

Cognitive Behavior Technique

Eye Movement Desensitization
Reprocessing

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Clinical Prompt [to be used AFTER the technique is understood]

1. Cognitive Process Correction is being used to address the client's automatic thoughts
2. The client and the clinician agree that there are emotional issues that may be addressed by EMDR
3. Clinician evaluates the client for EMDR - primary criterion is that traumatic memories are clearly identifiable and vivid
4. Clinician explains the process and demonstrates the eye movements or alternative - ensures calming & coping skills are in place
5. Client is asked to revisit the traumatic experience and to focus on
 - a sensory image of the experience
 - the negative thought(s) that they have about themselves in relation to the trauma
 - the location of the disturbance in their body
6. Clinician moves finger laterally for the client to follow or uses alternative audio, tactile interventions
7. Clinician monitors the psychological responses to the memory by asking about the experience, the thoughts and the disturbances in the body
8. This process goes on for thirty to sixty minutes or until the client feels relaxed by the process
9. The client is asked to keep a daily thought log to note any unusual or noteworthy thoughts or feelings
10. The thought journal is reviewed before the next session

INTRODUCTION

Abstract:

Eye movement desensitization and reprocessing is a controversial technique reported to relieve traumatic memories, phobias, and a wide variety of psychological problems. This paper explains the EMDR procedure, and discusses research that supports and refutes its efficacy.

In 1987, **Francine Shapiro** was walking in the park when she realized that eye movements appeared to decrease the negative emotion associated with her own distressing memories. She assumed that eye movements had a desensitizing effect, and when she experimented with this she found that others also had the same response to eye movements. It became apparent, however that eye movements by themselves did not create comprehensive effects and so Shapiro added other elements, including a cognitive component.

This development in the Cognitive Behavior Management of trauma is EMDR, an acronym for **Eye Movement Desensitization and Reprocessing**. People who have suffered for years from distressing memories, nightmares, abuse or other traumatic events can often gain relief from this rapid information processing intervention discovered sixteen [16] years ago. Although the reason for the positive outcomes are controversial, such outcomes are clearly documented.

EMDR may represent a valuable addition to the Cognitive counselor's repertoire of techniques for helping with a wide range of emotional disorders. Research shows that EMDR is fast, safe and effective. EMDR does not involve the use of drugs, or hypnosis. When used as an adjunct to Cognitive Process Correction¹, EMDR processing can often be helpful in changing the meaning of early, painful memories, which have resulted in negative core beliefs and Early Maladaptive Schemata - events, which when recalled, trigger negative emotions, sensations and beliefs. These memories can be referred to in Cognitive terms as 'hot spots' or in Gestalt terms 'unfinished business'.

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Often referred to as cognitive therapy, this is a five step process in which the counselor helps the client 1) become aware of his/her automatic thoughts; 2) attend to those thoughts through the use of journals and homework; 3) analyze the thoughts through a formal and public process; 4) seek alternatives meanings for the thoughts and finally; 5) to adapt to more balanced and rational thoughts. See CBT#01, #02, & #03 for more information.

EMDR is an innovative clinical intervention that has successfully helped individuals who have survived trauma, including sexual abuse, domestic violence, combat, crime, and those suffering from a number of other complaints.

EMDR processing can bring quick and lasting relief for many types of emotional distress. EMDR uses a natural function of the body, Rapid Eye Movement (REM), as its basis. The human mind seems to use REM during sleep time to help it process daily emotional experiences. There is some evidence that when the eye movements are used clinically, they perform a similar function to those that occur during REM sleep (when we dream). REM during sleep time may also help process daily emotional experiences. When trauma is extreme, this process seems to break down and REM sleep doesn't bring the usual relief from distress. Whether this is because the trauma brings on sleep problems so that not enough REM is achieved, or whether the amount of distress is overwhelming to this the usual processing is not known.

EMDR is thought to be an advanced stage of the REM processing. As the brain via the eye-movement processes troubling images and feelings, resolution of the issue can be achieved. At the same time, there is argument that the rapid eye movement is not the remedial factor at all, since it is possible to achieve many of these same results with other means, e.g., audio in alternating ears. While some researchers want to give the credit for the positive outcomes to the Cognitive Behavior Management processes that accompany the EMDR intervention, it is not clear that it matters where the positive resource lies, only that it works.

It is possible that the process as described, has some relation to the Swish process as designed by Richard Bandler, one of the founders of NeuroLinguistic Programming.

To do a Swish, you need two situations: One that you don't want to happen again and one that has to happen instead of the first situation. Now visualize the two situations. The '**problem picture**' (a snapshot of the first situation) has to be associated, big and bright and the '**goal picture**' has to be dissociated, small, dark and being situated in one of the corners at the bottom of the problem picture. Now do the swish: The goal picture grows, gets brighter and replaces the problem picture while the problem picture fades away. Do this very fast. It has to be done in about a second. You can do this by visually connecting the two pictures with a stretched elastic band and

letting it go when doing the swish. Blank your mind and repeat this five times.

Note that in this process, the **submodalities** [qualities of sight, sound, taste, touch and smell] are brought into the sensory image and then are switched in a rapid process, and this is repeated several times. Bandler posits that these submodalities are the coding which maintains the emotional content of the experience and that in changing the submodalities, you are able to change the emotional content.

Normally, an individual processes disturbing experiences naturally. However, when a person is severely traumatized, either by an overwhelming event or by being repeatedly subjected to distress, this healing process may become overloaded, leaving the original disturbing experiences unprocessed. These unprocessed memories can be stored in the brain in a 'raw' [sensory submodality] form where they may be continually re-evoked when experiencing events that are similar to the original experience. They are stored in the brain with all the sights, sounds, thoughts and feelings that accompany it. Therefore, the negative thoughts and feelings of the traumatic event are trapped in the nervous system. Since the brain cannot process these experiences, the experience and/or its accompanying feelings may be suppressed from consciousness. However, the distress lives on in the nervous system where it may cause disturbances in the emotional functioning of the person. Similarly to the way rapid eye movement (REM) or dream sleep works, the eye movements during the EMDR session do two very important things:

First, it seems to 'unlock' the negative memories and emotions stored in the nervous system, and second, it seems to help the brain to successfully process the experience.

The clinician works gently with the client, guiding him or her to revisit the traumatic incident. When the memory is brought to mind, the feelings are re-experienced in a new way. EMDR makes it possible to gain the self-knowledge and perspective that will enable the client to choose their actions, rather than feeling powerless over their re-actions. This process can be complex if there are many experiences connected to the negative feelings. The EMDR sessions are repeated until the traumatic memories and emotions are relieved.

COGNITIVE RESEARCH INTO TRAUMA

Perhaps this process sounds too easy to be effective. But, much of the literature available on this topic is positive. In 1995, a comprehensive study

was completed by Wilson, Becker and Tinker. Eighty participants suffering from a variety of trauma (physical-mental abuse, death of a significant other, rape and sexual molestation, relationship crisis, health crisis, phobic memory and combat trauma) were randomly assigned to intervention or delayed-intervention conditions. All outcome measures were administered by a skeptical, independent assessor, which were SUDS, Impact of Event Scale, State-Trait Anxiety Inventory and Symptom Check List. The participants that received three 90-minute EMDR sessions showed decreases in their presenting complaints and in anxiety and increases in positive cognition. Participants in the delayed-intervention condition showed no improvement on any of these measures during the 30-day waiting period, but they showed similar improvement on all measures after intervention. EMDR was equally effective on all the types of trauma studied, and outcomes did not vary between those 46% diagnosed with PTSD and those that did not meet full PTSD criteria. Also, the severity or time period in which the trauma had occurred did not make a difference in EMDR effectiveness. The effect sizes were too large for a placebo effect to account for the changes, and the effects were maintained at a 90-day follow-up.

The EMDR processing of traumatic events is supported by the latest Cognitive Neuroscience Model of PTSD. According to **Dual Representation Theory (DRT)**, proposed by Professor Chris Brewin, (University College London), the situationally accessible memory system (SAM), which is located in the emotional part of the brain called the amygdala, interferes with hippocampal function, disrupting encoding in Verbally Accessible Memory (VAM). It is this impairment in VAM that accounts for increased intrusions. EMDR seems to play a critical role in transferring information from the non-hippocampal (amygdala) dependent SAM memory store to the hippocampal-based VAM and completing the processing of the trauma.

Note that in the Swish, the process is purely sensory and there is no linguistic involvement in the change, whereas in the traditional cognitive process correction, there is an attempt to bring the 'unsayable' into a linguistic consciousness. "If I can say it, I can control it." In terms of DRT, dissociation can be thought of as impairing the formation of a normal autobiographical [linguistic] narrative. This phenomenon can be witnessed in minor traumas such as panic attacks, whereby, the client misinterprets the physical sensations of panic in a catastrophic fashion, without checking out the negative interpretation, which maintains the panic. EMDR can often be used to process early negative memories, and help weaken early maladaptive beliefs [particularly those formed before the child was able to speak which must now be coded only symbolically and are therefore 'unsayable'] that appear resistant to change (see Schema Focused Counseling and Early Maladaptive Schemata).

EMDR shares a number of elements with the well established Cognitive Process Correction. For example, clients are asked to recall the events of their trauma and monitor physiological responses to the memory. The intervention also prompts the client to engage in repeated sets of lateral eye movements while focusing on initial reactions and the balanced and rational alternative cognition.

Research studies show that EMDR is very effective in helping people process painful and traumatic experiences. The processing can help move the client quickly from emotional distress to peaceful resolution of the issues or events involved. The positive, long-term results of EMDR processing, can affect all levels of the client's well being - mental, emotional and physical, so that their responses return to normalcy and health. Studies consistently show that information processing with EMDR can result in elimination of the targeted emotion. The memory remains but the negative emotional content is neutralized. When used as an adjunct to Cognitive Process Correction, EMDR can be highly effective with many emotional problems.

When used as an adjunct to Cognitive Process Correction, EMDR has direct application to many human situations, including phobias, many anxiety-based disorders and emotional problems that have their basis in emotional trauma in earlier experiences. EMDR has been used to help reduce many types of emotional blocks or fears, including PTSD, sexual abuse, grief, performance anxiety, social anxiety and pain.

Fourteen [14] controlled studies support the efficacy of EMDR and research supports its efficiency in the intervention with trauma. The most recent five [05] studies with individuals suffering from events such as rape, combat, loss of a loved one, accidents, natural disasters, etc. have found that 84-90% no longer had post-traumatic stress disorder after only three intervention sessions. It must be again noted, that the rapid eye movement has not been clearly documented as the reason the process works.

While many people show dramatic responses in a short amount of time, there are also those who will progress more slowly, while others might obtain more benefit from other proven cognitive techniques, or in addition to other cognitive interventions. Just as in any intervention process, progress is at the rate appropriate to the individual and the clinical situation.

THE PROCESS

EMDR is an **information processing approach** and uses eight phases in which the client attends to past and present experiences in brief sequential

doses while simultaneously focusing on an external stimulus. Then the client is instructed to let new material become the focus of the next set of **dual attention**. This sequence of dual attention and personal association is repeated many times in the session.

During the EMDR session, the client is awake, alert and in control at all times. No hypnotic trance state is induced, no suggestions are made, and the changes that occur are the result of the client's own innate processes.

Eight Phases of Intervention

PHASE 1 is a history taking session during which the counselor assesses the client's readiness for EMDR and develops an intervention plan.

Client and counselor identify possible targets for EMDR processing. These include recent distressing events, current situations that elicit emotional disturbance, related historical incidents, and the development of specific skills and behaviors that will be needed by the client in future situations.

There are a number of factors to consider when evaluating the appropriateness of EMDR for a client's particular situation and history. During the initial consultation an in-depth assessment of the presenting problems and all other relevant factors will be discussed in full. After this in-depth assessment, a decision can be made as to whether EMDR would be an appropriate intervention. The client's ability to deal with high levels of disturbance, the amount of external stress in his or her life, and medical conditions are all considered. In general, the client is an excellent candidate for EMDR if s/he has traumatic memories that are clearly identifiable and vivid.

Following an in-depth assessment of the client's presenting problems and other relevant issues in their personal history, time will be taken to explain the process and demonstrate the eye movements so that the client is fully prepared for what the procedure involves. The aim is to enable the client to end each session feeling reasonably relaxed, comfortable and free from distress regardless of the material that may be addressed during the sessions.

Phase 2 - is the preparation phase, in which the clinician introduces the client to the procedures, explains the theory, establishes expectations about outcome effects, and prepares the client for possible between-session disturbance. After identifying the memory and an image that best represents that memory, the client chooses a negative cognition that s/he has in relation to the event, such as "I am useless/bad/unlovable". The client then

identifies a positive cognition to replace the negative one, such as "I am worthwhile/a good person/lovable" and rates how much he or she believes this positive statement using the 7-point **Validity of Positive Cognition** (VOC) scale. Then, the image and the negative cognition are combined, and the client rates his or her level of disturbance on the 10-point **Subjective Units of Disturbance Scale** (SUDS).

At this point, clinicians often give the client an audiotape of relaxation exercises so that s/he can use it before beginning the EMDR sessions and between sessions. Guided imagery and relaxation are occasionally used during the sessions to facilitate the client's ability to deal with the recalled memories. The counselor ensures that the client has adequate methods of handling emotional distress and good coping skills, and that the client is in a relatively stable state. If further stabilization is required, or if additional skills are needed, the counselor focuses on providing these. The client is then able to use stress reducing techniques whenever necessary, during or between sessions. However, one goal of the intervention is not to need these techniques once the course of counseling is complete.

Phase 3 - a target is identified and processed using EMDR procedures. These involve the client identifying the most vivid visual image related to the memory (if available), a negative belief about self, related emotions and body sensations. The client also identifies a preferred positive belief. The validity of the positive belief is rated, as is the intensity of the negative emotions.

EMDR requires the client to focus on three main aspects of the trauma:

- a sensory image which is usually that of the most disturbing part of the trauma.
- the negative thought that they have about themselves in relation to the trauma.
- the location of the disturbance in their body.

Focusing on these aspects, the client then tracks the counselor's finger across the visual field in rapid sudden movement of the eyes from point to point and after each set of such movements, the client is simply asked to report on what they are experiencing. During the course of this procedure, a decrease in the emotional impact of the traumatic memory often occurs. The decrease is usually gradual but in some cases may be sudden. In addition, the client's perception of his/her own part in the trauma can change, often dramatically. Disturbing memories that have been forgotten or repressed may suddenly come to the surface, often accompanied by the release of painful emotions.

The client is instructed to focus on the image, negative thought, and body sensations while simultaneously moving his/her eyes back and forth following the counselor's fingers as they move across his/her field of vision for 20-30 seconds or more, depending upon the need of the client.

Phase 4 involves desensitization. The client focuses on the negative affect and follows the clinician's rapidly moving fingers, sweeping back and forth approximately 12 to 14 inches. The procedure is repeated in sets ranging from 10 seconds to longer than a minute, until the SUDS level is reduced to 0 or 1. Recently, it has been noted that eye movement is not necessarily needed, because similar results have been found by tapping alternate hands on a chair rest or broadcasting alternating tones in a client's ear. Any of these strategies can be implemented at this point. It is also emphasized that these initial sets are often not sufficient for complete processing and that other strategies and advanced EMDR procedures may be needed to re-stimulate processing.

Phase 5 is the installation phase, which focuses on cognitive rehabilitation. Here, the positive cognition is strengthened in order to replace the negative belief. The client holds the positive belief with the image in his or her mind and the eye movement sets are continued until the client rates the positive cognition at a 6 or 7 on the VOC scale. After linking the positive cognition with the target memory, an associative bond is created. Thus, the client believes the positive cognition when remembering the previously disturbing image.

The client holds the image and the positive cognition in his or her mind and scans the body in order to identify any tension. These body sensations are then targeted during the following sets of eye movements or alternative desensitization techniques.

Phase 6 - evaluation is implemented at the beginning of each new session. Previously accessed targets are brought back and the client's responses are reviewed to assess if the intervention effects have been maintained. New images or memories are then targeted following the eight-step procedure.

Although **eye movements** are the most commonly used external stimulus, counselors often use auditory tones, tapping, or other types of tactile stimulation. The kind of dual attention and the length of each set is customized to the need of the client. The client is instructed to just notice whatever happens. After this, the clinician instructs the client to let his/her mind go blank and to notice whatever thought, feeling, image, memory, or sensation comes to mind.

Depending upon the client's report, the clinician will facilitate the next focus of attention. In most cases a client-directed association process is encouraged. This is repeated numerous times throughout the session. If the client becomes distressed or has difficulty with the process, the counselor follows established procedures to help the client resume processing. When the client reports no distress related to the targeted memory, the clinician asks him/her to think of the preferred positive belief that was identified at the beginning of the session, or a better one if it has emerged, and to focus on the incident, while simultaneously engaging in the eye movements.

Phase 7 - is closure, which includes a debriefing reminding the client that s/he may experience disturbing images, thoughts, or emotions between sessions. The client is told that this is a positive sign and is often asked to keep a log or journal about negative thoughts, situations, dreams, and memories that may occur. If the client is not debriefed, there is a danger of decompensation or, in an extreme case, suicide.

After several sets, clients generally report increased confidence in this positive belief. The counselor checks with the client regarding body sensations. If there are negative sensations, these are processed as above. If there are positive sensations, they are further enhanced.

Between sessions, it is a good idea for the client to keep a daily thought log of any unusual or noteworthy thoughts or feelings. S/he can then bring their notes to the next session. This thought record will help the counselor to know if any adjustments are warranted. After an EMDR session, there may be a strong sense of relief, a feeling of openness or even euphoria.

For closure, the counselor asks the client to continue to keep a journal during the week after the end of intervention session to document any related material that may arise and reminds the client of the self-calming activities that were mastered in phase two.

Phase 8 - Begins with re-evaluation of the previous work, and of progress since the previous session. EMDR intervention ensures processing of all related historical events, current incidents that elicit distress, and future scenarios that will require different responses. The overall goal is to produce the most comprehensive and profound outcome effects in the shortest period of time, while simultaneously maintaining a stable client within a balanced system.

After EMDR processing, clients generally report that the emotional distress related to the memory has been eliminated, or greatly decreased, and that

they have gained important cognitive insights. Importantly, these emotional and cognitive changes usually result in spontaneous behavioral and personal change, which are further enhanced with standard EMDR procedures.

CONCLUSIONS

After the client has gone through these phases, the previously disturbing memories should be altered. The image may change in content or appearance, the sounds or voices recalled often become quieter or disappear, the client's cognitions may become more therapeutically adaptive, and emotions and physical sensations often lessen in intensity. After intervention, many people feel as though a slate has been wiped clean and a space created where new learning can take place (Butler, 1993). They feel as if the memory is now a part of the past. Other positive effects are also common, such as improved competence, mood, attitude, or self-appraisal. Processing may continue on a sporadic basis for days or weeks following the sessions, including increased dream activity, mood changes, additional memory recall and new insights (Greenwald, 1994).

Typically, an EMDR session lasts from 60 to 90 minutes. The length of the session depends upon a number of factors, including the nature and history of the problem, the degree of trauma, the specific circumstances on that particular day, etc. The history and formulation are usually done in a few sessions. The counselor and client collaborate to agree on the current problem, establish how and when it arose, identify any maintaining factors and agree on goals for change.

Remedy can be very rapid, however, the number of sessions will vary, according to the complexity of the issues being dealt with. In general, the more isolated the traumatic memory being treated, the shorter the process tends to be. For individuals with a history of multiple painful experiences and years of feeling bad about them, a number of EMDR sessions in conjunction with cognitive process correction or cognitive restructuring may be needed.

Controversy

Along with the debate about what produces the positive outcome, another major point of contention has been Shapiro's possessiveness of EMDR techniques. She insists on personally conducting the workshops and having the trained individuals sign a contract stating that they will not teach anyone else these skills. This restriction has been viewed negatively by many clinicians.

However, Shapiro defends her position by citing several cases of negative reactions to intervention given by untrained clinicians. For example, one client reportedly became overwhelmed by strong emotion between sessions and committed an act of domestic violence (Butler, 1993). Shapiro believes that the training is also crucial for learning how to keep a client from dissociating or prematurely stopping the intense procedure. Shapiro says the trick is keeping the client anchored in the present time, while keeping the memories flowing. She maintains that only her workshops provide the skill needed to do this (Butler, 1993).

Nonetheless, Acierno et al. (1994) argue that Shapiro's practice of allowing only clinicians who attend her workshops to use EMDR prevents unbiased replication of and experimentation with the technique. Researchers who have invested considerable time, effort, and expense to undergo the exclusive EMDR training are likely to demonstrate expectancy effects in their experiments.

REFERENCES

- Acierno, R., Hersen, M., Van Hasselt, V. B., Tremont, G., & Meuser, K. T. (1994). Review of the validation and dissemination of eye-movement desensitization and reprocessing: A scientific and ethical dilemma. *Clinical Psychology Review, 14*, 287-298.
- Butler, K. (1993). Too good to be true? *Networker*, November/December, 19-31.
- Greenwald, R. (1994). Eye movement desensitization and reprocessing (EMDR): An overview. *Journal of Contemporary Psychotherapy, 24*, 15-33.
- Marquis, J. N. (1991). A report on seventy-eight cases treated by eye movement desensitization. *Journal of Behavior Therapy and Experimental Psychiatry, 22*, 187-192.
- Montgomery, R. W., & Ayllon, T. (1994). Eye movement desensitization across subjects: Subjective and physiological measures of intervention efficacy. *Journal of Behavior Therapy and Experimental Psychiatry, 25*, 217-230.
- Oswalt, R., Anderson, M., Hagstrom, K., & Berkowitz, B. (1993). Evaluation of the one-session eye-movement desensitization reprocessing procedure for eliminating traumatic memories. *Psychological Reports, 73*, 99-104.
- Renfrey, G., & Spates, R. C. (1994). Eye movement desensitization: A partial dismantling study. *Journal of Behavior Therapy and Experimental Psychiatry, 25*, 231-239.
- Shapiro, F. (1989). Eye movement desensitization: A new intervention for post-traumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 20*, 211-217.
- Shapiro, F. (1995). *Eye movement desensitization and reprocessing: Basic principles, protocols, and procedure*. New York: Guilford.
- Vaughan, K., Armstrong, M. S., Gold, R., O'Connor N., Jenneke, W., & Tarrier, N. (1994). A trial of eye movement desensitization compared to image habituation training and applied muscle relaxation in posttraumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychology, 25*, 283-291.

Wilson, S., Becker, L., & Tinker, R. (1995). Eye movement desensitization and reprocessing (EMDR) treatment for psychologically traumatized individuals. *Journal of Consulting and Clinical Psychology, 63*, 928-937.