

Eye Movement Desensitization and Reprocessing Treatment of Nightmares: A Case Report

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A single client with depression and chronic nightmares was treated with 4 sessions of eye movement desensitization and reprocessing (EMDR) and showed a decrease in nightmares and improvement in general well-being. The client's 2 nightmare images were resolved following Luber's (2010) protocol for nightmare processing. Treatment effects were measured with the Outcome Rating Scale and showed a shift from the clinical range at pretreatment to the nonclinical range at the third session. The ready improvement and gains of this patient have served to highlight various aspects of the EMDR procedures which have worked well for the client, which included targeting the negative cognitions surrounding the theme of helplessness as well as adapting the positive cognition with a collectivistic orientation.

Keywords: chronic nightmares; depression; treatment; eye movement desensitization and reprocessing (EMDR); case report; Singapore

Eye movement desensitization reprocessing (EMDR) therapy was a treatment described for the first time by Francine Shapiro (1989a, 1989b) for the treatment of traumatic memories and stress-related symptoms present in posttraumatic stress disorder (PTSD). During EMDR therapy, the client attends to emotionally disturbing material while focusing on to an external stimulus. The most commonly used external stimulus is the eye movement, but a variety of other bilateral stimuli include hand tapping and audio stimulation. Shapiro (2001) has explained that EMDR therapy facilitates the accessing of the traumatic memory network, which enhances information processing and forging new associations between the traumatic memory and more adaptive memories or information. These new associations result in enhanced information processing and learning, elimination of emotional distress, as well as consolidation of cognitive insights.

The Evidence for Treatment of Nightmares

The International Classification of Sleep Disorders (2nd ed.; ICSD-2; 2005) defines nightmares as "coherent dream sequences that seem real and become increasingly more disturbing as they unfold. Emotions usually involve anxiety, fear or terror, but also

frequently involve anger, rage, embarrassment, disgust and other negative feelings. The dream content most often focuses on imminent physical danger to the individual, but may also involve other distressing themes." Most nightmares and sleep difficulties are frequently experienced by those suffering from PTSD, with some researchers claiming that nightmares are the hallmark symptoms of PTSD (Ross, Ball, Sullivan, & Carroff, 1989). Nightmares occur frequently in the context of rapid eye movement (REM) sleep and would usually awaken the sleeper (Ferini-Strambi & Fantini, 2008), with most people being able to provide an elaborate account of their dreams upon awakening from the nightmare (Leung & Robson, 1993).

The literature is burgeoning with outcome studies that suggest the application of imagery rescripting or imagery rehearsal techniques to trauma-related nightmares (Krakow & Zadra, 2006; Lancee, Spoormaker, Krakow, & van den Bout, 2008). In imagery rehearsal therapy (IRT), the patient is instructed to modify a recurrent nightmare while awake by verbal and written rehearsal of a new script in which the unpleasant ending or other portions of the nightmare are replaced with a more pleasant one. In fact, a group of researchers (Aurora et al., 2010) has recommended IRT as Level A, which is the highest level of recommendation among nonpharmacological treatment

options based on evidence collected from several studies (Forbes et al., 2003; Germain & Nielson, 2003; Krakow, Hollifield, & Johnston, 2001; Krakow, Johnston, & Melendrez, 2001; Krakow, Melendrez, & Johnston, 2002). Among the studies looked at by Aurora et al. (2010) for the efficacy of IRT, the research by Krakow, Hollifield, et al. (2001) is the only study at Level 1 (high-quality randomized clinical trials with narrow confidence intervals). The recommendations are based on the classification of evidence from the American Academy of Sleep Medicine (AASM; 2005). Imagery rehearsal applications rest on cognitive behavioral therapy (CBT) principles of modifying the distorted/dysfunctional thoughts through structured procedures, and in this particular case of IRT, the procedures include rescripting the nightmare/dream scenario.

Aurora et al. (2010) has included other non-pharmacological treatment options for nightmare disorder, but these other recommendations are cited at Levels B or C. In other words, Aurora et al. has listed IRT as the only Level A recommendation in the range of interventions, which otherwise includes exposure, relaxation, and rescripting therapy (ERRT, Level C); self-exposure therapy (SET, Level C); sleep dynamic therapy (SDT, Level C); systematic desensitization (Level B); progressive deep muscle relaxation (PDMR, Level B); hypnosis (Level C); and testimony method (Level C). Essentially, the recommendations are taken from the AASM (2005) that commissioned a task force to assess the literature on the treatment of nightmare disorders.

The Evidence for EMDR Therapy Treatment of Nightmares

Specifically and relevant to this case study is the listing of EMDR therapy at Level C, which refers to the consideration of studies at Evidence Levels 3 and 4 (case control studies or case series or poor case control studies or poor cohort studies). Level C merits a recommendation that may be considered as a treatment option, with the assessment supported by low-grade data without the volume to recommend a higher level.

Specific research that merits a Level C recommendation for EMDR therapy and cited in Aurora et al.'s (2010) article are based on two Level 4 studies by Raboni, Tufik, and Suchecki (2006) and Silver, Brooks, and Obenchain (1995). Raboni et al.'s study reported on seven subjects who had nightmares and PTSD symptoms for at least 3 months after being assaulted or kidnapped. EMDR therapy improved PTSD

symptoms and quality of sleep after five sessions. Raboni et al.'s study did not probe the quality and frequency of nightmares in these patients but addressed recurrent nightmares as part of sleep quality which showed significant improvement. Silver et al.'s case series of 83 veterans with PTSD compared EMDR therapy with relaxation training and biofeedback at intake evaluation, hospital admission at 2 months, and 90 days after admission. It was found that the EMDR therapy subjects showed better performance than the controls and the other two treatment groups in all variables including nightmares.

Although there has been a wealth of data about pharmacological and behavioral interventions for the treatment of nightmare disorder, it is a little disconcerting that much of the data surrounding the efficacy of EMDR therapy in the treatment of nightmares is not at the level of randomized controlled trials and Level 1 studies (high-quality randomized controlled clinical trials with narrow confidence levels) as stipulated by the AASM (2005). This study does not add to the range of Level 1 studies and is beset by the same problems that make EMDR therapy a less viable option as compared to IRT. For example, there is a paucity of research with trials directly comparing EMDR therapy with various pharmacotherapy and behavioral interventions as well as combination treatments with medication and psychotherapy.

Despite the present lack of good evidence base surrounding EMDR treatment of nightmares, this author is of the persuasion that there are, nonetheless, common features between EMDR therapy and IRT for EMDR therapy to be considered at the same level of evidence efficacy as IRT. Although IRT mediates a cognitive shift through the rehearsing of a new positive dream scenario, EMDR therapy installs the positive cognitions after the desensitization to tap into an adaptive network of positive cognitions. EMDR therapy also shares elements of desensitization with IRT and provides a structure to probing progress in anxiety ratings with repeated recalls of the traumatic distressing scenarios. The collection of EMDR therapy scripts by Luber (2010) has also listed a protocol for nightmare processing.

This study is an attempt to describe EMDR treatment of nightmare and highlights various aspects of EMDR therapy which has been helpful for the patient.

Case Report

The patient, a 36-year-old lady, was first seen in January 2013 for depression symptoms by the psychiatrist at the outpatient clinic of a hospital in Singapore.

The depression was, in the main, caused by significant problems coping with the psychosocial stressor of caring for her 8-year-old son with autism spectrum disorder. In May 2013, the patient was subsequently referred to the psychologist—who is also the author of this article—to deal with her sleep difficulties. At the point of follow-up with the psychiatrist, the patient had reported a near “50% improvement” in depression symptoms, but her sleep disturbances persisted, hence the referral to the psychologist.

Specifically, she had been having what she described as “nightmares” for a good 9 years in her 10 years of marriage. The content of the nightmares was related to concerns over her husband’s supposed extramarital affair, and although she acknowledged that the concerns were the “total opposite of reality,” she continued having the nightmares despite awareness and knowledge that her husband had not strayed from their marriage commitments. The other aspect of the nightmares was related to “her son going missing after misbehaving in school.” In her nightmares, she saw herself punishing her son for his misbehavior at school, and then he would run away from home. The interesting aspect of the two nightmares related to her husband’s infidelity and son’s misbehavior was that they would be repetitive, between four and five nights in a typical week. Frequently, she would find herself waking up in the middle of the night, close to the breaking of dawn, with the horror and fear of the nightmare. The consequences of the sleep disturbances or mid-sleep awakenings were that her concentration and mood levels were affected in the daytime. Specifically, she found herself easily irritated, depressed, and stressed over minor incidents and encounters with her son.

Measures

Outcome Rating Scale

The Outcome Rating Scale (ORS) is part of a change outcome management system developed by Miller and Duncan (2004). The ORS contains 4 items and is a self-report, visual analogue scale that is available in computerized, written, and oral forms. It was developed as a measure to track the progress of clients during therapy across three main areas of client functioning: interpersonal relations, symptomatic/individual functioning, and performance in social roles (Miller & Duncan, 2004; Miller, Duncan, Brown, Sparks, & Claud, 2003). On the visual analogue scale, clients are asked to mark on a 10-cm line their respective levels of functioning, with high ranking (good ratings) toward the right and low (poor ratings) to

the left. The scores of the clients are based on the sum of all 4 items marked out of 10, with a highest score of 40. The estimated internal consistency (Cronbach’s coefficient alpha) for the ORS is .93 (Miller et al., 2003). The clinical cutoff for the client to move from the dysfunctional range to normal functioning is a score of 25 and the reliable change index at 5 points.

A.S.I.S.T. for Agencies

A computer-based version of the ORS is used with the patient, which includes the administration, scoring, interpretation, and data storage tool (ASIST; Elliot et al., 2007). This program provides a comprehensive and practical means of administering, scoring, and interpreting ORS scores in the session. If access to a computer was not available on that day, therapists could use paper version of the ORS, with the scores subsequently inputted into the ASIST program.

Procedure

At the beginning of the session, the patient was provided with an information sheet outlining the study and the use of the ORS. The patient was invited to ask any question she had regarding the study and to sign a consent form if she agreed to participate. A client debriefing sheet was provided to the patient at the end of the first therapy session.

Treatment

The patient was seen over four sessions; the first three sessions were undertaken on a biweekly basis, with the final fourth session conducted 1 month after the third session. All the sessions were for 1 hour.

Following the scripted protocol provided by Luber (2010) about treating nightmare images as part of the targeting sequence for memories, the nightmares were processed accordingly as per standard EMDR protocol. The first target memory was chosen as the scene in which her son was bullied by his cousins and subsequently ran out of the door. The targeting sequence was set up with negative cognition (NC) of “I am useless” and desired positive cognition (PC) of “I can learn to help my son deal with the situation,” with a validity of cognition (VOC) of 6/7. The emotions elicited were fear, and subjective units of distress (SUDs) were at 8/10. Some feelings of tightness were located in the chest area. Desensitization was done with bilateral stimulation through the use of eye movements, but processing was incomplete in the first session. Two weeks later in the second session, the patient reported that she noticed that the dreams

that she was having were no longer so “intense or disturbing.” The nightmare image of her “son being bullied by cousins and subsequently running out of the door” was no longer an aspect of the dream content as well. This is surprising because noticeable improvement was in a matter of a few weeks, although processing in the desensitization phase was incomplete in the previous session.

In the second session, the decision was made to process another target image because the previous target memory/nightmare image was no longer present in her dreams. The next target memory surrounded the theme of her husband’s (supposed) affair, with the nightmare scenario of “husband talking to another woman, laughing, and chatting away while she is taking care of her son who is throwing a tantrum.” The NC was located in “I cannot trust anyone,” with desired PC of “I can learn to trust my loved ones” at a VOC of 4/7. Pairing off the NC with the target scene/memory brings on a feeling of disappointment on an SUDs level of 8/10. She moved down the channel of associated memories with her NCs as an anchor, eventually hitting a touchstone memory that revealed disappointment with her father for continually breaking his promises. She also moved to other related memories, anchored by her feelings of disappointment, and reprocessed a recent significant image/memory related to “I was the only one in the house with a high fever and wishing that my husband would be around, with the hopeless feeling of him not being there when I need him most.” Once again, the processing was incomplete in the second session, and going back to target memory showed an SUDs value of 4/10.

In the third session, the patient reported that the dreams were still present, but they no longer affected her sleep. There was no sleep disturbance in the 1 week preceding the therapy, and considering the context of her baseline of frequent sleep disturbances in the past 6 years, this represented, from the patient’s perspective, considerable and significant progress. The patient also explained that the dream content has changed to more routine events of “coaching her son in his homework” without the disturbing elements of him running out of the house. Her husband who accompanied her to the present session was pleasantly surprised by her improvement and noted that she would no longer wake up in the middle of the night shouting and arguing (with her husband in a dream). The target memory of her husband’s infidelity was incompletely processed in the second session, but the same target memory was evaluated and processed with an SUDs rating of 0/10 in the third session, with

a full VOC of 7/7 in the presence of a PC of “I can learn to trust my loved ones” after several sets of bilateral stimulation. Because of the considerable progress that the patient made in the three sessions, the patient was discharged from psychological care and given an open appointment.

Subsequent checks with the clinician–doctor also indicated that she has made considerable progress with no further sleep disturbances. These checks were done 1 month, 3 months, and 5 months after her discharge from psychological care.

Results

The patient demonstrated ORS scores which were consistent with her reported progress. In the first session, she indicated an ORS score which was in the clinical range (score = 24/40), progressing to 39.5/40 in the second session before providing a final score of 39.5/40 in the third session. A higher score indicates better levels of functioning, with an ORS score higher than 36/40 as a cutoff indicative of progress in the nonclinical range. Specifically, the patient has moved into the nonclinical range of functioning by the second session and maintained her progress into the third session.

Discussion

This case study distinguishes itself by being the first article to be featured from Singapore. EMDR therapy has a relatively short history in Singapore, with EMDR Singapore only being established in July 2010. The EMDR therapy community has grown in Singapore to include about 100 members, of which 30 are active EMDR therapy practitioners. There are also 5 practitioners who have attained facilitator status with EMDR Institute, with ongoing efforts to have certified trainers and consultants from the ranks of the EMDR Singapore community. A discussion with key members of the Singapore community has indicated that the adherence to a set of scripted protocols in EMDR therapy procedures has essentially translated to an ease of applicability across different clients and cultures (Singapore is a pluralistic society represented by four ethnic groups). In fact, some researchers (Gelbach & Davis, 2007) have noted that EMDR therapy has adapted well in diverse cultural environments. Although practitioners appreciate the standard protocols and the ready translation to clinical situations, there is also a growing awareness of process and cultural issues. The standard protocol works well for clear-cut and time-limited events. Sometimes, clients may move through node after node of distressing

memories without completely clearing the traumas and distresses related to their individual and cultural difference.

One of the reasons this client may have been able to clear her traumatic memories relatively quickly and essentially in three sessions is because of the strong familial orientation of the PCs. The two PCs—“I can learn to help my son deal with the situation” and “I can learn to trust my loved ones”—connote a collectivistic response with hues of community and family ties. Indeed, studies looking at Asian and White American profile comparisons (e.g., Bond, 1991; Sue, Keefe, Enomoto, Durvasula, & Chao, 1996; Sue & Sue, 1990) have commented that Asians in the United States are more likely to hold values and engage in behaviors that display a collectivistic and familial orientation, which include respect for elders, deference to authority figures, concern for loss of face, interpersonal harmony, and strength in community living. It is this author’s recommendation that the self-referential schemas taught and espoused in standard protocols as a reference for NCs and PCs can be adapted with a collectivistic orientation for the Asian client.

Process issues are important, especially in patients with dissociative disorders or complex presentations. Potential process issues in complex presentations include patient’s or client’s willingness to work with certain images and scenarios, countertransference in the context of therapist triggering certain traumatic memories, ongoing triggers in the environment that prevent the recall of a safe place and re-traumatization concerns, looping because of the inconsistency between the cognitions and memories, as well as misalignment between the NC/PC structure. Regarding this patient, there were no process issues. In fact, the issues were straightforward for this patient mainly because the NC is clearly defined and aligned to the core memory structure which is related to the nightmare scenario. The targeting sequence is easily established, with the targeted memory consistent with the NC/PC structure and surrounding the theme of “helplessness.” In the case of this client, it was not necessary to run the gamut of cognitive interweaves to help the client get to a VOC of 7.

As noted earlier, this study does not add to the spectrum of randomized controlled trials that would make EMDR therapy at the same level as a Level 1 study stipulated by the AASM (2005) and on par with IRT which has been recognized for its efficacy in the treatment of nightmares. A Level 1 study would require high-quality randomized controlled clinical trials with narrow confidence levels, and it is important to note that the most meaningful contribution

by Krakow, Hollifield, et al. (2001) to Aurora et al.’s (2010) survey of IRT studies included 138 women with PTSD-associated nightmares. However, this study may merit recommendation at Level 4, which, based on Aurora et al.’s criteria, would comprise case reports, case series, or poor case control studies. Indeed, the two studies cited by Aurora et al. for EMDR therapy efficacy—Raboni et al. (2006) and Silver et al. (1995)—are at Level 4 as well. A survey of literature also showed most EMDR-based studies for the treatment of nightmares are at Level 4 and are usually case reports (e.g., Anchisi, 1995; Pellicer, 1993). Although this study does not add to the range of Level 1 studies, this is also a call for researchers to include randomized controlled trials as part of the design so that EMDR therapy can be placed on par with IRT for its efficacy for the treatment of nightmares.

In conclusion, this case study has reflected the use of EMDR therapy in its applications to a patient with traumatic memories and sleep disturbance. The ready improvement and gains of this patient has served to highlight various aspects of the procedures which have worked well for the client, which includes targeting the NCs surrounding the theme of helplessness as well as adapting the PC with a collectivistic orientation.

References

- American Academy of Sleep Medicine. (2005). *The international classification of sleep disorders: Diagnostic and coding manual* (2nd ed.). Westchester, IL: Author.
- Anchisi, R. (1995). L’eye movement desensitization nel trattamento degli incubi: Presentazione di un caso [The eye movement desensitization in the treatment of nightmares: Case presentation]. *Psicoterapia Cognitiva e Comportamentale*, 1(1), 45.
- Aurora, R. N., Zak, R. S., Auerbach, S. H., Casey, K. R., Chowdhuri, S., Karippot, A., . . . Morgenthaler, T. I. (2010). Best practice guide for the treatment of nightmare disorder in adults. *Journal of Clinical Sleep Medicine*, 6(4), 389–401.
- Bond, M. H. (1991). Chinese values and health: A cultural-level examination. *Psychology & Health*, 5(2), 137–152.
- Elliot, D., Brown, J., Miller, S. D., & Duncan, B. L. (2007). ASIST for agencies—Using the Outcome and Session Rating Scales (ORS/SRS. Version 3.06) [Computer software]. Santa Cruz, CA: Author.
- Ferini-Strambi, L., & Fantini, M. (2008). Sleep and quality of life in REM sleep parasomnia. In J. C. Verster, S. R. Pandi-Perumal, & D. L. Streiner (Eds.), *Sleep and quality of life in clinical sleep medicine* (pp. 119–126). Totowa, NJ: Humana Press.
- Forbes, D., Phelps, A., McHugh, A., Debenham, P., Hopwood, M., & Creamer, M. (2003). Imagery rehearsal

- in the treatment of posttraumatic nightmares in Australian veterans with chronic combat-related PTSD: 12-month follow-up data. *Journal of Trauma Stress*, 3(16), 509–513.
- Gelbach, R. A., & Davis, K. E. B. (2007). Disaster Response: EMDR and Family Systems Therapy under Community wide Stress. In F. Shapiro, F.W. Kaslow, & L. Maxfield (Eds.), *Handbook of EMDR and family therapy processes* (pp. 387–404). Hoboken, NJ, US: John Wiley & Sons Inc.
- Germain, A., & Nielsen, T. (2003). Impact of imagery rehearsal treatment on distressing dreams, psychological distress, and sleep parameters in nightmare patients. *Behavioral Sleep Medicine*, 1, 140–154.
- Krakov, B., Johnston, L., & Melendrez, D. (2001). An open-label trial of evidence-based cognitive behavior therapy for nightmares and insomnia in crime victims with PTSD. *American Journal of Psychiatry*, 158, 2043–2047.
- Krakov, B., Melendrez, D., & Johnston, L. (2002). Sleep Dynamic Therapy for Cerro Grande Fire evacuees with posttraumatic stress symptoms: A preliminary report. *Journal of Clinical Psychiatry*, 63, 673–684.
- Krakov, B., & Zadra, A. (2006). Clinical management of chronic nightmares: Imagery rehearsal therapy. *Behavioral Sleep Medicine*, 4, 45–70.
- Krakov, V., Hollifield, M., & Johnston, L. (2001). Imagery rehearsal therapy for chronic nightmares: With a thirty month follow-up. *The Journal of the American Medical Association*, 286, 584–588.
- Lancee, J., Spoormaker, V., Krakow, B., & van den Bout, J. (2008). A systematic review of cognitive-behavioral treatment for nightmares: Towards a well-established treatment. *Journal of Clinical Sleep Medicine*, 4, 475–480.
- Leung, A. K., & Robson W. (1993). Nightmares. *Journal of National Medical Association*, 85, 233–235.
- Luber, M. (2010). *Eye movement desensitization and reprocessing (EMDR) scripted protocols: Special populations*. New York, NY: Springer Publishing.
- Miller, S. D., & Duncan, B. L. (2004). *The Outcome and Session Rating Scales: Administration and scoring manual*. Chicago, IL: Institute for the Study of Therapeutic Change.
- Miller, S. D., Duncan, B. L., Brown, J., Sparks, J. A., & Claud, D. A. (2003). The Outcome Rating Scale: A preliminary study of the reliability, validity, and feasibility of a brief visual analogue measure. *Journal of Brief Therapy*, 2, 91–100.
- Pellicer, X. (1993). Eye movement desensitization treatment of a child's nightmares: A case report. *Journal of Behaviour Therapy and Experimental Psychiatry*, 24(1), 73–75.
- Raboni, M., Tufik, S., & Suchecki, D. (2006). Treatment of PTSD by eye movement desensitization reprocessing (EMDR) improves sleep quality, quality of life, and perception of stress. *Annals of the New York Academy of Sciences*, 1071, 508–513.
- Ross, R., Ball, W., Sullivan, K., & Carroff, S. (1989). Sleep disturbance as the hallmark of posttraumatic stress disorder. *American Journal of Psychiatry*, 146, 697–707.
- Shapiro, F. (1989a). Efficacy of the eye movement desensitization procedure in the treatment of traumatic memories. *Journal of Traumatic Stress*, 2, 199–223.
- Shapiro, F. (1989b). Eye movement desensitization: A new treatment for the post-traumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychiatry*, 20, 211–217.
- Shapiro, F. (2001). *Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures* (2nd ed.). New York: Guilford Press.
- Silver, S., Brooks, A., & Obenchain, J. (1995). Treatment of Vietnam War veterans with PTSD: A comparison of eye movement desensitization and reprocessing, biofeedback, and relaxation training. *Journal of Trauma Stress*, 8, 337–342.
- Sue, S., Keefe, K., Enomoto, K., Durvasula, R., & Chao, R. (1996). Asian American and White college students' performance on the MMPI-2. In J. N. Butcher (Ed.), *International adaptations of the MMPI: Research and clinical applications* (pp. 206–220). Minneapolis: University of Minnesota Press.
- Sue, D. W. & Sue, D. (1990). *Counselling the culturally different: Theory and practice* (2nd ed.). New York: Wiley.

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