

Rick MacMahon, L.C.S.W.

1538 Brookhollow Drive, Suite E.

Santa Ana, California 92705

(714) 436-0590

EMDR AND ITS USE IN TREATING ATTACHMENT DISORDER

EMDR is an acronym for Eye Movement Desensitization and Reprocessing, a remarkable form of psychotherapy that is being widely used to treat trauma and PTSD (post-traumatic stress disorder). EMDR combines elements from several therapeutic approaches with bilateral stimulation to facilitate hemispheric processing in the brain. Controlled studies support the efficacy of EMDR, making it not only the most thoroughly researched method ever used in the treatment of trauma, but also useful in a variety of applications from phobias to eating disorders.

In 1987, Dr. Francine Shapiro noticed that her emotionally disturbing thoughts diminished after she moved her eyes rapidly from side to side, and she recognized the similarity to REM sleep. In REM sleep, conflicts are resolved, information is processed, balance is restored, and learning and memory are consolidated. As further research was done, the implications for the use of EMDR with trauma victims became clear.

People who are traumatized dissociate from experiences that are overwhelming and from which there seems to be no escape. We all have experienced that when we are very upset, our brains cannot process information normally. During a traumatic episode, we revert to a “fight, flight, or freeze” response, and the neurochemicals our bodies release while in this survival mode take away nearly 80 percent of our ability to think.

Using SPECT scans to view the brain under different conditions has allowed us to learn more about the neurobiology of trauma. When a flashback is induced in a Vietnam veteran, for instance, we observe that the brain’s right hemisphere, where images, vision, and emotions originate, is extremely active. At the same time the left side of the brain, where speech and logic reside, is completely shut down, especially the part of the brain which allows the victim to talk about his/her experiences. In contrast, when a non-traumatic memory is induced, synapses are observed firing on both sides of the brain, indicating that the memory of trauma is stored differently than ordinary memory.

In order for new learning to be assimilated consciously, both hemispheres of the brain must be able to work together, but psychological trauma causes disruption of bilateral hemispheric processing. The left hemisphere, which is responsible for verbal and motor control and the manipulation or interpretation of

words and symbols, is locked out. Memories of trauma remain isolated in the right hemisphere, unable to be interpreted and processed by the cognitive awareness of the left hemisphere. The Vietnam vet with PTSD becomes terrified and reacts accordingly, unable to place traumatic triggers in their proper context and unable to incorporate the memory of trauma into the narrative of current experience.

The function of the right brain is non-linear and non-temporal, which explains why triggered traumatic memories are so vividly experienced as happening in the present. The right brain is closely connected to the physical states of the body and is dominant for the limbic system, which regulates body states and the unconscious processing of new social and emotional information. The limbic system is involved in our capacity to adapt to a rapidly changing environment. It contains the unique “flight, fight or freeze” stress-response system which prepares us to deal efficiently with external threats.

Memories in the right brain are retained in fragmented form as somatic and auditory sensations, visual images and intense affect states, which is why the most common form of trauma recall is visual. Because trauma memory is stored in this fragmented form in the pre-verbal, non-logical limbic system, separate from the brain’s language center, traditional talk therapy alone cannot resolve it. The body cannot be verbally and intellectually “reasoned out of” reacting to a stimulus that triggers the limbic system. Psychotherapy is a form of new learning and must impact the limbic system in order to be effective.

In trauma survivors we see impairment in the right hemisphere resulting in the repeated inability to cope with emotional stress, and impairment in the right hemisphere also disrupts the early emotional attachment process

The limbic system interprets incoming emotional information, and during the first four years of life the individual’s emotional world-view is established. Neuroscience is revealing how early abuse and neglect impact the growth of the regulatory systems in the brain which cope with stress. The attachment relationship literally shapes the baby’s coping mechanisms. If a baby is loved, cuddled, and has its physical and emotional needs well-met, its limbic system is set to interpret and remember things in a warm, friendly and loving way. Abandonment, abuse and neglect during this stage of life, however, mean that the limbic system is set to interpret the world as a hostile, frightening and bleak place.

The attachment interaction between mother and infant in the first two years of human life literally shapes the circuits and biological structure of the brain and effects its maturation. There is a huge acceleration of brain growth that begins in the last trimester of pregnancy and goes through the second year, with the amount of DNA in the cerebral cortex increasing tremendously over the first

ten months of life. That genetic material, the actual DNA of the baby's brain, is impacted by and develops in the attachment relationship.

The most deleterious trauma that occurs in childhood is relational. It comes from the social interpersonal environment and is cumulative. We know that prolonged and frequent episodes of intense, unregulated interactive stress in infants devastate development of stable and trusting attachment relationships and hinder the child's ability to regulate affect and to self-soothe or calm. Pathology is rooted in the individual's adaptive efforts to cope with the stress of overwhelming and frightening affects through the institution and use of defenses.

The essential task of the first year of human life is the creation of a secure attachment bond between the infant and a psychologically, physically-attuned primary caregiver. The communication occurring between mother and infant is non-verbal and highly sophisticated. It is mediated purely by affect. We know from mother-infant studies that this interplay is lead by the infant and that the mother takes her cues and modulates her behavior in response to the child. Early experiences between the mother and infant are internalized, and this early attachment relationship either creates resilience against, or creates a high risk factor toward, the child developing psychopathology later on in life.

It is the breakdown of coping mechanisms that we are dealing with in trauma. Normally, right-brain function allows for the empathic perception of another, but defects such as those accompanying trauma impair the ability to do so.

We have discovered that susceptibility to PTSD begins at a much earlier age than previously believed and that there is a relationship between a later vulnerability to PTSD and early traumatic attachments. Early trauma, neglect or abusive experiences create a predisposition to the development of PTSD. This manifests in hyper arousal and misreading of external cues, (in which sufferers of early insecure attachment may lack even the ability to read facial expressions or tones of voice correctly) as well as problems with affect regulation. Healthy human development requires an ability to regulate internal emotional states, and impairment in the right hemisphere results in the inability to regulate affect.

Trauma is a disorder of regulation. Children who have been traumatized cannot modulate their arousal, and they overreact to stimuli and are poor at self-calming. Because of their poorly developed self-soothing, they have less impulse control and less ability to tolerate stress or frustration. They are more at risk for depression and anxiety. They are more at risk for violence and aggression because of a lack of ability to empathize and connect, and they are more at risk for substance abuse and addiction because they self-medicate in attempt to feel better. When children grow up lacking the circuitry to process painful emotions, their first impulse upon experiencing a feeling is to try to get rid of it. They may develop eating disorders, abuse alcohol or drugs, cut themselves

or become suicidal or aggressive. Much pathology is the result of the anxiety, shame and aloneness that come from a lack of access to emotional resources.

EMDR allows the patient to access the traumatic memory where it is stored, in the right hemisphere. It echoes the early attachment process in that the patient always leads the therapist, and the therapist modulates his affect and attunes to the patient, telling the patient to visualize the disturbing event while using bilateral eye movement, sound or tactile stimulation.

Since most trauma is stored as visual memory, the therapist asks the patient first to visualize the traumatic event. This arouses the emotional distress connected to it. The therapist encourages the patient to stay with the memory, and provides a, "holding" and mirroring environment where the patient can safely re-experience the event, release the emotion attached to it and report accompanying thoughts. These will then form a chain of associations which patient and therapist follow until the range of fragments comprising the entire trauma has been processed. Focus on the patient's visualizations empowers him/her and increases self-trust. This is the foundation for new cognitions which will allow the patient to remember the traumatic event and put it into a coherent life narrative without having to re-experience it.

What heals people is the ability to integrate their life experiences. The underlying principle of EMDR is a belief in the body-mind's ability to heal itself. EMDR is a non-verbal therapy that works from the "bottom", the limbic system, to the "top", the neo-cortex. It is a physical process which impacts thought, unlike traditional talk therapies which try to work from the "top" down. During EMDR there is a qualitative shift in the brain's ability to take in new experience and to integrate past trauma. EMDR allows the resynchronization of the brain's hemispheres and restores the natural, homeostatic body-mind state of emotional balance, self-regulation, and well-being.

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