Comparative Effectiveness Research Series

Eye Movement Desensitization and Reprocessing Therapy

An Informational Resource

2012

Disclaimer: The inclusion of interventions listed within this document does not constitute, suggest, or imply an endorsement by the U.S. Department of Health and Human Services of the interventions or the developer of the interventions and does not suggest these are the only interventions based on the Eye Movement Desensitization and Reprocessing model that exist.
This document about Eye Movement Desensitization and Reprocessing (EMDR) is part of a series on evidence-based practices evaluated in comparative effectiveness research studies. The information is designed to inform practitioners and other decisionmakers who are considering the adoption of evidence-based practices in their organization. General information about EMDR and results of studies assessing EMDR efficacy are included, along with details related to cost and applications of EMDR to specific populations and types of trauma. The decision to adopt and implement evidence-based practices is guided by many factors that may not be covered here. The authors of this document hope it can assist in making an informed decision on the implementation of this treatment model.
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Eye Movement Desensitization and Reprocessing

Eye Movement Desensitization and Reprocessing (EMDR) is a form of psychotherapy designed to (1) reduce trauma-related stress, anxiety, and depression symptoms associated with posttraumatic stress disorder (PTSD); and (2) improve overall mental health functioning. EMDR has elements of other therapeutic approaches, including psychodynamic, cognitive behavioral, interpersonal, experiential, and body-centered therapies, in structured protocols designed to achieve the best possible treatment effects.

Adaptive information processing is the framework of the EMDR approach emphasizing that all people have a physiologically based information processing system, similar to other body systems such as the circulatory or digestive system. The information processing system stores memories and other elements of experiences in a manner that is accessible by and linked to related thoughts, images, emotions, and sensations. Traumatic or very negative events can impede healthy information processing. Therefore, EMDR addresses trauma-related symptoms by processing components of negative memories and associating them with more adaptive behaviors, emotions, and information.

The Practice of EMDR

The EMDR treatment approach follows a three-pronged protocol to target and reprocess each presenting complaint. The protocol requires attention to the past, present, and future for adaptive information processing. Past experiences are the basis for clinical complaints; current situations trigger dysfunctional emotions, beliefs, and sensations; and positive experiences are needed to enhance future adaptive behaviors and mental health.

During EMDR, the therapist guides the client through 30-second, dual-stimulation exercises using bilateral eye movements, tones, or taps while the client focuses on the target disturbing experience and then on any related negative thoughts, associations, and body sensations. Through adaptive information processing, the dual-attention exercises disrupt the client’s stored memory of the trauma to facilitate an elimination of negative beliefs, emotions, and somatic symptoms associated with the memory as it connects with more adaptive information stored in the memory networks. Once recall of the trauma no longer elicits negative beliefs, emotions, or somatic symptoms, and the memory simultaneously shifts to a more adaptive set of beliefs, emotions, and somatic responses, it is stored again, replacing the original dysfunctional memory of the trauma.

EMDR sessions can range from a few (3–6) to 12 or more sessions, depending on the presenting trauma(s). Individual treatment sessions are recommended to last 90 minutes but can be as short
as 50 minutes. The number of sessions required to reprocess traumatic memories are fewer for patients with single trauma PTSD, while more sessions are required for patients with multiple traumas, such as combat veterans. The course of treatment includes a history assessment and preparation, a series of reprocessing and desensitization sessions, and a reevaluation to confirm that adaptive information processing was successful and persists. Treatment concludes when the patient no longer reports disturbance or negative cognitions associated with the traumatic memory.

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 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).
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.

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 followup 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.

What the Evidence Tells Us About EMDR’s Effectiveness

Comparative Effectiveness Research and Systematic Reviews

CER provides essential information that aids health care providers and their clients in deciding on the most appropriate treatment.

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.1,2 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.5 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.3, 4

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 symptoms6, 7
- Increasing vividness of imagery, attentional flexibility, and memory association8
- Rapid decline in symptoms6, 9

**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:10

- 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

**Organizational Readiness To Adopt EMDR**

There are several factors to consider when an organization is deciding whether to adopt a new practice. The Institute of Behavioral Research at Texas Christian University has identified five broad categories of organizational readiness for change based on extensive research findings related to technology transfer and the adoption of evidence-based practices ([http://www.ibr.tcu.edu/evidence/evi-orc.html](http://www.ibr.tcu.edu/evidence/evi-orc.html)). These include—

- Motivational readiness: program needs, training needs, and pressures for change
- Institutional resources: offices, staffing, training, and equipment
- Staff attributes: growth, efficacy, influence, adaptability, and orientation
- Organizational climate: clarity of mission and goals, cohesion, autonomy, openness to communication, stress, and openness to change
- Costs: cost of materials, training, supervision, and loss of billable hours associated with training and supervision; reimbursement practices
Dissemination and Implementation Resources

The main vehicle for EMDR therapy dissemination is the EMDR Institute Web site (http://www.emdr.com). Those interested in learning more about EMDR can readily access information on the history of the practice, training opportunities, didactic resources, and a directory of EMDR clinicians.

Implementation Materials

The primary resource for details on using EMDR is Eye Movement Desensitization and Reprocessing: Basic Principles, Protocols, and Procedures. This text provides background information, an overview of the model, details enabling clinicians to implement each phase of treatment, and protocols for dealing with special situations and populations. The textbook also includes clinical aids, tools, checklists, guidelines, and procedures that can be readily incorporated into clinical practice.

Training Resources for Providers

To be certified in EMDR therapy, clinicians must be licensed or certified in their profession for independent practice and have a minimum of 2 years of experience in their field. They must also complete a basic training program in EMDR that is approved by the EMDR International Association, conduct a minimum of 50 EMDR sessions, and receive 20 hours of consultation in EMDR by an approved consultant. To maintain certification, clinicians must complete 12 hours of continuing education in EMDR every 2 years. Basic training, consultation, and additional training resources are provided through the EMDR Training Institute and the EMDR Humanitarian Assistance Programs (HAP).

- Extensive training is provided throughout the country by the EMDR Institute, and trainees receive didactic instruction, supervised practice, and practical tools and resources for implementation. All instructors have been personally trained and approved by the founder of the approach, Dr. Francine Shapiro. The workshops are designed for licensed mental health practitioners who treat adults and children in clinical settings. The basic training consists of two weekend training sessions, which are scheduled regionally across the United States (see http://www.emdr.com/training-information/us-basic-training-schedule.html for current dates).
- EMDR HAP offers low-cost, volunteer-based EMDR trainings for nonprofit agencies and organizations that are included in domestic and international disaster response networks (see www.emdrhap.org).
- Advanced specialty application workshops are available for experienced clinicians, focusing on specific diagnoses, traumas, and EMDR approaches.
- Distance learning courses are available through book or DVD self-study. The book materials are designed for all levels of mental health practitioners to learn about the EMDR
methodology. The materials provide an opportunity for EMDR-trained clinicians to review protocols and procedures while earning continuing education credits. The DVD course focuses on the use of EMDR with individuals with dissociative symptoms.

- An electronic mailing list and networking groups are available through the EMDR Institute’s Web site to facilitate peer support.
- The EMDR International Association certifies individual clinical practitioners in the practice of EMDR by ensuring all basic requirements, initial training, and ongoing certifications are met (see www.emdria.org).

Quality Assurance Tools

The basic training courses provided by the EMDR Institute and EMDR HAP include manuals to support full implementation. These quality assurance materials provide a client selection criteria checklist, preparation checklist, assessment worksheet, and treatment plan considerations. Basic training also includes supervision to give clinicians insight into quality improvement. This support is provided during the training itself (through practice sessions that follow all didactic sessions) and followup consultation as needed and requested. Finally, the EMDR manual includes the EMDR Fidelity Rating Scale, developed with multiple subscales to assess a clinician’s use of EMDR protocols in each phase of treatment.

Resources for Agency Directors

Trainings provided by EMDR HAP require that registrants be employed in a nonprofit agency or organization for a minimum of 30 hours per week. Participating agencies are required to provide the training venue, AV equipment, and a minimum of 18 participants.

Cost

Table 1 outlines the costs related to specific implementation components and training information supplied by the intervention developer.

Table 1. EMDR’s Implementation and Training Costs

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMDR HAP Training</td>
<td>$395 per participant/training level (there are two levels)*</td>
</tr>
<tr>
<td>EMDR Institute Training</td>
<td>$700–$850 per participant/training level (there are two levels)</td>
</tr>
<tr>
<td>Advanced Clinical Applications Workshops</td>
<td>$275–$325</td>
</tr>
<tr>
<td>Other Required Reading Materials*</td>
<td>$15–$55</td>
</tr>
</tbody>
</table>

* Two training manuals for the basic training (provided by the EMDR Institute and the EMDR HAP training) are provided as part of the basic training fee.
References Cited


11 EMDR Institute Web site [http://www.emdr.com](http://www.emdr.com)

Other References


Glossary

**Adaptation**: A modest to significant modification of an intervention to meet the needs of different people, situations, or settings.

**Adaptive information processing**: See information processing theory.

**Bilateral stimulation**: Eye movement, tapping, or auditory alternating stimulus used as dual attention stimuli (external focus) as client simultaneously focuses on some aspect of the internal experience.

**CER (comparative effectiveness research)**: The Federal Coordinating Council on Comparative Effectiveness Research defines CER, in part, as the conduct and synthesis of research comparing the benefits and harms of different interventions and strategies (e.g., medications, procedures, medical and assistive devices and technologies, diagnostic testing, behavioral change, delivery system strategies) to prevent, diagnose, treat, and monitor health conditions in real-world settings.

**Comparison group**: A group of individuals that serves as the basis for comparison when assessing the effects of an intervention on a treatment group. A comparison group typically receives some treatment other than what they would normally receive and is therefore distinguished from a control group, which often receives no treatment or “usual” treatment. To make the comparison valid, the composition and characteristics of the comparison group should resemble the treatment group as closely as possible. Some studies use a control group in addition to a comparison group.

**Core components**: These refer to the most essential and indispensable components of an intervention (core intervention components) or the most essential and indispensable components of an implementation program (core implementation components).

**Dissemination**: The targeted distribution of program information and materials to a specific audience. The intent is to spread knowledge about the program and encourage its use.

**Evidence-based practices**: Programs or practices that effectively integrate the best research evidence with clinical expertise, cultural competence, and the values of the persons receiving the services.

**Exposure therapy**: A common treatment for PTSD where the client describes his/her traumatic event and then listens to an audiotape of his/her description for an hour every day. The client also engages in activities that were previously avoided because they triggered memories or other information related to the trauma. EMDR is a viable alternative to exposure therapy because it requires fewer client hours, does not require detailed descriptions of the event or daily homework, and has been shown to be more effective in controlled studies.
**Eye Movement Desensitization:** The original name of Eye Movement Desensitization and Reprocessing therapy. The name was changed to EMDR in 1991 to more accurately reflect the cognitive changes that occur during therapy and to incorporate the information processing theory that was developed to explain the treatment effects.

**Implementation:** The use of a prevention or treatment intervention in a specific community-based or clinical practice setting with a particular target audience.

**Information processing theory:** This theory describes how people process and store elements of experiences and memories; it is the basis for EMDR therapy. Information processing theory asserts that all people have a physiologically based information processing system, similar to other body systems such as the circulatory or digestive system. The information processing system stores memories and other elements of experiences in a manner that is accessible by and linked to related thoughts, images, emotions, and sensations. Traumatic or very negative events can impede healthy information processing. EMDR addresses trauma-related symptoms by processing components of negative memories and associating them with more adaptive behaviors, emotions, and information.

**Intervention:** A strategy or approach intended to prevent an undesirable outcome (preventive intervention), promote a desirable outcome (promotion intervention), or alter the course of an existing condition (treatment intervention).

**Negative cognition:** A negative belief or conclusion about oneself as a result of the stored trauma or memory. Negative cognitions are negative, irrational, self-referencing beliefs held by the patient. It is focused on the presenting issue (e.g., trauma), generalizable to other areas of concern, and resonant with the patient’s symptoms or affect. Examples of negative cognitions include, “I am worthless,” “I am helpless,” and “I should have done something differently to have avoided the trauma.”

**Positive cognition:** A positive belief or conclusion about oneself that focuses the client’s desired direction of change as it relates to the traumatic memory. Positive cognition is not only a goal of the EMDR treatment sessions but also the result of adaptive information processing. Positive cognitions are not absolute statements (i.e., do not include use of “always” or “never”); instead, they focus on rational, achievable, beliefs such as, “I am okay as I am” or, “I did the best I could.”

**Subjective Units of Disturbance Scale:** Determined during EMDR Phase 3, assessment, the patient describes the worst disturbance she or he can imagine and how disturbing it feels at that moment—from zero, which is no disturbance or neutral, to 10, which is the worst disturbance imaginable. The response should be zero when the EMDR approach has been successful in reprocessing experiences toward adaptive resolution.

**Target:** Term used for the incident focused upon for reprocessing within the agreed-upon treatment plan (target focused upon during the assessment phase).
Targeting sequence plan: Incorporates the standard three-pronged protocol to target and reprocess each presenting complaint in the following order: past events (earliest or touchstone memory associated with the presenting complaint, worst contributing experience, and additional past experiences); present triggers of the presenting complaint; and future templates or desired outcomes.

Three-pronged protocol: Past events, present triggers, and future templates, all of which need to be addressed and reprocessed for full EMDR treatment effect.

Touchstone memory: The identified earliest incident that established the dysfunctional, unprocessed memory network.

Additional Resources


Northern Kentucky University, Francine Shapiro Library [http://emdr.nku.edu/](http://emdr.nku.edu/)

This document may be downloaded from [http://nrepp.samhsa.gov](http://nrepp.samhsa.gov)