

EMDR TREATMENT OF A 10 YEARS OLD BOY WHO SUFFERED FROM CONTINUOUS OVERNIGHT WAKING - A CASE REPORT

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INTRODUCTION

Individuals experiencing posttraumatic stress disorder (PTSD) report insomnia (trouble initiating and maintaining sleep) and recurrent distressing dreams among their most common and distressing symptoms. These sleep disturbances have long been thought to play a central role in PTSD, and research has suggested sleep problems may predict development of PTSD after exposure to trauma. Sleep complaints at one month, but not at one week, posttrauma are a significant predictor of PTSD at 12 months posttrauma (Koren et al. 2002). Children who experienced traumatic surgical operation may develop sleep disorder (SD). Insomnia and nightmares can easily occur. The high frequency of sleep disturbances associated with PTSD and their potential role in the development and course of PTSD highlight the importance of improving sleep among individuals with SD. In this article, we describe sleep disturbances associated with appendectomy, with a focus on insomnia and EMDR (Shapiro 1995) as a treatment for a sleep disorder (SD). In this therapy, a patient selects an image related to a traumatic event and is asked to hold it in mind while engaging in back and forth eye movements that are led by the therapist. After completing a set of eye movements, the patient is directed to note: "What comes up?" such as thoughts, feelings, or other images. The patient then holds whatever was most salient that was noted in mind while another set of eye movements is conducted and so on. Over the course of the session the patient is helped to process the image and desensitize the trauma. In this model, the eye movements serve to relax and distract the patient while confronting painful material related to the trauma as the supportive therapist helps the patient cognitively to make sense of the experiences.

Because trauma is a salient feature of SD, one would expect a treatment designed to address traumatic experiences to have a beneficial effect. Eye movement desensitization and reprocessing (EMDR) has been recognized as an effective treatment for PTSD (Bleich et al. 2002, Chemtob et al. 2000, Clinical Resource Efficiency Support Team 2003). The Department of Veterans Affairs and Department of Defense PTSD practice guidelines (Department of Veterans Affairs &

Department of Defense 2004) and the American Psychiatric Association (2004) have afforded EMDR the highest level of recommendation, along with forms of CBT. Several controlled studies have compared CBT (exposure therapy with and without forms of cognitive therapy) to EMDR and have found the two treatments to be fairly equivalent in effectiveness, though EMDR was reported to be significantly more efficient (Ironson et al. 2002, Jaberghaderi et al., in press, Lee et al. 2002, Marcus et al. 1997, Maxfield & Hyer 2002, Power et al. 2002). When EMDR was compared with a combination of imaginal and therapist-assisted in vivo exposure, exposure was superior on 2 of 10 subscales and necessitated an additional 50 hours of homework (Taylor et al. 2003). The adaptive information processing (AIP) model, which is the theoretical framework behind EMDR, clarifies the impact of traumatic experiences on functioning and provides a rationale for utilizing EMDR in the treatment of PTSD (Shapiro 2001). The AIP model describes a naturally occurring learning process that links new experiences with similar information, as well as information corrective to emotional disturbance, within the memory network, leading to adaptive resolution. In other words, once the appropriate associations are made "what is useful is stored with the appropriate affect and is available for future use" (Shapiro 2001). However, the intense affect that accompanies trauma can block this information processing from occurring, thus preventing connections with adaptive information. Consequently, the thoughts, emotions, sensations, and images associated with the traumatic event become isolated, only to be triggered by future similar events. Once triggered, this information and the associated distress can alter the individual's perceptions, thus contributing to dysfunctional responses that can impair daily functioning (Shapiro 1998, 2001). Over time, this can lead to an enduring pattern of responding and interacting with one's environment. Thus, it would follow that targeting, through treatment, the traumatic events that have contributed to the development of disorder or pathology may improve functioning (Shapiro 2001, 2002, Shapiro & Maxfield 2003). The AIP model "predicts that most kinds of disturbing life experiences can be successfully treated, regardless of their origin" (Shapiro 2001). In terms of defining trauma, most would readily recognize

experiences such as assaults, natural disasters, and traffic accidents as traumatic. The AIP model refers to these, which are events typically associated with PTSD, as “large-T” trauma.

The AIP model suggests that “small-t” trauma (i.e., those that do not rise to the level of PTSD/Criterion A events), though comparatively minor, may also negatively affect the information processing system. EMDR has been reported in controlled studies to successfully address PTSD and other trauma, with internal analyses indicating comparable effects (Scheck et al. 1998, Wilson et al. 1995, 1997). Therefore, given the prevalence of trauma within the SD population, EMDR would appear to be an appropriate method of addressing the experiential contributors of this disorder. The following case illustrates EMDR’s applicability to SD, and the positive treatment effects when appropriate target is being selected.

CASE REPORT

Mateo, a 10-year-old boy, couldn’t sleep properly during the night due to his often awakenings that started after the appendectomy. He lives with his parents and an older sister, he goes to school (fourth grade) and is a good student, and he has lots of friends and plays football. Mateo seemed to have a good family connections and good friend relationships. There seem to be no traumas in his past and no history related to the presenting problem, except appendectomy that had happened four months ago. This is his first time coming to speak with somebody about the problem. His own emotional functioning was fairly stable, but he was becoming more and more tired which was leading to frequent anxiety and inability to study and concentrate. Mateo’s primary treatment goals included resolving his inability to fall into sleep during the night. Mateo had never previously participated in any kind of treatment for his problem.

Presenting complaints

When Mateo started the treatment he was experiencing significant lack of sleep. Due to the lack of sleep he was experiencing anxiety and difficulty maintaining a cohesive attention during the course of studying. This was happening for four months now and the parents were becoming more and more worried and exhausted. Given the first author’s training, EMDR was introduced as a treatment option.

History

Mateo is living with his biological mother and father. He has an older sister. His father is employed and his mother is unemployed. They have been very close. At the age of four Mateo started going to preschool, after preschool time, his mother would look after him at their home. He liked the preschool and at the age of six he

started going to first grade. Mateo was a very healthy boy and other than some seasonal viruses his mom did not report any illness. Unfortunately, when he was 10 his appendix had to be removed and he underwent the surgery. At the time of treatment Mateo had been sleeping very poorly and was very tired. Despite his parents effort to help him fall into sleep again during the night they could do very little and were exhausted as well.

Assessment

A measure of emotional distress commonly used in EMDR therapy the Subjective Units of Distress (SUD) Scale (Wolpe 1958), was used throughout Mateo’s treatment. This scale requires the client to identify the level of distress related to an identified target event, where 10 represents the worst possible distress and zero represents no distress or neutral. Mateo’s SUD levels decreased considerably as treatment progressed.

Case conceptualization

EMDR is an integrated psychotherapy (Shapiro 2001, 2002) that utilizes an eight-phase treatment protocol to access disturbing life events, present triggers, and projected future experiences and to process them to adaptive resolution. First, information is gathered (client history) and care is taken to adequately prepare the client for the challenges of treatment (client preparation). Then, appropriate treatment targets are chosen (assessment) and reprocessed (desensitization, installation, body scan). During the closure phase, clients are prepared for between-session equilibrium. During the reevaluation phase, treatment effects are evaluated and the clinician is guided to subsequent targeting (Hasanović 2014). EMDR facilitates this process by accessing all aspects of the experience, including the image, beliefs, affect, and bodily sensations, while also simultaneously providing a form of dual attention stimulation, such as bilateral eye movements, tones, or hand taps. Using a process that has been compared to free association, the client is invited to share information elicited during the eye movements, regardless of the content. According to standardized procedures, the therapist guides the client to the target for the next set of eye movements and the pattern continues until all of the aspects of the disturbing memory, and attendant associations, have been addressed. This described procedure results in positive changes in affect, beliefs, bodily sensations, and other indicators of the memory. Subsequent to processing, what is useful in the earlier experience appears to be learned, stored with appropriate emotion, and able to adequately guide the client in the future. Useless contents, including the dysfunctional affects, attitudes, and sensations, are discarded. Complete treatment involves targeting past, present, and future events through the protocol. The eye movements and other dual attention stimulation are important aspects of this treatment (Shapiro 2001). A number of controlled studies

have supported this theory as well as others, and reported positive effects on imagery, emotional disturbance and episodic memory retrieval (Andrade et al. 1997, Barrowcliff et al. 2004, 2003, Christman et al. 2003, Kavanagh et al. 2001, Kuiken et al. 2002, Sharpley et al. 1996, van den Hout et al. 2001). Because surgery operation trauma and its subsequent impact on sleep have been associated with the development of SD, it was anticipated that as Mateo addressed and resolved trauma of appendectomy, his symptoms would reduce and his functioning and sleep would therefore improve. Given EMDR's proven effectiveness with respect to trauma, it was decided to try this approach with Mateo.

Course of treatment and assessment of progress

Mateo participated in four sessions of EMDR therapy over the course of one month. Initial treatment goals addressed sleep disturbance. Thus, the first session focused on assessing his current functioning and preparing him for EMDR treatment. The preparation phase of EMDR treatment is particularly important because it provides the client with some affect management skills. Various relaxation strategies, such as the safe-place exercise (Shapiro 2001), were taught, and the client was encouraged to utilize them between sessions. The therapist may also use these techniques to close incomplete sessions. Once the therapist feels confident that the client is able to cope with the intense emotions that may accompany therapy, treatment targets are identified and reprocessing may begin.

Treatment targets were chosen to address Mateo's trouble sleeping. Mateo identified one disturbing event that was addressed as a target. As recommended by the EMDR treatment protocol, this event was targeted. We identified the surgery operation as a target and the worst image was a picture of him on the operation table, waiting for the procedure. It was discovered very fast, that this event became no longer disturbing to Mateo (the SUDS very fast drop to zero) but did not affect his sleeping getting any better. Between the sessions sleeping did not get any better and his waking up moments persistently continued. During the second session, desensitization processing of another target spontaneously appeared, and therapist assessed that this need to be addressed directly. It was an image of his mother sitting next to him, waking him up, after the operation in his hospital room, telling him: "You must wake up; the doctor said that you cannot sleep after the operation!" During that day he would fall into sleep again, due to the effect of anesthesia and his mother would wake him up again and gain. This discovery was a surprise for the mother, who just then remembered she was saying that. We processed this image as a target, with negative cognition: "I am not safe when sleeping." the SUDS level of disturbance drop from nine to zero in one session, and after just one session a boy continued regular night sleeping without waking up. It appears that

his brain somehow made a connection between falling into sleep and not being safe, due to his mother constant waking up and saying that it is not recommended to sleep after the surgical operation. His desire and need to sleep were in confrontation with what he was hearing. When reprocessing a disturbing memory or event, the AIP model indicates that it is desirable for the client to identify the image, belief, affect, and bodily sensations associated with the experience for complete reprocessing to occur. As mentioned previously, Mateo identified hearing his mother's voice telling him not to sleep as a key event that was associated with SD. Mateo described the image and identified a negative cognition, which was phrased in the present tense (e.g., "I am not safe when sleeping."), to emphasize the incongruity (i.e., although he is not in current danger, he feels he is unsafe now). Mateo also identified the preferred more adaptive, positive cognition (e.g., "I am safe when sleeping."), and the accuracy of that belief was measured by the Validity of Cognition Scale (Shapiro 1989, 2001). On this scale, a score of seven indicates that the cognition feels completely true to the client; whereas a score of one means that the cognition feels completely false. The affect associated with event was also identified (e.g., fear), and the level of disturbance was measured using the SUD scale, where 10 is the highest level of disturbance and zero is no disturbance or neutral. The bodily sensations associated with the disturbance were also identified. As he recalled this event, Mateo noticed feelings of fear accompanied by rapid breathing and a tightening in his throat and chest. His negative cognition was, "I am not safe." After reprocessing this experience, Mateo's SUD level decreased from a nine to a zero, and he fully believed that he is not in danger. Notably, Mateo and his parents reported a totally improved night sleep.

DISCUSSION

This case provides the importance of identifying an appropriate target for effective EMDR treatment in SD. Choosing the right target is one of the most important components of effective EMDR treatment. Sometimes we can presume what the cause of the problem is too quickly. Therefore we should pay good attention when selecting the target, especially when working with children. Working on the wrong target can make the impression that EMDR is not helping, but we can see when we chose the right target EMDR's effectiveness is surprising. EMDR has emerged as one of the leading treatments for problems which are purely trauma based. EMDR has generally proven to be efficient, using fewer sessions. Mateo targeting this particular image connected with operation allowed him to integrate these memories and cognitions in a way that provided him with a healthier perspective. Results of this case are quite important, indicating that a properly chosen target can reduce symptoms very quickly and stabilize the client fast.

The entire course of EMDR treatment consisted of four sessions that focused on reprocessing the memories seemingly at the foundation of the pathology, along with triggers and future templates. Once the earlier event was processed, it no longer produced the dysfunctional affects that precipitated Mateo's negative perceptions and SD. The processing of this event allowed Mateo to develop more adaptive beliefs, emotions, and behaviors, as reflected in the standardized measures. Mateo's insights subsequent to processing were additional indicators of positive treatment gains.

This single-trauma case illustrates EMDR's effectiveness so clearly. Multiple traumatizations necessitate more processing than the three to five hour doses recommended for single-trauma victims. The clinical goal is not only to reduce overt symptoms but to facilitate development of a healthy adult who is able to self-soothe, feel the full range of emotions, and maintain an adaptive sense of self and external awareness.

CONCLUSION

This case illustrates the importance of identifying an appropriate target in contributing to the successful EMDR treatment. The choice of a target seems easy sometimes. This example shows the importance of good history taking.

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Ivana Trlin: conception and design of the manuscript and interpretation of data, literature searches and analyses, clinical evaluations, manuscript preparation and writing the paper;

Mevludin Hasanović: made substantial contributions to conception and design, participated in revising the article and gave final approval of the version to be submitted.

References

1. American Psychiatric Association: *Practice guideline for the treatment of patients with acute stress disorder and posttraumatic stress disorder*. Arlington, VA: American Psychiatric Association Practice Guidelines, 2004
2. Andrade J, Kavanagh D & Baddeley A: *Eye-movement and visual imagery: A working memory approach to the treatment of post-traumatic stress disorder*. *British Journal of Clinical Psychology* 1997; 36:209-223
3. Barrowcliff AL, Gray NS, Freeman TCA & MacCulloch MJ: *Eye-movements reduce the vividness, emotional valence and electrodermal arousal associated with negative autobiographical memories*. *Journal of Forensic Psychiatry and Psychology* 2004; 15:325-345
4. Barrowcliff AL, Gray NS, MacCulloch S, Freeman TCA & MacCulloch MJ: *Horizontal rhythmical eye-movements consistently diminish the arousal provoked by auditory stimuli*. *British Journal of Clinical Psychology* 2003; 42:289-302
5. Bleich A, Kotler M, Kutz I, & Shaley A: *A position paper of the [Israeli] National Council for Mental Health: Guidelines for the assessment and professional intervention with terror victims in the hospital and the community*. Jerusalem, 2002
6. Chemtob CM, Tolin DF, van der Kolk BA & Pitman RK: *Eye-movement desensitization and reprocessing*. In: Foa EB, Keane TM & Friedman MJ (Eds) *Effective treatments for PTSD: Practice guidelines from the International Society for Traumatic Stress Studies* (pp. 139-155, 333-335). New York: Guilford Press, 2000
7. Christman SD, Garvey KJ, Propper RE & Phaneuf KA: *Bilateral eye movements enhance the retrieval of episodic memories*. *Neuropsychology* 2003; 17:221-229
8. *Clinical Resource Efficiency Support Team: The management of post traumatic stress disorder in adults*. Belfast: Northern Ireland Department of Health, 2003
9. *Department of Veterans Affairs & Department of Defense: VA/DoD Clinical practice guideline for the management of post-traumatic stress*, 2004. Retrieved from http://www.oqp.med.va.gov/cpg/PTSD/PTSD_cpg/frames.et.htm
10. Hasanović M: *Eye Movement Desensitization and Reprocessing/EMDR*. In: Kozarić-Kovačić D & Frančišković T (Eds) *Psihoterapijski pravci* (pp: 368-380). Zagreb: Medicinska naklada, 2014
11. Ironson GI, Freund B, Strauss JL & Williams J: *Comparison of two treatments for traumatic stress: A community based study of EMDR and prolonged exposure*. *Journal of Clinical Psychology* 2002; 58:113-128
12. Jaberghaderi N, Greenwald R, Rubin A, Dolatabadim S & Zand SO: *A comparison of CBT and EMDR for sexually abused Iranian girls*. *Clinical Psychology and Psychotherapy* (in press)
13. Kavanagh DJ, Freese S, Andrade J & May J: *Effects of visuospatial tasks on desensitization to emotive memories*. *British Journal of Clinical Psychology* 2001; 40:267-280
14. Koren D, Arnon I, Lavie P, Klein E: *Sleep complaints as early predictors of posttraumatic stress disorder: a 1-year prospective study of injured survivors of motor vehicle accidents*. *Am J Psychiatry* 2002; 159:855-57. <http://dx.doi.org/10.1176/appi.ajp.159.5.855>
15. Kuiken D, Bears M, Miall D & Smith L: *Eye movement desensitization reprocessing facilitates attentional orienting*. *Imagination, Cognition and Personality* 2001-2; 21:3-30
16. Lee C, Gavriel H, Drummond P, Richards J & Greenwald R: *Treatment of post-traumatic stress disorder: A comparison of stress inoculation training with prolonged exposure and eye-movement desensitization and reprocessing*. *Journal of Clinical Psychology* 2002; 58:1071-1089
17. Marcus SV, Marquis P & Sakai C: *Controlled study of treatment of PTSD using EMDR in an HMO setting*. *Psychotherapy* 1997; 34:307-315
18. Maxfield L & Hyer LA: *The relationship between efficacy and methodology in studies investigating EMDR treatment of PTSD*. *Journal of Clinical Psychology* 2002; 58:23-41

19. Power KG, McGoldrick T, Brown K, Buchanan R, Sharp D, Swanson V et al.: A controlled comparison of eye movement desensitization and reprocessing versus exposure plus cognitive restructuring, versus waiting list in the treatment of post-traumatic stress disorder. *Journal of Clinical Psychology and Psychotherapy* 2002; 9:299-318
20. Scheck MM, Schaeffer JA & Gillette CS: Brief psychological intervention with traumatized young women: The efficacy of eye movement desensitization and reprocessing. *Journal of Traumatic Stress* 1998; 11:25-44
21. Shapiro F: Efficacy of the eye movement desensitization procedure in the treatment of traumatic memories. *Journal of Traumatic Stress Studies* 1989; 2:199-223
22. Shapiro F: Eye movement desensitization and reprocessing (EMDR): Accelerated information processing and affect-driven constructions. *Crisis Intervention and Time-Limited Treatment* 1998; 4:145-157
23. Shapiro F: Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures (2nd ed.). New York: Guilford Press, 2001
24. Shapiro F: Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures. New York: Guilford, 1995
25. Shapiro F: Paradigms, processing, and personality development. In F. Shapiro (Ed.), *EMDR as an integrative psychotherapy approach: Experts of diverse orientations explore the paradigm prism*. Washington, DC: American Psychological Association, 2002
26. Shapiro F & Maxfield L: EMDR and information processing in psychotherapy treatment: Personal development and global implications. In Solomon M & Siegel D (eds.) *Healing Trauma* New York: Norton 2003; 196-220
27. Sharpley CF, Montgomery IM & Scalzo LA: Comparative efficacy of EMDR and alternative procedures in reducing the vividness of mental images. *Scandinavian Journal of Behaviour Therapy* 1996; 25:37-42
28. Taylor S, Thordarson DS, Maxfield L, Fedoroff IC, Lovell K & Ogrodniczuk J: Comparative efficacy, speed, and adverse effects of three PTSD treatments: Exposure therapy, EMDR, and relaxation training. *Journal of Consulting and Clinical Psychology* 2003; 71:330-338
29. van den Hout M, Muris P, Salemink E & Kindt M: Autobiographical memories become less vivid and emotional after eye movements. *British Journal of Clinical Psychology* 2001; 40:121-130
30. Wilson SA, Becker LA & Tinker RH: Eye movement desensitization and reprocessing (EMDR) treatment for psychologically traumatized individuals. *Journal of Consulting and Clinical Psychology* 1995; 63: 928-937
31. Wilson SA, Becker LA & Tinker RH: Fifteen-month follow-up of eye movement desensitization and reprocessing (EMDR) treatment for PTSD and psychological trauma. *Journal of Consulting and Clinical Psychology* 1997; 65:1047-1056
32. Wolpe J: *Psychotherapy by reciprocal inhibition*. Stanford CA: Stanford University Press 1958

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