Annotated Bibliography: The Research on EMDR Therapy With Children

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EMDR and The Art of Psychotherapy With Children: Infants to Adolescents

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Reviews of Research on EMDR Therapy in Individual Psychotherapy With Children

Adler-Tapia, R. L., & Settle, C. S. (2009). Evidence of the efficacy of EMDR with children and adolescents in individual psychotherapy: A review of the research published in peer reviewed journals. *Journal of EMDR Practice and Research, 3*(4), 232–247.

In this article, the authors apply the gold standards from Foa and Meadows to the published studies on EMDR with children. In addition, many studies that have not been published but instead have been presented at conferences or dissertation research are also noted as EMDR have been applied to many diagnoses of childhood.

Fleming, J. (2012). The effectiveness of eye movement desensitization and reprocessing in the treatment of traumatized children and youth. *Journal of EMDR Practice and Research, 6*(1), 16–26.

This article provides a summary of all the studies that have investigated EMDR treatment of traumatized children and adolescents. The effectiveness of the treatment is revealed in more than 15 studies. This article considers the differences between Type I and Type II traumas and specifically examines the effects of EMDR on traumatic stress experienced by children and youth following Type I and Type II traumas. There is a considerable body of research evaluating EMDR treatment of Type I traumas, showing strong evidence for its efficacy, but there are few studies that have specifically investigated EMDR treatment of Type II traumas. The effect of EMDR on various symptoms and problem areas is also examined. Recommendations are made for the clinical application of EMDR and for further research.

Rodenburg, R., Benjamin, A., de Roos, C., Meijer, A. M., & Stams, G. J. (2009). Efficacy of EMDR in children: A meta-analysis. *Clinical Psychology Review, 29,* 599–606.

Rodenburg et al. (2009) provided a meta-analytical review of the treatment efficacy of EMDR with children from the perspective of incremental efficacy. This study assessed effect size of EMDR versus CBT. The authors concluded that the efficacy of EMDR with children is supported when EMDR is compared to standard of care or no treatment. When EMDR therapy is compared with CBT, support for the incremental efficacy of EMDR is evidenced in the research.

Studies of EMDR Therapy in Individual Psychotherapy With Children

Adler-Tapia, R. L., & Settle, C. S. (2009). *EMDR in the treatment of childhood depression: Findings from a pilot study*. Manuscript submitted for publication.

Adler-Tapia and Settle (2009) conducted a fidelity study on the ability of therapists to demonstrate adherence to the EMDR protocol with children of ages 2 to 10 years who were identified as victims of crime including child abuse or witnesses to homicide. The researchers used a manualized research protocol and ongoing consultation with the research therapists who were all fully trained in EMDR and had advanced training on using EMDR with young

children. Even though this study was a fidelity study focused on documenting therapists' ability to adhere to the EMDR protocol with young children, pre/posttest measures were implemented. Twelve children ages 3 to 9 years were referred for EMDR psychotherapy in this pilot study and were assessed pretreatment with the Children's Impact of Events Scale, the Posttraumatic Symptom Scale (PTSS-10; Raphael, Lundin, & Weisaeth, 1989), and the Behavioral Assessment System for Children (BASC) during intake. The children then participated in EMDR treatment with the full eight stages focused on reprocessing one identified target while containing other potential targets. The children were assessed posttreatment with repeated measures. For the purposes of this pilot study, 12 children were referred with seven children completing the treatment protocol. All seven children initially were assessed as displaying significant depressive symptoms prior to treatment and then demonstrated a significant reduction in depressive symptoms following treatment as assessed with the BASC. As noted on the BASC scale, all seven children were assessed by parents and teachers as displaying symptoms in the "At risk" or "Clinically Significant" range pretreatment, with all seven children assessed as being in the "Normal range" following 12 sessions of treatment with the EMDR protocol that followed the manualized protocol approved by Dr. Shapiro as being EMDR.

Ahmad, A., Larsson, B., & Sundelin-Wahlsten, V. (2007). EMDR treatment for children with PTSD: Results of a randomized controlled trial. *Nordic Journal of Psychiatry, 61*(5), 349–354.

Ahmad et al. (2007) conducted a randomized control study comparing the treatment efficacy of EMDR versus wait list control (WLC) for two groups of children diagnosed with PTSD. Children were randomly assigned to either treatment with EMDR or to a WLC. From a pool of 170 children referred to the study, 59 children were diagnosed with PTSD with 33 children enrolled in the study. Children were assigned to either EMDR treatment (17 children) or WLC (16 children.) The authors noted that the children in the EMDR treatment group received EMDR with modifications of the EMDR protocol. The authors noted that these modifications were documented in another article by the authors submitted for publication at the time of the publication of this study. In this study, therapists provided eight weekly outpatient sessions for a maximum of 45 minutes per child. The authors concluded that, the children who received EMDR treatment showed significant improvement specifically in the reexperiencing symptoms associated with PTSD

Bronner, M. B., Beer, R., Jozine van Zelm van Eldik, M., Grootenhuis, M. A., & Last, B. F. (2009). Reducing acute stress in a 16-year old using trauma-focused cognitive behaviour therapy and eye movement desensitization and reprocessing. *Developmental Neurorehabilitation, 12*(3), 170–174.

Bronner et al. (2009) used an integrative treatment of trauma-focused cognitive behavioral therapy (TF-CBT) and EMDR to treat a 16-year-old girl with acute stress. In this case study, the authors noted that the girl was experiencing distressing memories, flashbacks, and anxiety following a spinal cord injury resulting from a diving accident. The authors used the Children's Revised Impact of Event Scale to assess the adolescent's symptoms. For the EMDR treatment, the authors noted one 20-minute session that included the Assessment and Desensitization Phases of EMDR where the child focused on the diving accident. Standardized assessment documented substantial reduction in stress scores following treatment with no flashbacks following the treatment protocol. Recommendations were made for future studies to assess treatment efficacy in a large study of children.

Chemtob, C., Nakashima, J., & Carlson, J. (2002). Brief treatment for elementary school children with disaster-related posttraumatic stress disorder: A field study. *Journal of Clinical Psychology, 58*(1), 99–112.

Chemtob et al. (2002) used an Applied Behavior Analysis (ABA) randomized lagged groups design to evaluate the use of three sessions of EMDR to treat 40 children who were assessed as meeting the criteria for PTSD 3 years following a natural disaster. This study conducted assessments for trauma-related symptoms with children who continued to display symptoms

of PTSD following Hurricane Iniki in Hawaii. Designed to assess the efficacy of clinical treatment for children following a disaster, this was a controlled study aimed at evaluating the use of a brief treatment for postdisaster PTSD in children. This study was not designed to evaluate the efficacy of EMDR, but instead focused on the need for postdisaster treatment for children. The authors explained their rationale for choosing EMDR as the treatment method for this study and concluded that EMDR was manualized allowing for treatment fidelity and evidence of the potential for rapid treatment effects because previous studies on adults indicated the treatment efficacy with single traumatic events. Though not specifically focused on assessing the efficacy of EMDR as a treatment methodology, this study reported improvement in symptom presentation following three sessions of EMDR for children with disaster-related PTSD.

Cocco, N., & Sharpe, L. (1993). An auditory variant of eye movement desensitization in a case of childhood post-traumatic stress disorder. *Journal of Behavior Therapy and Experimental Psychiatry, 24*(4), 373–377.

Cocco and Sharpe (1993) recorded a case study on the use of EMDR to treat PTSD in a 4-year-old boy. The authors reported that they used the "EMD procedure" to treat the child's symptoms and the authors found a reduction in symptoms after 3 weeks. In this study, the authors documented a single case study in which the therapist used pieces of the EMDR protocol to treat a 4-year-old. This study was one of the first studies to document the application of the EMDR protocol to a very young child.

de Roos, C., & de Jongh, A. (2008). EMDR treatment of children and adolescents with a choking phobia. *Journal of EMDR Practice and Research, 2*(3), 201–211.

de Roos and de Jongh (2008) used the phobia protocol to treat choking phobia in four children ages 4 to 18 years. Unlike previous studies on EMDR for children with choking phobia, this is the first study to apply the phobia protocol as written by Shapiro and target the trauma memory rather than symptom. In this case series, these authors noted that the EMDR treatment resulted in resolution of all symptoms of choking phobia.

de Roos, C., Greenwald, R., de Jongh, A., & Noorthorn, E. O. (2004, November). *EMDR (Eye Movement Desensitization and Reprocessing) versus CBT (Cognitive Behavioral Therapy) for disaster-exposed children: A controlled study*. Poster session presented at the annual meeting of the International Society for Traumatic Stress Studies, New Orleans.

In this study, de Roos et al. (2004) conducted a comparative study of EMDR versus CBT with 52 children ages 4 to 18 years following a fireworks factory explosion in Enschede, the Netherlands on May 13, 2000. The children were referred to the Mental Health Disaster After Care Center Mediant in Enschede and randomly assigned to either EMDR or CBT with 28 children referred to each treatment condition. Upon follow-up, the researchers reported that 20 children in the CBT condition and 18 in the EMDR condition completed treatment. The researchers concluding that both treatment protocols were effective with EMDR statistically demonstrating a larger mean change per session requiring fewer sessions of treatment. The authors of this study noted that all therapists were fully trained in both EMDR and CBT, and a manualized treatment protocol was used and evaluated by independent raters. The researchers also reported that the children in the EMDR group received a mean number of 3.2 sessions while the CBT group received a mean number of 4.0 sessions. Upon follow-up, treatment results were maintained.

de Roos, C., Greenwald, R., den Hollander-Gijsman, M., Noorthoorn, E., van Buuren, S., & de Jongh, A. (2011). A randomised comparison of cognitive behavioural therapy (CBT) and eye movement desensitisation and reprocessing (EMDR) in disaster-exposed children. *European Journal of Psychotraumatology, 2*, 1–11. doi:10.3402/ejpt.v2i0.5694.

de Roos et al. (2011) compared the treatment of EMDR versus TF-CBT for the treatment of disaster-related PTSD symptoms for 52 children exposed to a fireworks explosion. In this study, 38 children ages 4 to 18 years were randomly assigned to either EMDR or TF-CBT

where the children received four sessions of up to 60 minutes each, with specific criteria established for completing the research protocol. Even though participants in both active treatments demonstrated a decrease in posttraumatic stress symptoms, the authors noted that the EMDR treatment was more efficient overall than the TF-CBT treatment. Participants in the EMDR group (N = 18) completed the treatment protocol in fewer sessions (mean: 3.17) as compared to the TF-CBT group (N = 20) (mean: 4.0 sessions).

Greenwald, R. (1994). Applying eye movement desensitization and reprocessing (EMDR) to the treatment of traumatized children: Five case studies. *Anxiety Disorders Practice Journal, 1*(2), 83–97.

Greenwald (1994) documented five case studies of EMDR with children. The author provided two sessions of psychotherapy to five children referred to the writer following Hurricane Andrew that hit Florida in 1992. The author reportedly administered a Structured Interview to the mothers 2 weeks following the hurricane and just prior to treatment. In addition, the Problem Rating Scale (PRS) was administered to the mothers to assess the child's disturbance on each symptom as an estimate 1 week before the hurricane, the second week after the hurricane, and the week after treatment was completed, and measured Subjective Units of Disturbance (SUD) were administered during treatment. The author also wrote that follow-up telephone interviews were conducted 1 week and 4 weeks after the final treatment session, noting that the children displayed improvement following treatment.

Hensel, T. (2009). EMDR with children and adolescents after single-incident trauma—An intervention study. *Journal of EMDR Practice and Research 3*(1), 2–9.

Hensel (2009) randomly assigned 36 children and adolescents ages 1 to 18 years referred to the author's private practice to either EMDR training or wait list control (WLC). The author noted that all children were assessed as having exposure to single-incident trauma only. Hensel found that all 36 children demonstrated significant and rapid improvement, as reported by parents at posttreatment with effects maintained at 6-month follow-up. He also noted that there was no significant difference between the treatment response of preschoolers and school-age children. Hensel used the CROPS/PROPS for pre/posttreatment assessment.

Jaberghaderi, N., Greenwald, R., Rubin, A., Dolatabadim, S., & Zand, S. O. (2002). A comparison of CBT and EMDR for sexually abused Iranian girls. *Clinical Psychology and Psychotherapy, 11,* 358–368.

Jaberghaderi et al. (2002) compared EMDR with cognitive behavioral therapy (CBT) in treating Iranian girls who had been sexually abused. The researchers randomly assigned 14 girls ages 12 to 13 years to CBT or EMDR treatment and then compared treatment outcomes between the two groups. The researchers conducted pre- and posttest measures including the CROPS, PROPS, Rutter Teacher Scale, and SUD that were administered pretreatment and 2 weeks posttreatment. The researchers concluded that "Both treatments showed large effect sizes on the posttraumatic symptoms outcomes and a medium effect size on the behaviorally outcome, all statistically significant. A non-significant trend on self-reported post-traumatic stress symptoms favoured EMDR over CBT."

Muris, P., Merckelbach, H., Holdrinet, I., & Sijsenaar, M. (1998). Treating phobic children: Effects of EMDR versus exposure. *Journal of Consulting and Clinical Psychology, 66,* 193–198.

Muris, P., Merckelbach, H., van Haaften, H., & Mayer, B. (1997). Eye movement desensitization and reprocessing versus exposure in vivo: A single-session crossover study of spider-phobic children. *British Journal of Psychiatry, 171,* 82–86.

In two different studies, Muris et al. (1997, 1998**)** compared the use of EMDR versus exposure therapy in the treatment of children with spider phobias. The researchers concluded that there was not significant improvement from the use of EMDR. This study was the first to compare

the use of exposure therapy and EMDR to the treatment of spider phobia in children; however, in the EMDR treatment the researchers noted that they used EMDR to target the symptoms of spider phobia rather than treating the traumatic memories associated with the phobic behaviors/symptoms of the children. The researchers randomly assigned 26 children identified as "spider phobic" to three treatment conditions. The first phase of treatment consisted of either one 1.5-hour session of EMDR (that reportedly followed the protocol recommended by Shapiro), computerized in vivo, or in vivo exposure therapy and then the children's symptoms were evaluated. A second phase of treatment included having all the children participate in a 2.5-hour group session of exposure in vivo. The researchers then administered a second series of assessments to all participants and concluded that exposure in vivo remains the treatment of choice for childhood spider phobia (p. 193). This study is methodologically limited by the number of subjects in each treatment condition; the use of one 1.5-hour session of EMDR for the treatment of nine children, the multiple conditions including individual and group treatment.

Oras, R., Cancela De Ezpeleta, S., & Ahmad, A. (2004). Treatment of traumatized refugee children with eye movement desensitization and reprocessing in a psychodynamic context. *Nordic Journal of Psychiatry, 58,* 199–203.

Oras et al. (2004) used EMDR to treat 13 children ages 8 to 16 years of age who were residing in a refugee camp in Sweden with their families between 1996 and 1999. All of the children had been exposed to terrorism and were placed in the refugee camp waiting to find out the status of their applications to be granted asylum in Sweden. The children were referred to The Department of Child and Adolescent Psychiatry at Uppsala University Hospital in Sweden. The authors reported that EMDR was combined with talk therapy, play therapy, and other treatment modalities depending on the needs of the child. Treatment sessions ranged from five to 25 sessions with EMDR-focused therapy varying from one to five sessions per child client. The authors summarized the EMDR eight-phase protocol in the article; however, a manualized treatment protocol and fidelity were not assessed. The authors initially assessed the children's symptoms with the PTSS-C, Global Assessment of Functioning Scale (GAF), and then reassessed following treatment completion. The authors found a significant improvement in functioning and PTSD symptoms, especially in reexperiencing. On the PTSS-C and the GAF scales that were administered pre/posttreatment, the therapists concluded that the children's PTS symptoms improved or abated, but that the children who presented with no symptoms following treatment were children whose families had been granted asylum and were living in permanent housing. The researchers concluded that the children demonstrated the most significant progress in symptoms associated with reexperiencing, but less on avoidance. This study is the first outcome study of individual treatment of EMDR with children to document the use of EMDR for children living in extreme uncertainty and difficult conditions in a refugee camp. Even though the authors included an overview of the EMDR eight-phase treatment protocol in their article, the authors did not use a manualized treatment protocol nor was fidelity assessed. The authors reported that they integrated talk therapy, play therapy, and psychodynamic treatment into the treatment of the children. In this study, the treating psychologist did not administer the pre/postmeasurements in order to allow for improved validity from independent raters.

Pellicer, X. (1993). Eye movement desensitization treatment of a child's nightmares: A case report. *Journal of Behavior Therapy and Experimental Psychiatry, 24*(1), 73–75.

In one of the first published articles on EMD with children, Pellicer (1993) documented the use of EMD to treat the nightmares of a 10-year-old girl. The author wrote that the child's nightmares were alleviated following one session of EMD. (At the time this treatment documented in this article was documented, the "R" in EMDR was not yet included.)

Puffer, M., Greenwald, R., & Elrod, D. (1998). A single session EMDR study with twenty traumatized children and adolescents. *International Electronic Journal of Innovations in the Study of the Traumatization Process and Methods for Reducing or Eliminating Related Human Suffering, 3*(2), Article 6. Retrieved from http://www.fsu.edu/~trauma/v3i2art6.html

Puffer et al. (1998) used a lag time design to assess the efficacy of one session of EMDR for children identified as having "a single traumatic memory." In this study, 22 children ages 8 to 17 years were "evenly split into treatment and delayed-treatment groups on a convenience basis (they could choose to start before or after school vacation.)" The children were all administered the Children's Manifest Anxiety Scale (CMAS), Impact of Events Scale (IES), Subjective Units of Disturbance (SUD) Scale, and Validity of Cognition (VoC) Scale prior to starting treatment, which consisted of a single 90-minute session of EMDR provided by a doctoral student who had completed "the first half of the training available through the EMDR Institute." (p. 4). The researchers concluded that "...the measures which focused directed on the traumatic memory (IES, SUD, VoC) all showed a stronger response to the EMDR treatment than did the CMAS, a more global measure of anxiety. (p. 5). In this study again, since no manualized treatment protocol was used, it is difficult to determine what treatment the children received. This further compounds the study in that the doctoral student providing the therapy had not completed basic training in EMDR and that it would be difficult to imagine how a therapist could complete eight phases of treatment adhering to the EMDR protocol in 90 minutes.

Rubin, A., Bischofshausen, S., Conroy-Moore, K., Dennis, B., Hastie, M., Melnick, L., ... Smith, T. (2001). The effectiveness of EMDR in a child guidance center. *Research on Social Work Practice, 11*(4), 435–457.

Rubin et al. (2001) randomly assigned 39 children ages 6 to 15 years in sibling sets to either the treatment or control group in an effort to compare treatment outcomes for children treated at a child guidance center. Forty-one percent of the children in this study had a parent with a diagnosable mental illness. The researchers gave one of the child's parents the Child Behavioral Checklist (CBCL) to complete. At pretest, 33 of the 39 participants in the study had clinically elevated scores on the CBCL. In this study, the control group of children consisted of 16 children who received the center's standard of care treatment with the treatment group of 23 children receiving the same treatment as the control group along with the addition of three sessions of EMDR. The children in the study reportedly received a combination of individual play therapy, group therapy, and family therapy with the median number of sessions 21 for the experimental group and 22 for the control group with the range of therapy sessions not noted in the researcher study. The researchers concluded that more research needs to be conducted, but that no statistically significant findings were noted on posttest scores with either the treatment or control groups in this research study. The researchers noted that the children presented with mixed mental health diagnoses, 33% were taking psychotropic medications, and 41% had a parent diagnosed with a mental health disorder. Since the children demonstrated a range of clinical diagnoses and 41% of the children lived with a parent with a diagnosed mental health disorder, it is difficult to determine what variables may have impacted treatment outcomes.

Scheck, M., Schaeffer, J. A., & Gillette, C. (1998). Brief psychological intervention with traumatized young women: The efficacy of eye movement desensitization and reprocessing. *Journal of Traumatic Stress, 11*, 25–44.

Scheck et al. (1998) studied the efficacy of EMDR with traumatized young women, 60 women between the ages of 16 and 25 were randomly assigned to two sessions of either EMDR or an active listening (AL) control. Factorial ANOVA (analysis of variance) interaction effects and simple main effects for outcome measures (*Beck Depression Inventory, State-Trait Anxiety Inventory, Penn Inventory for Posttraumatic Stress Disorder, Impact of Event Scale, Tennessee Self-Concept Scale*) indicated significant improvement for both groups and significantly greater pre-post change for *EMDR*-treated participants. Pre-post effect sizes for the *EMDR* group averaged 1.56 compared to 0.65 for the AL group. Despite treatment brevity, the posttreatment outcome variable means of EMDR-treated participants compared favorably with nonpatient or successfully treated norm groups on all measures.

Soberman, G., Greenwald, R., & Rule, D. (2002). A controlled study of eye movement desensitization and reprocessing (EMDR) for boys with conduct problems. *Journal of Aggression, Maltreatment and Trauma, 6*(1), 217–236.

Soberman et al. (2002) conducted a study where the researchers added three sessions of EMDR to the treatment protocol to 29 boys ages 10 to 16 years of age diagnosed with conduct disorder who were being treated at a mental health program that included both inpatient and outpatient treatment services. The boys were randomly assigned to either standard care or standard care "plus 3 trauma focused EMDR sessions." Soberman et al. (2002) used EMDR to treat the suspected trauma underlying the overt presentation of conduct problems. This study found a significant reduction in "memory-related distress, as well as trends towards reduction of post-traumatic symptoms." The study also found that the boys who received the EMDR sessions also "showed large and significant reduction of problem behaviors by 2-month follow-up." (p. 217). This is the first study to use EMDR to treat children diagnosed with conduct problems and conceptualize the children as having underlying trauma driving the overt behavioral symptoms.

Tufnell, G. (2005). Eye movement desensitization and reprocessing in the treatment of preadolescent children with post-traumatic symptoms. *Clinical Child Psychology and Psychiatry, 10*(4), 587–600.

Tufnell (2005) treated four children ages 4 years, 5 years, 10 years, and 11 years of age with EMDR. All four children were referred for psychotherapy after experiencing motor vehicle accidents and demonstrating posttraumatic stress symptoms. This case series is the first research to document the use of EMDR with children following motor vehicle accidents. In this case series, no standardized measures were used to assess the children's symptoms or functioning. All symptoms were based on parent report and therapist assessment. The author noted that treatment consisted of narrative EMDR sessions for the younger children and three sessions of EMDR for the two older children with a maximum seven sessions for the children. In this article, Tufnell concluded that treatment was rapid and efficacious. This study is the first published study documenting the use of EMDR for young children who had experienced motor vehicle accidents through the therapist's narrative of the treatment.

Wanders, F., Serra, M., & de Jongh, A. (2008). EMDR versus CBT for children with self-esteem and behavioral problems: A randomized controlled trial. *Journal of EMDR Practice and Research*, *2*(3), 180–189.

Wanders et al. (2008) conducted a comparative study of EMDR versus CBT, with 26 children with behavioral problems randomly assigned either four sessions of EMDR or CBT prior to standard of care in inpatient or outpatient clinics. On posttreatment assessment and 6-month follow-up, EMDR and CBT were found to have significant positive effects on behavioral and self-esteem problems with EMDR treatment more rapid and without homework as needed with CBT.

Research on the EMDR Group/Butterfly Hug Protocol With Children

Adúriz, M. E., Knopfler, C., & Bluthgen, C. (2009). Helping child flood victims using group EMDR intervention in Argentina: Treatment outcome and gender differences. *International Journal of Stress Management, 16*(2), 138–153.

This protocol combines the eight standard EMDR treatment phases (Shapiro, 2001) with a group therapy model and an art therapy format and uses the Butterfly Hug (Artigas, Jarero, Mauer, López Cano, & Alcalá, 2000) as a form of a self-administered bilateral stimulation. The justification for modifying the individual EMDR protocol was to provide mental health services in a disaster aftermath circumstances and fulfill the mental health population's needs. The protocol was originally designed for working with children (Artigas et al., 2000)

and was later modified for use with adults (Artigas & Jarero, 2014). This protocol compares favorably with group treatment of other models in terms of time, resources, and results (Adúriz et al., 2009).

Fernandez, I., Gallinari, E., & Lorenzetti, A. (2004). A school-based eye movement desensitization and reprocessing intervention for children who witnessed the Pirelli Building airplane crash in Milan, Italy. *Journal of Brief Therapy, 2*(2), 129–135.

Fernandez et al. (2004) illustrated the use of EMDR with 236 school children between the ages of 6 and 11 years who had witnessed an airplane crash. This study included the largest population of children in a study of the EMDR group protocol. "The 'butterfly hug' is an "intervention that uses dual attention stimulation along with various aspects of the standard EMDR protocol" (Jarero, Artigas, Mauer, López Cano, & Alcalá, 1999). Based on teacher reports 30 days after the treatment, the researchers concluded that all but two children had returned to predisaster functioning.

Jarero, I., Artigas, L., & Hartung, J. (2006). EMDR integrative group treatment protocol: A postdisaster trauma intervention for children and adults. *Traumatology, 12*(2), 121–129.

Jarero et al. (2006) conducted a study on the EMDR Group Protocol with children in Piedras Negras, Mexico, where a flood killed residents and destroyed many homes. The research team treated 44 children ages 8 to 15 years with 22 boys and 22 girls participating in the study. The researchers used the EMDR Group Protocol created by the authors (Jarero et. al., 1999) to treat the children. The researchers in this study conducted pretest and posttest assessments using the Children's Reaction to Traumatic Events Scale (CRTES; Jones, 2002) and found a significant drop in CRTES scores at a 4-week follow-up with the group.

Korkmazlar-Oral, U., & Pamuk, S. (2002). Group EMDR with child survivors of the earthquake in Turkey. In J. Morris-Smith (Ed.), *Occasional Papers Series 19: EMDR: Clinical applications for children (*pp. 47–50). London: Association for Child Psychology and Psychiatry, William Yule (Ed.), ACPP Occasional Paper Series Editor.

Korkmazlar-Oral and Pamuk (2002) treated two groups of children after an earthquake in Turkey with the EMDR group protocol. In this study, 16 children ages 10 and 11 years were provided EMDR as a group activity. In order to be included in the study, the child had to have lost an immediate family member and had their home demolished, but the child could "no opportunity to share his/her experiences with anyone." The entire treatment was reportedly provided in 3.5 hours. As the authors note, this article was written to document a humanitarian project to treat traumatized children and was not designed as a research study; therefore, it was only possible to report anecdotal data. This study was a field study where research methodology was secondary to treating the children who had experienced a disaster situation.

Wilson, S., Tinker, R., Hofmann, A., Becker, L., & Marshall, S. (2000, November). *A field study of EMDR with Kosovar-Albanian refugee children using a group treatment protocol.* Paper presented at the annual meeting of the International Society for the Study of Traumatic Stress, San Antonio, TX.

Wilson et al. (2000, November) presented a paper entitled A Field Study of EMDR with Kosovar-Albanian Refugee Children Using a Group Treatment Protocol at the annual meeting of the International Society for the Study of Traumatic Stress, San Antonio, Texas. The researchers conducted a field study of children in a refugee camp for ethnic Albanians from Kosovo in Hemar, Germany. Dr. Tinker reported that Dr. Wilson and he treated two groups of children with the Butterfly Hug group protocol. The younger group included 17 children ages 6 to 10 years and an older group of nine children ages 11 to 13 years.

In this study, the children's symptoms were measured pre- and posttreatment with the Saigh Children's PTSD Inventory measure, and the Children's Brief Psychiatric Rating Scale.

In this field study, the children had experienced high levels of distress and trauma in their lives, albeit not necessarily the same traumatic event. Valid pre- and posttreatment measures were used for both groups of children; however, the older group had already participated in treatment for 6 months prior to participating in the group protocol. The researchers were responding to the needs of the children and conducted the study secondary to meeting the mental health needs of the children.

Zaghrout-Hodali, M., Alissa, F., Sahour, B., & Dodgson, P. W. (2008). Building resilience and dismantling fear: EMDR group protocol with children in an area of ongoing trauma. *Journal of EMDR Practice and Research, 2*(2), 106–113.

Zaghrout-Hodali et al. (2008) conducted a field study of children who had experienced a shooting in Bethlehem. Researchers noted that in addition to treating the children's reactions to traumatic events in their homes and communities, the EMDR group protocol treatment contributed to the children demonstrating increased resiliency when the children encountered new traumatic events. Zaghrout-Hodali et al. (2008) reported that seven children, ages 8 to 12 years were referred by their parents for psychological help following a shooting in which four of the children were injured and another child who was playing with the group was more seriously injured and received individual EMDR later when he was well enough to participate. The seven children were treated by two fully trained EMDR therapists who had also been trained in the group protocol and had extensive clinical experience. The treatment included four sessions and a follow-up session completed "between four and five months after the fourth consultation" (p. 13). Zaghrout-Hodali et al. (2008) reported using the Butterfly Hug protocol as described by Wilson et al. (2000) that includes the eight phases of the EMDR protocol.

Additional Resources

Adler-Tapia, R. L. (2008). *EMDR group protocol fidelity manual.* Camden, CT: EMDR/HAP.

Adler-Tapia, R. L., & Settle, C. S. (2004). *EMDR fidelity manual: Children's protocol.* Camden, CT: EMDR/HAP.

Adler-Tapia, R. L., & Settle, C. S. (2008). *EMDR and the art of psychotherapy with children.* New York, NY: Springer Publishing.

Adler-Tapia, R. L., & Settle, C. S. (2008). EMDR psychotherapy with children. In A. Rubin & D. W. Springer (Eds.), *Treatment of traumatized adults and children: Part of the clinician's guide to evidence based practice series.* New York, NY: Wiley.

Adler-Tapia, R. L., & Settle, C. S. (2009). EMDR assessment and desensitization phases with children: Step-by-step directions. In M. Luber (Ed.), *EMDR scripted protocols.* New York, NY: Springer Publishing.

Greenwald, R. (1999). *Eye movement desensitization and reprocessing (EMDR) in child and adolescent psychotherapy.* Northvale, NJ: Jason Aronson Press.

Greyber, L., Dulmus, C., & Cristalli, M. (2012, October). Eye movement desensitization reprocessing, posttraumatic stress disorder, and trauma: A review of randomized controlled trials with children and adolescents. *Child & Adolescent Social Work Journal, 29*(5), 409–425.

Jarero, I., & Artigas, L. (2009). EMDR integrative group treatment protocol. *Journal of EMDR Practice and Research, 3*(4), 287–288.

Jarero, I., & Artigas, L. (2010). The EMDR integrative group treatment protocol: Application with adults during ongoing geopolitical crisis. *Journal of EMDR Practice and Research, 4*(4), 148–155.

Jarero, I., Artigas, L., & Luber, M. (2011). The EMDR protocol for recent critical incidents: Application in a disaster mental health continuum of care context. *Journal of EMDR Practice and Research, 5*(3), 82–94.

Jarero, I., Artigas, L., & Montero, M. (2008). The EMDR integrative group treatment protocol: Application with child victims of mass disaster. *Journal of EMDR Practice and Research, 2,* 97–105.

Kemp, M., Drummond, P., & McDermott, B. (2010). A wait-list controlled pilot study of eye movement desensitization and reprocessing (EMDR) for children with post-traumatic stress disorder (PTSD) symptoms from motor vehicle accidents. *Clinical Child Psychology and Psychiatry, 15*(1), 5–25. (Originally published online November 18, 2009).

Lovett, J. (1999). *Small wonders: Healing childhood trauma with EMDR*. New York, NY: The Free Press.

Popky, A. J. (2005). DeTUR, an urge reduction protocol for addictions and dysfunctional behaviors. In R. Shapiro (Ed.), *EMDR solutions: Pathways to healing* (pp. 167–188). New York, NY: W. W. Norton.

Rodenburg, R., Benjamin, A., Meijer, A. M., & Jongeneel, R. (2009, September) Eye movement desensitization and reprocessing in an adolescent with epilepsy and mild intellectual disability. *Epilepsy & Behavior, 16*(1), 175–180.

Tinker, R. H., & Wilson, S. A. (1999). *Through the eyes of a child: EMDR with children*. New York, NY: W. W. Norton & Co.

Wadaa, N. N., Zahari, N. M., & Alqashan, H. F. (2010, Spring). The use of EMDR in treatment of traumatized Iraqi children. *Digest of Middle East Studies, 19*(1), 26–36.

References

Artigas, L., & Jarero, I. (2014). The butterfl y hug. In M. Luber (Ed.), *Implementing EMDR early mental health interventions for man-made and natural disasters: Models, scripted protocols, and summary sheets* (pp. 127–130). New York, NY: Springer Publishing.

Artigas, L., Jarero, I., Mauer, M., López Cano, T., & Alcalá, N. (2000, September). *EMDR and traumatic stress after natural disasters: Integrative treatment protocol and the Butterfly Hug*. Poster presented at the EMDRIA Conference, Toronto, Ontario, Canada.

Jarero, I., Artigas, L., Mauer, M., López Cano, T., & Alcalá, N. (1999, November). *Children's post traumatic stress after natural disasters: Integrative treatment protocol*. Poster presented at the annual meeting of the International Society for Traumatic Stress Studies, Miami, FL.

Jones, R. T. (2002). *The child's reaction to traumatic events scale (CRTES): A self-report traumatic stress measure*. Blacksburg: Virginia Polytechnic University.

Raphael, B., Lundin, T., & Weisaeth, L. (1989). A research method for the study of psychological and psychiatric aspects of disaster. *Acta Psychiatrica Scandinavica, 353*, 1–75. Retrieved from http://dx.doi.org/10.1111/j.1600-0447.1989.tb03041.x

Shapiro, F. (2001). *Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures* (2nd ed.). New York, NY: Guilford.