Single Session Treatment of Nontraumatic Fear of Flying With Eye Movement Desensitization Reprocessing

Pre- and Post-September 11

REBECCA A. NEWGENT
DERRICK A. PALADINO
University of Arkansas

CYNTHIA A. REYNOLDS
University of Akron

Abstract: Eye movement desensitization reprocessing (EMDR) was originally developed to treat traumatic memories. Since its development, the application of EMDR has proliferated to various disorders. A single session utilizing the EMDR approach applied to the treatment of nontraumatic fear of flying is presented. For this study, the EMDR process was adapted to meet the needs of the client. The purpose of this study is to provide an example of the in-flight application of a single session of EMDR to nontraumatic or small "t" fear of flying. The case of a client successfully treated with in-flight EMDR is presented. Pre-September 11 and post-September 11 follow-up with the client is also documented.

Keywords: eye movement desensitization reprocessing; fear of flying; case study; single session

1 THEORETICAL AND RESEARCH BASIS

A single session of in-flight eye movement desensitization and reprocessing (EMDR) is proposed as a rapid method of desensitizing the physiological and psychological symptoms associated with nontraumatic fear of flying. According to Shapiro (2000), desensitization refers to "one of the effects of treatment in which formerly disturbing memories and cues reach an adaptive resolution and are no longer experienced as disturbing" (p. 75). Furthermore, information processing, in this approach, "refers to the physiologically-based tendency of the brain, in a manner similar to the body's self-

AUTHORS' NOTE: Correspondence concerning this article should be addressed to Rebecca A. Newgent, Department of Educational Leadership, Counseling and Foundations, University of Arkansas, 245 Graduate Education Building, Fayetteville, AR 72701; e-mail: rnewgent@uark.edu.

CLINICAL CASE STUDIES, Vol. 5 No. 1, February 2006 25-36
DOI: 10.1177/1534650103261196

healing response to injury, to move towards positive emotional and cognitive schema" (Shapiro, 2000, p. 76). Finally, the reprocessing during in-flight EMDR treatment for nontraumatic fear of flying becomes accelerated. The case of a client successfully treated with a single session of EMDR applied to nontraumatic fear of flying during an actual flight is presented.

The traditional EMDR process proceeds through eight phases of treatment: client history, client preparation, assessment, desensitization, installation, body scan, closure, and reevaluation (Shapiro, 2000). The first phase, client history, involves obtaining the client's background information. The counselor constructs hypotheses about the presenting problem etiology and determines the appropriateness of EMDR treatment. In the second phase, client preparation, the counselor explains the treatment, and a safe place is created. Shapiro (2000) states that a safe place "can be used [by the client] as a resting place during prolonged reprocessing or as a way of reducing disturbance at the end of an incomplete session" (p. 77). Assessment is the third and lengthy component of EMDR. The counselor gathers a large amount of client information related to the therapy issue. This includes the presenting memory to be worked on, cognitions (positive and negative) experienced by the client, assessment of the positive cognitions through the Validity of Cognition (VOC) scale, emotions related to experienced negative cognitions, and assessment of incident disturbance through the Subjective Units of Disturbance scale (SUDS; Shapiro, 2000). In the fourth phase, desensitization, the client is asked to bring up the disturbing memory along with related cognitions, feelings, and emotions (Parnell, 1999; Shapiro, 2000). At this point, a set of eye movements, tactile stimulations, or auditory stimulations is introduced in order to create bilateral stimulation of the brain. This phase begins the processing. Phase five, installation, relates the positive cognitions to the memory (Parnell, 1999). The client is asked to recall the memory and report if the positive cognitions fit the scene. The VOC scale is used to determine if treatment may proceed to the next phase, body scan. In this phase, the client is asked to report any body sensations when reviewing the incident. Bilateral stimulations are used either to strengthen a positive sensation or to reprocess a negative sensation (Parnell, 1999; Shapiro, 2000). In the seventh phase, closure, a resolution is accomplished when the memory no longer triggers any negative emotional, cognitive, behavioral, or somatic responses (Parnell, 1999). If these responses are present, the counselor will perform an extensive debriefing, which may consist of relaxation techniques to assist the client until the next session.

The final phase of EMDR is reevaluation, which occurs in subsequent sessions. During this phase, the client is asked about any intrusive memories that may have surfaced in addition to looking at the targeted behavior from the last session (Shapiro, 2000). If no significant intrusive memories have occurred, then the client can begin to focus on the next target, memory, or incident, thereby beginning the EMDR process again or terminating the process.

Whereas desensitization is a therapeutic goal of EMDR, Shapiro (2002) reports that in addition to anxiety reduction, therapeutic goals include a change in behavioral indicators, such as eliciting insights, changing behaviors or beliefs, and increasing positive affects. These behavioral indicators are a result of the negative perceptions being reprocessed. In addition, EMDR may also aid in the strengthening of internal resources of the client such that there would be a positive impact on both behavioral and interpersonal change (Shapiro, 2002).

"The treatment of traumatic events with the EMDR method is based upon the hypothesis that there is a physiological component to each complaint" (Shapiro, 2000, p. 5). The combination of eye movements with exposure therapy principles is one physiological component of EMDR (Senior, 2001). This includes instructions to the client to target a visual image, cognition, feeling, or bodily sensation during the eye movement process (Foa & Meadows, 1997; Senior, 2001; Shapiro & Forrest, 1997). Eye movements, according to Shapiro (2000), appear to counter the physiological complaints, thereby reestablishing balance to the excitatory or inhibitory process. Once such balance is reestablished, prior negative complaints are diminished or absent (Shapiro, 2000). EMDR focuses on the personal experience of the client and deals directly with the troubling experiences of the client. As a result, beliefs of the therapist are minimized (Shapiro & Forrest, 1997). "The goal for EMDR therapy should be to help the client generate the most profound and the longest lasting effects possible, while feeling safe, balanced, and in control" (Shapiro & Forrest, 1997, p. 50).

EMDR was originally designed to treat traumatic memories. As EMDR proliferated through the mental health field, its use has been adapted to treat other disorders. According to Maxfield and Melnyk (2000), one goal of EMDR therapy is to restructure negative cognitions or thoughts in addition to relieving physiological arousal. Dattilio (2001) reported that the utilization of muscle relaxation and breathing techniques was used for the treatment of anxiety. The premise of treatment is that a state of anxiety cannot coexist with a state of relaxation (Dattilio, 2001).

EMDR is an approach to mental health counseling that has been receiving considerable attention. Evolution of EMDR as a brief treatment is being recognized more in the professional literature (i.e., Barker & Hawes, 1999; Dunn, Schwartz, Hatfield, & Wiegele, 1996; Dziegielewski & Wolfe, 2000; Goldstein, 1995; Goldstein, de Beurs, Chambless, & Wilson, 2000; Maxfield & Melnyk, 2000; Shapiro & Forrest, 1997; Zabukovec, Lazrove, & Shaprio, 2000). In a multiple case study report, Barker and Hawes (1999) found EMDR to bring about quick change in clients, supporting the efficacy of EMDR. Additionally, Barker and Hawes (1999) found commonalities between EMDR and Individual Psychology theory. In a single subject case study of panic disorder with agoraphobia (PDA), Goldstein (1995) applied EMDR to activate the isolation network successfully. Such activation of the isolation network enhanced the client's capability to incorporate new information. Next, in a single subject case study limited to two

sessions of EMDR treatment for body image disturbance and self-esteem, Dziegielewski and Wolfe (2000) found an increase in self-esteem as well as a reduction in boy image avoidance behaviors. Zabukovec, Lazrove, and Shapiro (2000) found that EMDR method and information processing aided in self-healing of the negative self-belief of worthlessness. According to Shapiro and Forrest (1997), "In most recent studies, 84 to 90 percent of the people using EMDR—victims of rape, natural disaster, loss of a child, catastrophic illness, or other traumas—have recovered from posttraumatic stress in only three sessions" (p. 5).

Although the aforementioned studies resulted in support of the use of EMDR as a brief treatment model, some studies resulted in mixed support. For example, in a randomized controlled trial of 46 outpatients who met the criteria for PDA, Goldstein et al. (2000) found EMDR significantly superior to no treatment on several measures related to anxiety and panic disorder. However, Goldstein et al. found no significant difference on cognitive measures. In a single session treatment of test anxiety with EMDR of 44 second-year psychology students, Maxfield and Melnyk (2000) found that treatment resulted in significant improvement on all scales of the Test Anxiety Inventory (a measure of emotionality and worry). Results also indicated modest improvement on the Fear of Negative Evaluation (a measure of apprehension about and avoidance of negative evaluation by others) when compared to the control group. However, no changes in state anxiety were noted (Maxfield & Melnyk, 2000). Finally, Dunn et al. (1996) studied 28 subjects from an introductory psychology class and from a human sexuality class to test the efficacy of EMDR in a controlled, laboratory setting. Results indicated,

> With college students reporting distressing incidents, looking at a stationary point on a card was just as effective in decreasing their reported anxiety as EMDR. Both conditions showed significant decreases in SUD scores. There were no significant differences between the two groups at any point during the experiment. (p. 237)

These results indicated that eye movement might not be a necessary requirement to effectuate change while using the EMDR process. Whereas eye movement was the first strategy, other methods to bilaterally stimulate the brain have also been introduced, including auditory and tactile stimulation. Finally, a few studies resulted in limited support for effectiveness of two EMDR sessions with veterans suffering from Posttraumatic Stress Disorder (Boudewyns, Stwertka, Hyer, Albrecht, & Speer, 1993; Jensen, 1994). Although EMDR was developed for this population, these results indicate that limiting time may not be beneficial for all clients.

Fear of flying. Fear of flying is a common condition. It is one of the most common fears along with public speaking, heights, insects, sickness, death, elevators, deep water, and driving (TIGERX.Communications, 2001). However, it is difficult to gauge exactly how many individuals suffer from fear of flying. Nonetheless, many researchers agree that etiology surrounding fear of flying is related to concern for crashing, fear of being in a confined environment, fear of heights, and a lack of control (e.g., Kahan, Tanxer,

Darvin, & Borer, 2000; North & North, 1997; Rothbaum & Hodges, 1999; Steptoe, 1988; Wiedemann, Ellgring, & Pauli, 2001). Furthermore, the aforementioned researchers found support for simulated flight using virtual reality (VR) in combination with treatment as effective in reducing or eliminating fear of flying.

First, Kahan et al. (2000) studied 31 patients suffering from fear of flying. Patients' fears were related to panic disorder with agoraphobia, fear of crash, claustrophobia, and fear of heights. Patients averaged approximately six sessions of cognitive-behavioral treatment using VR exposure. Of these 31 patients, 68% (n = 21) flew after treatment. Although results of this study appear encouraging, subjective anxiety measures were not used to assess anxiety; therefore, although the patients flew after treatment, there is no way of assessing whether or not their anxiety was reduced. In a study on fear of flying, Wiedemann et al. (2001) used multiple exposures of VR in a single session to compare the efficacy of VR exposure flights compared to relaxation training. Repeated VR exposure was more efficacious than relaxation training in fear reduction. Next, in a single subject case study, North and North (1997) utilized virtual environment desensitization (VED) to treat fear of flying. Five sessions of VED therapy, increasing in threatening scenes, were implemented in the treatment regime. Results of the VED indicated reduced anxiety symptoms. Furthermore, posttreatment follow-up indicated increased comfort levels during actual flights. Finally, Maltby, Kirsh, Mayets, and Allen (2002) found improvement on a standardized self-report measure of flight anxiety for both VR treatment participants and the control participants. Although VR treatment participants showed more improvement, these group differences were not enduring.

According to Rothbaum and Hodges (1999), fear of flying is traditionally treated with behavioral techniques, cognitive techniques, stress inoculation strategies, flooding, implosion, relaxation, and in vivo exposure. They found that virtual reality exposure therapy aids in the facilitation of emotional processing and is an effective method for treating fear of flying. According to Steptoe (1988), treatment modalities such as analytical psychotherapy are not as effective for fear of flying as are behavioral techniques. Furthermore, Steptoe found that exposure to real flight is highly regarded as an effective technique. Steptoe also notes that although real-life treatment may be initially more expensive and not as convenient as treatment in a counselor's office, the use of this method for the alleviation of fear of flying symptoms may be quicker and less costly in the long run. Additionally, although the aforementioned studies found support for simulated flight in reducing fear of flying, no studies showing the effectiveness of in-flight EMDR treatment for fear of flying is reported in the literature.

Specific phobia. The American Psychiatric Association (2000) identifies the essential feature of specific phobia as a "marked and persistent fear of clearly discernible, circumscribed objects or situations" (p. 443). Furthermore, this fear is "excessive or unreasonable, cued by the presence or anticipation of a specific object or situation" (p. 449). The specific phobia subtype, situational type, includes the fear of flying.

According to Shapiro and Forrest (1997), "Big 'T' trauma includes events that a person perceives as life-threatening" (p. 14). For example, life-threatening perceptions include rape, assault, floods, fires, and tornadoes. These events can be stressful to the point that an individual becomes unable to cope, which may leave them with feelings of helplessness, fear, and loss of control. "Small 't' trauma occurs in the innocuous but upsetting experiences that daily life sends our way. It can result in some of the same feelings as big 'T' trauma and have far-reaching consequences" (p. 14). The purpose of this article is to provide an example of the in-flight application of a single session of EMDR to nontraumatic or small "t" fear of flying. This adaptation could be used with clients who are unable to benefit from more traditional approaches or from the multiple session or exposure approach of VR. Finally, a case illustration is presented to demonstrate the effectiveness of in-flight EMDR for nontraumatic fear of flying.

2 CASE INTRODUCTION

At the time of treatment, Jennifer R. was a 34-year-old, single Caucasian female with the presenting problem of fear of flying. She reported being a reluctant flyer who has only flown 10 times prior to treatment. Prior to EMDR therapy, Jennifer attempted to counsel herself using positive self-talk and reframing (i.e., calling turbulence "bumpy clouds"). She did not recognize that she was fearful of flying until 1988 and is not able to identify any precipitating factors for the etiology of her fear.

3 PRESENTING COMPLAINTS

While on a business flight during the summer of 1999, the counselor noticed Jennifer digging her fingernails into her hands, thus leaving deep marks in her hands. Her face was ashen, and her breathing was notably labored, rapid, and difficult. Tears began to role down Jennifer's face at the thought of crashing, even prior to the plane taking off.

4 HISTORY

Jennifer is a 34-year-old, single, Caucasian female who appears to be her stated age. She reports a relatively normal childhood and indicates that she reached her developmental milestones as expected. Jennifer is currently in graduate school where she is majoring in counseling. Aside from the normal stressors of a graduate program, she reports no other current problems. Jennifer presently takes Accolate and Albuterol for treatment of asthma. Her only history of counseling includes a brief depressive episode in 1986 during a general life transition.

5 CASE CONCEPTUALIZATION

After noticing Jennifer's distress, the counselor offered her services. It is important to note here that there was a prior relationship between the counselor and Jennifer. The counselor was also Jennifer's professor, one that she considered a mentor. The counselor, recognizing that Jennifer was in distress and in need of immediate relief, discussed possible treatment options with Jennifer (see section on Course of Treatment relating to dual relationships). The counselor noticed the stress-reducing mechanisms that Jennifer was unconsciously and consciously employing to help her alleviate some of the stress. Jennifer, having confidence in the counselor, agreed that she would like some help during the flight. The counselor, trained in EMDR, suggested that this technique be utilized due to the possibility of giving Jennifer some immediate relief. In-flight EMDR treatment was utilized.

6 ASSESSMENT

The VOC scale and the SUDS were utilized in assessing the effectiveness of the EMDR treatment. The VOC is generally used to measure confidence in a positive cognition. The VOC is a self-report scale, ranging from 1 to 7, with 1 representing *completely unbelievable* and 7 representing *completely believable*. The SUDS measures the intensity of negative affect. SUDS is a scale from 0 to 10 with 0 representing *neutral* or *no disturbance* and 10 representing the *worst disturbance imaginable*.

7 COURSE OF TREATMENT AND ASSESSMENT OF PROGRESS

While on an airplane flight, Jennifer R. was observed experiencing excessive anxiety. The third author, trained in EMDR, offered her professional services. The eight-phase approach of EMDR (Shapiro & Forrest, 1997) was adapted and utilized during the flight to help reduce Jennifer's symptoms of anxiety. Standard protocols of EMDR were altered to meet the demands of the situation. The counselor did not install or create a safe space prior to beginning the process. Furthermore, the counselor considered both ethical and legal issues of conducting EMDR with a student and of being in such a public place. However, the EMDR process does not require the client to share intimate or personal information or to relive the trauma. The client was fully apprised of any issues regarding dual relationships, and confidentiality was not an issue as the client and the counselor were by themselves in a row of seats. Jennifer had no reservations in participating in this process due to the amount of distress she was experiencing.

First, the counselor gave a brief explanation of the EMDR process to Jennifer. Second, the counselor gave specific brief instructions, established a stop signal, and established the appropriate distance and direction of the eye movement. In addition, the counselor gave a metaphor: to think about the experience as if watching it on video.

Because a prior relationship existed between the counselor and Jennifer, preparing Jennifer for EMDR treatment and establishing trust was expedited. Next, the counselor focused on Jennifer's disturbing emotions and sensations, measuring them by the SUDS and the VOC scale. Jennifer's negative cognition was fear of having no control while in flight. The desensitization was repeated until the SUDS score was 1. "The fifth phase of EMDR treatment is called installation because the goal is to 'install' and increase the strength of the positive belief that the persona has identified to replace his original negative belief" (Shapiro & Forrest, 1997, p. 54). The counselor helped Jennifer link her desired positive cognition, "Everything is going to be ok," with the original experience at this point. Next, the counselor asked Jennifer to scan her body for tension. Jennifer reported minimal symptoms, therefore no reprocessing was necessitated. Seventh, at the end of the flight, the counselor ensured that Jennifer was feeling good about the session and was less anxious than at the beginning of the EMDR process. Closure was established. The eighth phase of EMDR treatment is called reevaluation. The goal of reevaluation is to ensure that the client maintains low subjective units of disturbance, high VOC, and no body tension. In addition, the counselor explores any new areas or targets that need treatment (Shapiro & Forrest, 1997).

Jennifer received a total of one EMDR session. Her VOC scale score was 4 after treatment and 6 after two posttreatment flights. Jennifer's SUDS score was initially 8. The desensitization process was repeated until Jennifer's SUDS score was 1. After two posttreatment flights, Jennifer's SUDS score was 0.

8 MANAGED CARE CONSIDERATIONS

The main impetus to treating fear of flying is the cost of real-life experience (Rothbaum & Hodges, 1999). Furthermore, managed care organizations may be reluctant to pay for this type of treatment. As VR exposure is less expensive than real-life flying situations, VR may be an appropriate substitute for the treatment of fear of flying (Kahan et al., 2000).

9 FOLLOW-UP

The counselor followed Jennifer's progress closely through the next 21 months. Follow-up was initially in person as Jennifer and the counselor saw each other on a regular basis at the university. After Jennifer's graduation, the counselor periodically checked on Jennifer's continued progress through e-mail communication. Jennifer reported that the single session of in-flight EMDR treatment was effective for her. Subsequent to her EMDR therapy, Jennifer reported flying on 24 different occasions with no reoccurrence of symptoms.

On September 11, 2001, the United States was a victim of a terror attack. This attack instilled a fear of flying even to those who never have experienced this fear before. Jennifer reported that she has flown 16 times after September 11. Her VOC score was 6 after September 11. This was the same as directly after her EMDR treatment. Jennifer reported that she felt empowered when flying after September 11 and that felt she could act if something went wrong. Today, her VOC score remains 6. Jennifer's SUDS score was 1 for 8 flights and 0 for the next 4 flights after September 11. Overall, Jennifer has successfully flown 36 times subsequent to a single session of in-flight EMDR therapy. She continues to report low SUDS, high VOC, and no body tension. Although September 11 could have been a complicating factor in Jennifer's progress, this was not the case.

10 TREATMENT IMPLICATIONS OF THE CASE

This study illustrates the in-flight application of a single session of EMDR to nontraumatic or small "t" fear of flying in the case of Jennifer R. The results, in the case of Jennifer, suggest that EMDR may be an effective therapeutic approach for nontraumatic fear of flying. The prior relationship between the counselor and Jennifer made up for the fact that installation of a safe place was not initially established, further supporting the adaptation of EMDR therapy procedures to meet the needs of the individual client. Additionally, Jennifer was highly motivated, almost desperate for relief, which in some ways may have made it easier. Jennifer's desire for relief, combined with the in-vivo treatment, reduced the avoidance of her fear while at the same time increased her desire for a successful outcome.

Jennifer's ability to fly 36 times while sustaining her posttreatment SUDS level is notable. EMDR purports to take the client's positive feelings (cognitions) and make them robust. Given the events of September 11, this result further supports the effectiveness of adapting the EMDR process and the resiliency of the treatment. The 16 flights Jennifer took since September 11 clearly indicate that positive cognitions instilled in her during the EMDR process were effective because her SUDS score actually reduced over time. Although this reduction did not initially occur after September 11, as she reported a continued SUDS score of 1 during the next 8 flights, her SUDS score reduced to 0 for the subsequent 4 flights. Jennifer reported that this result might be a reflection of feeling empowered during her flights. Furthermore, much additional reduction coincided with the "shoe bomber" incident, where airline passengers and flight attendants took the initiative to secure the plane. September 11 resulted in a range of reactions to flying, from fearful to phobic. The treatment Jennifer received supports the efficacy and resiliency of EMDR through a confusing and traumatic time that could normally disrupt the effectiveness of other treatments.

Generalizations from this single case study are limited but encouraging. Individual differences in clients' abilities, willingness, openness to new experiences, and prior

attempts to alleviate fear can impact results of any treatment, especially in-flight EMDR. Furthermore, it may be difficult establishing initial rapport using this type of treatment in a public forum. Susceptibility to distraction and the unwanted attention this type of treatment might bring can limit the willingness of the client to participate and the effectiveness of the treatment process. In-flight EMDR appears to be an efficient and successful treatment for nontraumatic fear of flying. However, controlled experimental research of this approach to fear of flying is recommended.

11 RECOMMENDATIONS TO CLINICIANS

EMDR is a specialized treatment process. As such, clinicians and students are encouraged through their professional ethics to be appropriately trained and to receive supervised experience prior to the application of this process. Furthermore, clinicians and students are encouraged to be mindful about individual differences. Although adapting established treatment processes to meet the needs of the individual client is normally within acceptable standards, clinicians are encouraged to utilize acceptable standards backed by research and theory. For example, although the eye movements are usually effective, especially with visually oriented people, adaptations to the process may be necessary. For auditory or kinesthetic-oriented people, snapping of fingers alternately in the ears and having the client tap her legs may be more effective. This alternative may also address issues related to disabilities, such as visual impairment. Additionally, a strong knowledge of the client's history and prior treatment is essential to effective adaptation of treatment processes.

Empowering clients to help themselves is one of the goals of the counseling process. To further this goal, clinicians are encouraged to identify treatment processes that best fit the clients' perception of their own problem. In addition to clients' perception of their own problem, clinicians and students are encouraged to be mindful of the roles that gender, racial, and ethnic differences play. Although no reports were found at the time of this study on these differences, they could have implications here, just as there are cultural and gender differences in any theory. Clinicians can provide clients with several options for treatment. Discussion of options with clients will aid in the empowerment process as well as increase the clients' investment in treatment. This may include taking the counseling session outside of the traditional office environment and adapting the treatment process, as in the case of Jennifer.

Fear of flying is a diverse condition. Each client will have different fears related to being on a plane. Furthermore, each client will fear different consequences of being on a plane. Finally, each client's fear will be activated by different cues. Therefore, each individual needs to be treated differently. "To obtain positive therapeutic effects with EMDR, it is necessary to adapt its standard procedures to the unique needs and characteristics of the client and to apply different EMDR protocols for different pathologies"

(Shapiro, 2002, p. 2). Though EMDR stages are standardized, adaptations to meet the needs and to address the uniqueness of each client plays an integral piece in the process.

REFERENCES

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Barker, S., & Hawes, C. (1999). Eye movement desensitization and reprocessing in individual psychology. *Journal of Individual Psychology*, *55*, 146-161.

Boudewyns, P. A., Stwertka, S. A., Hyer, L. A., Albrecht, J. Q., & Speer, E. V. (1993). Eye movement desensitization for PTSD of combat: A treatment outcome pilot study. *The Behavior Therapist*, *16*, 29-33.

Dattilio, F. (2001). Crisis intervention techniques for panic disorder. *American Journal of Psychotherapy*, 55, 388-405.

Dunn, T., Schwartz, M., Hatfield, R., & Wiegele, M. (1996). Measuring effectiveness of eye movement desensitization and reprocessing (EMDR) in non-clinical anxiety: A multi-subject, yoked-control design. *Journal of Behavior Therapy and Experimental Psychiatry*, *27*, 231-239.

Dziegielewski, S. F., & Wolfe, P. (2000). Eye movement desensitization and reprocessing (EMDR) as a time-limited treatment intervention for body image disturbance and self-esteem: A single subject case study design. *Journal of Psychotherapy in Independent Practice*, *1*, 1-16.

Foa, E., & Meadows, E. (1997). Psychosocial treatments for posttraumatic stress disorder: A critical review. *Annual Review of Psychology*, *48*, 449-480.

Goldstein, A. (1995). Treatment of panic disorder with agoraphobia: Going beyond the barrier. *Psychotherapy in Practice*, *1*, 83-98.

Goldstein, A., de Beurs, E., Chambless, D., & Wilson, K. (2000). EMDR for panic disorder with agoraphobia: Comparison with waiting list and credible attention-placebo control conditions. *Journal of Consulting and Clinical Psychology*, *58*, 947-956.

Jensen, J. A. (1994). An investigation of eye movement desensitization and reprocessing (EMD/R) as a treatment for posttraumatic stress disorder (PTSD) symptoms of Vietnam combat veterans. *Behavior Therapy*, *25*, 311-326.

Kahan, M., Tanzer, J., Darvin, D., & Borer, F. (2000). Virtual reality-assisted cognitive-behavioral treatment for fear of flying: Acute treatment and follow-up. *CyberPsychology & Behavior*, 3, 387-392.

Maltby, N., Kirsch, I., Mayers, M., & Allen, G. J. (2002). Virtual reality exposure therapy for the treatment of fear of flying: A controlled investigation. *Journal of Consulting & Clinical Psychology*, *70*(5), 1112-1118.

Maxfield, L., & Melnyk, W. (2000). Single session treatment of test anxiety with eye movement desensitization and reprocessing (EMDR). *International Journal of Stress Management*, *7*, 87-101.

North, M., & North, S. (1997). Virtual environments psychotherapy: A case study of fear of flying disorders. *Teleoperators & Virtual Environments*, *6*, 127-132.

Parnell, L. (1999). *EMDR in the treatment of adults abused as children*. New York: Norton.

Rothbaum, B., & Hodges, L. (1999). The use of virtual reality exposure in the treatment of anxiety disorders. *Behavior Modification*, *23*, 507-525.

Senior, J. (2001). Eye movement desensitisation [*sic*] and reprocessing: A matter for serious consideration? *The Psychologist*, *14*, 361-363.

Shapiro, F. (2000). *Eye movement desensitization and reprocessing: Level I training manual*. Pacific Grove, CA: EMDR Institute.

Shapiro, F. (2002). EMDR 12 years after its introduction: Past and future research. *Journal of Clinical Psychology*, *58*, 1-22.

Shapiro, F., & Forrest, M. (1997). *EMDR: Eye movement desensitization & reprocessing*. New York: Basic Books.

Steptoe, A. (1988). Managing flying phobia. *British Medical Journal*, *296*, 1756-1757.

TIGERX.Communications. (2001). *Ten most common human fears*. Retrieved July 8, 2002, from http://www.tigerx.com/trivia/fears.htm

Wiedemann, G., Ellgring, H., & Pauli, P. (2001). Repeated exposure of flight phobics to flights in virtual reality. *Behaviour Research and Therapy*, 39, 1033-1050.

Zabukovec, J., Lazrove, S., & Shapiro, F. (2000). Self-healing aspects of EMDR: The therapeutic change process and perspectives of integrated psychotherapies. *Journal of Psychotherapy Integration*, *10*, 189-206.

Rebecca A. Newgent, Ph.D., is an assistant professor and coordinator for the Counselor Education Program at the University of Arkansas. Her research interests include measurement and evaluation, children (achievement, peer harassment, and abuse or trauma), and counselor education and supervision.

Derrick A. Paladino, Ed.S., is a doctoral candidate in the Department of Educational Leadership, Counseling and Foundations at the University of Arkansas. His research interests span the multicultural (multiracial identity and themes) as well as crisis theory domains.

Cynthia A. Reynolds, Ph.D., in an associate professor and school counseling coordinator for the Department of Counseling at the University of Akron. Her research interests include Filial Therapy, Gestalt Therapy, and school counseling.