

# Research Corner

ANDREW M. LEEDS, PH.D.

This quarter 28 new peer reviewed journal articles appeared directly relevant to EMDR trained clinicians. This issue of “The Research Corner” will review new support for five topics – for the EMDR-Integrative Group Treatment Protocol for Ongoing Traumatic Stress, for reducing the emotionality of auditory hallucination memories, for new insights into neurobiological effects of eye movements as used in EMDR in those with and without PTSD (and those with dissociative symptoms), and for helping mothers with developmental trauma achieve an earned secure attachment adult and improved reflective function with standard EMDR procedures. First, we turn to the challenge of treating individuals struggling with suicidal ideation and major depressive disorder. Can EMDR therapy help and is it safe to offer EMDR therapy in these cases?

*Tip: To quickly access journal articles cited below, put the doi number from the end of the citation into the search window at: <https://www.doi.org/> This leads directly to the journal abstract or the full text of open access articles.*

## REDUCING SUICIDAL IDEATION IN THOSE WITH MAJOR DEPRESSIVE DISORDER

For EMDR trained clinicians who hesitate to offer EMDR reprocessing to those with active suicidal ideation, a new open access study by Fereidouni, et al. (2019) may be instructive. Fereidouni, et al. (2019) conducted a randomized controlled trial with 70 hospital in-patients on the effect of EMDR therapy on the severity of suicidal thoughts in those with major depressive disorder. Exclusion criteria were a history of suicide attempts, seizures,

or vision problems. Those in the treatment group received EMDR therapy for 45–90 minutes three days a week, on alternate days, for three weeks for a total of nine reprocessing sessions. Compared to a control group who received routine care, those in the EMDR treatment group showed a significant reduction in scores on the Beck Scale for Suicide Ideation (BSSI). The severity of suicidal thoughts in the control group remained unchanged. For a helpful exploration of clinical issues related to using EMDR therapy in outpatient settings for

those with suicidal thoughts, readers are referred to the 2016 case series by Proudlock and Hutchins of nine clients who accessed crisis services in which “Treatment directly addressed recent or historical traumatic experiences, without extensive preparation even though clients had suicidal intent and were in crisis. All clients showed marked improvement in their mental state and a reduction in their risk regarding harm to self and harm to others.” These two studies provide a contrast with the 2009 open access clinical Q & A by John Spector and Sandra Kremer which emphasized extreme caution and an extended preparation phase for those with suicidal ideation.

## RESOLVING INSECURE ADULT ATTACHMENT AND IMPROVING REFLECTIVE FUNCTION WITH STANDARD EMDR PROCEDURES

Civilotti, et al. (2019) conducted a study of the potential of EMDR therapy to change adult state of mind regarding attachment as measured by the Adult Attachment Inventory (AAI) in women with parenting and relational problems. Potential patients were excluded with comorbid personality disorders, psychotic or organic mental disorder and current drug or alcohol abuse. Their study adds to the positive findings from earlier case reports by Wesselmann and Potter (2009), Wesselmann, et al. (2012), and Zaccagnino and Cussino (2013) which also assessed change using the AAI, and the large case series by Wesselmann, Armstrong,

Schweitzer, Davidson, and Potter (2018) that investigated the EMDR Integrative Attachment Trauma Protocol for Children (IATP-C) with 22 families of adopted children. In the current study Civilotti, et al. (2019) reported positive changes in attachment patterns with 12 of 20 participants achieving an earned secure attachment (with an alternate preoccupied or dismissing classification). There were also significant positive changes in the AAI Coherence [of attachment narrative] Scale and Reflective Function scores. These changes occurred over a period of one year of EMDR therapy that consisted of between 28 and 44 sessions (average 36). Notably, the treating clinicians used standard EMDR therapy protocols as described in the reference textbook (Shapiro, 1995, 2001) addressing childhood memories of trauma or loss. Thus, at least in this adult female cohort, alternative, attachment-related procedures, such as the developmental needs meeting strategy (DNMS; Schmidt, 2004) or imaginal nurturing (Steele, 2003) were not needed to help patients achieve an earned secure attachment and improved reflective function.

#### FUNCTIONAL MAGNETIC RESONANCE IMAGING STUDY ON THE EFFECTS OF HORIZONTAL EYE MOVEMENTS COMPARED BETWEEN THOSE WITH PTSD AND HEALTHY CONTROLS

What happens in the brain during the horizontal eye movements as

used in EMDR therapy? Do these horizontal eye movements have identical neurobiological effects in those with and without PTSD when focusing on stressful autobiographical memories? How do the brain responses of those with significant dissociative symptoms affect their abilities to respond to EMDR therapy?

Harricharan, et al. (2019) used fMRI to investigate the neural networks and brain regions involved with making eye movements, the retrieving of episodic memories, and capacities for emotional regulation. Their article provides new insights into the neurobiology of emotional regulation and compares the effects of eye movements in healthy individual and those with PTSD.

Nineteen healthy controls and 20 individuals diagnosed with PTSD were asked to recall both neutral and traumatic or stressful autobiographical memories. These memories were activated in the fMRI scanner using each person's cue word and then each person engaged in several sets of 30 seconds of each of the four following tasks: looking at a stationary dot, horizontal smooth pursuit eye movements, horizontal saccadic pursuit EM, and vertical saccadic pursuit EM. Before and between the four tasks, participants were asked to rate PTSD-related symptoms including emotional intensity, numbing, dissociation, re-experiencing, and vividness of memory.

fMRI analyses demonstrated "that frontoparietal regions involved in autobiographical memo-

ry retrieval and emotion regulation show connectivity with the right FEF [frontal eye fields] and SEF [supplementary eye fields] during the retrieval of a traumatic/stressful memory while performing concurrent horizontal saccadic and smooth pursuit eye movements."

"... during traumatic/stressful memory retrieval with simultaneous horizontal smooth pursuit eye movements, as compared to controls, the PTSD group showed increased right FEF and SEF connectivity with the right dorsolateral prefrontal cortex, as well as increased right SEF connectivity with the right dorsomedial prefrontal cortex."

Harricharan, et al. point out that Pagani et al. (2012) had previously suggested that the prefrontal cortex is central to cognitive processing of traumatic memories during EMDR "due to its involvement in self-referential processing of the emotional content underlying a memory". They add that "Although individuals tend to integrate negative memories during rapid eye movement (REM) sleep, when the frontal lobe is largely inhibited (Hobson, Stickgold, & Pace-Schott, 1998; Marshall, Helgadóttir, Mölle, & Born, 2006; Nishida, Pearsall, Buckner, & Walker, 2008), Stickgold (2002) suggested that eye movements may, conversely, engage the frontal lobe during the retrieval of episodic memories, thus enhancing the capacity for top-down emotion regulation."

Harricharan, et al. describe many more important insights from their statistical analysis than

can be summarized in this brief review. Overall, they highlight the role of EM during recall of traumatic or stressful autobiographical memories retrieval in activating “a frontoparietal executive control network that has the potential to facilitate top–down emotion regulation.” The reader is referred to their open access article which includes supplemental materials as well. Their findings include the following.

“The increased right SEF recruitment of the right anterior insula in the PTSD group as compared to controls suggests a potential role of eye movements in strengthening the internal sense of time during retrieval of a traumatic memory.”

“We suggest that, among those who are not traumatized by a stressful experience, it may not be necessary to recruit additional cortical regions in an effort to engage top–down emotion regulation processes. As compared to individuals with PTSD, the healthy control group showed increased right FEF connectivity with the right posterior insula only during retrieval of a stressful memory with simultaneous horizontal smooth pursuit eye movements.”

“In the present study, among individuals with PTSD, dissociative symptoms correlated negatively with right SEF connectivity with the right dorsolateral prefrontal cortex during traumatic memory retrieval involving simultaneous horizontal smooth pursuit eye movements... we suggest that decreased ability of the oculomotor brain regions (i.e. FEF and SEF) to engage regions

involved in top–down emotion regulation, including the right dorsolateral prefrontal cortex, during traumatic memory retrieval may limit the efficacy of EMDR therapy in PTSD patients with significant dissociative symptoms.”

### REDUCING THE EMOTIONALITY OF AUDITORY HALLUCINATION MEMORIES

Matthijssen, et al. (2019) conducted an initial investigation of the effects of bilateral eye movements, counting aloud and eye fixation on the emotionality of a memory associated with an auditory hallucination in thirty-six patients suffering from auditory hallucinations (AH). They found that both EM and counting aloud reduced the emotionality of the selected memory while eye fixation did not have the same effect. They found equal effects with EM and counting aloud. Thus, they found no sensory modality specific effects. Treating clinicians reported positive effects on the AH themselves, but these effects were not objectively assessed with follow up data. The authors suggest their findings warrant further treatment studies for patients with AH that should include follow up information of any effect on AH symptoms.

### EFFECTIVE EMDR-INTEGRATIVE GROUP TREATMENT FOR REFUGEE MALE YOUTH

Rosa Josefa Molero, Ignacio Jarero, and Martha Givaudan (2019) conducted a longitudinal multisite

randomized clinical trial (RCT) on the benefits of the EMDR-Integrative Group Treatment Protocol for Ongoing Traumatic Stress (EMDR-IGTP-OTS; Jarero & Artigas, 2009) with refugee male youth in Valencia, Spain. During the study period, eighteen volunteer therapists provided about 8 hours of treatment during nine group sessions to a total of 93 minors between 13 and 17 years old. Ninety-one refugees were assigned to a non-treatment control group and for ethical reasons those in the control group were offered the same treatment after the study was completed. Sessions were provided three times daily over three consecutive days in one of six refugee sites. Exclusion criteria included “(a) ongoing self-harm/suicidal or homicidal ideation, (b) diagnosis of schizophrenia, psychotic or bipolar disorder, (c) diagnosis of dissociative disorder, (d) organic mental disorder, (e) a current, active chemical dependency problem, (f) significant cognitive impairment (e.g., severe intellectual disability, dementia), (g) presence of uncontrolled symptoms due to medical illness” and any medication treatment for PTSD symptoms.

The first group treatment session lasted an average of 95 minutes. Subsequent group treatment sessions lasted an average of 48 minutes. Time for rest between sessions was an average of one hour and forty minutes. Activities during rest time included sports or resting after lunch. Clinical interviews, assessments, and group treatments were conducted in the

refugees' language with the help of cultural mediators. Research assistants provided psychoeducation about trauma and answered participants' questions about PTSD, anxiety, depression, and EMDR therapy. The study design used intensive EMDR therapy since prior research suggested that this increases treatment outcomes (Gutner, et al., 2016).

PTSD symptom severity was assessed with the PCL-5. The treatment group showed a significant decrease in mean PCL-5 scores from pre-treatment to post-treatment and on follow up. There were no changes in the control group scores across time. In the treatment group, similar positive effects

were shown on level of anxiety and depression with no changes in the control group.

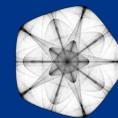
This study demonstrated that "Individual EMDR treatment can be provided in a group setting to small or large groups of patients in an intensive treatment modality so that patients can receive efficient and effective treatment." The authors point out that the EMDR-IGTP-OTS lessens cultural barriers to treatment in part because it does not require either a verbal or written narrative of the traumatic experience, relying instead on concrete depictions in participants' drawings. The authors comment that "Drawing is superior to activities such as reading or writing

because it forces the person to process information in multiple ways: visually, kinesthetically, and semantically. Drawing also promotes the integration of elaborative, pictorial, and motor codes, facilitating the creation of a context-rich representation." Study limitations included the absence of a formal PTSD diagnosis in the participants, a limited 90-day follow-up period (due to ethical constraints in needing to offer active treatment to all who wanted it) and only treating males. The authors recommended future RCT include a formal assessment for PTSD with the CAPS-5, a longer follow up at six or twelve months and to include both female as well as male participants.

## Sonoma Psychotherapy Training Institute

Andrew M. Leeds PhD Director

EMDRIA Approved Consultant and Trainer



### Basic, Advanced and CIT

#### EMDR consultation

with Andrew M. Leeds, Ph.D.

Join group calls by telephone, computer, tablet or smartphone  
Become EMDRIA Certified or Approved Consultant

Gain confidence and skills in EMDR therapy

<https://emdrconsultation.net/>

### EMDRIA Home Study Courses

Digital video & audio courses. Tablet - smartphone friendly

Or just read a book. Pass the exam. Earn your credits

*Borderline Personality and EMDR or EMDR and Dissociation  
or A Guide to the Standard EMDR Therapy Protocols*

Earn 12 EMDRIA Credits and CEs.

<https://www.andrewleeds.net>

Remote group and individual consultation - CIT, Basic and Advanced  
Access sessions from anywhere in the world <https://EMDRConsultation.net/>

### Basic EMDR Therapy Training

in Alameda CA near Oakland Airport

Licensed trainings in Denver, Los Angeles & Canada

Complete Basic EMDR training in four two-day weekends.

Find our training schedule and major EMDR articles at:

[www.SonomaPTI.com/basictraining.html](http://www.SonomaPTI.com/basictraining.html)

### Free Online Resources

Get the latest EMDR articles in our free newsletter.

Download selected EMDRIA conference handouts,  
EMDR treatment templates, and case consultation forms.

Get details on all programs at:

[www.AndrewLeeds.net](http://www.AndrewLeeds.net)

SonomaPTI@gmail.com

Phone: (707) 579-9457

1049 Fourth St., Suite G, Santa Rosa, CA, 95404

[info@AndrewLeeds.net](mailto:info@AndrewLeeds.net)

References

- Civilotti, C., Cussino, M., Callerame, C., Fernandez, I., & Zaccagnino, M. (2019). *Changing the Adult State of Mind with respect to Attachment: an exploratory study of the role of EMDR psychotherapy*. *Journal of EMDR Practice and Research*, 13(3), 176-186. doi:10.1891/1933-3196.13.3.176
- Fereidouni, Z., Behnammoghadam, M., Jahanfar, A., & Dehghan, A. (2019). *The Effect of Eye Movement Desensitization and Reprocessing (EMDR) on the severity of suicidal thoughts in patients with major depressive disorder: a randomized controlled trial*. *Neuropsychiatric Disease and Treatment, Volume 15*, 2459-2466. doi:10.2147/ndt.s210757  
Open Access: <http://dx.doi.org/10.2147/ndt.s210757>
- Gutner, C. A., Suvak, M. K., Sloan, D. M., & Resick, P. A. (2016). *Does timing matter? Examining the impact of session timing on outcome*. *Journal of Consulting and Clinical Psychology*, 84, 1108-1115.
- Harricharan, S., McKimmon, M. C., Tursich, M., Densmore, M., Frewen, P., Théberge, J., . . . Lanius, R. A. (2019). *Overlapping frontoparietal networks in response to oculomotion and traumatic autobiographical memory retrieval: implications for eye movement desensitization and reprocessing*. *European Journal of Psychotraumatology*, 10(1), 1586265. doi:10.1080/20008198.2019.1586265  
Open Access: <http://dx.doi.org/10.1080/20008198.2019.1586265>
- Jarero, I., & Artigas, L. (2009). *EMDR integrative group treatment protocol*. *Journal of EMDR Practice & Research*, 3 (4), 287-288.  
Open Access: <https://connect.springerpub.com/content/sgremdr/2/2/97>
- Matthijssen, S. J. M. A., Heitland, I., Verhoeven, L. C. M., & van den Hout, M. A. (2019). *Reducing the Emotionality of Auditory Hallucination Memories in Patients Suffering from Auditory Hallucinations*. *Frontiers in Psychiatry*, 10.  
Open Access: <http://dx.doi.org/10.3389/fpsy.2019.00637>
- Molero, R. J., Jarero, I., & Givaudan, M. (2019). *Longitudinal Multisite Randomized Controlled Trial on the Provision of the EMDR-IGTP-OTS to Refugee Minors in Valencia, Spain*. *American Journal of Applied Psychology*, 8(4), 77-88.  
Open Access: <http://bit.ly/MoleroMinorRCI>
- Proudlock, S., & Hutchins, J. (2016). *EMDR Within Crisis Resolution and Home Treatment Teams*. *Journal of EMDR Practice and Research*, 10(1), 47-56.  
Open Access: <https://connect.springerpub.com/content/sgremdr/10/1/47>
- Schmidt, S. J. (2004). *Developmental needs meeting strategy: A new treatment approach applied to dissociative identity disorder*. *Journal of Trauma and Dissociation*, 5(4), 55-78. doi:10.1300/J229v05n04\_04
- Spector, J., & Kremer, S. (2009). *Can I Use EMDR With Clients Who Report Suicidal Ideation?* *Journal of EMDR Practice and Research*, 3(2), 107-108. doi:10.1891/1933-3196.3.2.107  
Open access: <https://connect.springerpub.com/content/sgremdr/3/2/107>
- Steele, A. (2003). *Imaginal nurturing*. *Proceedings from EMDRIA Annual Conference*, Denver, CO.
- Wesselmann, D., Armstrong, S., Schweitzer, C., Davidson, M., & Potter, A. (2018). *An integrative EMDR and family therapy model for treating attachment trauma in children: A case series*. *Journal of EMDR Practice and Research*, 12(4), 196-207. doi:10.1891/1933-3196.12.4.196
- Wesselmann, D., Davidson, M., Armstrong, S., Schweitzer, C., Bruckner, D., & Potter, A. E. (2012). *EMDR as a treatment for improving attachment status in adults and children*. *European Review of Applied Psychology / Revue Européenne De Psychologie Appliquée*, 62, 223-230. doi:10.1016/j.erap.2012.08.008
- Wesselmann, D., & Potter, A. E. (2009). *Change in adult attachment status following treatment with EMDR: Three case studies*. *Journal of EMDR Practice and Research*, 3, 178-191. doi:10.1891/1933-3196.3.3.178

# Recent Articles

ANDREW M. LEEDS, PH.D.

This regular column appears in each quarterly issue of the EMDRIA Newsletter and the EMDR Europe Newsletter. It lists citations, abstracts, and preprint/reprint information—when available—on all EMDR therapy related journal articles. The listings include peer reviewed research reports and case studies directly related to EMDR therapy—whether favorable or not—including original studies, review articles and meta-analyses accepted for publication or that have appeared in the previous six months in scholarly journals. Authors and others aware of articles accepted for publication are invited to submit pre-press or reprint information. Listings in this column will exclude: published comments and most letters to the editor, non-peer reviewed articles, non-English articles unless the abstract is in English, dissertations, and conference presentations, as well as books, book chapters, tapes, CDs, and videos. Please send submissions and corrections to: [a Leeds@theLeeds.net](mailto:a Leeds@theLeeds.net).

**Note:** a comprehensive database of all EMDR therapy references from journal articles, dissertations, book chapters, and conference presentations is available in The Francine Shapiro Library hosted by the EMDR International Association at: <http://emdria.omeka.net/>

Previous columns from 2005 to the present are available on the EMDRIA web site at: <http://www.emdria.org/?page=43>

Aternali, A., & Katz, J. (2019). Recent advances in understanding and managing phantom limb pain. *F1000Res*, 8. doi:10.12688/f1000research.19355.1

Open Access: <https://www.ncbi.nlm.nih.gov/pubmed/31354940>

Andrea Aternali, Department of Psy-

chology, York University, Toronto, Ontario, Canada.

## ABSTRACT

Post-amputation phantom limb pain (PLP) is highly prevalent and very difficult to treat. The high-prevalence, high-pain intensity levels, and decreased quality of life associated with PLP compel us to explore novel

avenues to prevent, manage, and reverse this chronic pain condition. This narrative review focuses on recent advances in the treatment of PLP and reviews evidence of mechanism-based treatments from randomized controlled trials published over the past 5 years. We review recent evidence for the efficacy of targeted muscle reinnervation, repetitive transcranial magnetic stimulation, imaginal phantom limb exercises, mirror therapy, virtual and augmented reality, and eye movement desensitization and reprocessing therapy. The results indicate that not one of the above treatments is consistently better than a control condition. The challenge remains that there is little level 1 evidence of efficacy for PLP treatments and most treatment trials are underpowered (small sample sizes). The lack of efficacy likely speaks to the multiple mechanisms that contribute to PLP both between and within individuals who have sustained an amputation. Research approaches are called for to classify patients according to shared factors and evaluate treatment efficacy within classes. Subgroup analyses examining sex effects are recommended given the clear differences between males and females in pain mechanisms and outcomes. Use of novel data analytical approaches such as growth mixture modeling for multivariate latent classes may help to identify sub-clusters of patients with common outcome trajectories over time.

Borji, M., Tarjoman, A., Abdi, A., & Otaghi, M. (2019). *Efficacy of Implementing Home Care Using Eye Movement Desensitization and Reprocessing in Reducing Stress of Patients with Gastrointestinal Cancer*. *Asian Pac J Cancer Prev*, 20(7), 1967-1971. doi:10.31557/APJCP.2019.20.7.1967

Open Access: <https://www.ncbi.nlm.nih.gov/pubmed/31350952>

Milad Borji, Department of Nursing, Faculty of Nursing and Midwifery, Ilam University of Medical Science, Ilam, Iran.

E-mail: [otaghi-m@medilam.ac.ir](mailto:otaghi-m@medilam.ac.ir)

### ABSTRACT

#### BACKGROUND:

Gastrointestinal cancer is the third most common types of cancer in the world which leads to a lot of stress among sufferers. Pharmacological and non-pharmacological approaches are used to treat stress induced by serious diseases. Eye movement desensitization and reprocessing (EMDR) technique is considered as one of non-pharmacological method for decreasing patient's stress.

#### OBJECTIVE:

This study was conducted to determine the effect of home care using EMDR technique on the stress of patients with gastrointestinal cancer.

#### MATERIALS AND METHODS:

The current semi-experimental study was performed on patients with gastrointestinal cancer residing in Ilam, Iran. The patients were

randomly divided into two groups of intervention (n=30) and control (n=30). Home care was provided for intervention group in patients' homes which included 2 sessions (a total of 60 sessions for all patients). Each session lasted for 45 to 60 minutes according to EMDR protocol. The data were analyzed using SPSS (version 16).

#### RESULTS:

The findings of this study showed that most of patients were male (36, 60%), had diploma degrees (44, 73.3%), had a monthly income less than 500 thousand (38, 63.3%), were married (39, 65 %). The mean age of the patients was  $69.18 \pm 11.58$  years. No statistically significant difference was observed between two groups before the intervention in terms of patients' perceived stress ( $P > 0.05$ ). However, efficacy and perceived distress of the intervention group significantly was decreased following the intervention ( $P < 0.05$ ).

#### CONCLUSIONS:

According to the findings regarding the impact of home care using EMDR technique on reducing stress in patients with gastrointestinal cancer, the implementation of this intervention and provision of education for patients are recommended to expand the nursing duty to community health wards as well as to improve the health status of patients.

Chamberlin, D. E. (2019). *The Network Balance Model of Trauma and Resolution—Level I: Large-Scale Neu-*

*ral Networks*. *Journal of EMDR Practice and Research*, 13(2), 124-142. doi:10.1891/1933-3196.13.2.124

D. Eric Chamberlin, MD, 49 Welles St., Suite 202, Glastonbury, CT 06033.

E-mail: [Eric@ChamberlinNeuroscience.com](mailto:Eric@ChamberlinNeuroscience.com)

### ABSTRACT

There are three large-scale neural networks in the brain. The default mode network functions in autobiographical memory, self-oriented and social cognition, and imagining the future. The central executive network functions in engagement with the external world, goal-directed attention, and execution of actions. The salience network mediates interoception, emotional processing, and network switching. Flexible, balanced participation of all three networks is required for the processing of memory to its most adaptive form to support optimal behavior. The triple network model of psychopathology suggests that aberrant function of these networks may result in diverse clinical syndromes of psychopathology (Menon, 2011). Acute stress causes a shift in the balance of the large-scale networks, favoring the salience network and rapid, evolutionarily proven survival responses. This shift results in memory being processed by the amygdala and hippocampus, with limited participation of the prefrontal cortex. Typically following the resolution of stress, balance of the three networks is restored, and processing of memory with prefrontal cortex participation resumes spontaneously. The Network Balance

Model of Trauma and Resolution posits that failure to restore network balance manifests clinically as posttraumatic stress disorder (PTSD), with inadequately processed and dysfunctionally stored memory (Chamberlin, 2014). Using eye movement desensitization and reprocessing (EMDR) therapy as an example, the model illustrates how the phases of the standard protocol activate specific networks, restoring network balance and the optimal processing of memory. The model offers a physiological mechanism of action for the resolution of psychological trauma in general, and EMDR therapy in particular.

Civilotti, C., Cussino, M., Callerame, C., Fernandez, I., & Zaccagnino, M. (2019). *Changing the Adult State of Mind with respect to Attachment: an exploratory study of the role of EMDR psycho-therapy*. *Journal of EMDR Practice and Research*, 13(3), 176-186. doi:10.1891/1933-3196.13.3.176

Cristina Civilotti, University of Turin, Turin, Italy.

E-mail: [cristina.civilotti@unito.it](mailto:cristina.civilotti@unito.it)

#### ABSTRACT

We aimed to assess changes in the attachment internal working model and reflective function (RF) as mechanisms of change in eye movement desensitization and reprocessing (EMDR) treatment for patients with traumatic memories. Twenty adult female patients with parenting and relational problems participated in the study. Attachment organization was assessed

with the Adult Attachment Interview (AAI) and the RF coding scale pre- and posttreatment. We found that EMDR therapy increased patients' narrative coherence and RF. We noted a significant decrease in the number of participants classified as unresolved following the course of EMDR treatment in which loss and/or trauma were resolved. This article summarizes the changes after EMDR therapy regarding attachment status and its efficacy to reprocess early traumatic memories in a more adaptive way. Finally, our results also support the usefulness of the AAI as a tool for understanding the changing processes during a therapeutic treatment.

Covers, M. L. V., De Jongh, A., Huntjens, R. J. C., De Roos, C., Van Den Hout, M., & Bicanic, I. A. E. (2019). *Early intervention with eye movement desensitisation and reprocessing (EMDR) therapy to reduce the severity of posttraumatic stress symptoms in recent rape victims: study protocol for a randomised controlled trial*. *Eur J Psychotraumatol*, 10(1), 1632021.

Open Access: <https://www.ncbi.nlm.nih.gov/pubmed/31303971>

Milou L. V. Covers, National Psychotrauma Center for Children and Youth, University Medical Center Utrecht, Utrecht, the Netherlands.

E-mail: [m.l.v.covers@umcutrecht.nl](mailto:m.l.v.covers@umcutrecht.nl)

#### ABSTRACT

##### BACKGROUND:

It is estimated that more than 40% of rape victims develops a post-traumatic stress disorder (PTSD),

a statistic that is relatively high compared to other types of trauma. PTSD can affect the victims' psychological, sexual, and physical health. Therefore, there is an urgent need for early interventions to prevent the onset of PTSD in this target group.

##### OBJECTIVE:

This randomised controlled trial (RCT) examines the efficacy of early Eye Movement Desensitisation and Reprocessing (EMDR) therapy aimed to reduce the severity of post-traumatic stress symptoms in victims of recent rape.

##### METHODS:

Subjects (N = 34) are individuals of 16 years and older who present themselves within 7 days post-rape at one of the four participating Sexual Assault Centres in the Netherlands. The intervention consists of two sessions of EMDR therapy between day 14 and 28 post-rape, while the control group receives treatment as usual, consisting of careful monitoring of stress reactions by a case-manager across two contacts during 1-month post-rape. Baseline assessment, posttreatment assessment and follow-up assessments at 8 and 12-weeks post-rape will be used to assess the development of posttraumatic stress symptoms. In addition, the efficacy of the intervention on psychological and sexual functioning will be determined. Linear mixed model analysis will be used to explore the differences within and between the EMDR group and control group at the various time points.

### CONCLUSIONS:

The results of this RCT may help the dissemination and application of evidence-based preventative treatments for PTSD after rape.

Eğeci, İ. S., & Özgün, S. (2019). *Randomized Controlled Trial: EMDR Early Intervention With and Without Eye Movements for Learned Helplessness State. Journal of EMDR Practice and Research, 13*(2), 90-99. doi:10.1891/1933-3196.13.2.90

Sine Eğeci, PhD, is Assistant Professor, Bahcesehir University, Department of Psychology, Bude Psikoterapi Merkezi Halaskargazi Cad. 86/5 Osmanbey-Sisli, Istanbul, Turkey, 34371. E-mail: [sine@bude.com.tr](mailto:sine@bude.com.tr)

### ABSTRACT

Learned helplessness (LH) is considered a psychological trait, which occurs after repeated exposure to aversive and uncontrollable situations (Seligman, 1975). Such an exposure is found to lead motivational, cognitive, and emotional deficits. LH has also been linked to different psychological disorders such as depression, anxiety, post-traumatic stress disorder (PTSD), and trauma-related depression. Eye movement desensitization and reprocessing (EMDR) therapy has been accepted as an efficacious treatment for PTSD, but evidence for its effectiveness as an early intervention is still preliminary. Also, there is some uncertainty regarding the role of eye movements in EMDR. The current randomized controlled study investigated whether a single

15-minute session of EMDR's Recent Traumatic Episode Protocol (R-TEP) could reduce the effects of laboratory-induced LH. The study further investigated whether R-TEP without eye movements would have the same effect. Using established experimental tasks, an LH state was induced via unsolvable maze tasks with effects measured by the participants' performance in solving anagrams. Results revealed that an LH state was successfully induced by the unsolvable mazes. R-TEP effectively reversed the negative effects of the LH state and was significantly more effective than no treatment controls and the R-TEP condition without eye movements, which was essentially a narrative exposure intervention. Results suggest that R-TEP can be successfully administered immediately following a distressful event, and that eye movements appear to be a necessary component of EMDR in reversing the cognitive, motivational, and/or emotional deficits induced by LH.

Fereidouni, Z., Behnamoghdam, M., Jahanfar, A., & Dehghan, A. (2019). *The Effect of Eye Movement Desensitization and Reprocessing (EMDR) on the severity of suicidal thoughts in patients with major depressive disorder: a randomized controlled trial. Neuropsychiatric Disease and Treatment, Volume 15, 2459-2466. doi:10.2147/ndt.s210757*

Open Access: <http://dx.doi.org/10.2147/ndt.s210757>

Abdohadi Jahanfar Department of Medical Surgical Nursing, Nursing

School, Fasa University of Medical Sciences, Fasa Ibn Sina Square, PO Box 7461686688, Fasa, Iran  
Email: [jahanfarhadi91@gmail.com](mailto:jahanfarhadi91@gmail.com)

### ABSTRACT

#### OBJECTIVE:

Depression is a major risk factor for suicide and more than 90% of people who attempt suicide suffer from depression. The present study aimed to investigate the effect of eye movement desensitization and reprocessing (EMDR) therapy on the severity of suicidal thoughts in patients with major depressive disorder.

#### STUDY DESIGN:

Randomized Clinical Trial.

#### METHODS:

This clinical trial was performed on 70 people with major depressive disorder who exhibited suicidal thoughts. The patients were selected via convenience sampling and were randomly divided into control (n=35) and experimental (n=35) groups. EMDR was performed individually in the experimental group for 45–90 min, 3 days per week, on alternate days, for 3 weeks (9 sessions in total), whereas the controls group received routine treatment without intervention. Both groups completed the Beck Scale for Suicide Ideation (BSSI) at pre- and post-test. The obtained data were analyzed with descriptive and inferential statistics using SPSS 22 ( $\alpha=0.05$ ).

#### RESULTS:

Mean BSSI score for the experimental group was reduced significantly at post-test ( $11.11 \pm 4.15$ ) compared

to pre-test ( $26.48 \pm 5.74$ ) ( $p < 0.001$ ). Although the control group's mean BSSI score was also reduced at post-test ( $24.93 \pm 4.42$ ) compared to pre-test ( $26.68 \pm 5.05$ ), this difference was not statistically significant ( $p > 0.05$ ).

### CONCLUSION:

EMDR therapy has been shown in this study to reduce the severity of suicidal feelings. Therefore, it can be recommended as an alternative treatment method for reducing the severity of suicidal thoughts in patients with major depressive disorder.

Fingelkurts, A. A. (2019). *Eye movement desensitization and reprocessing for post-traumatic stress disorder from the perspective of three-dimensional model of the experiential selfhood. Med Hypotheses, 131, 109304.* doi:10.1016/j.mehy.2019.109304

Andrew A. Fingelkurts, *BM-Science – Brain and Mind Technologies Research Centre, P.O. Box 77, FI-02601 Espoo, Finland.*

E-mail: [andrew.fingelkurts@bm-science.com](mailto:andrew.fingelkurts@bm-science.com)

### ABSTRACT

Eye Movement Desensitization and Reprocessing (EMDR) therapy is included in many international trauma treatment guidelines and is also shortlisted as an evidence-based practice for the treatment of psychological trauma and Post-Traumatic Stress Disorder (PTSD). However, its neurobiological mechanisms have not yet been fully understood. In this brief article we propose a hypothesis that a recently introduced

neurophysiologically based three-dimensional construct model for experiential selfhood may help to fill this gap by providing the necessary neurobiological rationale of EMDR. In support of this proposal we briefly overview the neurophysiology of eye movements and the triad selfhood components, as well as EMDR therapy neuroimaging studies.

*Guideline Development Panel for the Treatment of PTSD in Adults, A. P. A. (2019). Summary of the clinical practice guideline for the treatment of posttraumatic stress disorder (PTSD) in adults. Am Psychol, 74(5), 596-607. doi:10.1037/amp0000473*

*Practice Directorate, American Psychological Association, 750 First Street, North East, Washington, DC 20002-4242.*

E-mail: [cpq@apa.org](mailto:cpq@apa.org)

### ABSTRACT

The American Psychological Association (APA) developed a clinical practice guideline (CPG) to provide recommendations on psychological and pharmacological treatments for posttraumatic stress disorder (PTSD) in adults. This paper is a summary of the CPG, including the development process. Members of the guideline development panel (GDP) used a comprehensive systematic review conducted by the Research Triangle Institute-University of North Carolina Evidence-based Practice Center (RTI-UNC EPC) as its primary evidence base (Jonas et al., 2013). The GDP consisted of health professionals from psychology, psychiatry, social work, and family medicine as

well as community members who self-identified as having had PTSD. PTSD symptom reduction and serious harms were selected by the GDP as critical outcomes for making recommendations. The GDP strongly recommends use of the following psychotherapies/interventions (in alphabetical order) for adults with PTSD: cognitive-behavioral therapy, cognitive processing therapy, cognitive therapy, and prolonged exposure therapy. The GDP conditionally recommends the use of brief eclectic psychotherapy, eye movement desensitization and reprocessing (EMDR), and narrative exposure therapy (NET). For medications, the GDP conditionally recommends the following (in alphabetical order): fluoxetine, paroxetine, sertraline, and venlafaxine. There is insufficient evidence to recommend for or against offering Seeking Safety, relaxation, risperidone, and topiramate. A subgroup of the GDP reviewed studies published after the systematic review for those treatments that received substantive recommendations; the GDP concluded that future systematic reviews that incorporated those new studies could change the recommendations for EMDR and NET from conditional to strong. For all other treatments, results of the update indicated that recommendations were unlikely to change or that there were no new trials for comparison. The target audience for this CPG includes clinicians, researchers, patients, and policymakers.

*Harricharan, S., McKinnon, M. C., Tursich, M., Densmore, M., Frewen, P., Théberge, J., . . . Lanius, R. A.*

(2019). *Overlapping frontoparietal networks in response to oculomotion and traumatic autobiographical memory retrieval: implications for eye movement desensitization and reprocessing*. *European Journal of Psychotraumatology*, 10(1), 1586265. doi:10.1080/20008198.2019.1586265

Open Access: <http://dx.doi.org/10.1080/20008198.2019.1586265>

Ruth A. Lanius, University Hospital, 339 Windermere Road, London, ON N6A 2A2, Canada.

E-mail: [Ruth.Lanius@lhsc.on.ca](mailto:Ruth.Lanius@lhsc.on.ca)

### ABSTRACT

#### BACKGROUND:

Oculomotor movements have been shown to aid in the retrieval of episodic memories, serving as sensory cues that engage frontoparietal brain regions to reconstruct visuospatial details of a memory. Frontoparietal brain regions not only are involved in oculomotion, but also mediate, in part, the retrieval of autobiographical episodic memories and assist in emotion regulation.

#### OBJECTIVE:

We sought to investigate how oculomotion influences retrieval of traumatic memories by examining patterns of frontoparietal brain activation during autobiographical memory retrieval in post-traumatic stress disorder (PTSD) and in healthy controls.

#### METHOD:

Thirty-nine participants (controls, n = 19; PTSD, n = 20) recollected both neutral and traumatic/stress-

ful autobiographical memories while cued simultaneously by horizontal and vertical oculomotor stimuli. The frontal (FEF) and supplementary (SEF) eye fields were used as seed regions for psychophysiological interaction analyses in SPM12.

#### RESULTS:

As compared to controls, upon retrieval of a traumatic/stressful memory while also performing simultaneous horizontal eye movements, PTSD showed: i) increased SEF and FEF connectivity with the right dorsolateral prefrontal cortex, ii) increased SEF connectivity with the right dorsomedial prefrontal cortex, and iii) increased SEF connectivity with the right anterior insula. By contrast, as compared to PTSD, upon retrieval of a traumatic/stressful memory while also performing simultaneous horizontal eye movements, controls showed: i) increased FEF connectivity with the right posterior insula and ii) increased SEF connectivity with the precuneus.

#### CONCLUSIONS:

These findings provide a neurobiological account for how oculomotion may influence the frontoparietal cortical representation of traumatic memories. Implications for eye movement desensitization and reprocessing are discussed.

Jarero, I., Schnaider, S., & Givaudan, M. (2019). *Randomized Controlled Trial: Provision of EMDR Protocol for Recent Critical Incidents and Ongoing Traumatic Stress to First Responders*. *Journal of EMDR Practice and Research*, 13(2), 100-110. doi:10.1891/1933-3196.13.2.100

Ignacio Jarero, PhD, EdD, Boulevard de la Luz 771, Jardines del Pedregal, Álvaro Obregón, México City, Mexico 01900.

E-mail: [nacho@amamecrisis.com.mx](mailto:nacho@amamecrisis.com.mx)

### ABSTRACT

This randomized controlled trial aimed to evaluate the effectiveness of the Eye Movement Desensitization and Reprocessing Protocol for Recent Critical Incidents and Ongoing Traumatic Stress (EMDR-PRECI) in reducing posttraumatic stress disorder (PTSD), anxiety, and depression symptoms related to the work of first responders on active duty. Participants were randomly assigned to two 60-minute individual treatment sessions (N = 30) or to a no-treatment control condition (N = 30). They completed pre-, post-, and follow-up measurements using the Posttraumatic Stress Disorder Checklist for Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) (PCL-5) and the Hospital Anxiety and Depression Scale (HADS). Data analysis by repeated measures analysis of variance (ANOVA) showed clear effects of the EMDR-PRECI in reducing PTSD work-related symptoms in the treatment group with symptom reduction maintained at 90-day follow-up with a large effect size (d = 3.99), while participants continued to experience direct exposure to potentially traumatic work-related events during the follow-up period. Data analysis by repeated measures ANOVA revealed a significant interaction between time and group,  $F(2,116) = 153.83$ ,  $p < .001$ ,  $\eta^2 = .726$  for PTSD, and for anxiety  $F(1,58) = 37.40$ ,  $p < .005$ ,  $\eta^2 =$

.090, but not for depression. A t-test showed a clear decrease for depression symptoms for the treatment group with statistically significant results. The study results suggest that the EMDR-PRECI could be an efficient and effective way to address first responders' work-related PTSD, anxiety and depression symptoms. Future research is recommended to replicate these results and to investigate if symptom improvement also results in the reduction of physical health symptoms and early retirement for PTSD-related reasons among first responders.

Markus, W., de Kruijk, C., Hornsveld, H. K., de Weert-van Oene, G. H., Becker, E. S., & DeJong, C. A. J. (2019). *Treatment of Alcohol Use Disorder With Adjunctive Addiction-Focused EMDR: A Feasibility Study*. *Journal of EMDR Practice and Research*, 13(3), 187. doi:10.1891/1933-3196.13.3.187

Wiebren Markus, MSc, Radboud University, Meester B.M. Teldersstraat 4, P.O. box 351, 6800 AJ, Arnhem, Netherlands.

E-mail: w.markus@iriszorg.nl

#### ABSTRACT

Alcohol use disorder (AUD) treatment presents a serious challenge. While there are evidence-based treatment options available, there is still a substantial group of treatment-seeking patients who do not complete regular AUD treatment. In addition, accomplished reductions in drinking behavior during treatment are often lost posttreatment. Therefore, both feasibility and effec-

tiveness of AUD treatment are important. Innovative interventions, such as addiction-focused eye movement desensitization and reprocessing (AF-EMDR) therapy (Markus & Hornsveld, 2017), may hold promise as adjunctive treatments. Here the results of a feasibility study of adjunctive AF-EMDR therapy in outpatients with AUD and without comorbid posttraumatic stress disorder (PTSD) are described. A multiple baseline design across four participants was used. They received AF-EMDR alongside treatment as usual (TAU). The results suggest that, while challenging, AF-EMDR therapy in outpatients with AUD can be safe, acceptable, and feasible. Whether it is effective, under what conditions and for whom, requires further study however.

Matthijssen, S. J. M. A., Heitland, I., Verhoeven, L. C. M., & van den Hout, M. A. (2019). *Reducing the Emotionality of Auditory Hallucination Memories in Patients Suffering From Auditory Hallucinations*. *Frontiers in Psychiatry*, 10. doi:10.3389/fpsy.2019.00637

Suzy Johanna Martina Adriana Matthijssen, *Clinical Psychology, Utrecht University, Utrecht, Netherlands.*

E-mail: [s.matthijssen@altrecht.nl](mailto:s.matthijssen@altrecht.nl)

#### ABSTRACT

Eye movement desensitization and reprocessing (EMDR) therapy targets emotionally disturbing visual memories of traumatic life events, and may be deployed as an efficacious treatment for posttraumatic stress disorder. A key element of

EMDR therapy is recalling an emotionally disturbing visual memory while simultaneously performing a dual task. Previous studies have shown that auditory emotional memories may also become less emotional as a consequence of dual tasking. This is potentially beneficial for psychotic patients suffering from disturbing emotional auditory memories of auditory hallucinations. The present study examined whether and to what extent emotionality of auditory hallucination memories could be reduced by dual tasking. The study also assessed whether a modality matching dual task (recall + auditory taxation) could be more effective than a cross modal dual task (recall + visual taxation). Thirty-six patients suffering from auditory hallucinations were asked to recall an emotionally disturbing auditory memory related to an auditory hallucination, to rate emotionality of the memory, and to recall it under three conditions: two active conditions, i.e., visual taxation (making eye-movements) or auditory taxation (counting aloud), and one control condition (staring at a non-moving dot) counterbalanced in order. Patients re-rated emotionality of the memory after each condition. Results show the memory emotionality of auditory hallucinations was reduced and the active conditions showed stronger effects than the control condition. No modality-specific effect was found: the active conditions had an equal effect.

Mavranouzouli, I., Megnin-Viggars, O., Daly, C., Dias, S., Stockton, S.,

Meiser-Stedman, R. et al. (2019). *Psychological and psychosocial treatments for children and young people with post-traumatic stress disorder: a network meta-analysis*. *J Child Psychol Psychiatry*.

Open Access: <https://www.ncbi.nlm.nih.gov/pubmed/31313834>

Ifigeneia Mavranouzouli, Centre for Outcomes Research and Effectiveness, Research Department of Clinical, Educational and Health Psychology, University College London, London.

### ABSTRACT

#### BACKGROUND:

Post-traumatic stress disorder (PTSD) is a potentially chronic and disabling disorder that affects a significant minority of youth exposed to trauma. Previous studies have concluded that trauma-focused cognitive behavioural therapy (TF-CBT) is an effective treatment for PTSD in youth, but the relative strengths of different psychological therapies are poorly understood.

#### METHODS:

We undertook a systematic review and network meta-analyses of psychological and psychosocial interventions for children and young people with PTSD. Outcomes included PTSD symptom change scores post-treatment and at 1–4-month follow-up, and remission post-treatment.

#### RESULTS:

We included 32 trials of 17 interventions and 2,260 participants. Overall, the evidence was of moderate- to-low quality. No inconsistency

was detected between direct and indirect evidence. Individual forms of TF-CBT showed consistently large effects in reducing PTSD symptoms post-treatment compared with waitlist. The order of interventions by descending magnitude of effect versus waitlist was as follows: cognitive therapy for PTSD (SMD 2.94, 95%CrI 3.94 to 1.95), combined somatic/cognitive therapies, child–parent psychotherapy, combined TF-CBT/parent training, meditation, narrative exposure, exposure/prolonged exposure, play therapy, Cohen TF-CBT/cognitive processing therapy (CPT), eye movement desensitisation and reprocessing (EMDR), parent training, group TF-CBT, supportive counselling and family therapy (SMD 0.37, 95%CrI 1.60 to 0.84). Results for parent training, supportive counselling and family therapy were inconclusive. Cohen TF-CBT/CPT, group TF-CBT and supportive counselling had the largest evidence base. Results regarding changes in PTSD symptoms at follow-up and remission post-treatment were uncertain due to limited evidence. Conclusions: Trauma-focused cognitive behavioural therapy, in particular individual forms, appears to be most effective in the management of PTSD in youth. EMDR is effective but to a lesser extent. Supportive counselling does not appear to be effective. Results suggest a large positive effect for emotional freedom technique, child–parent psychotherapy, combined TF-CBT/parent training, and meditation, but further research is needed to confirm these findings as they were based on very limited evidence.

Michael, T., Schanz, C. G., Mattheus, H. K., Issler, T., Frommberger, U., Köllner, V., & Equit, M. (2019). *Do adjuvant interventions improve treatment outcome in adult patients with posttraumatic stress disorder receiving trauma-focused psychotherapy? A systematic review*. *Eur J Psychotraumatol*, 10(1), 1634938. doi:10.1080/20008198.2019.1634938

Open Access: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6711134/>

Tanja Michael, Saarland University, Building A1.3, Saarbrücken 66123, Germany

E-mail: [t.michael@mx.uni-saarland.de](mailto:t.michael@mx.uni-saarland.de)

### ABSTRACT

#### BACKGROUND:

According to clinical guidelines, trauma-focused psychotherapies (TF-PT) such as trauma-focused cognitive behavioural therapy (TF-CBT) and eye movement desensitization and reprocessing (EMDR) are recommended as first-line treatments for posttraumatic stress disorder (PTSD). TF-CBT and EMDR are equally effective and have large effect sizes. However, many patients fail to respond or have comorbid symptoms or disorders that only partially decline with TF-PT. Thus, there is growing interest in augmenting TF-PT through adjuvant interventions.

#### OBJECTIVE:

The current systematic review aims to assess whether adjuvant interventions improve outcome among adult PTSD patients receiving TF-PT.

**METHODS:**

We searched the databases PubMed, PILOTS, Web of Science and the Cochrane Library for controlled clinical trials examining whether adjuvant interventions lead to more symptom reduction in adult PTSD patients receiving TF-PT. Thirteen randomized controlled trials fitted the inclusion criteria. These were evaluated for internal risk of bias using the Cochrane Handbook for Systematic Review of Interventions.

**RESULTS:**

Most studies have a substantial risk for internal bias, mainly due to small sample sizes. Thus, no strong conclusion can be drawn from the current empirical evidence. Preliminary evidence suggests that exercise and cortisol administration may have an adjuvant effect on PTSD symptom reduction. Breathing biofeedback showed a trend for an adjuvant effect and an effect for accelerated symptom reduction.

**CONCLUSIONS:**

Currently, it is not possible to formulate evidence-based clinical recommendations regarding adjuvants interventions. While several adjuvant interventions hold the potential to boost the effectiveness of TF-PT, the realization of sufficiently powered studies is crucial to separate plausible ideas from interventions proven to work in practice.

Molero, R. J., Jarero, I., & Givaudan, M. (2019). *Longitudinal Multisite Randomized Controlled Trial on the Provision of the EMDR-IGTP-OTS to Refugee Minors in Valencia, Spain.*

*American Journal of Applied Psychology*, 8(4), 77-88. doi:10.11648/j.ajap.20190804.12

Ignacio Jarero, Department of Research, Mexican Association for Mental Health Support in Crisis, Mexico City, Mexico.

E-mail: [nacho@amamecrisis.com.mx](mailto:nacho@amamecrisis.com.mx)

**ABSTRACT**

The aim of this longitudinal multisite randomized controlled trial (RCT) was to evaluate the effectiveness of the EMDR-Integrative Group Treatment Protocol for Ongoing Traumatic Stress (EMDR-IGTP-OTS) in reducing severe posttraumatic stress disorder, depression, and anxiety symptoms in refugee minors living in Valencia, Spain. The study was conducted in 2019 in the city of Valencia, Spain, in six sites for refugees (homes or residences). A total of 184 minors (all males) met the inclusion criteria. Participants' ages ranged from 13 to 17 years old ( $M = 16.36$  years). Participants' time since the arrival to the sites in Valencia varied from January 2018 to March 2019. Participation was voluntary with the participants and their legal guardian's consent. In this study, intensive EMDR therapy was provided. This intensive format allowed the participants to complete the full course of treatment in a short period. Treatment was provided simultaneously by eighteen licensed EMDR clinicians formally trained in the protocol administration divided into six teams. Each of the treatment group participants received an average of eight hours of treatment, provided during nine group-treatment sessions, three

times daily during three consecutive days in a setting inside the six refugee sites. EMDR-IGTP-OTS treatment focused only on the distressing memories related to their life as refugees and did not address any other memories. No adverse effects were reported during treatment or at three-month post-treatment assessment. Data analysis by repeated measures ANOVA showed that the EMDR-IGTP-OTS was effective in reducing PTSD symptoms in the treatment group ( $F(2, 122) = 43.17$ ,  $p < .001$ ,  $\eta^2 = .414$ ). A significant effect for group ( $F(1, 61) = 5.52$ ,  $p < .05$ ,  $\eta^2 = .898$ ) and a significant interaction between time and group for this variable, ( $F(2, 122) = 11.10$ ,  $p < .001$ ,  $\eta^2 = .154$ ) confirmed the effects of the treatment. Significant effects for time ( $F(1, 61) = 7.46$ ,  $p < .001$ ,  $\eta^2 = .109$ ) and for PP interaction between time and group ( $F(1, 61) = 6.13$ ,  $p < .01$ ,  $\eta^2 = .091$ ) were found for both, anxiety and depression, ( $F(1, 61) = 7.02$ ,  $p < .01$ ,  $\eta^2 = .104$ ) and ( $F(1, 61) = 7.92$ ,  $p < .001$ ,  $\eta^2 = .116$ ). The study results indicate that the intensive administration of PP the EMDR-IGTP-OTS could be a feasible, cost-effective, time-efficient, culturally sensitive, and effective component of a multidisciplinary psychosocial group-based program to address PTSD, depression, and anxiety symptoms among refugee minors.

Perilli, S., Giuliani, A., Pagani, M., Mazzoni, G. P., Maslovaric, G., MacCarrone, B., . . . Morales, D. (2019). *EMDR Group Treatment of Children Refugees—A Field Study.* *Journal of EMDR Practice and Research*, 13(2),

143-155. doi:10.1891/1933-3196.13.2.143

Sava Perilli, *Centro di Ricerca e Studi in Psicotraumatologia, Milan, Italy, and EMDR Italy.*

E-mail: [sava.perilli@gmail.com](mailto:sava.perilli@gmail.com)

### ABSTRACT

Given the significant growth in the migration flow of refugees who are fleeing from persecution, terrorism, and war-torn countries to Europe, there is an urgent need for effective interventions for the treatment of this highly traumatized population. EMDR Integrative Group Treatment Protocol (EMDR-IGTP) was provided to 14 child refugees (7 females) in 2016 at a Turkey orphanage near the Syrian border which was housing adult and child Syrian refugees. Treatment was provided in three groups, one each for children aged 3–7 years, pre-adolescents aged 9–12, and adolescents aged 13–18 with three sessions provided to each group. Pre-treatment assessment with multiple measures was compromised by difficulties with translator availability and refugee mobility, resulting in high attrition. When the post-treatment assessment was conducted 45 days later, many refugees had already left the orphanage. The sparse character of the data matrix produced analyzable data for 8 children (mean age  $11 \pm 3$ ; 4 females) on the Children's Revised Impact of Event Scale (CRIES). Statistical analysis showed a significant decrease in CRIES scores, reflecting a decrease in severity of posttraumatic symptoms.

Roberts, N. P., Kitchiner, N. J., Kenardy, J., Robertson, L., Lewis, C., & Bisson, J. I. (2019). *Multiple session early psychological interventions for the prevention of post-traumatic stress disorder*. *Cochrane Database Syst Rev*, 8, CD006869. doi:10.1002/14651858.CD006869.pub3

Open Access: <https://www.ncbi.nlm.nih.gov/pubmed/31425615>

Neil P Roberts, *Division of Psychological Medicine and Clinical Neurosciences, Cardiff University School of Medicine, Hadyr Ellis Building, Maindy Road, Cardiff, CF24 4HQ, UK. RobertsNP1@cardiff.ac.uk.*

### ABSTRACT

#### BACKGROUND:

The prevention of long-term psychological distress following traumatic events is a major concern. Systematic reviews have suggested that individual psychological debriefing is not an effective intervention at preventing post-traumatic stress disorder (PTSD). Over the past 20 years, other forms of intervention have been developed with the aim of preventing PTSD.

#### OBJECTIVES:

To examine the efficacy of psychological interventions aimed at preventing PTSD in individuals exposed to a traumatic event but not identified as experiencing any specific psychological difficulties, in comparison with control conditions (e.g. usual care, waiting list and no treatment) and other psychological interventions.

#### SEARCH METHODS:

We searched the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE, Embase, PsycINFO and ProQuest's Published International Literature On Traumatic Stress (PILOTS) database to 3 March 2018. An earlier search of CENTRAL and the Ovid databases was conducted via the Cochrane Common Mental Disorders Controlled Trial Register (CCMD-CTR) (all years to May 2016). We hand-searched reference lists of relevant guidelines, systematic reviews and included study reports. Identified studies were shared with key experts in the field. We conducted an update search (15 March 2019) and placed any new trials in the 'awaiting classification' section. These will be incorporated into the next version of this review, as appropriate.

#### SELECTION CRITERIA:

We searched for randomised controlled trials of any multiple session (two or more sessions) early psychological intervention or treatment designed to prevent symptoms of PTSD. We excluded single session individual/group psychological interventions. Comparator interventions included waiting list/usual care and active control condition. We included studies of adults who experienced a traumatic event which met the criterion A1 according to the Diagnostic and Statistical Manual (DSM-IV) for PTSD.

#### DATA COLLECTION & ANALYSIS:

We entered data into Review Manager 5 software. We analysed categorical outcomes as risk ratios

(RRs), and continuous outcomes as mean differences (MD) or standardised mean differences (SMDs), with 95% confidence intervals (CI). We pooled data with a fixed-effect meta-analysis, except where there was heterogeneity, in which case we used a random-effects model. Two review authors independently assessed the included studies for risk of bias and discussed any conflicts with a third review author.

### MAIN RESULTS:

This is an update of a previous review. We included 27 studies with 3963 participants. The meta-analysis included 21 studies of 2721 participants. Seventeen studies compared multiple session early psychological intervention versus treatment as usual and four studies compared a multiple session early psychological intervention with active control condition. Low-certainty evidence indicated that multiple session early psychological interventions may be more effective than usual care in reducing PTSD diagnosis at three to six months' follow-up (RR 0.62, 95% CI 0.41 to 0.93;  $I^2 = 34\%$ ; studies = 5; participants = 758). However, there was no statistically significant difference post-treatment (RR 1.06, 95% CI 0.85 to 1.32;  $I^2 = 0\%$ ; studies = 5; participants = 556; very low-certainty evidence) or at seven to 12 months (RR 0.94, 95% CI 0.20 to 4.49; studies = 1; participants = 132; very low-certainty evidence). Meta-analysis indicated that there was no statistical difference in dropouts compared with usual care (RR 1.34, 95% CI 0.91 to 1.95;  $I^2 = 34\%$ ; studies = 11; participants = 1154; low-

certainty evidence). At the primary endpoint of three to six months, low-certainty evidence indicated no statistical difference between groups in reducing severity of PTSD (SMD -0.10, 95% CI -0.22 to 0.02;  $I^2 = 34\%$ ; studies = 15; participants = 1921), depression (SMD -0.04, 95% CI -0.19 to 0.10;  $I^2 = 6\%$ ; studies = 7; participants = 1009) or anxiety symptoms (SMD -0.05, 95% CI -0.19 to 0.10;  $I^2 = 2\%$ ; studies = 6; participants = 945). No studies comparing an intervention and active control reported outcomes for PTSD diagnosis. Low-certainty evidence showed that interventions may be associated with a higher dropout rate than active control condition (RR 1.61, 95% CI 1.11 to 2.34; studies = 2; participants = 425). At three to six months, low-certainty evidence indicated no statistical difference between interventions in terms of severity of PTSD symptoms (SMD -0.02, 95% CI -0.31 to 0.26;  $I^2 = 43\%$ ; studies = 4; participants = 465), depression (SMD 0.04, 95% CI -0.16 to 0.23;  $I^2 = 0\%$ ; studies = 2; participants = 409), anxiety (SMD 0.00, 95% CI -0.19 to 0.19;  $I^2 = 0\%$ ; studies = 2; participants = 414) or quality of life (MD -0.03, 95% CI -0.06 to 0.00; studies = 1; participants = 239). None of the included studies reported on adverse events or use of health-related resources.

### AUTHORS' CONCLUSIONS:

While the review found some beneficial effects of multiple session early psychological interventions in the prevention of PTSD, the certainty of the evidence was low due to the high risk of bias in the included tri-

als. The clear practice implication of this is that, at present, multiple session interventions aimed at everyone exposed to traumatic events cannot be recommended. There are a number of ongoing studies, demonstrating that this is a fast moving field of research. Future updates of this review will integrate the results of these new studies.

Wigley, I. L. C. M., De Tommasi, V., Bonichini, S., Fernandez, I., & Benini, E. (2019). EMDR and Nonpharmacological Techniques for Anxiety Prevention in Children Prior to Invasive Medical Procedures: A Randomized Controlled Trial. *Journal of EMDR Practice and Research*, 13(3), 163-175. doi:10.1891/1933-3196.13.3.163

Isabella Lucia Chiara Mariani Wigley, Department of Developmental and Social Psychology, University of Padua, 8 Venezia Street, 35131 Padua, Italy.  
E-mail: [isabellaluciachiara.marianiwigley@studenti.unipd.it](mailto:isabellaluciachiara.marianiwigley@studenti.unipd.it)

### ABSTRACT

Nonpharmacological Techniques (NPT) have been suggested as an efficient and safe means to reduce pain and anxiety in invasive medical procedures. Due to the anxious and potentially traumatic nature of these procedures, we decided to integrate an eye movement desensitization and reprocessing (EMDR) session in the preprocedure NPT. The main purpose of this study was to evaluate the efficacy of one session of EMDR in addition to the routine NPT. Forty-nine pediatric patients

(Male = 25; Female = 24) aged 8–18 years ( $M = 13.17$ ;  $SD = 2.98$ ) undergoing painful and invasive medical procedures were randomized to receive standard preprocedural care ( $N = 25$ ) or a session of EMDR in addition to the standard nonpharmacological interventions ( $N = 24$ ). Participants completed the anxiety and depression scales from the Italian Psychiatric Self-evaluation Scale for Children and Adolescents (SAFA) and rated anxiety on a 0–10 numeric rating scale. Participants in the NPT+EMDR condition expressed significantly less anxiety before the medical procedure than those in the NPT group ( $p = .038$ ). The integration of EMDR with NPT was demonstrated to be an effective anxiety prevention technique for pediatric sedo-analgesia. These results are the first data on the efficacy of EMDR as a technique to prevent anxiety in pediatric sedo-analgesia. There are important long-term clinical implications because this therapy allows an intervention on situations at risk of future morbidity and the prevention of severe disorders.

Zantvoord, J. B., Ensink, J. B. M., Op den Kelder, R., Wessel, A. M. A., Lok, A., & Lindauer, R. J. L. (2019). *Pre-treatment cortisol predicts trauma-focused psychotherapy response in youth with (partial) posttraumatic stress disorder*. *Psychoneuroendocrinology*, 109, 104380. doi:10.1016/j.psychneuen.2019.104380

Open Access: <https://www.ncbi.nlm.nih.gov/pubmed/31352130>

Jasper B. Zantvoord, Department of

Psychiatry, Amsterdam University Medical Center, Amsterdam, the Netherlands.

E-mail: [J.B.Zantvoord@amc.uva.nl](mailto:J.B.Zantvoord@amc.uva.nl)

## ABSTRACT

### BACKGROUND:

Despite availability of effective trauma-focused psychotherapies, treatment non-response in youth with (partial) posttraumatic stress disorder remains substantial. Studies in adult PTSD have suggested that cortisol is associated with treatment outcome. Furthermore, cortisol prior to treatment could be used to predict treatment success. However, there is a lack of comparable studies in youth with (partial) PTSD. The objective of the current study was therefore to test whether cortisol prior to treatment would differ between treatment responders and non-responders and would positively predict the extent of clinical improvement in youth with (partial) PTSD.

### METHODS:

Youth aged 8–18 with PTSD (79.2%) or partial PTSD (20.8%) were treated with 8 sessions of either trauma-focused cognitive behavioral therapy (TF-CBT) or eye movement desensitization and reprocessing (EMDR). Prior to treatment initiation, salivary cortisol was measured in treatment responders ( $n = 23$ ) and treatment non-responders ( $n = 30$ ) at 10 and 1 min before and 10, 20 and 30 min after personalized trauma script driven imagery (SDI). The cortisol stress response ( $> 1.5$  nmol/L increase from baseline) and basal cortisol secretion was assessed during the SDI procedure. We hypothesized

that treatment responders would display higher cortisol levels caused by increased cortisol reactivity prior to trauma-focused psychotherapy relative to psychotherapy non-responders and higher cortisol levels would positively predict the extent of clinical improvement.

### RESULTS:

Script driven imagery did not induce a cortisol stress response in all but two participants. Prior to treatment responders showed significantly higher basal cortisol secretion during SDI compared to treatment non-responders. This effect remained significant after controlling for gender. Higher pre-treatment basal cortisol secretion further positively predicted the extent of clinical improvement during trauma-focused psychotherapy.

### CONCLUSION:

Because SDI failed to provoke a cortisol stress response in our sample, the question if cortisol reactivity differs between treatment responders and non-responders remains inconclusive. However, our results do suggest that higher pretreatment basal cortisol secretion forms a potential indicator of prospective trauma-focused psychotherapy response in youth with (partial) PTSD. Although, the amount of uniquely explained variance in clinical improvement by pre-treatment cortisol secretion is limited and still renders insufficient basis for clinical applicability, these findings do suggest directions for future studies to delineate the mechanisms of treatment success in youth with (partial) PTSD.