

The treatment of post traumatic stress disorder (PTSD) has been a hot topic of debate since it's inclusion into the Diagnostic and Statistical Manual of Mental Disorders in the 1980's. However, it was not until 1989, with the introduction of Eye Movement Desensitization and Reprocessing (EMDR), that this debate reached such lofty heights of vigour. The lack of any theoretical models as to why the EMDR process might work has not helped in gaining professional credence. It will be the purpose of this article to briefly review the reasons for this debate, give a short outline of the EMDR procedure and comment upon the current state of research.

The Background

Francine Shapiro, a Californian psychologist, first introduced EMDR with startling claims of a near 100% success rate with a single session of EMDR (Shapiro, 1989a, b) and caught the imagination of clinicians and researchers to a possible unitary cure. Until this point PTSD had been viewed, together with obsessive compulsive disorder, as one of the anxiety disorders most resistant to either psychological or pharmacological therapy. Not surprisingly, Shapiro's claims led to overwhelming interest into the technique.

The first issue of debate, and one still being argued, involved the marketing and dissemination of the actual EMDR procedure. Shapiro (1992) claimed that attendance at an authorised training course was essential to the validation of any research results into the technique and that practicing therapists are ethically obliged to attend these courses too. To obtain full EMDR competence, Shapiro claims that attendance at both level 1 and level 2 training courses must be completed, and at \$495 per course this has led to somewhat animated discussion. The required signature of the training course attendee on a legally binding document, swearing not to train others in the technique or publish the therapeutic process, has also fuelled this debate to a large extent. However, this topic is mostly outside the realm of the present article and those interested may wish to look through the 'letters to the editor' section in any issue of the Behavior Therapist from 1994 onwards.

The issue of most interest to researchers and clinicians, though, involves the reported effectiveness of the process and the agents of change - particularly the necessity of eye movements. In order to give the reader a wider understanding of what

EMDR actually is, an outline of the process is presented below. However, it should be made explicit that this is only an outline to facilitate the discussion of the topic and does not claim to be a definitive description of the process or the therapeutic skills necessary or sufficient to conduct the therapy.

The Technique

- The building of an initial rapport is important in all therapeutic interventions, and EMDR is no exception. Gaining the client's trust and understanding is imperative, particularly when using techniques that are new or unusual.
- Presenting problem. Naturally, a full diagnostic and systemic interview must be completed in order to understand the client's presenting problem and formulate an appropriate treatment plan.
- Give client rationale, appropriate to their level of understanding. For example, variants of the following have been used (Deville, Spence & Rapee, 1996)
"Traumas cause a pathological change in the brain at the neural level resulting in these incidents becoming locked in the nervous system and not being processed in the normal way and, therefore, not being dealt with. Repetitive eye movements may be the body's natural way of desensitising the person to the memory and so, inhibiting anxiety, the traumatic overload becomes resolved".
- Requiring the client to generate an imaginary, representative picture of the distressing issue. The client may find that they ruminate or dream about a particular part of the trauma or associate a particular smell or noise with the event. They should bring this picture or associated stimuli into consciousness and concentrate upon it.
 - a. Obtain the client's negative belief statement. "Whilst imagining this scene, what unadaptive or harmful beliefs come to mind?"
 - b. Obtain the client's desired (though realistic) positive cognition.
 - c. Obtain a measure of how true the client perceives *a.* and *b.* as actually being, by measuring how much they believe this statement (Validity of Cognition Scale, from 1 to 7, with 1 meaning totally untrue and 7 meaning totally true).
- Discuss the emotions that the mental picture evokes and also identify the body sensations that accompany these emotions.

- Obtain a measure of the degree of anxiety / disturbance that this picture / feeling / cognition evokes using the Subjective Units of Disturbance Scale (SUDS) (a scale from 0 to 10, with 0 signifying no anxiety and 10 denoting highest possible anxiety).
- Explanation of physiology checks that will be used during the technique thus:

“What we will be doing often is a physiology check. I need to know from you exactly what is going on with as clear feedback as possible. Sometimes things will change and sometimes they won’t. I’ll ask you how you feel from “0” to “10”... [SUDS]...- sometimes it will change and sometimes it won’t. There are no “supposed to’s” in this process. So just give as accurate feedback as you can as to what is happening, without judging whether it should be happening or not. Just let whatever happens, happen”.
- EMDR process: Whilst the client concentrates on the imaginal picture and accompanying body sensations he / she must concentrate on the therapist’s first two fingers which are moved rapidly back and forth across the line of vision 12 - 14 inches away from the face. Each sweep should cover the extreme left and extreme right of the field of vision (at least 12 inches) at the rate of two back and forth movements per second, although this may be slightly faster or slower depending upon the individual’s ability to track the movements. Initially the direction should be on a horizontal plane but if this proves to have little effect then it can be changed to a diagonal, vertical or circular motion, accommodating individual client differences.

Twenty four back and forth sweeps should be given for each set, although if abreaction is noticed then these movements should be continued until a plateau in affect is reached. Throughout, nurturing prompts may be given e.g. “good”, “well done”, “that’s it”. At the end of one set of eye movements, the client is then instructed to “blank it out and take a deep breath”. Following this the client is asked whether “anything else came up”. If so, then this is concentrated upon for the next set of eye movements until it is desensitised (a SUD score of 0). If not then the client is instructed to bring the picture / feeling / cognition up again and give it a SUDS rating. This process is continued until a rating of 0 is obtained (no anxiety) and the issue desensitised.

The desired cognition is then concentrated upon during the eye movements until a VOC rating of 7 is obtained (completely true). This cognition and the original issue is then linked together during the eye movements, and finally a body scan is completed, checking for any physiological residue. If the client becomes “stuck” with a high anxiety rating that will not decrease, then they are asked what makes it difficult for them to reduce this. The reasons that are given are then concentrated upon and more eye movements are induced.

As can be seen from the above, it would seem that eye movements are the central feature of the process that differentiates EMDR from other therapeutic techniques. Therefore, important questions include: Is EMDR more effective than other techniques and as successful as first claimed? If the procedure does effect improvement, are the eye movements necessary? and if not, what are the agents of change?

Does It Work?

The first investigations into EMDR were case reports of the N=1 variety and were almost unanimously positive with regard to outcome (e.g. Wolpe & Abrams, 1991; Puk, 1991; Kleinknecht & Morgan, 1992). This may have been a reflection of the enthusiasm for the EMDR technique or reflect the well known bias for many researchers to only report the successful case studies or the editorial policy of many journals to only report successful research. Regardless, many of these case studies used very poor methodologies with inappropriate assessment protocols (if any in some cases) and have been criticised accordingly (e.g. Herbert & Mueser, 1992). For those interested, Lohr, Kleinknecht, Conley, Dal Cerro, Schmidt & Sonntag (1992), published a methodological critique of the early EMDR research and drew attention to the lack of diagnostic clarity of subjects in these research (particularly Shapiro, 1989) and that in the EMDR process there are large demand effects to report low anxiety levels. They also point out that many of the subjects in past studies had been undergoing other therapies besides EMDR and also they make the criticism that the “believability” in the rationale for Shapiro’s (1989) control condition may have not matched that of the experimental group. The derived treatment expectancy in therapy has a large bearing on the results of that research and EMDR is no exception. It can be

argued, therefore, that the early single case reports offered little advancement in our knowledge of whether EMDR was as effective as first claimed.

Controlled outcome studies, on the other hand have been more informative than the single case design methodologies. They have yielded very mixed results and the field is still divided as to the efficacy of the process. Perhaps the most favourable and sympathetic research to date, with the exception of Shapiro's original study (1989), was that by Wilson, Becker and Tinker (1995). In this study 80 participants who "had a traumatic memory that was interfering with their life" (Wilson et al., 1995) were placed in a delayed treatment condition or were immediately treated with three 90-minute sessions of EMDR. The results displayed a very significant decrease in symptoms associated with PTSD and increased positive cognitions related to the trauma for the treatment group. However, the wait-list displayed no change in symptomatology. While these effects were maintained at 3 month follow-up, there were certain limitations with regard to this study. Firstly, the control condition (wait-list delayed treatment group) would not have generated the expectancy of improvement which may have occurred in the treatment condition, and the participants would have known that they had not received treatment. Secondly, the follow-up assessments were conducted by an independent assessor, and it was not clear whether he / she was blind to the participant's experimental condition, and whether this blindness would have been maintained during the interview. Thirdly the participants were assessed in person and the demand effects for reporting low anxiety levels and PTSD symptomatology would have been accordingly high. However, this study at least went some way in supporting the single case reports, yet still did not display the extreme results of Shapiro (1989).

A recent study by the current author (Deville, Spence & Rapee, 1996), with appropriate control groups, suggests that this technique is not as successful as first claimed with a veteran sample, and that eye movements are not an essential part of the treatment. In summary it was found that whilst there was a modest improvement in pathology after 2 sessions of EMDR, this improvement dissipated with time. It is suggested that the use of a postal follow-up reduced the demand effects to report improvement.

The notion that eye movements are not necessary is also supported by other research with both clinical and non-clinical groups (Foley & Spates, in press; Pitman et al., in press; Renfrey & Spates, 1994). Furthermore, while these research displayed a lowering in symptomatology following EMDR, this was not to the degree reported by either Wilson et al., (1995) or Shapiro (1989).

While this is a very brief and selective overview, those interested in a more complete survey of the research in this area may wish to consult the growing number of critical reviews (Acierno et al., 1994; Kavanagh & Ryan, 1996). The jury may still be out with regard to the efficacy of EMDR, but the overriding evidence to date suggests that it is not as effective as first claimed and may not be any more effective as other exposure based therapies. Furthermore, it would seem that the eye movements are not therapeutic in their own right.

What Facilitates Change?

So, if the eye movements are not necessary, one has to pose the question of what aspects of the technique are responsible for change. As can be seen from the above description of EMDR, the technique makes use of intervention types that are already known to have a positive effect with regard to outcome. While other treatments of PTSD, and anxiety generally, are outside the realm of this short article, I list below some of these aspects with a corresponding reference to related research (for a more in-depth analysis of PTSD treatments one may refer to the article by Mark Creamer in this issue).

- The client engages in imaginal exposure to the event in a controlled and systematic way (Foa et al., 1991).
- Exposure is prolonged (using any distracter) and avoidance of this exposure is denied through repeated exposure “until a plateau in effect is reached” (Marks, 1987).
- The client is told to take a deep breath and slowly let it out after each set of eye movements. In this way, it could be argued that a stress inoculation approach to stress management is being utilised (Meichenbaum, 1985).

- The client is taken through a considerable amount of cognitive challenging during the process, whereby they replace old unadaptive beliefs for self-preferred positive and realistic ones (Clark et al., 1994).
- Treatment expectancy and the delivery of a credible rationale has been found to influence client perception of therapy (Borkovec & Nau, 1972; Nau, Caputo & Borkovec, 1974).
- Therapist demand effects are likely to lead to *reporting* low levels of symptomatology

Conclusion

EMDR has certainly been marketed as a revolutionary and highly efficacious new approach to the treatment of PTSD, but it would seem that such claims are premature with regard to the research evidence. At this stage it seems that the eye movements are unnecessary and, accordingly, EMDR adds no new ingredient to the treatment of anxiety disorders. Should I use it? As such this appears to be just another technique in delivering already established cognitive-behavioural methods of treatment. A firm grounding in these methods and their underlying theory should be the first 'port of call', and then, once an anchor theory for the delivery of treatment is understood, EMDR may be useful. Do I need to be trained? That is entirely up to the individuals already established skills and their ethical stance.

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**EMDR & PTSD:
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