional learning that comes through fear conditioning is not declarative learning. Rather, it is mediated by the amygdala, which may operate independently of conscious awareness.

- A person is injured in an auto accident in which the horn gets stuck, may remember details of the accident, such as where and when it occurred and who was involved. These are declarative memories that are dependent on the hippocampus.

Adapted from LeDoux 2002
Later, when he hears the blare of car horns he may also become tense, anxious and depressed as the emotional memory is reactivated through the amygdala.

Emotional and declarative memories are stored and retrieved in parallel.

We do not have direct conscious access to our emotional memory; we have access to the consequences—such as the way we behave or the way our bodies feel.

Adapted from LeDoux 2002.
Procedural memory

- Memory for how to do things - e.g. Ride a bike, drive a car, or play a video game.

- Procedurally learned response is instinctive, automatic and without conscious reflection, thought or decision.

- “(It) shapes how we experience the present and how we anticipate the future, readying us in the present moment for what comes next based on what we have experienced in the past.” Siegel, 2006
Procedurally learned action tendencies

“Long after environmental conditions have changed, we remain in a state of readiness to perform the actions that were adaptive in the past. . . . the action tendency ‘exists within the person in latent form & becomes activated in response to specific internal or external stimuli… Once procedures become automatic tendencies, we no longer use top-down processes to regulate them.”

Ogden, Minton & Pain, 2006, p. 22
When traumatic memories are reactivated, patients are “continuing the action, or rather the attempt at action, which began when the [trauma] happened; and they exhaust themselves in these everlasting recommencements” (Janet, 1919/25, p. 663).
I'm so ashamed...

I expect confrontation, and I'm ready!

It is not safe to assert myself

Over time, procedural learning becomes encoded in body structure

I expect the best

What do you want from me?

Sensorimotor Psychotherapy Institute

Ogden 2005
Accessing an Earlier Maladaptive Memory Network

- Affect bridge – Floatback
  “Notice those feelings and that thought and just let your mind float back to the earliest time in your life when you had the same thought and feelings. What memory comes up for you now?”

- Somatic bridge – Floatback
  “Notice that thought and where you are feeling it in your body, and just let your mind float back to the earliest time in your life when you had the same thought and with those same feelings in that part of your body. What memory comes up for you now?”
When to use floatback

- During History-Taking to assist in identifying touchstone and feeder memories when client is unaware of these.
- To restore effective reprocessing when reprocessing has stalled because of unidentified, associated earlier memories.
PHASE 2

Preparation
Developing Sensory awareness

- Support initial exploration and acceptance of sensation - helping them find their way home to their bodily sensations and capacity to self-soothe & to learn to access, tolerate and utilize their inner sensations.

Levine 2010
Developing sensory literacy

- Butterflies in my stomach
- Fuzzy head
- Can’t catch my breath
- Head spinning
<table>
<thead>
<tr>
<th>LUMP IN MY THROAT</th>
<th>HEART GOING FAST</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNOT IN MY STOMACH</td>
<td>HEARTACHE</td>
</tr>
</tbody>
</table>
Developing sensory literacy

CAN’T STAY STILL

TICKLY INSIDE

JUMPY INSIDE

TUMMY ACHE
Sensation words

Twitchy   butterflies   cold   hot
warm   chilly   sharp   dull
itchy   shaky   trembly   tingly
hard   soft   stuck   jittery   icy
weak   empty   full   flowing
buzzing   spikey   throbbing   gushy

Keenan 2014
More Sensation words

spreading  pounding  strong

tight  tense  dizzy  wavy fuzzy

blurry  numb  prickly  jumpy

tearful  goose-bumpy  light  heavy

open  tickly  cool  silky  still

clammy  loose  ......................
NERVOUS SYSTEM REGULATION

ASSISTING CLIENTS TO MAINTAIN DUAL ATTENTION
Regulating the nervous system

- How do you do just enough to get a change
- And not too much which will cause things to unravel.
- It’s like there is a window, that involves a particular balance of resilience and trauma.
- If you don’t get into the window, nothing really happens,
- And if you go beyond the window the client unravels
- So how do you know where that window is?
- And how do you know when you are within that window?

Gus Murray 2017 (adapted from Peter Levine 2017)
The River of Integration/Regulation

The essential elements of regulation include:

- Monitoring (e.g. body scanning, noticing)
- Modifying (e.g. Breathing, grounding, orientation..)

Siegel 2010
Stages of EMDR Therapy

**Level of Chaos**

- Dysregulated
- Not coping

**Regulation**

- Ego Strengthening
- Stabilisation
- Orientation to environment and positive self experiences,
- Accessing resources
- Titration & Pendulation

**Resolution**

- Dual Attention
- 8 phase process
- Bilateral Stimulation

Gus Murray 2017
Accessing Positive Resource States

- Bring your attention to what’s good/positive?
  - What you most appreciate
  - When you are most fully yourself,
  - When you are at your best,
  - What gives you healthy pleasure
  - People who are there for you
  - Calm safe place

- Ask client to visualise it; feedback/reinforce to client
- Bi-lateral stimulation to enhance
- Invite client to notice how it lands in her body
- Word for auditory anchor
- Test
Titration and Pendulation

- Use titration to create increasing stability, resilience and organization - by carefully touching into the smallest "drop" of survival based arousal, and other difficult sensations to prevent retraumatization

- Pendulation and containment – engaging the body's innate organismic rhythm of expansion and contraction
Best Foot Forward (Kinowski 2003)

- Adapted from Levine’s (1997) *pendulation* technique to EMDR
- Facilitate client connect with a resource image that made him/her feel more resilient
- Instruct client to go just to the edge of the trauma for a specific limited time and then return to the resource
- Client is guided to repeatedly alternate between resource and traumatic material making the exposures progressively longer and more central to the trauma.

Manfield 2017
Flash Technique (with BLS)

- Attention to calm resourced positive memory
- Flash on the target memory for an instant and come back to the positive.
- If coming back is at all sticky, try making your next flash much briefer. If that doesn’t make the return from the flash effortless, try blinking your eyes when you flash, or try never leaving the positive memory.
- After two successive single flashes that are “not sticky” and easy to come back from, try a "triple flash," three flashes in rapid succession.
- If coming back from your first triple flash is easy, try 4 more.
If you experience some moderate difficulty, try the triple flash again, and see if it gets easier. If not, go back to some more single flashes until you think you are again ready for triple flashes, and then do 5 triples.

Think of the target after 5 clean triple flashes. See if you notice a change.
THE THERAPEUTIC RELATIONSHIP IN EMDR THERAPY
TAKING ACCOUNT OF NEUROCEPTION
FACILITATING SOCIAL ENGAGEMENT
DYADIC CO-REGULATION
Therapeutic Relationship

P. A. R. T. model

1. Presence

2. Attunement

3. Resonance

Trust/Safety

Neuroception

Siegel 2010
The Mindful Therapist
Neuroception

- The detection of features in others or the environment – *without awareness* – that dampens defensive systems and facilitates social behaviour OR promotes defensive strategies of mobilization (fight/flight) or immobilization (shutdown, dissociation).

(Porges 2013)
Recruiting the Social engagement system

- Recruit features of the Social Engagement System
  - Face-to-face interactions
  - Facial expressions and gestures
  - Intonation (prosody) of vocalizations

Porges 2011
Neurobiology of Social engagement

Neural regulation of muscles of face can reduce social distance by allowing us to:

- make eye contact;
- vocalize with an appealing inflection & rhythm;
- display contingent facial expressions;
- modulate the middle-ear muscles to distinguish the human voice from background sounds more efficiently.

Porges 2011
PHASE 3
ASSESSMENT

1. Image

2. Negative cognition (NC)

3. Positive cognition (PC)

4. Validity of Cognition (VoC)

5. Emotions

6. Subjective Unit of disturbance (SUD)

7. Body sensations
PHASE 4 Desensitisation

- Elicit target experience
- Bilateral Stimulation
- Window of tolerance
- Dual Attention
- Mindful Attention
- Client’s Feedback
- Therapeutic Interweave
- Return to Target
- SUDS Rating
Somatic Interweaves

- Sensory awareness – “where do you notice that in your body”
- Pendulation
- Facilitating release/discharging – heat, cold, tingling, twitching, fluttering of eyes, jerking, (Cyclist example)
- Micro movements – e.g. very slow expression of felt impulse
  - Notice the impulse
  - What would it want to do
  - Experiment with it very slowly
Somatic Interweaves Contd.

- Completion
- Tactile
- Activity – walking, pushing, etc.