

Eye Movement Desensitization and Reprocessing (EMDR)

Presented by Lance Parks, LCSW

4 CE Credit / Contact Hours

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Overview



Trauma, according to Substance Abuse and Mental Health Services (SAMHSA) and Trauma and Justice Strategic Initiative (2012), is a result of “an event, series of events or series of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting diverse effects on the individual’s functioning and physical, social,

emotional, or spiritual being.” The best examples of experiencing trauma are being in a war-torn area, experiencing first-hand natural disasters, accidents, and so much more (Leonard, 2020). Exposure to trauma begins to affect how our bodies respond and our mental health. When we feel threatened, our bodies release cortisol and adrenaline hormones, thereby producing fight or flight responses, freeze, flop, or even

fawn. In addition, flashbacks, panic attacks, dissociation, hyperarousal, sleep problems, low self-esteem, grief, self-harm, suicidal thoughts/feelings, and alcohol and substance misuse to cope with trauma are common effects towards mental health. (Mind, 2020).

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With that being said, several treatments are geared towards helping people cope with trauma and improve their quality of life. These treatments include cognitive-behavioral therapy (CBT), eye movement desensitization and reprocessing (EMDR), somatic therapies, and prescription medications. (Leonard, 2020)

However, in this course paper, we will focus on eye movement desensitization and processing (EMDR) mainly on the following aspects: its history and dynamics, the treatment phases involved, studies and literature that backs this form of treatment, indications, contraindications, its usage in various types of traumas, side effects of this treatment and the controversies involved.

Moving From Threat to Integration: How EMDR Helps the Nervous System “Stand Down”



When the nervous system has been living on a hair-trigger—ready to fight, flee, freeze, flop, or fawn at the slightest cue—EMDR offers a structured path back to safety. In the last two years, several major syntheses have clarified what many clinicians see day-to-day: EMDR produces clinically meaningful reductions in PTSD symptoms for adults and often helps with the depression, anxiety, and somatic distress that travel with trauma (Wright et al.,

2024). These gains are not a matter of “toughing it out” through prolonged distress. Rather, EMDR’s dual attention focus—attending to a memory while simultaneously orienting to a bilateral stimulus—appears to soften hyperarousal, broaden attentional flexibility, and open the door to new associations that support adaptive meaning making (de Jongh et al., 2024).

Contemporary guidelines echo this confidence. The 2025 American Psychological Association PTSD guideline continues to recommend EMDR as a frontline, trauma-focused psychotherapy for adults, while also encouraging careful attention to fidelity, safety monitoring, cultural context, and client preference (American Psychological Association, 2025). That balance—protections plus personalization—captures the field’s current stance: EMDR works, and we can keep making it safer, more precise, and more accessible.

A Clinician’s Lens on Mechanisms—What Seems to Be Changing?

Across dozens of trials and practice-based cohorts, outcomes converge on a familiar pattern: as the emotional intensity and vividness of targeted memories diminish during sessions, global PTSD symptoms begin to loosen (Wright et al., 2024). Several

plausible ingredients may be cooperating:

- **Working-memory taxation and attentional flexibility.** Bilateral stimulation (BLS) appears to nudge the memory from “front-row, all-consuming” to “held lightly enough to see more of the picture,” promoting reconsolidation with less sensory punch (de Jongh et al., 2024).
- **Orienting and de-arousal responses.** Even brief sets of BLS can elicit a physiological shift consistent with orienting without threat, which many clients describe as “being able to stay with it without going under” (de Jongh et al., 2024).
- **Integration, not erasure.** The story changes not because the past is forgotten, but because it becomes connected to a fuller web of information—skills, supports, and adult perspective—so the memory can be recalled without re-living it.

Emerging variations such as **EMDR 2.0** explicitly increase cognitive load (e.g., faster sets, more complex dual tasks) to accelerate this process. Early controlled and case-series work suggests EMDR 2.0 can reduce the emotionality of aversive memories at least as effectively as standard EMDR for selected patients, but head-to-head clinical trials have not shown a clear overall superiority, and careful safety monitoring remains essential (de Jongh et al., 2024; Matthijssen et al., 2024; Yaşar et al., 2025).

The Eight Phases Still Organize the Work—With Pragmatic Flexibility

One consistent lesson in recent implementation studies is that fidelity to the **eight-phase** structure predicts better outcomes: history-taking, preparation, assessment, desensitization, installation, body scan, closure, and reevaluation (American Psychological Association, 2025; Wright et al., 2024). Within that framework, clinicians are adapting dosage and delivery to match client needs:

- **Intensive schedules** (e.g., daily sessions over one to two weeks) can be useful when avoidance is high or access is limited. Practice-based and controlled data suggest these formats can be efficient and acceptable for well-screened clients

with solid preparation (Matthijssen et al., 2024).

- **Telehealth delivery** has moved from necessity to a mature option. Systematic reviews and randomized trials indicate that, for appropriately selected clients, therapist-guided online EMDR is feasible and can reduce trauma symptoms, with clients often reporting a surprising sense of connection and control (Burback et al., 2024; Kaptan et al., 2024; Yap et al., 2025).
- **Group and brief protocols**—including web-delivered options—are showing promise in community and disaster contexts, though they require clearly articulated crisis plans and careful screening for dissociation (Yaşar et al., 2025; Kaptan et al., 2024).

Whatever the format, contemporary guidance emphasizes **informed consent** about possible temporary distress, **stepwise preparation** (grounding, containment, crisis planning), and **routine monitoring** of adverse events, not because EMDR is unsafe, but because better surveillance strengthens the work (American Psychological Association, 2025; van Schie & van Veen, 2025).

A Vignette: “Lena and the Red Wind”

Lena was forty-two when the wildfires came. She got her teenagers and the dog into the car, drove through a sky the color of rust, and watched embers whirl across the highway like a living thing. Everyone survived; the house did not. In the months after, certain winds jerked her awake at 2 a.m. She would sit at the kitchen table of the rental, drinking coffee she couldn't taste, watching the phone shimmer in her hand. She stopped driving the canyon road and started snapping at the people she loved. “I'm stuck in that red wind,” she said.

In **history-taking**, her therapist learned the fire was not *Lena's* first brush with threat. There was an earlier car wreck she never spoke about and a childhood of being the steady one—caring, competent, and quietly terrified of letting anyone down. They agreed to begin with the fire.

Preparation took time. They discussed what EMDR would and would not require (no

detailed retelling, no need to “force” a feeling), and what to do if she felt herself slipping away (orienting to the room, feet on the floor, “name five blue things”). They practiced a calm-place exercise until her shoulders dropped a little when she imagined the creek she hiked as a girl. She chose bilateral audio tones because the eye movements felt “too close” at first.

In **assessment**, the worst image was the embers hitting the windshield. The **negative cognition** was “I can’t keep them safe.” The **positive cognition** she wanted was “I did everything I could.” Her initial **SUD** (0–10) was 9; her **VoC** (1–7) for the positive belief was 2. The **body** location was a hard knot beneath the sternum.

They moved into **desensitization** in sets of 25–30 seconds. After the third set, Lena said, “I can see the exit sign now—not just the fire.” More sets. “There’s a moment I forgot—the kids were singing to the dog to keep him calm.” The knot eased. A gust of sadness came (“the house—our photos”), and they stayed with it, trusting the nervous system’s forward pull. By the end of the second reprocessing session, her SUD on the fire memory was 1. Over the next week, she noticed the wind without leaving her body.

In **installation**, they strengthened “I did everything I could” while holding the whole scene. Her VoC moved to 6, then 7. The **body scan** brought up a trace of tightness in her throat; a short set of slow BLS while holding the positive belief allowed it to pass. In **closure**, they practiced returning attention to the room and agreed on gentle self-care that week. At **reevaluation** the next session, the wind had blown through town, and she had slept.

They later targeted the older car wreck and, finally, the belief formed in childhood—“It’s on me to read the weather for everyone.” Her **future template** included driving the canyon road with her daughter in the passenger seat and her hand steady on the wheel. None of it erased loss; all of it made living possible. Lena called it “getting my horizon back.”

Clinically, Lena’s vignette illustrates current evidence: reduced distress during session is a good sign for broader symptom change; working across past, present triggers,

and future templates supports generalization; and the therapist's stance—attuned, structured, and non-intrusive—helps keep the nervous system within a window where learning can occur (Wright et al., 2024; American Psychological Association, 2025).

How SUD and VoC measurements work in the vignette:

SUD (Subjective Units of Disturbance/Distress).

This is the client's moment-to-moment rating of how disturbing the target feels right now while holding the image, negative cognition, and body sensations in mind. It's a 0–10 scale:

- 0 = no disturbance
- 10 = the worst disturbance imaginable

In the vignette, Lena started at SUD = 9 for the wildfire image and moved to SUD = 1 as processing unfolded. Carlos began at SUD = 8 for the pediatric code. In standard EMDR, clinicians typically continue reprocessing until the SUD drops to 0–1 before moving to installation and body scan (Shapiro, 2001; American Psychological Association, 2025).

VoC (Validity of Cognition).

This is the client's felt truth of the desired positive belief ("positive cognition") when it's paired with the target memory. It's a 1–7 scale:

- 1 = completely false
- 7 = completely true

In the vignette, Lena wanted the belief "I did everything I could." It started at VoC = 2 and rose to VoC = 7 as the memory integrated. For Carlos, the target belief was "I did what was in my control." During installation, the therapist uses bilateral stimulation while the client holds the positive belief with the memory, and the VoC typically increases as the belief begins to feel genuinely true (Shapiro, 2001; American Psychological Association, 2025).

How they work together.

- SUD tells us whether the emotional charge of the memory is resolving.
- VoC tells us whether the adaptive meaning is taking root.

We aim for low SUD (0–1) and high VoC (6–7), then confirm with a body scan to catch any lingering somatic distress before closure and later reevaluation (Shapiro, 2001; American Psychological Association, 2025).

What the Newer Trials Add

Efficacy and comparators. The most comprehensive 2024 meta-analytic work using individual participant data found EMDR's outcomes broadly comparable to other first-line trauma-focused therapies, with meaningful reductions in PTSD severity and comorbid symptoms (Wright et al., 2024). This aligns with the 2025 guideline's framing of EMDR as a first-line option, encouraging shared decision-making based on values, access, and clinical fit (American Psychological Association, 2025).

Telehealth EMDR. A 2024 randomized controlled study of a **web-based, therapist-guided EMDR intervention** in adults with moderate to severe suicidal ideation reported greater reductions in suicidal ideation at one month compared with online expressive writing, with high acceptability (Burback et al., 2024). Systematic reviews echo that EMDR delivered via secure videoconference can be effective and acceptable for many, provided there is clear risk planning and thoughtful selection of BLS modalities (Kaptan et al., 2024; Yap et al., 2025).

EMDR 2.0 and hybrid protocols. Case-based and early randomized data suggest **EMDR 2.0** may produce rapid decreases in the emotionality of aversive memories by increasing working-memory load, though superiority over standard EMDR is not established, and patient selection is key (de Jongh et al., 2024; Matthijssen et al., 2024; Yaşar et al., 2025). Ongoing head-to-head trials will clarify who benefits most from which parameters.

Economic and implementation outcomes. Cost-effectiveness is more than a

budget line—it's about access. A 2024 European implementation and economic analysis comparing trauma-focused pathways (including EMDR) emphasizes that efficiency varies by sequencing and patient profile; incorporating cost-utility and real-world adoption metrics into EMDR studies makes findings more actionable for systems and payers (van Vliet et al., 2024). Broader reviews of trauma treatment economics similarly call for routine inclusion of health-economic endpoints alongside symptom change (Simpson et al., 2025).

Safety: The Field Is Getting More Specific

EMDR remains a generally safe psychotherapy in trained hands, yet the science of safety reporting is catching up. A 2025 methodological review highlighted inconsistent definitions and under-reporting of adverse events in EMDR trials; the authors recommend preregistered definitions, session-by-session monitoring, and transparent reporting of dropouts and reasons (van Schie & van Veen, 2025). The 2025 guideline mirrors this, urging routine surveillance for temporary spikes in distress, dissociation, nightmares, or increased avoidance—particularly in intensive or remote formats—alongside clear crisis plans and early stabilization for those with high dissociative tendencies (American Psychological Association, 2025).

Clinically, the practical takeaways are familiar and reaffirmed by recent work:

- Build **preparation and stabilization** robustly (grounding, containment, resourcing).
- Screen for **dissociation** and address it before deep reprocessing when needed.
- Maintain **dual attention**; if the client is losing contact with the room, pause and restore anchor points.
- Treat **abreaction** as information, not failure; titrate back into the window of tolerance.
- Document **adverse events** consistently—because careful noticing makes care safer (van Schie & van Veen, 2025).

Who Is EMDR For—and When Do We Pause?

The last two years of research reinforce EMDR's suitability for adults with PTSD across diverse traumas, including interpersonal violence, accidents, disaster exposure, and combat (Wright et al., 2024; American Psychological Association, 2025). EMDR is increasingly used in medical and surgical contexts to address traumatic medical experiences and pain-related distress, with positive signals though ongoing trials are needed to refine indications (Seok et al., 2024).

Prudent **contraindications or cautions** remain: acute psychosis, uncontrolled substance withdrawal, severe affective instability without stabilization, and acutely unsafe environments where exposure to danger continues. With dissociative disorders, a phased approach with extended preparation can be essential. In telehealth, additional checks (identity, location, emergency contacts, privacy environment) and a clearly rehearsed contingency plan are standard of care (Kaptan et al., 2024; American Psychological Association, 2025; Yap et al., 2025).

Making EMDR More Accessible—Without Diluting the Model

Access is an ethical concern. Telehealth research points to several ways we can widen the doorway without sacrificing fidelity:

- **Secure platforms and purposeful BLS choices.** Many clients do well with on-screen visual BLS or audio tones; others prefer tactile devices mailed in advance. The principle is the same: maintain dual attention while protecting safety and privacy (Kaptan et al., 2024; Yap et al., 2025).
- **Brief or group formats in community settings.** Early randomized and pragmatic studies suggest group-based or condensed protocols can help in post-disaster and low-resource contexts; clear boundaries and safety planning are non-negotiable (Yaşar et al., 2025).
- **Implementation and equity.** Recent reviews call for intentional inclusion of under-represented populations, language access, and cultural adaptation—because trauma is not evenly distributed, and neither is care (American Psychological Association, 2025; Wright et al., 2024).

A Second Vignette (Telehealth): “Carlos on the Night Shift”

Carlos is twenty-seven, a paramedic who switched to nights after a pediatric code that “won’t let go.” He chooses telehealth because daylight hours are for sleep and paperwork, and the thought of a waiting room makes his skin crawl. In consent, they review privacy, emergency contacts, and what to do if the connection drops. He uses wired headphones so roommates won’t overhear.

His worst image is the moment his own hands look too big against a tiny chest. The belief is “I failed him.” He wants “I did what was in my control.” SUD 8. VoC 1. They start with visual BLS on the screen; after two sets he reports “too buzzy,” so they switch to alternating tones. The therapist watches micro-movements on video—the way Carlos’s breath gets shallow—and invites a slow exhale before each set.

Midway through session two, he remembers the attending whispering, “You did everything right.” He had dismissed it then; it lands now. SUD 3. In installation, he holds the attending’s words alongside the scene until the belief “I did what was in my control” feels true enough for his shoulders to drop. Body scan: a flicker at the base of his throat; brief sets until neutral.

At reevaluation, he says, “I’m tired in a normal way.” He still tears up talking about the call, but it’s grief, not fault. He moves to target a different call the following week. His therapist documents a brief spike in anxiety after the first session and a nightmare that resolved with daytime grounding—an example of the kind of small, expected adverse events that are worth tracking both for safety and for learning (van Schie & van Veen, 2025).

Looking Ahead: Precision, Safety, and Fit

Where is EMDR headed next? The last two years sketch a clear agenda:

- Keep **what works**—the eight-phase map, dual attention, three-pronged targeting—and apply it with cultural humility and collaborative choice (American Psychological Association, 2025).
- Upgrade the **science of safety**—predefine adverse events, monitor each

session, and report transparently (van Schie & van Veen, 2025).

- Test **format innovations** thoughtfully—telehealth, intensive schedules, group and brief protocols—while specifying risk mitigations and measuring durability and cost-utility (Burback et al., 2024; van Vliet et al., 2024; Yap et al., 2025).
- Clarify **mechanisms and moderators**—who benefits most from which parameters (e.g., EMDR 2.0 vs. standard), at what dose, and in which contexts (de Jongh et al., 2024; Wright et al., 2024).

What matters most to clients, though, remains beautifully simple: “Can I remember without re-living? Can I sleep? Can I love my people without jumping at the wind?” EMDR’s evolving evidence says yes—often, and increasingly for more people, in more places, and with growing precision about how to get there safely.

Chapter 1: History of Eye Movement Desensitization and Reprocessing

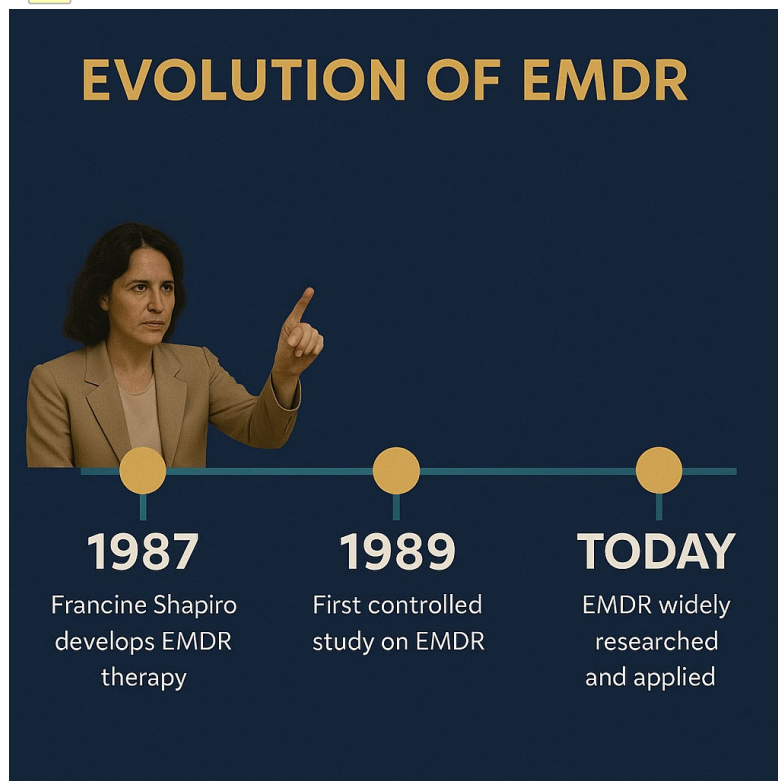


In 1987, **Francine Shapiro**, a psychology student back then, was trying to consciously shake off negative emotions from an upsetting memory by doing eye movements. This, in turn, helped her recover from distress and assumed that eye movements aids in emotional desensitization (New York Times, 2019). With this hypothesis in mind, she began to perform experiments to validate it. She was able to gather positive responses from her subjects. However, as the investigation progressed, it became inconclusive that eye movements create therapeutic effects. Thus, Shapiro amalgamated other treatment elements, including a cognitive component. She later developed a standard procedure that she coined as Eye Movement Desensitization

(EMD). (EMDR Institute, Inc.,n.d.)

Shapiro then began the rigorous experimentation, starting with herself as the subject, then with her friends and colleagues. She worked with 70 subjects initially for over six months. The process was straightforward: the subjects were asked to recall a painful memory, and Shapiro would move her fingers back and forth for about 20-30 seconds. She integrated the said technique with exposure therapy- a process in which people “engage and reprocess painful memories to build sharp edges, and then reinterpret them by repeated collection, or exposure” (New York Times, 2019). Shapiro stated that “single session of the procedure was sufficient to desensitize subject’s traumatic memories, as well as dramatically alter their cognitive assessments” (EMDR Institute, Inc., n.d.). However, in another article, Shapiro was misquoted. The said article made claims that a single session of EMDR can cure post-traumatic stress disorder.

She expressly stated that the primary goal of the eye movement desensitization



procedure is to desensitize people from anxiety and not to eliminate PTSD. She also added that the treatment procedure requires an average of five treatment sessions to treat post-traumatic stress disorder thoroughly.

By 1988, Shapiro published a study focused on the efficacy of EMDR procedure in treating traumatic memories. The measures were gathered during the 1st and 3rd months

of the follow-up initially. In the said study, 22 subjects suffered from emotional distress

due to traumatic events like sexual molestation and assault, physical and emotional abuse, and the Vietnam war. The triggers noted were from the subjects were as follows: flashbacks, sleep disturbances, low self-esteem, and the like. In addition, the dependent variables of the said study were the level of anxiety, presenting complaints, and positive self-assessment. The study concluded that a single session of EMD desensitized the subject from emotional distress brought about by traumatic memories and changed the “cognitive assessment” and behavior which included the mitigation of the subject’s complaints of the situation through the 3-month follow-up.

Moreover, similar studies were conducted by Brom et al (1989) and Cooper and Clum (1989). The former studied 112 subjects suffering from severe disorders caused by traumatic events such as bereavement, violence, and accidents. The study concluded that “trauma desensitization, hypnotherapy, and psychodynamic therapy resulted to a significant decrease in trauma-related symptoms than the waiting-list control group”. Moreover, the latter group utilized imaginal flooding therapy or “a specific technique of exposure therapy, which is a type of cognitive behavioral therapy, that creates an environment or situation that helps people confront their fear in order to overcome it”. (Lyons, 2020). The said study examined the effectivity of imaginal flooding over the common combination of psychotherapeutic and pharmacologic treatment of combat-related PTSD. It then concluded that flooding is ineffective towards the variables which are level of depression and anxiety. It means flooding can be used as an adjunct treatment for PTSD but, it cannot be used unilaterally.

Chapter 2 — Part I

What is Eye Movement Desensitization and Reprocessing (EMDR)?

Introduction

Eye Movement Desensitization and Reprocessing (EMDR) is a structured form of psychotherapy designed to help individuals recover from the lingering effects of traumatic life experiences. The primary goals of EMDR are twofold: to reduce trauma-related distress—including the symptoms of posttraumatic stress disorder (PTSD),

anxiety, and depression—and to promote overall mental health functioning (Shapiro, 1989a, 1989b, 2001). Over the last three decades, EMDR has been refined into a well-defined protocol that incorporates aspects of psychodynamic, cognitive-behavioral, interpersonal, experiential, and body-centered therapies. What distinguishes EMDR from other approaches is its reliance on an information-processing model and the use of bilateral stimulation—such as guided eye movements, alternating hand taps, or auditory tones—to facilitate the brain’s natural ability to heal.

The Adaptive Information Processing Model

The theoretical foundation of EMDR is Shapiro’s Adaptive Information Processing (AIP) model. This model proposes that humans have an innate, physiologically based information-processing system that integrates new experiences into existing memory networks, much like the body’s circulatory or digestive systems function (Shapiro, 1995, 2001; Shapiro & Solomon, 2008). In healthy processing, new experiences link with relevant thoughts, images, emotions, and sensations, contributing to adaptive learning and growth. However, when a person experiences overwhelming trauma, this natural system can become blocked. Memories may then be stored in a “state-specific” form—frozen in time and unconnected to adaptive information—leading to distressing symptoms such as intrusive thoughts, hyperarousal, avoidance, and negative self-beliefs (Shapiro, 2001).

EMDR therapy seeks to unblock this system. By accessing these memories in a safe, structured way and pairing them with bilateral stimulation, clients are able to process disturbing experiences and **integrate them into larger adaptive memory networks**. The result is often reduced emotional intensity, new cognitive insights, and a shift from self-defeating beliefs toward more resilient perspectives (Shapiro, 2001; Rydberg, 2024).

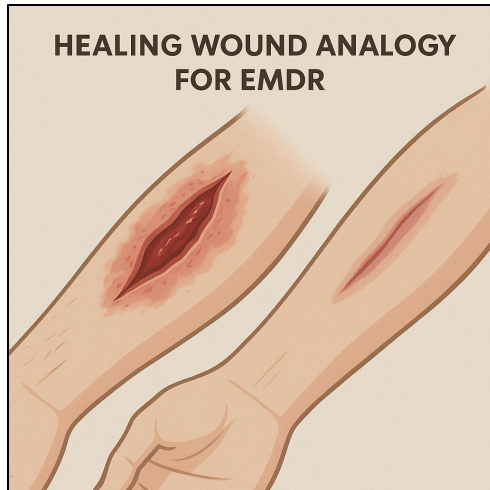
The EMDR Protocol and Three-Pronged Approach

EMDR follows an **eight-phase treatment protocol** that incorporates history-taking, preparation, assessment, desensitization, installation of positive beliefs, body scanning, closure, and reevaluation. Within these phases, clinicians focus on three broad targets of intervention:

1. **Past events** that laid the groundwork for current dysfunction are reprocessed and linked with adaptive information.
2. **Current triggers** that elicit distress are desensitized so clients can respond more effectively in the present.
3. **Future templates** are installed to help clients envision adaptive responses to upcoming challenges.

During reprocessing sessions, clients are guided to recall elements of a distressing memory—images, thoughts, emotions, and sensations—while simultaneously attending to bilateral stimulation. This dual focus often allows the memory to shift, soften, and integrate. Clients frequently report a transformation of meaning: for instance, a survivor of sexual assault may move from “I am powerless and broken” to “I survived and I am strong.” These insights typically arise through clients’ own internal processing, rather than therapist interpretation, and are often accompanied by profound emotional relief (Shapiro, 2001; Shapiro & Solomon, 2008).

A Plain-Language Analogy



For those new to EMDR, the therapy can be compared to the body's natural healing response. When the skin is cut, the body begins to heal immediately. If the wound is blocked by debris or repeatedly irritated, healing stalls and pain persists. Once the block is removed, natural healing resumes. EMDR demonstrates that psychological wounds follow a similar course. Trauma can block the mind's natural recovery system, leaving

memories raw and painful. EMDR helps remove these blocks, allowing the mind to resume its natural healing process (Shapiro, 1995, 2001). Clinicians guide clients through this process using carefully developed protocols, activating the brain's innate capacity for recovery.

Evidence for Effectiveness

Since its development, EMDR has been studied in more than 30 randomized controlled trials. Early studies showed rapid results for single-trauma survivors, with high remission rates after only a handful of sessions (Shapiro, 2001). While those early findings were striking, contemporary reviews now provide a more nuanced understanding. Large-scale meta-analyses conducted in recent years confirm that EMDR is an effective treatment for adult PTSD, with outcomes generally comparable to other first-line trauma-focused therapies such as prolonged exposure and cognitive processing therapy (Wright et al., 2024).

Importantly, EMDR also shows promise for alleviating comorbid symptoms such as depression and anxiety, and research continues to expand into conditions like personality disorders, chronic pain, and traumatic medical experiences (Seok et al., 2024; Yasar et al., 2025). Updated practice guidelines, including the American Psychological Association's 2025 PTSD treatment guideline, continue to recommend EMDR as a first-line option for adults, while emphasizing that treatment selection should

be tailored to client preference, cultural context, and clinical presentation (American Psychological Association, 2025).

Recent research also highlights the effectiveness of intensive or brief EMDR protocols, the feasibility of delivering EMDR via telehealth, and the potential of enhanced methods such as EMDR 2.0, which combine standard procedures with additional working-memory taxation to increase efficiency (Torres-Giménez et al., 2024; Butler et al., 2024; Yasar et al., 2025).

Memory Transmutation and Reconsolidation

When EMDR is successful, traumatic memories change in both form and function. Clients often report that previously vivid and overwhelming memories lose their intensity, emotional charge, and physical sensations. This process, sometimes referred to as **memory transmutation**, allows the memory to be retained as a fact of life without continuing to provoke distress.

The neuroscience concept of **memory reconsolidation** offers an explanation. Research shows that when a memory is recalled, it temporarily becomes flexible and can be updated with new associations before being stored again. EMDR appears to take advantage of this reconsolidation window, combining memory activation with bilateral stimulation to promote adaptive updating (Shapiro & Solomon, 2008; Rydberg, 2024). Evidence suggests that EMDR's generalization to new situations and its long-term durability align more closely with reconsolidation than with extinction learning, which creates a competing memory without altering the original (Foa & Kozak, 1986; Wright et al., 2024).

Comparison With Other Models

The AIP model shares common ground with other theories of trauma treatment while also offering unique insights. Emotional processing theory, for example, emphasizes that reducing fear requires activating the fear memory and introducing corrective

information (Foa & Kozak, 1986). While EMDR also involves memory activation, change often occurs rapidly and spontaneously, without prolonged exposure or deliberate cognitive restructuring.

Cognitive models view maladaptive beliefs as distortions to be corrected. In contrast, the AIP model regards these beliefs as symptoms of unprocessed memories. Once the memory is integrated, negative self-assessments typically resolve without direct cognitive disputation (Shapiro, 2001; Rydberg, 2024). These distinctions help explain why EMDR can sometimes feel less effortful to clients while still producing profound cognitive and emotional changes.

Models and Clinical Practice

Theories of trauma processing matter because they guide practice. Exposure models encourage repeated confrontation with feared stimuli; cognitive models promote restructuring negative beliefs. The AIP model directs clinicians to focus on the unprocessed memories driving symptoms.

In EMDR, cognitive shifts are not imposed but emerge naturally as clients reprocess memories. For instance, a client may move from “I am helpless” to “I did the best I could” without therapist instruction. Clinicians also draw upon **positive memory networks**—adaptive experiences of safety, connection, or mastery—to support integration when processing stalls (Shapiro & Solomon, 2008). This approach reflects the belief that the mind contains its own resources for healing, which therapy can activate and strengthen.

Evaluation of Treatments and Mechanisms of Change

While EMDR’s effectiveness is well established, debates continue about how it works. Hypotheses include reconsolidation, extinction learning, working memory taxation, and attentional control, with most scholars concluding that EMDR likely engages multiple mechanisms simultaneously (Rydberg, 2024; Shapiro & Solomon, 2008).

Recent research highlights the predictive value of **in-session changes**. Reductions in emotional intensity during reprocessing reliably predict long-term improvements in PTSD symptoms (Wright et al., 2024). Comparative studies also show that EMDR is as effective as prolonged exposure and cognitive processing therapy, but may achieve results with less extended exposure and fewer homework demands, making it a preferred option for many clients (APA, 2025).

Safety remains an important consideration. While EMDR is generally safe, reviews note inconsistent reporting of adverse events across trials. Temporary distress, vivid dreams, or the resurfacing of dormant memories can occur, underscoring the need for proper preparation, stabilization, and informed consent (van Schie et al., 2025).

Widespread Use and Global Reach

Over the past 25 years, EMDR has moved from a novel intervention to a widely practiced and globally endorsed therapy. Today, more than 100,000 clinicians are trained in EMDR, and millions of people have received treatment. It is used in over 30 countries and has been adapted for diverse cultural settings, humanitarian crises, and community-based trauma interventions (Shapiro, 2001; APA, 2025). Its growth reflects both its adaptability and its effectiveness, making EMDR a cornerstone of modern trauma care.

Chapter 2 — Part II

Procedural Elements During the Assessment Phase

As Shapiro observed, complex psychotherapies rely on multiple interacting procedures, and it is the synergy among those elements—not a single “active ingredient”—that produces clinical change (Shapiro, 2001; Shapiro & Solomon, 2008). Within EMDR,

several procedural elements are consistent with the Adaptive Information Processing (AIP) model and deserve special attention during the assessment phase. These components organize how targets are selected, how attention is guided, and how memory networks are activated so that reprocessing can proceed efficiently.

1) Selection of Treatment Targets

Target selection begins with a careful map of the experiences most likely to underpin current symptoms. Importantly, research indicates that events *not* meeting DSM Criterion A can still be associated with PTSD-like symptoms, reinforcing the clinical importance of so-called “small-t” traumas (Mol et al., 2005; Shapiro & Solomon, 2008). From an AIP perspective, both “big-T” and “small-t” events may be dysfunctionally stored and thus viable targets.

In practical terms, adaptive processing in EMDR is accomplished by (a) **structured memory access** using a sequential targeting plan, (b) **activation of the information-processing system** via standardized procedures (including bilateral stimulation), and (c) **facilitation of dynamic integration** so that relevant adaptive networks can link with the isolated material (Shapiro, 1995, 2001; Shapiro & Solomon, 2008). Alongside past memories, clinicians also identify **present triggers** and **anticipated future challenges**, ensuring that target selection supports the three-pronged approach. Preparedness also includes verifying that clients have accessible **positive/adaptive networks** (e.g., memories of support or mastery) available to join processing when needed.



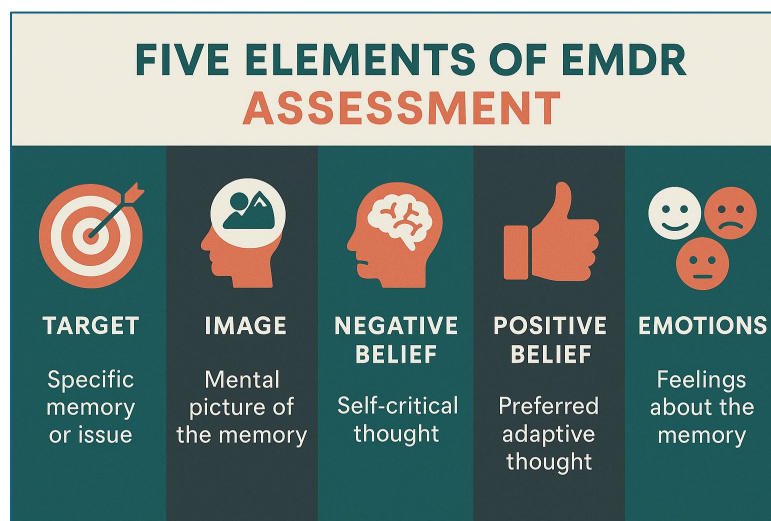
2) Mindfulness and the “Just Notice” Set

During assessment (and later phases), clients are invited to “let whatever happens, happen,” and to “just notice” what arises (Shapiro, 1989, 1995, 2001; Shapiro & Solomon, 2008). This stance parallels mindfulness:

thoughts, emotions, and sensations are observed as passing events rather than as defining truths. Classic cognitive therapy and mindfulness research describe this as **decentering** or **disidentification**—a shift from “I *am* this fear” to “I’m *noticing* fear,” which broadens choice and enhances coping (Beck, Rush, Shaw, & Emery, 1979; Teasdale, 1997; Shapiro & Solomon, 2008). From an AIP angle, this stance helps encode **efficacy and regulation** into the client’s networks, improving attentional stability when complex material is activated.

Neurophysiological findings are consistent with this state of de-arousal: eye movements and other bilateral stimulation have been associated with parasympathetic shift and reduced psychophysiological arousal in laboratory and clinical observations (Barrowcliff, Gray, Freeman, & MacCulloch, 2004; Barrowcliff, Gray, MacCulloch, Freeman, & MacCulloch, 2003; Elofsson, von Scheele, Theorell, & Söndergaard, 2008).

3) Aligning Memory Fragments



Traumatic experiences are often encoded in **fragments**—images, affects, bodily sensations, and beliefs that are only loosely connected (van der Kolk & Fisler, 1995). EMDR’s assessment phase deliberately **aligns** these components by eliciting (a) the worst image, (b) the currently held negative

cognition, (c) the desired positive cognition, (d) current emotion with SUD rating, and (e) body sensations. This alignment activates the target across multiple channels, coherently engaging the network in a way that mirrors the BASK model (behavior, affect, sensation, knowledge) of dissociation (Braun, 1988; Shapiro, 1995, 2001; Shapiro & Solomon, 2008). Neurocognitive work suggests this multi-channel activation taps distinct yet connected brain systems that together support the integration of

memory into narrative form (Buckner & Wheeler, 2001; Gottfried, Smith, Rugg, & Dolan, 2004).

4) Somatic Awareness

Inviting clients to notice **where** they feel the disturbance—tightness in the chest, a knot in the stomach—helps separate raw sensation from global self-judgments (e.g., shifting from “I am terrified” to “I notice fluttering in my chest”). This simple move fosters **self-efficacy and mastery** and supplies adaptive information to be linked during processing (Shapiro, 1995, 2001). As clients witness sensations fluctuate, they learn that bodily states are **changeable**, which reduces fusion with momentary affect and strengthens regulation capacities that generalize beyond sessions.

5) Cognitive Elements Without Forced Restructuring

EMDR assessment includes identifying both **negative** and **positive** cognitions related to the target. While this echoes cognitive therapy’s interest in belief systems (Beck et al., 1979), EMDR does not attempt to **argue** clients into new beliefs during assessment. Instead, the AIP model assumes beliefs will **shift spontaneously** during reprocessing as new associations form. Even so, naming an adaptive cognition at the outset likely **primes** relevant adaptive networks, making them more available to link with the target as processing unfolds (Shapiro, 2001; Shapiro & Solomon, 2008).

Suggested Procedural Elements During Desensitization and Installation

Perceived Mastery

Across sets, clients practice **mentally circumscribing, approaching, and releasing** distressing material. This alternating sequence (access → brief attention → interruption/shift) often builds a palpable sense of **mastery**, which is associated with improved coping with stress, anxiety, and low mood (Bandura, 2004). In AIP terms, mastery experiences become **encoded** as adaptive information and can be recruited when other targets are processed (Shapiro & Solomon, 2008). Whether mastery emerges chiefly from the **sequencing** of attention, from **bilateral stimulation**, or from

their **interaction** remains an empirical question; nonetheless, clinical observation supports its relevance.

Potential Effects of Eye Movements and Other Bilateral Stimulation

During desensitization and installation, EMDR procedures are designed to access the target **in its stored state** and engage the brain's **associative processing** so that isolated material can link with broader networks (Shapiro, 1995, 2001). Multiple hypotheses address how bilateral stimulation may contribute:

- **Physiological de-arousal.** Studies have reported increased parasympathetic activity and reductions in heart rate or skin conductance during or after sets, consistent with a down-shift in autonomic arousal (Aubert-Khalifa, Roques, & Blin, 2008; Elofsson et al., 2008; Wilson et al., 1996; Sack, Lempa, Steinmetz, Lamprecht, & Hofmann, 2008; Sack, Lempa, & Lamprecht, 2007; Sack, Hofmann, Wizelman, & Lempa, 2008).
- **Reduced vividness and emotionality.** Eye movements have been shown to lower the vividness and affective charge of negative (and positive) images (Barrowcliff et al., 2004; Gunter & Bodner, 2008; Kavanagh, Freese, Andrade, & May, 2001; Sharpley, Montgomery, & Scalzo, 1996; van den Hout, Muris, Salemink, & Kindt, 2001).
- **Orienting response.** Alternating stimuli may elicit an orienting response that facilitates exploratory processing and associative linking (MacCulloch & Feldman, 1996).
- **REM-like processing and working memory taxation.** Some authors propose that eye movements induce a REM-sleep-like neurobiological state or tax working memory, either of which could enable access to **less dominant associations** and integration into semantic networks (Andrade, Kavanagh, & Baddeley, 1997; Siegel, 2002; Stickgold, 2002). Laboratory findings also suggest effects on episodic retrieval and interhemispheric coherence, as well as increased **attentional flexibility**—all potentially relevant to EMDR's associative

shifts (Christman, Garvey, Propper, & Phaneuf, 2003; Propper, Pierce, Geisler, Christman, & Bellorado, 2007; Kuiken, Bears, Miall, & Smith, 2001–2002).

It is important to note that **causal ordering** among these phenomena is not yet established. Does arousal drop *because* the memory becomes less distressing, or does reduced arousal *permit* the memory to reconsolidate with less distress? Only rigorous randomized component studies can disentangle these pathways (Chemtob, Tolin, van der Kolk, & Pitman, 2000; Shapiro, 2001).

Reconsolidation and Associative Linking

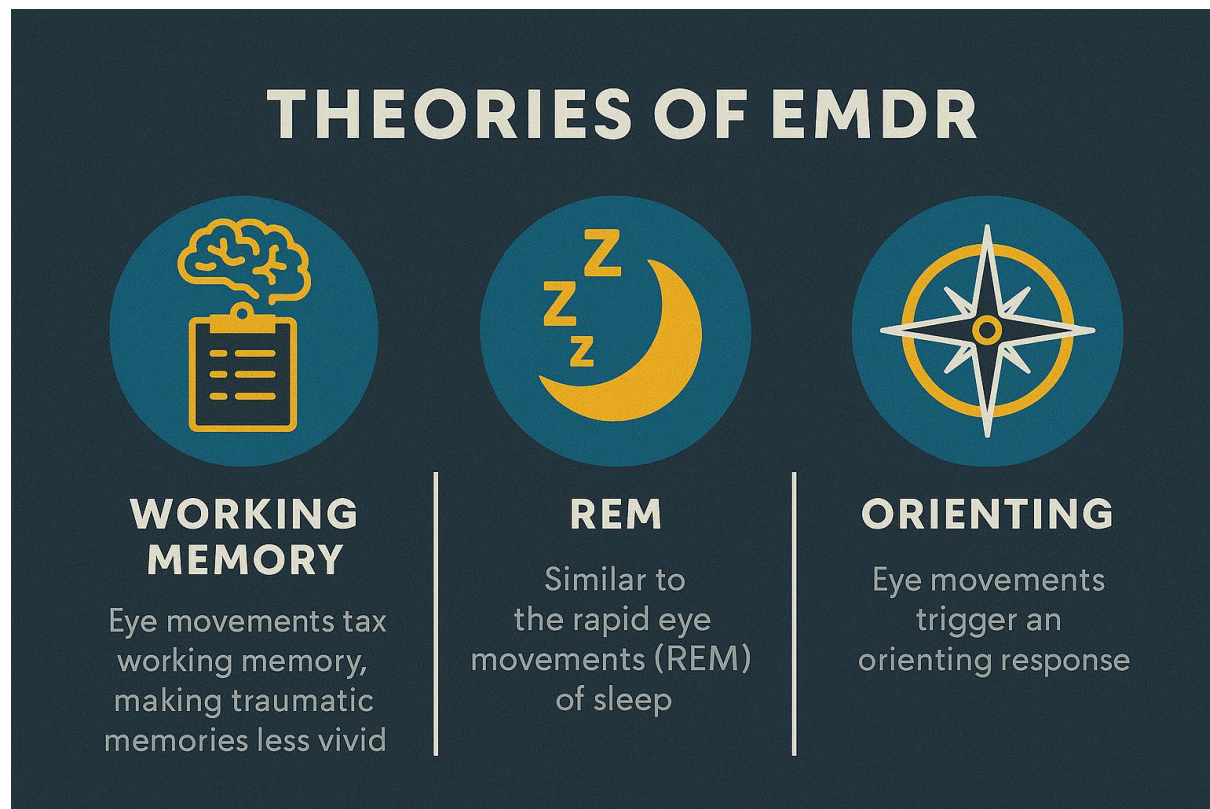
Consistent with AIP, one plausible account is that bilateral stimulation helps open a **reconsolidation window**, during which the reactivated memory can reorganize in response to new inputs in the retrieval environment (Przybylski, Roullet, & Sara, 1999; Suzuki et al., 2004; Shapiro & Solomon, 2008). As arousal decreases and image vividness softens, **previously inaccessible associations** may become available, allowing target memories to link with broader adaptive semantic networks. Clinically, this is experienced as **memory transmutation**: the event remains known, but its meaning and emotional tone shift toward adaptive resolution (Siegel, 2002; Stickgold, 2002; Shapiro, 2001).

Chapter 3: Eye Movements and EMDR Therapy

EMDR therapy is often recognized for its use of eye movements, yet EMDR is not *only* eye movements. It is a comprehensive, structured psychotherapy composed of multiple interacting procedures that together contribute to clinical change. Within EMDR, therapist-directed eye movements (EMs) function as a **dual-attention stimulus**: while the client holds elements of a distressing memory in mind (internal focus), attention is also oriented to an external, rhythmic stimulus (e.g., the therapist's fingers moving laterally). Other forms of dual-attention stimulation—such as alternating tactile taps or auditory tones—have long been incorporated into standard protocols and can be selected based on client preference and clinical need (Shapiro, 1991, 1993).

Hypothesized Mechanisms of Action for Eye Movements

A common starting point for understanding EMs in EMDR is the **orienting response**—a hard-wired, attention-shifting reflex to novel or significant stimuli. Across theoretical traditions, three complementary models have been proposed to explain how this response may support reprocessing: **cognitive/information-processing**, **neurobiological**, and **behavioral** (Andrade et al., 1997; Armstrong & Vaughan, 1996; Lipke, 1999; MacCulloch & Feldman, 1996; Bergmann, 2000; Servan-Schreiber, 2000; Stickgold, 2002). These perspectives are not mutually exclusive; each highlights different facets of the same clinical phenomenon.



Laboratory work suggests that, in the absence of danger, the orienting response tends to resolve in a **primary relaxation** that reciprocally inhibits anxiety (Barrowcliff et al., 2001). Clinically, this may interrupt automatic links between trauma cues and high arousal, allowing new, more adaptive associations to form. Eye movements have also been associated with **increased attentional flexibility**, which can help clients shift perspective as processing unfolds (Kuiken, Bears, Miall, & Smith, 2001–2002). A related

neurobiological hypothesis proposes that the orienting response in EMDR may transiently recruit mechanisms similar to those active in **REM sleep**, facilitating access to broader associative networks and integration of episodic material into semantic memory (Stickgold, 2002).

Beyond orienting, a substantial experimental literature shows that dual-attention tasks (including EMs) **reduce the vividness and emotionality** of recalled images (Andrade et al., 1997; Kavanagh, Freese, Andrade, & May, 2001; van den Hout, Muris, Salemink, & Kindt, 2001). Two non-exclusive explanations are often cited:

1. **Working-memory taxation.** Holding a vivid image in mind while simultaneously tracking a rapid bilateral stimulus loads limited working-memory resources, leading the image to become less sharp and less affectively charged; over repetitions, the less vivid, less emotional trace is what reconsolidates (Kavanagh et al., 2001; van den Hout et al., 2001).
2. **Response aid for imaginal exposure.** By temporarily lowering affective intensity, EMs can make otherwise intolerable material accessible long enough for adaptive updating to occur—an effect akin to reciprocal inhibition (Kavanagh et al., 2001).

Types of Eye Movements

Different oculomotor systems can be engaged in therapy or measured in laboratory contexts (University of Chester, 2017):

- **Saccades.** Rapid, reflexive eye shifts that change fixation; also a characteristic feature of REM sleep.
- **Smooth pursuit movements.** Voluntary, slower tracking that keeps a moving target centered.
- **Vergence movements.** Eye alignment adjustments for near vs. far targets.
- **Vestibulo-ocular movements.** Compensatory eye movements that stabilize gaze during head motion.

In EMDR, **horizontal saccadic movements** are most commonly used, though clinical decision-making can be guided by comfort, engagement, and responsiveness.

Theoretical Bases for Why Eye Movements Might Help

Several converging theories outline how EMs could support reprocessing (University of Chester, 2017):

- **Enhanced memory retrieval / hemispheric interaction.** Lateral saccades may transiently increase interhemispheric communication, aiding recall and access to associative material (Lyle & Martin, 2010).
- **Working-memory taxation.** Dual tasking renders traumatic images less vivid and less emotional (Lee & Cuijpers, 2013; van den Hout et al., 2001).
- **Investigatory reflex and cognitive flexibility.** Novel, alternating stimuli foster alert exploration followed by de-arousal, increasing flexibility in appraisals (Barrowcliff, Gray, MacCulloch, Freeman, & MacCulloch, 2003; Schubert, Lee, & Drummond, 2011).
- **Reciprocal inhibition.** The relaxation that follows orienting dampens future emotionality linked to the traumatic image (van den Hout et al., 2001).
- **Increased interhemispheric EEG coherence / REM-like state.** REM-adjacent physiology may facilitate memory updating and integration (Duttermuth & Lehman, 1981; Stickgold, 2002).

Working-Memory Taxation in Clinical Practice: A Practical Hypothesis

The working-memory account translates neatly to in-session observations (Gunter & Bodner, 2008; van den Hout & Engelhard, 2012):

1. **Reactivation.** Previously consolidated memories become **labile** when recalled.
2. **Competition.** A secondary task (e.g., EMs) competes for finite working-memory resources.
3. **Blurring.** The distressing image cannot be maintained at high fidelity and “blurs.”

4. **Updating.** In its labile state, the less vivid, less affective memory **reconsolidates**; future retrievals carry reduced emotional impact.

This framework coheres with client reports that images lose intensity across sets and with findings that decreased vividness tracks with decreased affect.

Bilateral Eye Movements and Episodic Memory Retrieval

A related experimental line shows that brief periods of **left–right saccades** just prior to retrieval can enhance **episodic memory** performance—improving recall/recognition of words, early childhood experiences, details of visual narratives, and landmark features (Christman, Garvey, Propper, & Phaneuf, 2003; Christman, Propper, & Brown, 2006; Lyle, Logan, & Roediger, 2008; Parker, Relph, & Dagnall, 2008; Samara, Elzinga, Slagter, & Nieuwenhuis, 2011; Bruyné, Mahoney, Augustyn, & Taylor, 2009; University of Chester, 2017). One proposed mechanism is transient **co-activation of both hemispheres**, facilitating associative retrieval relevant to therapeutic processing.

Other Forms of Bilateral Stimulation

While **visual** bilateral stimulation engages the visuomotor system, alternatives can be equally effective and sometimes preferable:

- **Tactile stimulation** (e.g., alternating taps) engages the somatosensory system.
- **Auditory tones** alternate left–right input; while not strictly “alternating” cortically in the same way, they provide a rhythmic dual-attention cue.

Selection can be individualized to the client’s comfort, dissociation risk, and attentional capacity.

Evidence for the Contribution of Eye Movements

From the earliest observations—Shapiro’s reports that spontaneous eye movements coincided with declining distress (Shapiro, 1989a, 1989b; Shapiro, 1995)—research progressed through **case studies**, **dismantling trials** in clinical and non-clinical samples, and **component studies** isolating eye movements. A meta-analysis found a **moderate and significant** additive effect of EMs in clinical EMDR trials ($d \approx .41$) and a

large effect in laboratory studies on image vividness and affect ($d \approx .74$), with consistent reductions in memory vividness and emotionality across 26 studies (Lee & Cuijpers, 2013). Additional experimental work documents benefits for episodic retrieval accuracy, consistent with the hemispheric-interaction hypothesis noted above (Christman et al., 2003; Christman et al., 2006; Lyle et al., 2008; Parker et al., 2008).

It remains an open scientific question whether reductions in physiological arousal **cause** reduced distress or are **caused by** early shifts in image vividness and meaning; rigorous component and sequencing studies are needed to clarify directional pathways (Chemtob, Tolin, van der Kolk, & Pitman, 2000; Shapiro, 2001). Clinically, however, the converging evidence supports the inclusion of bilateral stimulation as a meaningful contributor within the larger EMDR protocol.

EMDR and Hypnosis: Similarities and Differences

Comparisons between EMDR and **hypnosis** appear periodically in the literature. An entire special issue of the *American Journal of Clinical Hypnosis* examined overlaps and distinctions, concluding that EMDR is a **distinct treatment**—a structured method for accessing, reprocessing, and integrating trauma memories grounded in information-processing principles (Hammond, 1990; Shapiro, 1995, 2001). Key differences include:

- **State induction.** Hypnosis often aims to induce an altered, deeply relaxed state; EMDR usually **does not** begin with relaxation and may actively connect with **anxious** states to process them.
- **Attention style.** Hypnosis frequently cultivates **single-focus** receptivity; EMDR relies on **dual attention**—holding internal material while tracking an external bilateral stimulus (Spiegel & Spiegel, 1978; Shapiro & Forrest, 1997; Nicosia, 1995).
- **Reality orientation.** Hypnosis may decrease generalized reality orientation to facilitate imagery (Shor, 1979; Orne, 1977). EMDR, by contrast, repeatedly **grounds** clients in present-moment sensations and cognition, encourages **evaluation of beliefs**, and installs **adaptive cognitions** anchored in current reality.

In practice, EMDR stands as an integrative, evidence-based approach that can complement insights from psychodynamic, behavioral, cognitive-behavioral, ego-state, and hypnosis-informed traditions while retaining its own procedures and mechanisms (Shapiro, 1995, 2001; Hammond, 1990).

Accelerated Resolution Therapy (ART) and EMDR: Principal Differences

Both EMDR and ART are trauma-focused, bilateral-stimulation psychotherapies, yet their procedures differ in emphasis:

- **Imaginal exposure focus.**
 - *EMDR*: Often centers on a **single target image** that best represents the event, then allows **free association** to guide processing.
 - *ART*: Typically has clients traverse the **entire event sequence** from start to finish.
- **Processing style.**
 - *EMDR*: **Free-associative**, with the therapist following the client's unfolding material ("What do you get now?").
 - *ART*: More **directive and body-centric**, emphasizing immediate awareness of sensations and emotions linked to the imagery.
- **Resolution methods.**
 - *EMDR*: Installs a **positive cognition** that emerges through processing and validation.
 - *ART*: Uses explicit **Voluntary Image Replacement** and structured "Director" interventions to substitute positive imagery.
- **Narrative requirements.**
 - *EMDR*: Some discussion is used to select the target image, cognitions, and affects; clients need not detail the full narrative.

- *ART*: Clients also are **not required** to narrate the event extensively to the therapist.
- **Bilateral parameters.**
 - *EMDR*: **Flexible** set length and direction based on client response and clinical judgment.
 - *ART*: **Fixed** directions and counts for eye-movement sets (University of Chester, 2017).

Bringing It Together

Within the broader EMDR protocol, eye movements and other dual-attention stimuli appear to **ease access**, **reduce intensity**, and **facilitate integration** of trauma memories. Whether through orienting and reciprocal inhibition, working-memory taxation, REM-like associative processing, or hemispheric interaction, bilateral stimulation reliably supports the reprocessing aims of EMDR. While debates about precise mechanisms continue, the practical implication for clinicians is clear: skillful use of EMs (or clinically appropriate alternatives) within the EMDR framework enhances the conditions under which adaptive information processing can resume (Shapiro, 1995, 2001; Lee & Cuijpers, 2013; Stickgold, 2002).

Chapter 4: Treatment Process and Standard Protocol

Core Components and Understanding EMDR Therapy EMDR is not a “talk therapy” approach to manage dysfunctional beliefs. It uses the three-pronged protocol and an eight-phased approach to physiologically reprocess targeted memory networks. The eight-phased approach addresses the experiential contributors of a wide range of pathologies. Early phases, such as history-taking and preparation for EMDR treatment, occur only at the outset of the course of treatment, but they may be revisited as needed to confirm or further explore the patient’s presenting issues. The

assessment, desensitization, installation, body scan, and closure phases take place during each session of bilateral stimulation. Reevaluation (Phase 8) occurs regularly to assess the impact of previous sessions and progress toward overall treatment goals. Focused protocols are used, and no homework or detailed descriptions of the events are required. Description of the Eight Phases of Treatment

- **Phase 1: History-Taking.** The Psychosocial/Diagnostic Intake Interview is conducted to evaluate the patient's presenting issues, self-soothing skills, and readiness for reprocessing, and to develop treatment goals. The clinician gathers information required for informed consent, considers special EMDR criteria related to client selection and readiness, and identifies potential treatment targets from positive and negative events in the patient's life (past, present, and future).
- **Phase 2: Preparation.** Patients are prepared for EMDR processing of traumatic targets by understanding the adaptive information processing framework, strengthening the relationship between the clinician and the patient, setting expectations for the course of treatment, and identifying coping skills for use during and between treatment sessions.
- **Phase 3: Assessment.** Here, the target for EMDR reprocessing is accessed by stimulating the primary aspects of the memory. Baseline measurements are taken of the images, cognitions, emotions, and sensations associated with the targeted trauma.

Phase 3 (assessment phase), involves identifying and accessing the target memory that will be processed. Therapists ask the individuals to focus on a vivid, disturbing image that represents the traumatic event and to identify negative beliefs about the self that are rooted in that experience. Individuals must create a positive cognition or belief that could replace the negative belief. The individual is also asked to notice the feelings and body sensations that may be associated with the disturbing memory. Baseline measurements of reactivity

are assessed during the exercise. (youth.gov, n.d.)

- **Phase 4: Desensitization.** This stage involves reprocessing the target memory network by activating related channels of association. EMDR procedures to reprocess the selected incident associated with the presenting issue are applied until successful resolution. The clinician and patient engage in sets of bilateral stimulation (lasting approximately 15–30 seconds each). Eye Movement Desensitization and Reprocessing Therapy: An Informational Resource 3 CER provides essential information that aids health care providers and their clients in deciding on the most appropriate treatment.

During phase 4 (desensitization), the traumatic event and present stimuli that trigger the past experience are processed. Individuals are told to hold the disturbing images of the traumatic event in their mind along with the associated negative belief, feelings, and sensations in their body while focusing on external stimulus. The external stimulus is the therapists' fingers or hands that are moved back and forth in front of the individuals' eyesight for about 20 to 50 seconds. After each set of bilateral stimulation, individuals are asked about any changes or thoughts they experience. Through each treatment session,

rating scales are used to keep track of any changes in the intensity of feelings and body sensations. As individuals focus on the traumatic experiences, the episodic memory is processed and individuals should experience noticeable shifts in cognitions, emotions, and sensations. The memory of the traumatic event can then be integrated and consolidated as a narrative memory. As a result, individuals are brought to an adaptive resolution through adaptive information processing. (youth.gov, n.d.)

Piedfort-Martin (2019) injected the terminology "*personification*" which pertains to the "ability of the client to feel that they have experienced these traumatic events, 'to take

personal ownership of their experience.” (Van der Hart et al., 2006, p.153) (as cited by Piedfort-Martin, 2019). Moreover, personification may occur spontaneously in EMDR therapy.

- **Phase 5: Installation.** Strengthening and enhancing associations to positive memory networks are put into place. The suitability of the selected positive cognition is reevaluated and linked with targeting and strengthening EMDR procedures.



In phase 5 (installation), individuals identify the most positive belief about themselves (either the initial positive cognition from phase 3 or another one that may emerge during treatment sessions). Using bilateral stimulation, therapists help individuals increase the connection of the new positive cognition with existing positive cognitive networks. The effects can then be generalized within associated neural networks. (youth.gov, n.d.)

- **Phase 6: Body Scan.** This stage reprocesses any residual physical

manifestations of the memory and involves accessing the memory and the positive cognition (belief), scanning the body, and reprocessing any sensations.

- **Phase 7: Closure.** In this stage, there is reorientation of the focus of attention to bring closure to the reprocessing. The client is stabilized and the session closed, with reorientation to the present. A plan is developed for the time between sessions, and as appropriate, a plan is arranged for contact with the clinician.
- **Phase 8: Reevaluation.** Phase 8 is often conducted at the beginning of a subsequent treatment session. In other words, in the midst of a course of treatment, the clinician will conduct the reevaluation at the outset of an individual therapy session to revisit the impact of previous sessions. Reevaluation ensures clinical attention and follow-up of every EMDR treatment session to evaluate specific target memories, identify other relevant associations that may have developed as a result of reprocessing, and evaluate patient progress.

In addition to bilateral stimulation (eye movements, taps, audio tones), courses of EMDR treatment can include customized procedures and protocols under the adaptive information processing framework. These procedures can include self-soothing techniques, skill building, and enhancing access to positive networks. While EMDR therapy can incorporate elements from other clinical approaches that are compatible with the adaptive information processing framework, it is distinct in that it addresses the physiological effects of stored memories.

During phase 6 (body scan), therapists assist individuals in identifying and processing residual body sensations. In phase 7 (closure), therapists ensure individuals' stability, and individuals are told about what they might experience between treatment sessions. The final phase (reevaluation) is the assessment that occurs at the

beginning of each subsequent session. In each new session, the individual's psychological state guides the next step of treatment.

A. EMDR Standard Protocol

Description

The EMDR Standard Protocol worksheet is an information-gathering and prompt sheet for completing the standard EMDR protocol. Treatment according to the EMDR model is three-pronged (addressing past, present, and future), and involves eight (8) phases. This prompt sheet addresses the assessment, desensitization, installation, body scan and closure phases (phases 3-7).

Instructions

To gather information about a specific memory on which to begin work the therapist can ask a client:

1. To choose a specific memory, event, or symptom
2. To choose a target image representing the worst part of that event
3. To identify a negative cognition associated with the event.
4. To identify a positive cognition associated with that event.
5. To rate the validity of the positive cognition (VoC, rated 1-7).
6. To identify emotions associated with the target image.
7. To rate the distress associated with the target image and negative cognition (SUDs, rated 0-10)
8. To identify any body sensations associated with the target image.

Protocol instructions are then given for the stages of desensitization, including rules for managing incomplete sessions, and closure.

Target issue, memory, event, or symptom <i>“What issue would you like to begin working on?”</i> Target image <i>“What image represents the worst part of this event?”</i> <i>“Which part of this memory bothers you most?”</i>	Preliminary Instructions • “I will tune you in to the target image. We will do sets of bilateral stimulation (BLS) to help you process your experiences.” • “I just want you to notice whatever comes up. You may or may not experience images, memories, emotions, or body sensations.” • “Whatever happens is okay. There is no ‘right way’ to do EMDR.” • “I won’t stop if you say ‘stop’ incase that’s part of what you are experiencing. Give the stop signal if you want to stop. If you do become distressed it is normally
	better, we carry on processing- I want you to try to tolerate as much emotion as you can.” • “After each set of stimulation, I will as you to give a brief report of what you were aware of.”

Negative cognition

“When you think of that incident, what negative thought or belief do you have about yourself now?”

“What negative thing does that incident say about you now?”

(“I” statement)

Positive cognition

“When you think of that incident and those negative words [negative cognition] what would you prefer to believe about yourself now?”

(“I” statement)

VoC (Validity of Cognition)

“When you think of that incident how true to do those words [positive cognition] feel to you now on a scale of 1 to 7?”

Desensitization

- “Bring the target image & negative cognition to mind, notice where you are feeling it in your body.”
- Set of BLS as fast as a client can tolerate comfortably
- If client becomes distressed: “Just notice it”, “Just observe”, “It’s old stuff”
- After a set: “What do you get now?”, “What are you noticing?”
- If client reports new material: “Go with that”, “Notice that”

Installation of positive cognition

- “Do the words [positive cognition] still fit, or would another positive statement be more suitable?”
- Check VoC: “Think about the original incident and the words [positive cognition]. How true do they feel now (1-7)?”
- “Bring the target image and positive cognition together in your mind.”

Emotions

“When you think of that incident and those words [negative cognition] what emotions do you feel now?”

SUDs (Subjective Units of Distress)

“How disturbing does it feel to you now, on a scale from 0 to 10?”

- Complete sets of BLS until no change. (Continue installation as long as adaptive material is emerging)
- If client reports a VoC of 6 or less continue sets of BLS
- If client reports a VoC of 6 or 7 continue until no further material emerges then proceed to body scan

Body Scan

- “Close your eyes & concentrate on the incident and the positive cognition. Mentally scan your entire body. Tell me if you feel anything.”
- If positive sensations are reported to do a short set of slow BLS, if more positive sensations are reported give more slow sets of BLS.
- If any discomfort reported process (“go with that”) with fast sets of BLS until no further negative sensations reported.

Post-session processing

- “You might find that the processing we have done today continues after the session. You might

(No disturbance) 0 1 2 3 4 5 6 7 8 9 10 (Highest disturbance) Location of body sensation <i>“Where do you feel that in your body?”</i>	become aware of memories, thoughts, sensations or dreams. Just notice what you experience.” Closure of an incomplete sessions • An incomplete session is where material remains unresolved and no positive cognition installed (i.e. SUDs > 1, or any other distress). • Explain the need to stop. • Consider using: - Safe place exercise to end with a positive felt sense. - Metaphor/imagery of putting issues in a container until the next session. - Lightstream exercise to reduce any remaining distress.
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B.CASE STUDY I

A case study conducted by the American Psychological Association (2017) on an Iraq War Veteran resulted in distress reduction and mind-processing changes. Mike was a 32- year-old flight medic who had served in Iraq for two tours. He was discharged from the Army for post-traumatic stress disorder (PTSD) and was divorced with a two-year-old son. Mike was referred for PTSD treatment by the Army psychologist using Eye Movement Desensitization and Reprocessing (EMDR) therapy. He traveled to the

therapist's office in Clarksville, Tennessee. He received EMDR therapy twice daily for five consecutive days.

The Adaptive Information Processing (AIP) model underpins EMDR therapy views pathology from maladaptive, unprocessed memories. These unprocessed disturbing memories retain a strong emotional charge and, when triggered, produce PTSD and/or other disorders symptoms. In comparison, adequately processed memories, even if they were distressing at the time, can be remembered without being relived or emotionally activated. EMDR therapy addresses troubling memories from the past, current triggers and prepares the individual to deal effectively with similar situations in the future. It is structured in eight phases:

9. History taking

10. Preparation

11. Assessment

12. Desensitization

13. Installation

14. Body Scan

15. Closure

16. Reevaluation

Mike's first session of EMDR therapy reviewed his history and prepared him for the treatment. The Preparation Phase taught Mike a technique for achieving a positive state of security and calm. This assists in maintaining a sense of confidence and control during and between sessions. He pinpointed ten distressing target events that occurred during his time as a combat medic. He also recounted a childhood incident when he was still seven. His father informed Mike that he was leaving, that his parents would part ways, and Mike would now be the one responsible in their household, particularly his mother. Subsequent sessions addressed each of these memories directly.

As described in the case report, Mike's seventh session addresses his memory of a mass casualty incident. For this event, he initially assigned a 10 to his subjective units of disturbance (SUD) score, where 0 equals no disturbance and 10 equals the worst possible. In the said incident, Mike and his fellow medic, Sid, rescued two critically injured soldiers because of a Humvee collided and an improvised explosive device (IED) collision. The session begins the assessment phase. The therapist guides Mike by identifying and rating the pertinent components of the targeted memory (i.e., image, negative belief, emotion, body sensations). Mike becomes enraged and agitated as he recalls the incident. Instead of responding to the questions, he struggles to maintain focus and tells a disjointed and chaotic account of the event.

Therapist: As you focus on the last mission, what picture represents the worst part of that memory?

Mike: The doctor in the CaSH (combat support hospital) was saying, "He's gone." I started to cry. Sid got me by the collar and said, "Come on now" and he pulled me away.... One of the worst days. The whole mission was the f***ing worse image.

Therapist: What words would best describe your negative belief about yourself now?

Mike: Indecisive. "Let me ask you, with utmost respect, where are we going with this? That mission was f***ed up! We were in charge, we took too long.

Therapist: I heard you say something to the effect, "I let the soldiers down." What's the negative belief about yourself as you think about it now?

Mike: I'm a failure.

Therapist: So if you think about what you'd like to believe about yourself, instead of "I'm a failure," would it be, "I did the best I could"?

Mike: No, I didn't – I failed them. I'm sorry, I'm completely trying to help you, but I failed them. I failed them.

Mike is resistant to even naming a positive belief, but finally agrees that he would like to believe, "I did the best I could" and gives it a '1' rating on the validity of cognition (VOC) scale of 1 (where 1=completely false and 7= completely true). He says that the emotion he feels is "pain" and gives the memory a SUD score of 10. "I feel I deserve to feel it." He identifies the location of any negative sensations in his body as in his "heart." The therapist then starts the Desensitization Phase, and asks Mike to think of the incident, the negative cognition "I'm a failure", and the body location and to hold these in mind while following the therapist's left-right hand movements with his eyes, for about 30 seconds. At the end of the set of eye movements, he instructs the client to take a deep breath and let it all go, and then asks what the client now notices.

Mike: I'm confused.

Therapist: "Go with that."

<Eye movements and silence.>

"Take a deep breath. Let it all go. What do you get now?"

*(The therapist's phrasing may vary slightly and the therapist is silent or minimally encouraging during the eye movements. This sequence is repeated and represented below by *****)*

Mike: It must have been a big bomb, because the Humvee was lying on its side.

Therapist: *****

Mike: I wanted to help them so bad, I didn't care about the (unexploded) bomb.... I walked right in front of it. I wanted the soldier out of the vehicle. Sid was already giving his patient help while I was still trying to find a way to help the soldier....

Therapist: *****

Mike: ...It's our job to save people's lives. So you need to do your job, and when you don't people die. I can't think of a higher responsibility in the army ...

Therapist: Who decides if a person lives or dies.

Mike: God does.

A few sets of eye movements and responses follow, focusing on how it is God's decision if someone dies, not Mike's.

Therapist: *****

Mike: It sucks. It sucks that we weren't able to save those soldiers.... It's a fool's errand. Every time you go out, the choice isn't up to you. We pulled a lot of people back from death.

The therapist, a veteran, picks up on a theme Mike has been getting at that is consistent with his military training.

Therapist: We are not judged by how many we save, but whether we do our best.

Mike: I was doing my best on the mission.

In the next few sets, he recalls incidents when his role was compromised by decisions made by superiors. "It was not my decision...maybe I don't need to hold onto it." A number of sets follow on the issue of responsibility and decisions.

Therapist: What would Sid say to you about the incident?

Mike: ...Your guy was f***ed man. I knew that.

Therapist: *****

Mike: ...That night on the ground,... we stepped up, we handled it like professionals. Those guys were bad off.

Therapist: *****

Mike: I'm trying to ask you, "How did you do that?" That pit in my chest is not there. God, it's not there. This is all I had to do for the last four years?! This is different. I don't feel heavy. I wish those guys hadn't died. I feel different about it. I kept thinking EMDR won't work with this one.... I really didn't let those guys down. I'm not God. I wish I could

have saved them but they were so bad off.... War is so horrible. It's OK. I was there. It's conflicting emotions.

Therapist: *****

Mike: ...I see that I can carry (the memory) with pride. I can carry it for those guys...

Mike then tells the therapist that the incident no longer causes him any emotional disturbance (SUD=0) and treatment moves into the Installation phase. Mike confirms that his preferred positive cognition is still “I did the best I could.” The therapist tells Mike to think of this cognition while thinking of the event, and to rate it on the VOC scale and Mike gives it a VOC score of 7, totally true.

The therapist then asks Mike to scan his body for any disturbance (phase 6). Mike explains to the therapist that he still feels sad that the men died, but that he feels “OK”. The session (phase 7) is closed with the therapist asking Mike about his experience in the session.

Therapist: Is there anything you learned or gained today?

Mike: I didn’t know it could be like this. It’s like I’ve got on a different pair of glasses. Strange. So fresh. I’m so surprised. You helped me see. I feel lighter. (The treatment) doesn’t fix the problem. It makes me different.

Hurley, Maxfield, & Solomon (2017)

A treatment expansion was made to include additional targeted memories. The therapist used the Future Template to prepare him to return home on Friday of that week. He no longer manifested symptoms of PTSD. Mike returned home and enrolled in vocational rehabilitation to train as a medical technician. The therapist lost track of him after 18 months when he relocated to the west coast.

Along with demonstrating distress desensitization, the session demonstrates cognitive shifts. According to the Adaptive Information Processing theoretical model, disturbing memories are stored separately from more adaptive or contextual information. During EMDR therapy, the client accesses related information spontaneously, connecting to and transforming the disturbing memory. Mike recounts details of the incident in this

session, putting into perspective the soldier's severe injuries, what he could and could not realistically do, and his bravery and determination to save the soldier at all costs. He recalls fond memories of his colleague Sid and other aspects of his army and medic experiences in Iraq, where he saved numerous lives.

Mike also expressed how the session had altered his perception of himself as if he were "wearing a different pair of glasses." Mike's belief, instilled during his childhood when his father left, was that his role was to be responsible for the well-being of others. Mike was taught at Ft. Sam Houston while training to be an Army medic that "if you don't do your job, people die." In his mind, he subconsciously reversed that to read, "If people die as a result of your actions, it means you did not do your job." By the end of the session, Mike had realized that he could relinquish responsibility for the soldier's death. "I feel lighter," he stated. Additionally, the session altered his perceptions of what had occurred. Rather than feeling shame and guilt, he said, "I can proudly carry the memory."

Chapter 5: Efficacy and Safety of EMDR

Post-Traumatic Stress Disorder and EMDR

Both domestic and international organizations recognized EMDR as an effective treatment to trauma. It has even recommended practice guidelines worldwide. For one the American Psychiatric Association came up with practice guidelines for patients with acute stress disorder and post-traumatic stress disorder.

Eye movement desensitization and reprocessing is commonly viewed as an amalgam of cognitive behavior therapy, exposure therapy (albeit brief and interrupted exposures), and a unique focus on eye movements (American Psychiatric Association, 2004). Given the efficacy of cognitive-behavioral therapy and exposure therapy in treating PTSD, a focal question about eye movement desensitization and reprocessing is whether the eye movements contribute to the

therapy outcome. Numerous factors have hampered efforts to determine whether EMDR effects are distinct from cognitive behavior therapy and exposure therapy. Adults who experienced childhood sexual abuse, sexual assault, hurricane, and those riddled with civilian traumas were included in the EMDR studies. The protocols vary considerably, ranging from a single 90- minute session to eight to ten sessions. Additionally, the number of subjects in the studies varied considerably. Numerous studies compared EMDR to control groups consisting of waiting lists, supportive counseling, or active listening.

Others compared EMDR to various forms of prolonged exposure, and several



compared EMDR with or without eye movement or finger tapping procedures. Most outcome variables were self-report PTSD scales (frequently the Impact of Event Scale), with a few utilizing more general symptom checklists or depression inventories. Moreover, no study has included structured or systematic measures of functional outcome. As a result of the substantial variation in study design and other methodological flaws, it is difficult to draw definite conclusions about the

independently effective elements of EMDR.

EMDR appears to be effective for both acute and chronic PTSD symptoms. Marcus (1997) (as cited in American Psychiatric Association, 2004), for example, compared EMDR to standard care in 67 demographically diverse patients at a health maintenance organization who developed PTSD as a result of assault, rape, incest, accidents or witnessing a trauma. Although subjects were randomly assigned to a treatment condition, evaluations were not completely blinded, and standard care varied between therapists. Treatment sessions were continued until PTSD symptoms resolved or the study concluded, at which point 75% of subjects treated with EMDR and 50% of subjects treated with standard care no longer met the criteria for PTSD. Significant improvements in PTSD symptoms, as measured by the Mississippi PTSD Rating Scale and the Impact of Event Scale, and depressive symptoms, as measured by the Beck Depression Inventory, were also noted in the EMDR-treated group.

Rothbaum (1997) (as cited in American Psychiatric Association, 2004) assigned twenty female rape victims to either three weekly 90-minute EMDR sessions or a waiting-list control group. All of the subjects met the DSM-III-R criteria for PTSD, and the majority had been experiencing symptoms for years. At four weeks following treatment completion, 90% of EMDR-treated subjects no longer met the criteria for PTSD. Unblinded symptom ratings for PTSD and depression demonstrated significant improvements, although the duration is unknown since those who were waitlisted still need to undergo treatment.

Randomly assigned women (ages 16–25 years) with a self-reported traumatic memory to receive either EMDR or active listening in two 90-minute sessions separated by one week (Scheck et al., 1998) (as cited in American Psychiatric Association, 2004). Although both groups improved immediately following the intervention on measures of depression and anxiety, including PTSD symptoms, the EMDR group had larger effect sizes. The study, however, was limited by the fact that only 50% of eligible participants enrolled, and only 70% of those who actually enrolled completed the study. Additionally, only 77% of subjects met the criteria for a PTSD diagnosis at study entry.

Wilson et al. (1995) (as cited by American Psychiatric Association (2004) assigned 80 subjects to either EMDR or delayed EMDR treatment. The study observed an equal

number of men and women who had suffered various traumas between 3 months and 54 years old before treatment. Only half of the subjects met DSM-IV criteria for PTSD, and only one-third had not previously received treatment for their symptoms. Three 90-minute EMDR sessions were conducted, as well as follow-up assessments. Subjects who received delayed treatment experienced no change in symptoms during the 30 days preceding the start of EMDR, whereas those who received EMDR experienced significant improvements on measures of PTSD symptoms, somatization, interpersonal sensitivity, depression, and anxiety. After treatment initiation, similar improvements were observed in the delayed-treatment EMDR group, with advances in both groups maintained at 90-day and 15-month follow-up.

Ironson et al. (2002) (as cited in American Psychiatric Association, 2004) conducted a study comparing the efficacy of EMDR and prolonged exposure in 22 civilian patients. Both approaches significantly reduced PTSD and depression symptoms that remained stable over a three-month follow-up period. In the EMDR group, successful treatment was faster, more tolerable, and more comprehensive. Additionally, EMDR reduced anxiety on process measures that were significantly greater than the overall improvement in symptoms on outcome measures, with some evidence of sustained symptom improvement lasting up to three months.

Another study with a longer follow-up period discovered that treatment benefits were lost after six months. In the said EMDR dismantling study, 51 Australian male combat veterans with PTSD were randomly assigned to one of three conditions. The conditions used were two eye movement desensitization and reprocessing sessions, two sessions of REDDR or *reactive eye dilation desensitization and reprocessing*, or no intervention. REDDR was similar to EMDR, except that it uses eye dilation instead of eye movements. Furthermore, REDDR utilizes a black box with a flashing light (**opticator**). All subjects received standard care during the study.

Subsequently, no statistically significant changes were recorded in the outcome

measures for the three conditions from the treatment sessions before and after. At three months, each of the three treatment groups had improved slightly, but no statistically significant difference existed between them. By six months, trait anxiety, depression, or

PTSD changes were no longer statistically significant (effect sizes at six months for EMDR plus standard care versus REDDR plus standard care=0.25). These findings, however, must be interpreted in light of the brief duration of the EMDR and REDDR conditions. In a 5-year follow-up study, 13 Vietnam combat veterans, who received EMDR, were compared to a controlled group of 14 demographically matched combat veterans who did not receive EMDR therapy. Both groups demonstrated a 5-year overall worsening of PTSD symptoms and loss of the modest to moderate early benefit of EMDR (Macklin et al, 2000) (as cited in American Psychological Association, 2004).

A comparative study done by Devilly and Spence (1999) (as cited by American Psychiatric Association, 2004) observed the outcomes of nine sessions of a cognitive behavioral therapy variant combined with eight sessions of EMDR on 23 subjects with mixed trauma histories. The study combined prolonged exposure, in-depth cognitive therapy, and a variant of Foa's stress inoculation training as part of the trauma treatment protocol (TTP). In addition, the researchers claimed that TTP was more effective than EMDR from pre- to post-treatment, with reasonable effect size and high power. The superiority of TTP became more apparent at the 3-month follow-up, when 83 percent of TTP patients failed to meet the PTSD criteria, compared to 36% of EMDR subjects. However, it should be noted that the study was not randomized in the conventional sense, as the majority of non-EMDR subjects were grouped in an initial block, and EMDR was administered in a second block.

Cusack and Spates (1999) (as cited by American Psychiatric Association, 2004) in their study randomly assigned 38 subjects to three 90-minute sessions of standard EMDR or eye movement desensitization, including all EMDR components except cognitive reprocessing. At study entry, two-thirds of the 27 participants (23 women and four men) met the DSM-IV diagnosis of PTSD criteria, and half experienced

physical or sexual assault. Both groups experienced statistically significant reductions in symptoms following treatment, as assessed by the revised SCL-90, the Impact of Event Scale, the Structured Interview for PTSD, a behavioral assessment of speech anxiety, and a subjective unit-of-discomfort scale. However, both treatment groups improved similarly,

indicating that the imaginal exposure component of EMDR, rather than the cognitive reprocessing component, is critical for clinical efficacy.

Numerous meta-analyses of controlled trials have concluded that EMDR is an effective treatment. Foa and Meadows conducted a 1997 review that included studies on individuals exposed to highly stressful events and those who met the criteria for PTSD. While most of the reviewed studies found no difference between EMDR and no-treatment or waiting-list control conditions, one study found that EMDR was superior. The authors noted that additional research was necessary to determine effectiveness due to methodological issues.

Davidson and Parker compared EMDR to no treatment, cognitive behavior therapy, non-invasive exposure approaches, EMDR variants (e.g., dismantling studies), and “nonspecific” treatments. EMDR was significantly more effective than no treatment and comparable to other active therapies. The dismantling studies appeared to be effective across a variety of EMDR protocols in this analysis. Maxfield and Hyer conducted a meta-analysis comparing EMDR to control groups, waiting lists, cognitive behavior therapy, and other treatments. EMDR outperformed waiting-list conditions and was on a par with or outperformed other therapies (with considerable variability across studies). While Shepherd et al. included traumatized patients, who did not all meet the DSM-IV or DSM-III-R criteria for PTSD, they concluded that EMDR was comparable to a variety of psychotherapies and antidepressant therapy.

As a summary, eye movement desensitization and reprocessing (EMDR) is a treatment modality that falls within a continuum of exposure-related and cognitive-behavioral therapies. EMDR utilizes techniques that may give the patient control over the exposure experience because it is less reliant on a verbal account and methods for regulating anxiety in the apprehensive environment of exposure treatment. As a

result, it may be advantageous for patients who are intolerant of prolonged exposure or who have difficulty verbalizing their traumatic experiences.

Comparing EMDR to other therapies in larger samples is necessary to elucidate these differences. In general, the dismantling studies indicate that eye movement or other proxies during treatment sessions has no cumulative effect. Despite EMDR's

demonstrated efficacy, these studies cast doubt on its theoretical underpinnings. Thus, it would appear that the primary reason for treatment gains is the widespread sharing of trauma exposure techniques and emotional reprocessing. Therefore, EMDR is preferable to no treatment or supportive counseling and maybe just as effective as cognitive behavior therapy or other exposure-based methods. As with other therapies, the extent to which gains are sustained over time requires additional research.

Additional Recommendations

- According to an American Psychological Association Taskforce, the only techniques empirically supported as probably efficacious for treating people with post-traumatic stress disorder were eye movement desensitization and reprocessing, exposure therapy, and stress inoculation therapy. (Chambless, et al 1998) (as cited by EMDR Institute, Inc., n.d.)
- EMDR was labeled as the treatment with 'best evidence of efficacy' alongside exposure therapy and stress inoculation therapy for psychological therapies by the United Kingdom Department of Health in 2001 (EMDR Institute, Inc., n.d.)
- In 2002, a position paper of the National Council for Mental Health in Israel recommended EMDR as one of the three methods in treating terror victims. (Bleich, Kotler, Kutz, & Shalev, 2002) (as cited by EMDR Institute Inc., n.d.).
- The Clinical Resource Efficiency Support Team of the Northern Island Department of Health, Social Services, and Public Safety (2003), Dutch National Steering Committee Guidelines Mental Health Care (2003) and INSERM (2004), declared that EMDR and cognitive behavioral therapy as a

treatment of choice for the management of post-traumatic stress disorder (PTSD) in adults (as cited by EMDR Institute, Inc., n.d.)

- In 2005, the National Collaborating Centre for Mental Health stated that trauma- focused cognitive behavioral therapy and eye movement desensitization and reprocessing were ‘empirically supported treatment of choice for adults with PTSD. (EMDR Institute, Inc. n.d.)
- Foa, Keane, Friedman, &Cohen, (2009) identified EMDR as an ‘effective and empirically supported treatment’ for people with PTSD. They also assigned the said treatment with an AHCPR rating of “A”

for adult PTSD. The said advice was strongly contradicted the previously published report by the Institute of Medicine, which stated that additional study was necessary to determine whether EMDR was useful for adult PTSD. Despite such contradiction, AHCPR still granted a Level B rating to the use of EMDR to children.

- EMDR and Trauma-focused CBT were considered to be sufficiently backed by research evidence according to California Evidence-Based Clearinghouse for Child Welfare (2010) (as cited by EMDR Institute, Inc., n.d.)
- Therapy Advisor (2004-2011) enlisted EMDR as one of the treatments for PTSD. (EMDR Institute, Inc., n.d.)
- The Substance Abuse and Mental Health Services (SAMHSA)- National Registry of Evidence-Based Programs and Practices (2011) also enlisted EMDR as a method that is evidence-based and applicable for treating anxiety, depression, and post-traumatic stress disorder symptoms. Additionally, their analysis of the evidence suggested that EMDR improves mental health functionality.
- The World Health Organization (2013) noted that trauma-focused CBT and EMDR are the only approved psychotherapies for children, adolescents, and adults suffering from PTSD. EMDR, like trauma-focused CBT, aims to

alleviate subjective discomfort, and enhance adaptive cognitions about a traumatic event. The only thing that differentiates EMDR from CBT is that it does not require 'detailed explanations of the incident, direct challenge of beliefs, extended exposure, or homework' (EMDR Institute, Inc., n.d.)

- EMDR received the highest recommendation and placed in a group of three 'trauma-focused psychotherapies with the strongest clinical evidence.' The A-rating is defined as a solid recommendation for doctors that they administer the intervention to eligible patients. There is sufficient evidence that the intervention improves critical health outcomes, and the benefits significantly exceeds the risks. (Department of Veterans Affairs and Department of Defense, 2017) (as cited by EMDR Institute, Inc., n.d.)
- The International Society for Traumatic Stress Studies (2018) strongly recommended EMDR therapy as an effective and empirically supported treatment for people suffering from PTSD. (as cited by EMDR Institute Inc., n.d.)

Efficacy of EMDR in the Treatment of Phobias, Panic Disorder, Agoraphobia and other Clinical Disorders

There is a wealth of evidence that EMDR therapy is effective at treating specific phobias. Regrettably, research into EMDR treatment for phobias, panic disorder, and agoraphobia has failed to uncover solid empirical support for these applications. Though methodological limitations in the various studies may partially riddle the said findings, it is also possible that EMDR therapy is not consistently effective for these disorders. According to De Jongh, Ten Broeke, and Renssen (1999) (as cited (as cited by EMDR Institute Inc., n.d.), **EMDR may be most effective in treating anxiety disorders that arise from traumatic experiences because EMDR therapy is mainly used to treat distressing memories and associated pathologies. They also added that EMDR was less effective in treating anxiety disorders with an unknown etiology** (e.g., snake phobia).

Various random clinical trials have been conducted to evaluate EMDR treatment for

arachnophobia, also known as spider phobia (Muris & Merckelbach, 1997; Muris, Merckelbach, van Haaften, & Nayer, 1997; Muris, Merckelbach, Holdrinet, & Sijsenaar, 1998) (as cited by EMDR Institute Inc., n.d.). These studies demonstrated that EMDR was less effective at eliminating phobias than in vivo exposure therapy. These studies' methodological limitations include the absence of the complete EMDR treatment protocol (see Shapiro, 1999) and confounding effects due to the use of the exposure treatment protocol as the post-treatment assessment. When the full EMDR phobia protocol was used in case studies with patients suffering from medical and dental phobias (De Jongh et al., 1999; De Jongh, van den Oord, & Ten Broeke, 2002), positive results were obtained. According to a randomized controlled trial, three sessions of EMDR therapy memory processing resulted in remission of dental phobia (Doering et al., 2013). "After one year, 83.3 percent of patients were receiving routine dental care ($d = 3.20$)."

Clinical utility is a critical factor to consider when selecting a treatment. In vivo exposure may be impractical for clinicians who lack easy access to feared objects (e.g., spiders) in their office settings; additionally, some phobias are event- or location-specific (e.g., thunderstorms) (e.g., bridges). EMDR therapy may be more practical than in vivo exposure, and the in vivo component is frequently included as homework (De Jongh et al., 1999).

Three studies examined EMDR treatment for panic disorder with or without agoraphobia. The first two studies (Feske & Goldstein, 1997; Goldstein & Feske, 1994) evaluated a brief course of treatment (six sessions) for panic disorder. The results were encouraging but were constrained by the short duration of treatment. According to Feske and Goldstein, "even ten to sixteen sessions of the most powerful treatments rarely result in the normalization of panic symptoms, even more so when agoraphobia is present" (p. 1034). The effects of EMDR therapy were generally maintained during follow-up. A third study (Goldstein et al., 2000) examined the benefits of a longer course of treatment. However, this study shifted its focus and treated agoraphobic patients. Panic Disorder with Agoraphobia participants did not respond well to EMDR therapy. Goldstein (as cited in Shapiro, 2001) suggests that these participants required additional preparation beyond what was provided in the

study to develop anxiety tolerance. The authors speculate that EMDR therapy may be less effective than CBT in treating panic disorder with or without agoraphobia; however, no direct comparison studies have been conducted. Faretta (2013) compared 12 sessions of EMDR to 12 cognitive behavioral therapy sessions to treat a panic disorder associated with agoraphobia. Without the use of treatment-specific homework, etiological events, triggers, and memory templates were processed in session.

In comparison, the CBT group engaged in in-session breathing and relaxation exercises and imaginal exposure and was assigned homework for both relaxation and exposure. Both treatments significantly reduced anxiety symptoms, as well as the intensity and frequency of panic attacks. At posttest and follow-up, EMDR resulted in substantially fewer panic attacks than CBT.

However, it must be noted that EMDR is not entirely applicable to every clinical disorder. EMDR therapy was developed to treat traumatic memories, and research has established its efficacy in treating PTSD. According to Shapiro (2001), it should aid in the reduction or elimination of other disorders that arise as a result of a distressing experience. Brown, McGoldrick, and Buchanan (1997) discovered that 1-3 EMDR therapy sessions processing the etiological memory resulted in successful remission in five out of seven consecutive cases of Body Dysmorphic Disorder. Similarly, it has been reported that EMDR treatment eliminated phantom limb pain after focal treatment of etiological memory and pain sensations (Vanderlaan, 2000; Wilensky, 2000; S. A. Wilson, Tinker, Becker, Hofmann, & Cole, 2000). EMDR therapy is unlikely to alleviate symptoms associated with physiological-based disorders such as schizophrenia or bipolar disorder. However, experiential factors may play a significant role in developing specific symptoms. There are informal reports about individuals successfully treated with EMDR therapy for distress associated with traumatic events.

Along with studies examining the efficacy of EMDR therapy in treating PTSD, phobias, and panic disorders, some preliminary research indicates that EMDR therapy may be beneficial for treating other disorders. These include dissociative disorders (e.g., Fine & Berkowitz, 2001; Lazrove & Fine, 1996; Paulsen, 1995);

performance anxiety (Foster & Lendl, 1996; Maxfield & Melnyk, 2000); body dysmorphic disorder (Brown et al., 1997); and pain disorder (Grant & Threlfo, 2002). (e.g., Korn & Leeds, 2002; Manfield, 1998). However, these are only preliminary findings. Thus, additional research is imperative before forming any conclusions. Shapiro, 2002 describes the use of EMDR to treat depression (Shapiro, 2002), attachment disorder (Siegel, 2002), social phobia (Smyth, & Poole, 2002), anger dysregulation (Young, Zangwill, & Behary, 2002), generalized anxiety disorder (Lazarus, & Lazarus, 2002), infertility-related distress (Bohart & Greenberg, 2002), body image disturbance (Brown, 2002), and marital.

In the recent years, Cujipers, Cristea, Sijbrandij, van Veen & Yoder (2019) found that there were significant results found for EMDR in the treatment of phobias and test anxiety, however, the number of studies was small and may pose a risk of bias. They stressed

that EMDR may be effective in the treatment of post-traumatic stress disorder in short- term, but the quality of the available studies are too low to draw a definite generalization.

Two latest studies have taken things a step farther and are quite pertinent to the profession. The first, published in Nature in 2019 by Baek et al., (as cited by Amann, Castelnovo, & Fernandez, 2019) elucidates the mechanism of action and neurobiological pathway of EMDR using an animal model. The scientists discovered that bilateral stimulation resulted in a significant and sustained decrease in fear behavior when compared to control settings. Additionally, the authors noticed that bilateral stimulation enhanced neuronal activity in the superior colliculus and mediodorsal thalamus, decreasing neuronal excitability in the amygdala's basolateral nucleus. The other publication is a review in Neuron by Maddox et al. on the encoding of painful memory (2019) (as cited by Amann, Castelnovo, & Fernandez, 2019). Additionally, the authors explain EMDR in depth as a viable psychotherapy for rewriting traumatic memory engrams, which serve as the basis for traumatic memory persistence following an encoding of the threatening experience in the brain circuits.

Schizophrenia

Bont, de Jongh, & van Minnen (2013) (as cited in EMDR Institute Inc., n.d.) employed a close group controlled design to assess two psychological interventions for post-traumatic stress disorder (PTSD) in ten patients who also have a concurrent psychotic disorder. Patients were randomly assigned to either prolonged exposure (PE; 5 patients) or eye movement desensitization and reprocessing (EMDR; 5 patients). A total of twenty weekly assessments of PTSD symptoms, hallucinations, and delusions were conducted before, during, and after treatment. Throughout the treatment phase, the researchers conducted twelve weekly assessments of adverse events.

Pretreatment, post-treatment, and three-month follow-up assessments of PTSD diagnosis, social functioning, psychosis-prone thinking, and general psychopathology were conducted. Adverse events were monitored at each session throughout the treatment. Intention-to-treat analysis of the ten patients initiating treatment revealed that both PE and EMDR significantly reduced the severity of PTSD symptoms; PE and EMDR were equally effective and safe. Eight of the ten patients received the whole duration of the intervention. At follow-up, seven of ten patients (70%) no longer met the diagnostic criteria for PTSD. No serious adverse events were noted. It did not worsen patients' hallucinations, delusions, psychosis susceptibility, general psychopathology, or social functioning. The findings of this feasibility trial suggest that trauma-focused treatment approaches such as PE and EMDR benefit PTSD patients with co-occurring psychotic disorders.

Neurobiological aspects of EMDR Therapy

Because neurobiology is still developing, the precise physiological mechanisms underlying psychotherapy remain uncertain. Earlier views suggested that all neurobiological models of psychotherapy were speculative. However, recent findings have begun to provide partial evidence for specific mechanisms in EMDR. **For instance, studies show that EMDR can promote neuroplasticity, including increases in hippocampal volume among individuals with PTSD following treatment (Bossini et al., 2018). Functional neuroimaging has demonstrated changes in brain regions responsible for emotion regulation and memory**

processing, including decreased hyperactivation of the amygdala and increased prefrontal cortex engagement (Pagani et al., 2023).

Physiological studies further indicate that EMDR may shift autonomic nervous system activity, reflected in changes to heart rate variability and parasympathetic balance (Baek et al., 2019; Sack et al., 2023). Animal models have identified specific circuits involving the superior colliculus, mediodorsal thalamus, and amygdala that may contribute to reductions in conditioned fear responses (Baek et al., 2019). Emerging research also suggests EMDR might mitigate stress-related alterations in the hippocampus and other regions impacted by trauma (Pagani et al., 2023).

Despite these advances, uncertainty remains. Competing hypotheses—such as working memory taxation, interhemispheric communication, and REM sleep—like processes—each have some empirical support but lack consensus (Landin-Romero et al., 2018). Small sample sizes and methodological variation also limit generalizability. Thus, while EMDR's neurobiological underpinnings are no longer purely speculative, they are best described as partially supported and still under investigation.

Rauch, van der Kolk, and colleagues (1996) exposed patients with PTSD to vivid, detailed narratives about their own traumatic experiences via positron emission studies. Patients demonstrated heightened activity only in the right hemisphere, in areas associated with emotional arousal, and heightened activity in the right visual cortex, consistent with the patients' reported flashbacks. Broca's area, the section of the left hemisphere responsible for converting personal experiences into communicable language, was "deactivated." Thus, these findings suggest that PTSD symptoms are reflected in physiological changes in the brain.

Rauch, van der Kolk and colleagues' case study (Levin, Lazrove, & van der Kolk, 1999; van der Kolk, Burbridge, & Suzuki, 1997; Zoler, 1998) provided preliminary evidence on effective treatment resulting in changes in brain activation patterns. Pre- and post-EMDR SPECT scans were performed on six PTSD subjects who each received three EMDR sessions. Photographs of pre- and post-SPECT scans are included in the Zoler article. Metabolic changes in two specific brain regions were

observed following EMDR. There was an increase in bilateral anterior cingulate activity. This area modifies the experience of actual versus perceived threat, implying that PTSD patients may no longer be hypervigilant following EMDR. Second, metabolic activity in the prefrontal lobe appeared

to be increased. Increased frontal lobe function may indicate an improved capacity to make sense of incoming sensory stimulation. Levin et al. concluded that EMDR seemed to aid in the processing of information. The absence of a control group suggested no evidence, further stating that these effects were unique to EMDR; effective treatment of any type may produce comparable results.

K. Lansing, D.G. Amen, C. Hanks, and L. Rudy (2005) reported that SPECT scans performed pre-and post-treatment revealed decreased anterior cingulate, basal ganglia, and deep limbic activity. The 12th chapter of Shapiro's (2001) text discusses some recent neurological research findings and discusses their possible relevance to EMDR. Additionally, Stickgold (2002), a sleep researcher, developed a theory that explains the EMDR's alternating bilateral stimulation effects. The said effects force the client's attention to shift across the midline constantly. He proposed that turning attention facilitates REM-like neurobiological mechanisms, resulting in episodic memories and their integration into cortical semantic memory. Christman, S. D., Garvey, K. J., Propper, R. E., and Phaneuf, K. A. (2003) conducted independent research to bolster this theory. They discovered that alternating leftward and rightward eye movements improved performance on episodic retrieval memory tasks rather than semantic retrieval memory tasks.

Each psychophysiological study has demonstrated a significant reduction in arousal. Significant effects have been observed in neurobiological studies, including changes in cortical and limbic activation patterns and increased hippocampal volume.

Research with Military Personnel and Veterans

https://www.ptsd.va.gov/professional/treat/txessentials/emdr_pro.asp

Most research on EMDR has been conducted in non-Veteran civilian samples. A recent review identified four randomized controlled trials examining EMDR in military or Veteran populations (8). All of these studies were published before the year 2000 and only one study included a full course of treatment (9). The others were short duration studies (1-3

EMDR sessions). EMDR improved PTSD symptoms comparably to comparison conditions (exposure therapy (10); EMDR without eye movement (11); usual care (11); and, biofeedback (9,12)). Given the limitations of these studies, more research with Veterans and military Service members is needed.

Research with Comorbidities

To date, few studies have evaluated EMDR's effectiveness to treat PTSD when a comorbidity is present. A study comparing EMDR, Prolonged Exposure (PE), and waitlist controls among 155 patients with PTSD and psychosis showed that EMDR and PE were more effective than waitlist in reducing PTSD symptoms. Results were maintained at 6- month follow-up (13). A study of EMDR to treat PTSD in individuals with a concurrent alcohol use disorder is presently underway (14).

Research with Bilateral Stimulation

Research is ongoing to understand the function of alternating bilateral stimulation. Proposed functions include lowering physiological arousal, decreasing the vividness and emotionality of memories (15,16), and perhaps subsequently, increasing access to more adaptive associations by enhancing retrieval of episodic memories (16,17). A meta- analysis published in 2013 showed support for the effectiveness of eye movements to reduce subjective distress. It is important to note that this meta-analysis included studies beyond PTSD that used primarily self-report measures (16).

Comparative Effectiveness Research and Systematic Reviews of EMDR's Effectivity

<https://emdrfoundation.org/wp-content/uploads/2018/02/SAMHSA-NREPP-Comparative-Effectiveness-Research-Series-on-EMDR-Therapy-2012.pdf>

EMDR therapy is recognized as an evidence-based practice because it has been scientifically evaluated, demonstrated to be effective, and often cited as an effective treatment in national and international treatment guidelines for organizations such as the

U.S. Department of Veteran Affairs, the U.S. Department of Defense, the United Kingdom Department of Health, and the International Society of Traumatic Stress Studies. In 2010, EMDR was reviewed and included in the Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices. The effectiveness of EMDR has been evaluated in many studies, including comparative effectiveness research (CER). CER studies compare the benefits and harms of different interventions and strategies to prevent, diagnose, treat, and monitor community health and the nation's health care system. The Agency for Healthcare Research and Quality defines CER as a way to develop, expand, and use a variety of data sources and methods to conduct research and disseminate results in a form that is quickly usable by clinicians, clients, policymakers, and health plans and other payers.

Initially, there was limited empirical evidence on the effectiveness of EMDR therapy. However, studies over the past 15 years have demonstrated that EMDR is effective in reducing trauma-related stress, anxiety, and depression symptoms among children and adults of different racial and ethnic backgrounds, including veterans. Data on the efficacy of EMDR have been established through 30 randomized clinical trials, with published findings showing immediate improvements; some have shown maintenance of reduction of symptoms (e.g., anxiety, fear, depression) at followup.^{1–4} EMDR has been evaluated through meta-analytic procedures in six reviews. Findings from one of these reviews suggest that EMDR therapy and trauma-focused cognitive behavioral therapy provide the best evidence of efficacy for those suffering from PTSD.¹ Another review noted that EMDR had incremental efficacy compared to other established cognitive behavioral treatments in treating children with PTSD. While other reviews found EMDR therapy to be as effective as exposure therapies for reducing PTSD symptoms, the length of EMDR treatment is more advantageous in reducing clinical symptoms in a shorter period of time.

EMDR therapy contains many elements that contribute to its treatment effects; however, the bilateral stimulation (e.g., eye movements) component has come under the greatest scrutiny. EMDR achieves clinical effects without the need for a significant amount of work between sessions or a prolonged focus on exposure therapies. Several studies have shown support for the eye movements component of EMDR over control conditions, and recent studies have shown support for eye movements over other forms of dual-attention stimulation in the following:

- Reductions in physiological symptoms
- Increasing vividness of imagery, attentional flexibility, and memory association
- Rapid decline in symptoms

Elements of EMDR Therapy that contribute to its effectiveness

EMDR therapy is a sophisticated therapeutic approach that synthesizes elements of various traditional psychological orientations into structured protocols. Psychodynamic (Fensterheim, 1996; Solomon & Neborsky, 2001; Wachtel, 2002) (as cited in EMDR Institute Inc., n.d.), cognitive-behavioral (Smyth & Poole, 2002; Wolpe, 1990; Young, Zangwill, & Behary, 2002) (as cited in EMDR Institute Inc., n.d.), experiential (e.g., Bohart & Greenberg, 2002)(as cited in EMDR Institute Inc., n.d.), physiological (Siegel, 2002; van der Kolk, 2002)(as cited in EMDR Institute Inc., n.d.), and interactional therapies are among them (Kaslow, Nurse, & Thompson, 2002) (as cited in EMDR Institute Inc., n.d.). As a result, EMDR contains several practical components, each believed to contribute to treatment success.

According to Marks, Lovell, Noshirvani, Livanou, and Thrasher (1998) (as cited in EMDR Institute, Inc., n.d.), emotion can be conceptualized as a "skein of responses," consisting of "loosely connected physiological, behavioral, and cognitive reactions." They propose that various types of treatment will weaken distinct strands within the skein of responses and that "some treatments may act on multiple strands concurrently." EMDR therapy is a multifaceted approach that addresses imagery, cognition, affect, somatic sensation, and associated memories. This complexity

complicates isolating and quantifying the contribution of any single component, particularly when different clients who are similarly situated in terms of diagnosis may respond uniquely to other elements.

Shapiro's (2001) (as cited in EMDR Institute Inc., n.d.) AIP model conceptualizes EMDR therapy as directly affecting cognitive, affective, and somatic memory components to establish new associative links with more adaptive material.

Numerous treatment components are designed to facilitate the processing and assimilation required for adaptive resolution. These include the

following:**Interconnection of memory components.** Simultaneous attention to the event's image, the associated negative belief, and the accompanying physical sensations may help establish initial connections between various elements of the traumatic memory, thereby initiating information processing.

1. **Consciousness.** Clients are encouraged to practice mindfulness by being instructed to "just notice" and "let whatever happens to happen." This cultivation of a stabilized observer stance in EMDR therapy appears to be similar to the processes advocated for emotional processing by Teasdale (1999) (as cited in EMDR Institute, Inc., n.d.).
2. **Association without restriction.** Clients are asked to report any new insights, associations, emotions, sensations, or images that come into consciousness during processing. This non-directive method of free association may facilitate the formation of associative links between the originally targeted trauma and other relevant experiences and information, thereby aiding in the processing of the traumatic material (Rogers & Silver, 2002) (as cited in EMDR Institute Inc., n.d.).
3. **Repeated exposure to and rejection of traumatic imagery.** EMDR therapy's brief exposures give clients repeated practice controlling and dismissing disturbing internal stimuli. This may instill a sense of mastery in clients, enhancing their ability to reduce or manage negative interpretations and ruminations and thus contributing to treatment effects

4. **Eye movements and other stimuli requiring dual attention.** Numerous theories exist regarding how and why eye movements may aid in information processing; these are discussed in detail below.

Adverse effects

For some clients, EMDR may be contraindicated (Rubin, 2014). The clinical literature on EMDR suggests that possible contraindications include the likelihood that disorders may be exacerbated by the extreme levels of emotion associated with reprocessing. These include **pregnancies, seizures, and other neurological problems**. Additionally, contraindications such as the usage of psychotropic drugs or substance misuse must be evaluated. Additionally, clinicians should be on the lookout for signs of dissociation and dissociative disorders and should refrain from using EMDR with dissociative clients unless they have considerable experience as an EMDR clinician and have received practical experience in treating people with dissociative disorders (Rubin, 2014).

A temporary increase in distress may occur as with any psychotherapy.

Disturbing and unresolved memories may surface. Unanticipated high levels of emotions or physical sensations may be experienced by some clients as they undergo treatment sessions. Following the treatment session, the processing of incidents/material may continue, and other dreams, memories, feelings, and so on may emerge.

Many people are aware of only a semblance of the experience, while others are acutely aware of it. Unlike some other therapies, EMDR therapy does not require clients to intensely and repeatedly relive the trauma. Whenever high level of emotional intensity happens during EMDR therapy, it lasts only a few moments and then rapidly decreases. If it does not rapidly dissipate on its own, clinicians are trained in techniques to aid dissipation. Additionally, the client has been trained in methods for resolving the distress immediately.

Lastly, there are no clinical indications suggesting that EMDR therapy increases

seizure frequency.

EMDR Adaptations for Implementation in Real world Settings

To meet the specific needs of health care settings and the clients they serve, EMDR therapy adaptations have been evaluated in specific populations. For example, EMDR's effectiveness has been evaluated in the treatment of adult patients with PTSD and other trauma-related issues. The intervention has also been adapted for use with children with PTSD and more recently was included in the California Evidence-Based Clearinghouse for Child Welfare treatment guidelines as well supported by research evidence. The treatment setting for EMDR is usually outpatient, although some have adapted the intervention for inpatient settings, particularly for veterans with PTSD.

EMDR has been shown to successfully treat individuals with several presenting traumas, including the following:

- Combat veterans who no longer experience flashbacks, nightmares, or other PTSD sequelae
- Persons with phobias, panic disorder, or generalized anxiety disorder
- Crime victims, police officers, or firefighters who experienced aftereffects of violent assaults or stressful incidents
- Persons experiencing grief through the loss of a loved one or line-of-duty death
- Children and adolescents experiencing depression and other effects of disturbing life experiences
- Victims of manmade or natural disasters
- Sexual assault victims
- Accident, surgery, and burn victims
- Victims of family, marital, or sexual dysfunction

- Addicts of chemical substances, gambling, or sexual deviation
- Persons with dissociative disorders
- Persons with performance anxiety in professional, sporting, or performing art scenarios □ Persons with somatic complaints, including migraines and chronic pain

*Acute traumatic stress symptoms after a potentially traumatic recent event
(recommendations 1–4)*

Acute traumatic stress symptoms refer to symptoms of intrusion, avoidance and hyperarousal – associated with significant impairment in daily functioning – in the first month after a potentially traumatic event. Other symptoms of acute stress, including hyperventilation, conversion and dissociative symptoms, and secondary non-organic nocturnal enuresis in children, are dealt with in other recommendations in these guidelines.

Psychological interventions and pharmacological treatments, especially benzodiazepines, have been used to manage people suffering symptoms of acute

distress. There is currently no consensus on the effectiveness of such management. The GDG examined the evidence on use of early psychological and pharmacological interventions in adults and in children and adolescents with symptoms of acute traumatic stress syndrome, and made the following recommendations:

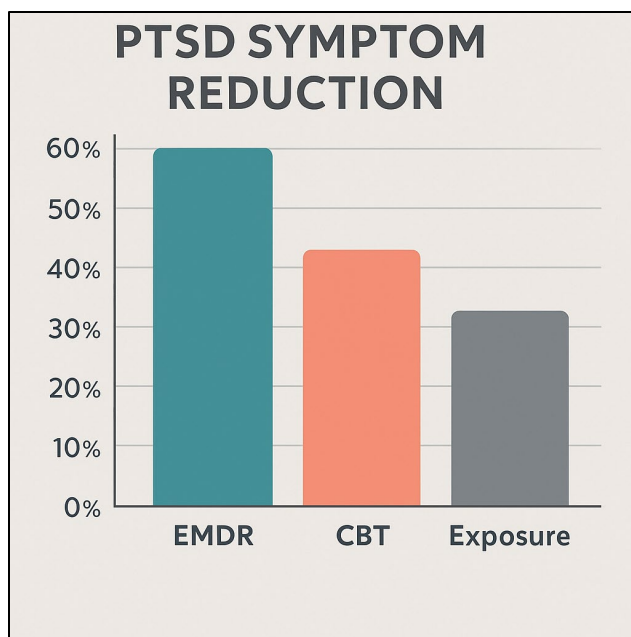
1. *Acute traumatic stress symptoms (first month): early psychological interventions – adults*

Scoping question 1: For adults with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event, do early psychological interventions, when compared to treatment as usual, waiting list or no treatment, result in a reduction of symptoms, improved functioning/quality of life, presence of disorder or adverse effects?

Recommendation 1

- (i) Cognitive-behavioural therapy (CBT) with a trauma focus should be considered in adults with acute traumatic stress symptoms associated with significant impairment in daily functioning.
- Strength of recommendation: standard
- Quality of evidence: moderate
- (ii) On the basis of available evidence, no specific recommendation can be made about standalone problem-solving counselling, eye movement desensitization and reprocessing (EMDR), relaxation or psycho- education for adults with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event.
- Strength of recommendation: not applicable
- Quality of evidence: very low

Remarks



CBT with a trauma focus should only be offered in those contexts where individuals are competent (trained and supervised) to provide the therapy. There is already a WHO (2010) mhGAP recommendation to offer access to psychological first aid to people who have been recently exposed to potentially traumatic events. When combined, these recommendations imply that psychological first aid

should be considered in all adults with acute traumatic stress symptoms; and, where competent staff are available, CBT with a trauma focus should be considered in adults with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event. In situations without sufficient resources to provide CBT with a trauma focus, other interventions such as stress management may be considered in addition to psychological first aid.

2. Acute traumatic stress symptoms (first month): early psychological interventions – children and adolescents

Scoping question 2: For children and adolescents with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event, do early psychological interventions, when compared to treatment as usual, waiting list or no treatment, result in a reduction of symptoms, improved functioning/quality of life, presence of disorder or adverse effects?

Recommendation 2

- On the basis of available evidence, no specific recommendation can be made on early psychological interventions (covering problem-solving counseling, relaxation, psycho-education, eye movement desensitization and reprocessing (EMDR) and cognitive-behavioural therapy (CBT)) for children and adolescents with acute traumatic stress symptoms associated with significant impairment in daily functioning.
- Strength of recommendation: not applicable
- Quality of evidence: very low

Remarks

There is already a WHO (2010) mhGAP recommendation to offer access to psychological first aid to people who have been recently exposed to potentially traumatic events. Therefore, as no further specific recommendation can be made, psychological first aid should be considered in children and adolescents with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event.

3. Acute traumatic stress symptoms (first month): pharmacological interventions – adults

- *Scoping question 3:* For adults with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event, do pharmacological interventions (benzodiazepines and antidepressants), when compared to treatment as usual, waiting list or no treatment, result in reduction of symptoms, improved functioning/quality of life, presence of disorder or adverse effects?

Recommendation 3

- Benzodiazepines and antidepressants should not be offered to adults to reduce acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event. For benzodiazepines: Strength of recommendation: strong Quality of evidence: very low
- For antidepressants:
- Strength of recommendation: standard
- Quality of evidence: very low

- Remarks

Clinicians should rule out concurrent disorders that may warrant treatment with benzodiazepines and antidepressants.

There is already a WHO (2010) mhGAP recommendation to offer access to psychological first aid to people who have been recently exposed to potentially traumatic events. In addition, recommendation 1(i) (on psychological interventions for acute traumatic stress symptoms in adults) is that “cognitive-behavioural therapy (CBT) with a trauma focus should be considered in adults with acute traumatic stress symptoms associated with significant impairment in daily functioning”. When combined, these recommendations imply that psychological first aid and (where resources exist) CBT should be considered in adults with acute traumatic stress symptoms associated with impairment in daily functioning in the first month after a potentially traumatic event.

4. Acute traumatic stress symptoms (first month): pharmacological interventions – children and adolescents

Scoping question 4: For children and adolescents with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event, do pharmacological interventions (benzodiazepines and antidepressants), when compared to treatment as usual, waiting list or no treatment, result in reduction of symptoms, improved functioning/quality of life, presence of disorder or adverse effects?

Recommendation 4

- Benzodiazepines and antidepressants should not be offered to reduce acute functioning in children and adolescents.
- Strength of recommendation: strong
- Quality of evidence: very low

Remarks

There is already a WHO (2010) mhGAP recommendation to offer access to psychological first aid to people who have been recently exposed to potentially traumatic events. Therefore, as no further specific recommendation can be made, psychological first aid should be considered in children and adolescents with acute traumatic stress symptoms associated with significant impairment in daily functioning in the first month after a potentially traumatic event.

Chapter 6: EMDR for Children and Adolescents

Overview



EMDR therapy has been adapted for use across childhood and adolescence, with a growing evidence base that now includes randomized trials, controlled studies, and group-based protocols. A comprehensive review identified **25 studies** evaluating EMDR with young people who had PTSD symptoms: **11 randomized controlled trials (RCTs)** and **six case series/studies of individual EMDR**, plus **two RCTs** and **six case**

series/studies of group EMDR (Amann et al., 2020). Notably, **ten** of the individual-

treatment RCTs met **Sackett Level I** criteria, indicating strong study designs (Amann et al., 2020).

Evidence for Individual EMDR

Study Designs and Populations

Across the RCTs, EMDR was compared with a variety of controls: waitlist (four trials), treatment-as-usual/conventional care (two trials), and active control (one trial). Five RCTs directly compared EMDR with trauma-focused cognitive behavioral therapy (TF-CBT) (Amann et al., 2020). Sample sizes in individual studies ranged from 19 to 139 participants, ages 4–18; only two studies included preschoolers, highlighting a relative gap in evidence for the youngest children (Amann et al., 2020).

Outcomes

With few exceptions, studies reported clinically meaningful reductions in PTSD symptoms or loss of PTSD diagnosis within three to nine sessions of EMDR, when compared with waitlist, psychoeducation, or conventional care (Amann et al., 2020). One outlier, Meentken et al. (2020), found EMDR superior to routine care for child-reported blood–injection–injury phobia, depression, and sleep problems, but not significantly superior for PTSD symptoms (as cited in Amann et al., 2020). Across five head-to-head RCTs against TF-CBT, both treatments were similarly effective, with preliminary indications that EMDR may achieve improvement in fewer sessions for some youth (Amann et al., 2020). In addition to core PTSD outcomes, five studies reported benefits for comorbid symptoms such as depression, anxiety, and behavioral problems (Amann et al., 2020).

Nonrandomized Evidence

Six additional studies of individual EMDR used nonrandomized designs (three controlled, three extended case series) and also reported **significant decreases** in PTSD symptoms from pre- to posttreatment (Amann et al., 2020).

Evidence for Group EMDR

Two RCTs and six case series/uncontrolled studies examined **group EMDR** delivered **more than three months post-trauma** (Amann et al., 2020). Samples ranged from **8** to 184 participants, ages 3–22. In the RCTs, group EMDR outperformed no-treatment controls in reducing PTSD, anxiety, and depression symptoms, with gains maintained at approximately three-month follow-up. Findings from case series and uncontrolled trials were consistent, showing decreases in PTSD and improvements in mood and anxiety (Amann et al., 2020).

Guidelines for Treatment

Global Recommendations

International guidance has not been fully uniform. The **ISTSS** (2019) and **WHO** (2013) **strongly recommend** EMDR for **children with PTSD**, reflecting confidence in its benefits and safety when delivered by trained clinicians (as cited in Amann et al., 2020). In contrast, the **NICE** guideline (2018) provides a **conditional recommendation**, advising EMDR primarily when children **do not respond to** or **do not engage with** TF-CBT (as cited in Amann et al., 2020).

Rationale for Caution

NICE's cautious stance centers on the limited number of large RCTs and several methodological issues identified across pediatric EMDR studies (Brown et al., 2017; Moreno-Alcázar et al., 2017; NICE, 2018; as cited in Amann et al., 2020). Common limitations include small samples (many studies enrolled 19–74 youth), absence of gold-standard diagnostic interviews, short follow-ups, and limited fidelity checks, all of which reduce confidence in the precision and durability of effect estimates (Amann et al., 2020). These caveats underscore the need for continued high-quality trials, especially in preschool populations and diverse clinical contexts.

Clinical Considerations for Practice

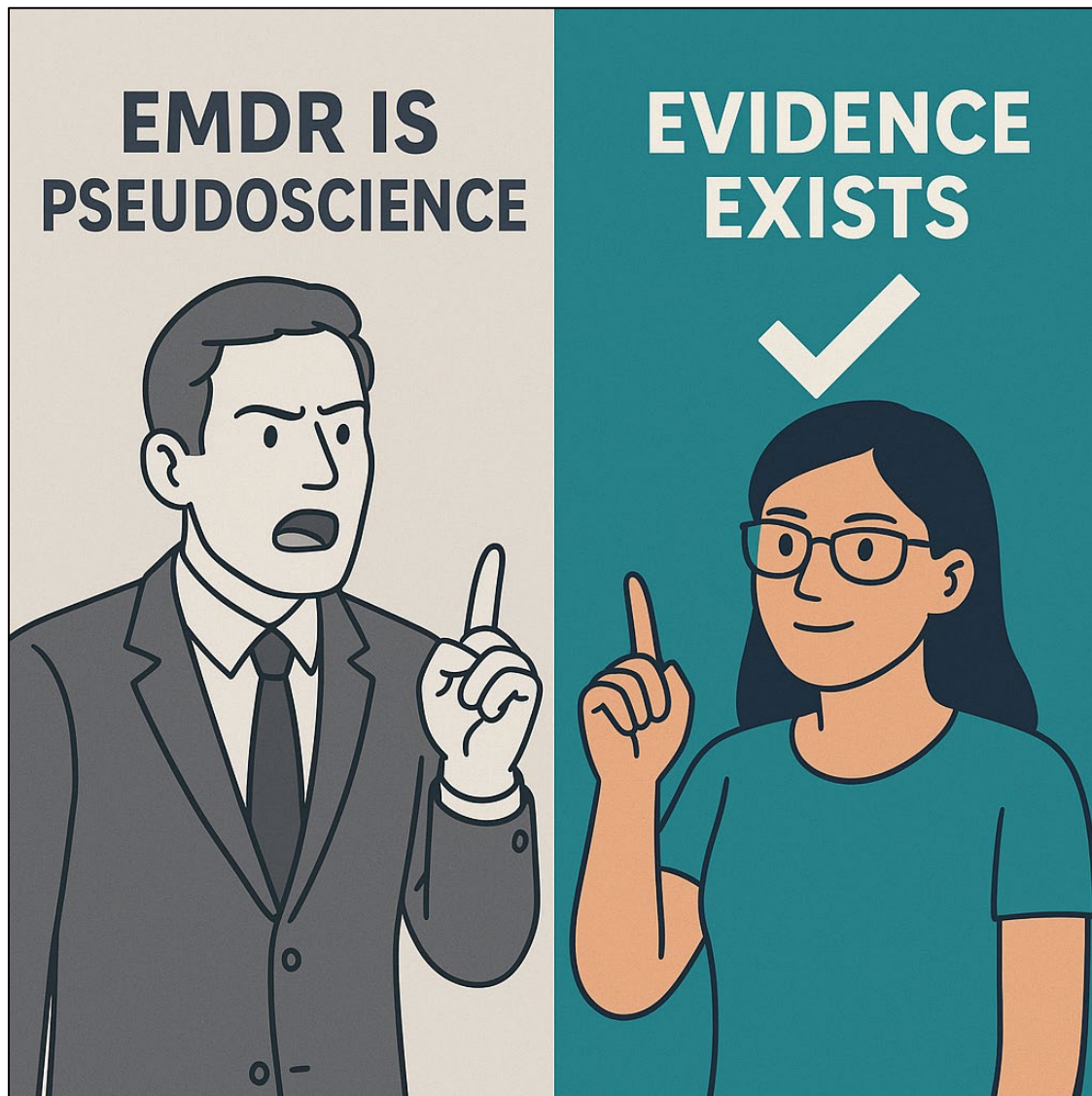
- **Developmentally attuned delivery.** EMDR with youth typically incorporates age-appropriate language, **play-based methods, drawings**, and graduated exposure to ensure optimal engagement and tolerability.
- **Caregiver involvement.** When appropriate, collaboration with caregivers (psychoeducation, stabilization skills, **reinforcement of gains**) **helps generalize treatment effects across home and school environments.**
- **Phased, three-pronged protocol.** As with adults, treatment targets past experiences, present triggers, and future templates, while emphasizing stabilization and safety throughout.
- **Dose and pacing.** Many pediatric studies achieved improvement within a **brief window (≈3–9 sessions)**, though complex presentations may require longer courses.
- **Measurement and follow-up.** Routine monitoring of PTSD severity and comorbid symptoms, plus planned follow-ups, supports sustained gains and early identification of residual needs.

Summary

Overall, the evidence base indicates that **EMDR is an effective treatment for children and adolescents** with PTSD symptoms, yielding improvements comparable to **TF-CBT** in head-to-head trials and outperforming **waitlist** or **usual care** in controlled comparisons. Emerging data also suggest benefits for **comorbid depression, anxiety, and behavior problems**, and **group EMDR** can be a viable option in some settings (Amann et al., 2020). At the same time, **methodological limitations** in the pediatric literature warrant continued rigor and replication. In clinical practice, developmentally sensitive application, caregiver collaboration, and careful measurement can help realize the promise of EMDR for young people recovering from trauma.

Chapter 7: Areas of Debate

Confusion, Misinformation, and “Pseudoscience”



From its

earliest days, EMDR therapy drew spirited debate. Some critics in the 1990s framed EMDR as a variant of exposure or even a well-packaged placebo (Lohr, Lilienfeld, Tolin, & Herbert, 1999; Herbert, 2000). Others argued that eye movements could not plausibly contribute to clinical change. A close look at the primary studies and the subsequent decades of research has clarified much of this controversy. As Perkins and Rouanzoin (2002) noted, early disagreements stemmed from a tangle of issues: (1) inadequate appreciation that **PTSD rarely responds to placebo**, (2) theoretical and

methodological ambiguity about whether EMDR is simply another form of exposure, (3) disagreement over the role of eye movements, (4) a body of **early, underpowered or poorly designed trials**, and (5) historical misstatements that were repeated until they looked like facts.

The contemporary evidence base, however, paints a different picture. Large-scale syntheses now position EMDR alongside other first-line, trauma-focused psychotherapies for adult PTSD, with outcomes broadly comparable to prolonged exposure and cognitive processing therapy (Wright et al., 2024; American Psychological Association, 2025). Recent reviews also highlight that EMDR's safety profile appears favorable, while urging better **adverse-event monitoring** and reporting standards across randomized trials (van Schie et al., 2025). In short, while debates about mechanism continue, the **efficacy and clinical utility** of EMDR are well established.

Common Misconceptions and What the Evidence Shows

a) “**EMDR is only marginally better than no treatment and hasn't been thoroughly tested.**”

This is incorrect. Multiple randomized trials and meta-analyses demonstrate that EMDR is superior to waitlist/usual care and broadly **noninferior** to the leading trauma-focused treatments for adult PTSD (Wright et al., 2024). Contemporary guidelines (APA, 2025) include EMDR among the recommended frontline options for adults, reflecting a robust and maturing evidence base. Importantly, these outcomes are achieved **without daily homework**, a feature some clients find more acceptable than homework-intensive protocols (Shapiro, 2001; Wright et al., 2024; American Psychological Association, 2025).

b) “**EMDR is just exposure therapy by another name.**”

Also incorrect. Although EMDR and exposure-based therapies both require **activation of traumatic memory**, EMDR differs in **process and procedures**. EMDR uses brief, interrupted sets of bilateral stimulation, minimal therapist interpretation, and allows **free**

association to guide memory networks toward integration. Process analyses and theoretical reviews have described core divergences from strict exposure—where prolonged, continuous confrontation and habituation are central (Rogers & Silver, 2002; Shapiro & Solomon, 2008). Clinically, EMDR often shows **rapid reductions in SUD ratings** within sessions, which is not the typical signature of prolonged exposure (Rogers & Silver, 2002; Shapiro, 2001). Across head-to-head comparisons, outcomes are similar overall, but the **pathway to change** appears distinct (Wright et al., 2024).

c) “There’s no logical explanation for eye movements.”

There is now substantial theory and data. The **Adaptive Information Processing (AIP)** model proposes that dual-attention stimulation facilitates integration of previously unlinked memory elements (Shapiro, 2001; Shapiro & Solomon, 2008). Converging accounts highlight **working-memory taxation** (making distressing images less vivid/affectively charged when attention is divided), **orienting response with reciprocal inhibition** (novel alternating stimuli evoke de-arousal following attentional engagement), and **REM-like associative processing** (facilitating broader network connectivity during recall) (Andrade, Kavanagh, & Baddeley, 1997; Stickgold, 2002). A meta-analysis indicates that eye movements contribute **meaningfully** to decreases in image vividness and emotionality (Lee & Cuijpers, 2013). More recent work adds that **in-session reductions in emotional intensity** predict clinical improvement—consistent with the idea that bilateral stimulation supports adaptive updating during reconsolidation (Wright et al., 2024).

Why EMDR Is Not “Just Exposure”: Key Procedural Differences

Exposure therapy theories historically predicted that **effective exposure** must be **prolonged, continuous, and relatively uninterrupted**, discouraging avoidance and emphasizing within- and between-session habituation (Foa & McNally, 1996; Marks et al., 1998). EMDR’s standard protocol diverges in several respects:

1. **Duration and rhythm.** EMDR uses **brief, repeated** sets (often 20–50 seconds) of bilateral stimulation with frequent pauses for brief reporting (Shapiro, 2001).

2. **Interruption and pacing.** EMDR intentionally **interrupts** internal focus to query “What do you notice now?”, maintaining dual attention and allowing associative shifts—procedures traditionally viewed as **contrary to exposure theory** (Rogers & Silver, 2002).
3. **Free association.** EMDR explicitly **permits shifts** to whatever arises (images, emotions, thoughts, sensations), rather than holding clients within a single scene until anxiety attenuates (Shapiro, 2001).

These features help explain differences in the **felt experience** of the two therapies. Clients in exposure commonly report extended periods of high anxiety before habituation occurs; EMDR clients more often report **early, stepwise SUD reductions** as processing unfolds (Rogers & Silver, 2002; Shapiro, 2001). For many, these procedural nuances translate into a treatment that is **equally effective** but sometimes **more acceptable**, given the absence of intensive homework and the allowance for natural associative processing (Boudewyns & Hyer, 1996; Wright et al., 2024).

A More Nuanced Consensus

The field has largely moved beyond “EMDR versus CBT” debates about **whether** EMDR works. The remaining discussion is **how** it works and **for whom** particular procedures optimize outcomes. Current evidence supports several conclusions:

- **Effectiveness.** EMDR is an effective, guideline-recommended trauma-focused therapy for adults with PTSD; it performs comparably to other leading treatments (Wright et al., 2024; American Psychological Association, 2025).
- **Mechanisms.** Eye movements and other bilateral stimuli likely aid memory updating through **working-memory load**, **orienting/de-arousal**, and **associative integration** mechanisms; no single account explains all findings (Andrade et al., 1997; Stickgold, 2002; Lee & Cuijpers, 2013; Shapiro & Solomon, 2008).

- **Process signature.** EMDR's hallmark features—**brief, interrupted sets**, minimal therapist-led interpretation, and spontaneous **cognitive–affective shifts**—differentiate it from strict exposure models (Rogers & Silver, 2002; Shapiro, 2001).
- **Safety and reporting.** EMDR is generally considered safe; nonetheless, adverse-event **reporting has been inconsistent** across RCTs, and contemporary reviews urge **standardized monitoring** going forward (van Schie et al., 2025).

As the research base expands—including dismantling studies, intensive/brief formats, and telehealth delivery—the emphasis is shifting from **whether** EMDR should be used to **how best** to tailor it for individual clients and settings (American Psychological Association, 2025).

MYTH vs FACT: EMDR Therapy

This quickly address common misconceptions:

At-a-glance

- EMDR is a guideline-recommended, trauma-focused psychotherapy for adult PTSD, with outcomes broadly comparable to other first-line treatments (Wright et al., 2024; American Psychological Association, 2025).
- Eye movements (or other bilateral stimulation) add measurable benefit and have plausible mechanisms (Lee & Cuijpers, 2013; Andrade, Kavanagh, & Baddeley, 1997; Stickgold, 2002; Shapiro & Solomon, 2008).

Myth 1: “EMDR is barely better than no treatment.”

Fact: Multiple RCTs and meta-analyses show EMDR outperforms waitlist/usual care and is broadly noninferior to leading trauma-focused therapies for adult PTSD (Wright et al., 2024). Current adult PTSD guidelines list EMDR among first-line options (American Psychological Association, 2025).

Myth 2: “EMDR is just exposure therapy with a new label.”

Fact: While both activate trauma memory, EMDR’s **process** is distinct: brief, interrupted sets of bilateral stimulation, minimal therapist interpretation, and allowance for free association. Process studies and theory highlight differences from prolonged, continuous exposure/habituation models (Rogers & Silver, 2002; Shapiro, 2001; Shapiro & Solomon, 2008). Clinically, EMDR often shows early, stepwise SUD reductions within sessions (Rogers & Silver, 2002).

Myth 3: “Eye movements don’t do anything.”

Fact: A meta-analysis found a meaningful additive effect of eye movements on reducing image vividness and emotionality (Lee & Cuijpers, 2013). Proposed mechanisms include **working-memory taxation** (dividing attention makes images less vivid/affective), **orienting response with reciprocal inhibition** (de-arousal after novelty), and **REM-like associative processing** (broader network integration) (Andrade et al., 1997; Stickgold, 2002; Shapiro & Solomon, 2008).

Myth 4: “EMDR is pseudoscience or a placebo.”

Fact: PTSD rarely shows durable placebo responses. Modern syntheses support EMDR’s efficacy and clinical utility; remaining debates center on **mechanism**, not whether it works (Perkins & Rouanzoin, 2002; Wright et al., 2024; American Psychological Association, 2025).

Myth 5: “EMDR requires detailed trauma narration and lots of homework.”

Fact: EMDR does not require detailed recounting of traumatic events and typically has **no daily homework**, yet achieves outcomes comparable to homework-intensive protocols (Shapiro, 2001; American Psychological Association, 2025).

Myth 6: “EMDR is unsafe.”

Fact: EMDR is generally safe in trained hands; preparation/stabilization are essential. Reviews note inconsistent adverse-event reporting and call for standardized monitoring—good practice in any trauma-focused work (van Schie et al., 2025).

Myth 7: “EMDR isn’t for children or adolescents.”

Fact: Pediatric evidence—including RCTs—supports EMDR’s effectiveness for PTSD

symptoms; group EMDR also shows promise. Guidance varies: ISTSS (2019) and WHO (2013) recommend EMDR for youth with PTSD, while NICE (2018) is more conditional, citing sample sizes and methodological limits (Amann et al., 2020).

Chapter 8: Implications for Practice and Training in EMDR



EMDR therapy lives where memory, relationship, and the nervous system meet. The Adaptive Information Processing (AIP) model explains how experience is encoded, stored, and adaptively updated; developmental and interpersonal neurobiology explain *why* the relational field—the “intersubjective matrix” between clinician and client—matters so deeply for that updating (Shapiro, 2001; Stern, 2004; Shapiro & Solomon, 2008; Siegel, 2020). From

the first caregiver–infant exchanges, patterns of attention, soothing, and repair are laid down as implicit memory networks. Those embodied templates travel with our clients into the therapy room—and our own histories and memory networks arrive there too. EMDR practice unfolds inside this shared matrix: attunement and safety promote integration; misattunements, when recognized and repaired, become turning points for change (Stern, 2004; Dworkin, 2017).

AIP and the Intersubjective Matrix

AIP proposes that psychopathology reflects unprocessed, state-dependent memories that have not linked with adaptive networks; EMDR re-engages the innate processing system so that “stuck” material can integrate (Shapiro, 2001). Within an intersubjective

lens, this is a *two-person* process. Subtle shifts in gaze, tone, pacing, and posture carry information—cues that can invite safety and curiosity or, at times, reactivate older patterns of shame or fear. When processing flows, we notice ease, humor, and expanding perspectives; when it stalls, we encounter “now moments” that call for attuned intervention and “moments of meeting” to repair the path (Stern, 2004; Dworkin, 2017). EMDR protocols do not float above this relationship; they *depend* on it (Shapiro & Solomon, 2008).

Embodied Resonance and “Mirror” Mechanisms

Early mirror-neuron research popularized the idea that observing another’s actions or affect can activate related neural patterns in the observer. Contemporary social neuroscience sees this as one part of a broader set of resonance mechanisms—useful, but not the whole story (Bonini, 2022). For clinicians, the takeaway is practical: our bodies often notice first. Tracking our own somatic cues (a sudden fog, shallow breath, jaw tension) helps us detect blocked processing, emerging dissociation, or a familiar dyadic pattern (appease—criticize, pursue—withdraw) replaying in the room (Dworkin, 2017; Siegel, 2020).

Clinical Decision-Making: Tailoring EMDR in the Room

Shapiro emphasized that EMDR is not one-size-fits-all; clinical judgment shapes *how* we sequence targets, pace stimulation, and support regulation (Shapiro, 2001). In day-to-day practice, that judgment weaves in attachment science, dissociation screening, and a trauma-informed stance that treats “rupture and repair” as part of healing (Dworkin, 2017; Stern, 2004). Several habits consistently support good decisions:

- **Mindful self-monitoring.** Notice when your attention narrows or thinking goes “offline.” Rather than pathologizing these reactions as “my countertransference,” treat them as data in a two-person processing system. Brief, transparent acknowledgments can function as effective relational interweaves (Dworkin, 2017; Stern, 2004).
- **Attachment-informed pacing.** Where early caregiving was inconsistent or frightening, front-load preparation and resource installation, expect oscillation

between approach and withdrawal, and build gentle bridges back to dual attention (Shapiro & Solomon, 2008; Dworkin, 2017).

- **Dissociation-aware practice.** Go beyond a quick screener when red flags emerge (amnesia, time loss, parts language, high phobic avoidance). Unrecognized dissociation increases risk during reprocessing; stabilize first, titrate stimulus, and consult when needed (ISSTD/APA guidance, 2024).

[American Psychological Association](#)

- **Process before content.** If SUDs won't move or "nothing" happens after multiple sets, check the *process level*—posture, breath, relational stance. A brief, attachment-consistent interweave (e.g., "If this were your closest friend, what would you hope they'd know right now?") can re-open associative flow without abandoning AIP principles (Shapiro, 2001; Dworkin, 2017).

Alliance as Change Process (Not Just Container)

Across modalities, the therapeutic alliance robustly predicts outcome; that holds for trauma care as well (Flückiger, Del Re, Wampold, & Horvath, 2018). EMDR's brief, interrupted sets and minimal interpretation do not make relationship less important; they make our timing, tone, and attunement *more* important. As interpersonal difficulties naturally show up "with us," responsive, well-timed repairs become active ingredients in change (Rogers & Silver, 2002; Shapiro & Solomon, 2008; Flückiger et al., 2018).

Safety, Monitoring, and Informed Consent

EMDR is generally safe in trained hands, yet recent reviewers note that adverse events have been inconsistently monitored and reported across trials (van Schie et al., 2025). Best practice includes: explaining potential short-term spikes in distress, vivid dreams, or temporary disequilibrium; tracking dissociation and suicidality; and naming how we will stabilize or pause processing if needed. These steps are part of ethical, trauma-responsive care—not add-ons (van Schie et al., 2025).

Practice Formats: Weekly, Intensive, Telehealth, and Groups

Beyond weekly care, EMDR can be delivered intensively and via telehealth when preparation and safety procedures are strong. Emerging trials and pragmatic studies suggest these formats can expand access and, for some clients, accelerate gains—always with careful matching to clinical need and preference (Burbach et al., 2024; Yasar et al., 2025).

Training, Fidelity, and Lifelong Learning

Competent EMDR practice grows from solid training plus reflective consultation. Current EMDRIA-approved basic training requires didactics, supervised practicum, and consultation hours that emphasize real-case application and safety (EMDRIA, 2024). After basic training, fidelity matters: adherence to the eight phases and three-pronged protocol correlates with better outcomes; structured fidelity tools and supervised review of session process can sharpen skill over time (Maxfield et al., 2017; Shapiro, 2001).

Putting It Together in the Room

Mid-desensitization, your client's SUDs are stuck; each set ends with "numb." You notice your own jaw clench and a slight mental fog. Rather than pushing harder on content, you slow the pace: "Something just shifted—can we both take a breath and notice how it is right now?" A tear surfaces. "I'm trying to get it right so you won't be disappointed," the client whispers. You name the pattern, offer a brief relational interweave around "good enough," and run a short set while both of you track the felt sense of being safe together. The next association emerges—a childhood scene of being graded for composure—and processing restarts. That is AIP meeting intersubjectivity in real time (Stern, 2004; Dworkin, 2017; Shapiro, 2001).

Chapter 9: Latest Recommendation for EMDR Future Studies

According to Amann et al. (2020), while the results are encouraging in terms of the number of published studies and their outcomes, the overall quality of the studies has been rated as low by independent reviewers, leaving little room for confidence in the reported benefits. Methodological quality continues to be a significant challenge. To this purpose, the current position article has a weakness wherein the researchers did not evaluate the quality of the individual studies. It would have probably aided in the further assessment of the status of EMDR in the designated focus areas to have taken into account bias risks in each study and conducted separate meta-analyses for each target area. The purpose of the current study was to map the current state of research in the target domains. Amann et al. (2020) some broad recommendations regarding methodology can be made. Future research on EMDR therapy should

include the following components:



- Blinded diagnostic evaluation, independent fidelity tests, and long-term follow-up (at least six months or one year).
- Be registered with an international trial registry before enrolling the first participant.
- At each time point, include a minimum of ten individuals ($N = 10$) in each trial arm. It means that each component must have a minimum of

13 patients to begin therapy to account for attrition.

- Make comparisons with active treatments and waiting conditions (68 percent of the ISTSS trauma-focused CBT studies are waitlist control studies compared to 39 percent of the EMDR studies).

- When possible, active treatment controls should be recognized therapies with documented efficacy, and future researchers should evaluate the treatment fidelity.
- Pay close attention to the diagnosis of participants. To be included in disorder- specific guidelines, at least 80% of participants must be diagnosed with the disorder.

Rather than a sample of participants who completed treatment, use an intent-to- treat sample.

- Where possible, include data on cost-effectiveness.

To summarize, the EMDR community confronts numerous challenges, not least performing additional research. Conducting high-quality research remains critical. The future researchers of EMDR therapy must emphasize research in the areas indicated. A multisite study should be backed financially. This action ensures sufficient sample numbers and the generalizability of results beyond treatment effects observed at specific sites.

The above recommendations promulgated by Amann et al. (2020) increases the probability that EMDR will be evaluated or considered for inclusion in international guidelines on these topics. Moreover, if included, EMDR therapy will be available as a treatment in the early stages of trauma for children and young adults, combat-related PTSD, and depressive disorders, and chronic pain patients.

Recent reviews and guidelines reinforce the need for more rigorous, transparent EMDR research while also clarifying where the evidence is already strong. In particular, large-scale syntheses and practice guidelines highlight EMDR as a frontline, trauma-focused psychotherapy for adults with PTSD, but they simultaneously call for higher trial quality, clearer monitoring of adverse events, and better reporting of treatment fidelity (Wright et al., 2024; American Psychological Association, 2025; van Schie et al., 2025).

Building on Amann et al. (2020), future studies should additionally prioritize:

- Stronger safety monitoring and adverse-event reporting. Recent methodological reviews found that EMDR RCTs rarely predefine adverse events or collect them systematically. Trials should register operational definitions of adverse events, use standardized monitoring at each session and follow-up, and report withdrawals with reasons (van Schie et al., 2025).

- Active, head-to-head comparators and individual-level moderators. Individual participant data meta-analysis suggests EMDR achieves outcomes broadly comparable to other first-line trauma-focused therapies; next-generation trials should test differential response across patient subgroups (e.g., dissociation, chronicity, comorbidity), with preregistered moderator analyses and adequate power (Wright et al., 2024).



- Fidelity assessment as standard. Use validated tools (e.g., EMDR Fidelity Rating Scale) and report therapist training, supervision, and adherence/competence ratings. Link fidelity to outcomes to clarify dose–response and therapist effects (Maxfield et al., 2017).

- Mechanism-focused designs. Beyond symptom change, incorporate mechanistic endpoints (e.g., working-memory load manipulations, orienting/de-arousal indices, sleep/REM markers where feasible). Given growing interest in “EMDR 2.0” (enhanced working-memory taxation), prioritize well-controlled, preregistered comparisons of

standard EMDR versus EMDR 2.0 with standardized parameters and safety monitoring (Matthijssen et al., 2021; Yasar et al., 2025).

- Telehealth and intensive formats. Early randomized and pragmatic data suggest EMDR can be delivered safely and effectively via telehealth and in intensive schedules for selected patients; future trials should specify risk-mitigation protocols (e.g., crisis plans, dissociation screening), and compare cost-effectiveness and durability to weekly care (Burback et al., 2024; Butler et al., 2024).
- Economic evaluation and implementation science. Alongside effectiveness, report cost-utility and real-world implementation outcomes (reach, adoption, fidelity, sustainment). Comparative work on trauma-focused pathways indicates cost-effectiveness varies by sequencing and patient profile; EMDR research should incorporate these analyses prospectively (van Vliet et al., 2024).
- Transparent, reproducible methods. Continue preregistration with clear primary/secondary outcomes; use intent-to-treat analyses, adequately powered samples, blinded diagnostic interviews (e.g., CAPS-5), standardized PTSD measures (e.g., PCL-5), and ≥ 6 –12-month follow-up, in line with the APA guideline's emphasis on balancing benefits and harms across settings (American Psychological Association, 2025).
- Equity, diversity, and context. Expand trials to under-represented groups and low-resource settings; report cultural adaptations and language accessibility, and examine whether delivery mode (telehealth vs. in-person; intensive vs. weekly) differentially benefits specific populations (American Psychological Association, 2025; Wright et al., 2024).

Taken together, these updates align with the field's direction: protect what works (clear protocols, strong outcomes), and upgrade the science (safety surveillance, fidelity, mechanisms, equity, and cost-effectiveness). With multisite collaborations and preregistered, adequately powered trials, EMDR research can continue to earn its place in international guidelines while answering the next generation of clinical questions (Wright et al., 2024; American Psychological Association, 2025; van Schie et al., 2025).

Chapter 10: Guidelines for Virtual EMDR Therapy



The meeting point of sound clinical practice and secure technology has opened a compassionate doorway for people who might never make it to a therapist's office. Virtual EMDR expands reach to rural communities, clients with mobility or caregiving constraints, and those who simply feel safer from home. With that opportunity comes responsibility: to

deliver EMDR with the same fidelity, safety, and cultural attunement we expect in person—while accounting for the distinct risks and benefits of online care.

When EMDRIA's task group first published guidance in 2020, the literature on virtual EMDR was sparse. Since then, the evidence base has grown. A systematic review concluded that online EMDR is feasible and potentially effective across several populations (Kaptan et al., 2024). A randomized controlled trial of therapist-delivered web-based EMDR for adults with suicidal ideation reported acceptable safety and clinically meaningful improvements (Burback et al., 2024). Qualitative work has also documented clients' lived experiences of online EMDR, highlighting the importance of

clear preparation, attunement, and crisis planning (Yap et al., 2025). At the same time, recent reviews remind us that adverse events are underreported across EMDR trials, reinforcing the need for structured monitoring in virtual care (Driessen et al., 2024). In short: virtual EMDR is a promising extension of an evidence-based therapy, and it warrants the same rigor, care, and professional boundaries as in-person practice.

Stakeholder Needs, Hopes, and Concerns

Interviews, discussion groups, and membership surveys point to a consistent set of themes. Clinicians value access and continuity of care but want practical guidance on safety, attunement, dissociation management, bilateral stimulation (BLS) online, licensure and jurisdiction, HIPAA-compliant platforms, and documentation. Clients want clear expectations, reliable technology, and reassurance that telehealth EMDR is not “EMDR-lite” but the same protocol delivered with thoughtful adjustments (EMDR International Association, 2020; American Psychological Association, 2024).

Notably, clinicians report that all eight phases of EMDR can be delivered virtually when clinically appropriate, with careful preparation and contingency planning. The most frequently cited concerns—safety, relationship/attunement, how to administer BLS, dissociation/abreaction, and technology failures—are addressable through training, rehearsal, and standardized procedures (EMDR International Association, 2020).

Core Principles for Virtual EMDR

1) Ethical Integrity and Scope

Virtual EMDR must be administered by an EMDR-trained clinician in real time. Self-administration of EMDR (e.g., stand-alone apps or websites without live guidance) is not recommended and may be harmful; EMDR processing can activate networks linked to early, highly charged memories that require professional containment and clinical judgment (Shapiro, 2001; EMDR International Association, 2020).

2) Legal and Regulatory Readiness

Licensure remains jurisdiction-based. Many U.S. psychologists can practice across participating states via PSYPACT, but requirements, participating jurisdictions, and documentation obligations change over time. Clinicians should verify authority to practice before each episode of care, document the client's physical location every session, and update policies as regulations evolve (Psychology Interjurisdictional Compact Commission, 2025; American Psychological Association, 2024).

3) Privacy, Security, and Documentation

Use HIPAA-compliant platforms that provide a Business Associate Agreement (BAA). Maintain encrypted storage and secure transmission of ePHI, and specify how you will manage email, texting, e-forms, and billing tools. Telepsychology guidelines emphasize platform vetting, role-based access, strong passwords, multi-factor authentication, device hardening, and clear documentation of all telehealth-specific procedures (American Psychological Association, 2024).

4) Informed Consent—Telehealth-Specific

In addition to standard consent, include: technology requirements; limits of confidentiality online; platform risks and safeguards; how to handle glitches or disconnections; your emergency plan in the client's locale; session location verification; policies for recording (generally discouraged); billing and reimbursement; and how to switch to phone or reschedule if needed (American Psychological Association, 2024).

5) Safety and Crisis Readiness

Before reprocessing, identify local emergency contacts, mobile crisis numbers, nearest ED/urgent care, and supportive persons the client authorizes you to contact. Rehearse what happens if the session drops mid-set. For clients with complex trauma or dissociation, strengthen stabilization, resource installation, and containment procedures and consider shorter, more frequent sessions during early reprocessing (Kaptan et al., 2024; Driessen et al., 2024).

6) Cultural Humility and Context

Virtual care often crosses regions and cultures. Collaboratively explore language preferences, cultural meanings of distress, norms about privacy within multigenerational homes, and the practical reality of the client's space (e.g., thin walls, shared devices). Clarify a plan for privacy (headphones, positioning the screen, chat use if others are nearby) to keep the work safe and dignified (American Psychological Association, 2024).

Training and Preparedness

Beyond EMDR basic training, clinicians offering virtual EMDR should pursue continuing education in telehealth ethics, security, platform use, and online clinical skills (e.g., camera placement to support attunement, voice pacing to scaffold dual attention). Competence includes knowing how to respond to dissociation and abreaction online, and how to titrate activation when the home environment offers fewer external containment cues (American Psychological Association, 2024; EMDR International Association, 2020). Early implementation studies of tele-EMDR suggest that outcomes—and client trust—improve when clinicians communicate expectations clearly and practice their “tech choreography” in advance (Burback et al., 2024; Yap et al., 2025).

Technical Foundations

Electronic office. Use a dedicated, updated device with reliable bandwidth, a quality webcam, and a headset to reduce audio leakage; secure your network (router updates, strong Wi-Fi passphrases), and enable full-disk encryption and automatic OS/security updates. Maintain a backup device and a phone as a secondary channel if video fails (American Psychological Association, 2024).

Platform setup. Configure waiting rooms, unique session links, and identity verification procedures; disable recording unless clinically and legally justified; and test all features (screen sharing, chat) you plan to use.

Client environment. Coach clients to choose a private space, use headphones, silence notifications, and position the camera to capture full face/torso when possible so you can monitor somatic cues. Discuss “shoulder surfing,” shared devices, and strategies to minimize interruptions.

EMDR-Specific Technique Online

Bilateral stimulation (BLS).

- **Eye movements.** Use on-screen targets (e.g., a therapist-controlled cursor or moving stimulus) that traverse the midline and allow adjustable speed; confirm the client can follow comfortably without visual strain.
- **Tactile/auditory BLS.** Consider alternating tones via the platform or guided self-tapping (“butterfly taps”), with explicit coaching on pace and pressure.
- **Sets and pacing.** Keep sets discrete; monitor SUDs, cognitive shifts, and somatic cues frequently, especially early on. Build in micro-pauses to check connection quality and re-orient if needed.
- **When to slow down.** If dissociation emerges (e.g., spacing out, voice flattening, “I’m not here”), pause BLS, ground, orient to the present, and return to stabilization before continuing.

Emerging work on enhanced working-memory taxation (sometimes referred to as EMDR 2.0) has moved online in pilot and controlled studies; should you use these methods, pre-specify parameters, monitor burden carefully, and prioritize client comfort and safety (Matthijssen et al., 2021; Yasar et al., 2025).

Relational Attunement in the Virtual Room

Attunement is the heart of EMDR online. Small choices matter: lighting your face warmly, maintaining a steady gaze without “staring,” narrating transitions (“I’m going to start the next set now”), and naming what you notice (“Let’s slow down; I’m seeing your

breathing change”). Clients in web-based EMDR trials reported feeling supported when therapists were proactive about safety, check-ins, and pacing, and when the collaboration felt vivid despite the screen (Burbach et al., 2024; Yap et al., 2025).

Current Realities and Evolving Dynamics

Telehealth widened access, but it also exposed uneven broadband, device access, and privacy at home. Insurance coverage, place-of-service codes, and documentation requirements vary and continue to evolve; clinicians should verify payer policies, maintain clear superbills when needed, and communicate transparently with clients about coverage and costs (American Psychological Association, 2024). In regions with higher suicide mortality and fewer services, virtual EMDR can be a lifeline—if accompanied by robust risk assessment, safety planning, and lethal-means counseling when indicated (Tarlow et al., 2018).

Ethical Implications

There is now emerging support for the feasibility and clinical value of therapist-delivered online EMDR; nonetheless, the ethical mandate is unchanged: practice within scope and competence, make risks transparent, protect privacy, monitor safety, and respect jurisdictional boundaries (American Psychological Association, 2024; Kaptan et al., 2024; Burbach et al., 2024). Contribute to the knowledge base whenever possible—through quality improvement, case series, and, when feasible, controlled studies.

Practical Guidelines for Clinicians (Virtual EMDR)

1. **Affirm fidelity.** Deliver standard EMDR within scope; do not teach or endorse self-directed EMDR processing (Shapiro, 2001; EMDR International Association, 2020).
2. **Verify authority.** Confirm licensure/PSYPACT eligibility for the client's location at every session; document the client's physical location and emergency contacts each visit (Psychology Interjurisdictional Compact Commission, 2025).
3. **Secure the stack.** Use BAA-backed platforms; encrypt storage; harden devices; adopt multi-factor authentication; and maintain written security procedures (American Psychological Association, 2024).
4. **Telehealth consent.** Include technology requirements, backup plans, limits of confidentiality, recording policy, emergency protocols in the client's locale, and billing/reimbursement notes (American Psychological Association, 2024).
5. **Stabilize first.** Emphasize preparation, resourcing, and containment; titrate activation; consider shorter, more frequent sessions for early reprocessing (Kaptan et al., 2024).
6. **Plan for crises.** Keep local hotlines, mobile crisis, ED addresses, and supportive contacts ready; rehearse what happens if the connection fails mid-set; define when to switch to phone or end the session (Burback et al., 2024).
7. **Tune the tech.** Test camera framing, audio, and BLS delivery; have a backup device and connection path; log glitches and how you resolved them.
8. **Administer BLS thoughtfully.** Use midline-crossing eye movements when possible; calibrate speed and distance; use tones or self-tapping as clinically indicated; reassess SUDs frequently.
9. **Monitor and document safety.** Track dissociation, suicidality, and adverse events session-by-session; document SUDs/VOC, target hierarchy, and any telehealth-specific modifications (Driessen et al., 2024).

10. **Attend to culture and context.** Explore language preferences, family privacy realities, and culturally grounded coping; adapt pacing and examples accordingly (American Psychological Association, 2024).
11. **Stay current.** Telehealth law and payer policies change; maintain ongoing CE, review platform updates, and revisit your policies annually.

Chapter 11: Professional Code of Conduct

Introduction

The EMDR International Association (EMDRIA) has adopted a Professional Code of Conduct in order to assure the highest standards of excellence and integrity in EMDR. By adopting this Code, EMDR International Association creates guidelines to establish and uphold standards of practice, training, certification, and research. All members of EMDR International Association, as a condition of membership, subscribe to the Code of Conduct.

Code of Conduct

Members of EMDR International Association shall observe the professional and ethical standards of their respective clinical professions. If members are not licensed or accountable to a particular discipline's code of ethics, or if their Code of Ethics does not address the concern at hand, then the American Psychological Association (APA) Code of Ethics (APA Ethical Principles of Psychologists and Code of Conduct, January 1, 2017) shall apply.

Members shall continue to be in good standing with the professional organization with which they are affiliated and regulatory board (e.g., state or provincial licensure board or Ministry of Health) in their jurisdiction and have no confirmed findings of illegal,

unprofessional or unethical conduct. Members shall report within 30 days to EMDR International Association any problems and authorize EMDR International Association to contact the appropriate licensing boards.

Members shall adhere to the code of ethics of their respective clinical profession with regard to the advertising of services or EMDR training programs. If members are not licensed or accountable to a particular discipline's code of ethics, then the **APA Code of Ethics** (APA Ethical Principles of Psychologists and Code of Conduct, January 1, 2017) regarding ethics in advertising and public statements shall apply.

Members or Non-Members serving in an EMDR International Association-sanctioned position will follow all policies and guidelines related to that position.

End of the Course!