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LITERATURE REVIEWS

EMDR With Children. an Overview of Research and Clinical Practice

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For more than 25 years, eye movement desensitization and reprocessing (EMDR) has been widely used with infants, children and adolescents internationally. Meta-analyses including randomised controlled trials and single case experimental design studies have shown EMDR is effective with children with posttraumatic stress disorder (PTSD) from the age of 4 years. Both the World Health Organization and the Australian Psychological Society recommend the use of EMDR with children with PTSD. However, clinical practice shows many traumatised children and their families in New Zealand do not receive the type of trauma-focused treatment endorsed by international guidelines. This paper provides an overview of the use of EMDR with children and explains the procedure with single event trauma and developmental trauma, illustrated with case examples.

Chronic traumatisation can severely impact a child's development and lead to a wide array of presenting symptoms and comorbid diagnoses (D'Andrea et al., 2012). The long-term consequences of unprocessed childhood trauma are severe, and include increased risks for cardiovascular disease, diabetes, cancer, overweight, depression, suicide and early death (Felitti et al., 1998). Traumatic memories in children can be processed with eye movement desensitisation and reprocessing (EMDR) therapy. However, clinical practice shows many traumatised children and their families suffer from the consequences of intergenerational trauma and do not receive the type of trauma-focused treatment endorsed by international guidelines. Traumatisation can be difficult to recognise. For maltreated children, significantly more severe trauma unrelated symptoms are reported when traumatisation becomes more complex, and the likelihood of the child exhibiting posttraumatic stress disorder (PTSD) symptoms decreases (Jonkman et al., 2013). There is also a lack of specialised services for these children, especially in remote areas. This paper provides an overview of the use of EMDR with children.

EMDR Therapy with Children

For more than 25 years EMDR has been widely used with infants, children and adolescents, supported by a growing body of research and randomised controlled trials. The EMDR procedure is described below illustrated with a case example.

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EMDR Child Protocol

For EMDR therapy with children, the adult EMDR standard protocol (Shapiro, 2001) has been adapted to meet their developmental level with different sections for specific age groups (4–6, 6–8, 8–12 and 12–18 years). The EMDR child protocol starts with history-taking (Phase 1) and preparation (Phase 2), which can be done with the child and/or their parents.

> *6-year-old Kay had been sexually abused by a classmate in school. She became violent and started bedwetting, and after several months she told her mother. The school responded well and made sure the abuse could not happen again. The therapist explained the EMDR procedure to Kay and her parents and they decided her mother would attend the sessions with Kay.*

In the assessment phase (Phase 3), children select a target image from the traumatic memory and younger children make a drawing of the worst part of their memory. If developmentally able, the child choses a negative (e.g. 'I am bad') and a preferred positive cognition (e.g. 'I am OK') with that image and rates the validity of this preferred cognition (validity of cognition; VOC) on a scale from 1 to 7 (1 = the cognition does not feel valid at all, 7 = the cognition feels valid). The child identifies a feeling related to the target image, and rates their level of disturbance (subjective unit of disturbance; SUD) on a scale from 0 to 10 (0 = not disturbing at all, 10 = the most disturbing it can be), and locates the distress in their body. With younger children, a scale with happy and sad faces can be used or they can show the level of distress with their hands wider or closer together and point to the location in their body. These questions activate the child's traumatic memory network, and they can become visibly distressed.

> *Kay drew a picture of herself with her classmate in the toilets. She was not able to choose a cognition, said she felt scared and showed her hands as wide as possible to indicate her distress level was 10. She could not identify where she felt the distress in her body, but her hands were shaking, her heart was racing and she was breathing rapidly. Kay's mother could tolerate seeing her daughter distressed because the therapist had explained in the previous session that activation of the distress was needed in order to heal.*

In the desensitisation phase (Phase 4), the child focuses on the target image while focusing simultaneously on bilateral stimulation by following the therapist's finger moving horizontally 40 centimetres in front of their eyes, as fast as the child can track. For younger children, the therapist taps on the child's hands or knees (alternating left and right) instead of eye movements. Every 30 seconds the therapist pauses the bilateral stimulation briefly to ask the child what they notice, after which they continue. The child can freely associate,

and some children report more details, feel things in their body or think about other memories. The therapist regularly checks the level of disturbance until the child reports no disturbance related to the target image anymore (SUD = 0).

> *The therapist tapped Kay on her knees while she sat on her mother's lap. Kay reported subsequently: 'My classmates' angry eyes; It hurts; Less scared, Angry, I hate her; She can never do that again; It's gone, I don't remember; Nothing'. Her breathing normalised and she started smiling.*

After the memory is desensitised, the child focuses on the memory while thinking about the positive cognition (Phase 5), while the therapist applies bilateral stimulation. The child rates their VOC and this process continues until the child's VOC rating is at 6 or 7. The child then scans their body to check for any negative physical sensations in relation to the target image (Phase 6). The session ends with positive closure (Phase 7) where the child focuses on the most positive thing they have learned about themselves during the session.

> *Because Kay was not able to choose a cognition, phase 5 was skipped and she said her body was relaxed when thinking of the memory. She said she felt brave, and her mother complimented her for doing this difficult work. Kay was no longer violent, and the bedwetting stopped. 'I have my daughter back', her mum said.*

Developmental trauma. Developmental trauma such as family violence, neglect and (sexual) abuse affects most areas of development (D'Andrea et al., 2012; Schore, 2019) and these children exhibit less PTSD symptoms and significantly more severe trauma unrelated symptoms (Jonkman et al., 2013). EMDR is also be used for chronically traumatised children who do not meet the criteria for PTSD.

Length of treatment. EMDR is a brief therapy and single events are usually processed in one or two sessions. The younger the child, the shorter the memory networks. For example, a 5-year-old child may process one memory in 5–10 minutes and several memories can be processed in one session. Children who have experienced chronic trauma and have multiple traumatic memories may need several sessions (e.g. six to eight sessions). As these memories are stored in memory networks, a whole cluster of memories around a theme or person can be processed by targeting only one or two memories from that memory network.

Research and guidelines. Meta-analyses including randomised controlled trials and single case experimental design studies have shown that EMDR is effective with children with PTSD from the age of 4 years (Bastien et al., 2020; Olivier et al., 2021; Rodenburg et al., 2009). Both the World Health Organization (2013) and the Australian Psychological Society (2018) recommend the use of EMDR with children with PTSD.

Infants and Young Children and Preverbal Trauma

Trauma exposure in infancy and toddlerhood, which is a key developmental stage, can significantly derail a child's development and create general and trauma-specific problems even at a later age, such as flashbacks, avoidance, reduction in positive emotional responsivity and an increase in arousal (Cordón et al., 2004; De Young et al., 2012; Haag et al., 2020; Vrolijk-Bosschaart et al., 2018). When a young child experiences adverse events, this not only changes the child's perception of their parent as not being there, being dangerous or not protecting, but also impacts or even traumatises the parent and changes their representation of their child and themselves. This impacts the parent-child interaction and the way parent and child regulate each other's emotional states (Winnicott, 1960, 1965). For example, parents can view their child with fear, worry and disgust, and themselves as a non-protector or perpetrator and respond with overprotection, stress and distancing. The trauma becomes entangled in their interaction and attachment relationships, which makes it important to treat trauma as soon as possible.

Preverbal memories consist of unprocessed sensory and emotional information stored in the implicit memory (Gaensbauer, 2002). The EMDR standard protocol requires a child to retrieve and describe a memory, and adaptations are needed for infants and young children who are unable to do so, as well as for older children with preverbal trauma that is not stored in their conscious memory. A narrative EMDR procedure is used in which the therapist or parents[1] discuss a narrative about the traumatic event with their child to activate the traumatic memories, while the therapist applies continuous bilateral stimulation to the child (Lovett, 2015). This procedure has demonstrated its effectiveness in clinical practice (Adler-Tapia & Settle, 2017; Logie et al., 2020; Rathore, 2018; Swimm, 2018; Tinker & Wilson, 1999; Wizansky & Bar Sadeh, 2021) and research trials are currently being conducted.

Other Presentations

EMDR therapy is evidence based for children with PTSD; however, EMDR is used in clinical practice for all presentations where memories of events or fantasies create symptoms in the present, such as phobias, social anxiety and depression (evidence-based for adults). Children do not have to meet the criteria for PTSD to benefit from EMDR. Neurodiverse children often feel inadequate and have negative experiences of being bullied, ridiculed, rejected or ignored by peers, and struggling in school or at home. Their global functioning

1 The word 'parents' can be replaced by 'caregiver'.

can really improve from processing these negative experiences with EMDR (Leuning et al., 2023). EMDR can also be used with children and adults with developmental delays (Mevissen et al., 2012).

Avoidance and Resistance in Children

Chronically traumatised children often present with a wide range of problematic issues that complicate or make EMDR therapy initially seem unsuitable. They can be avoidant and reluctant to engage in EMDR therapy, or simply refuse to do it. Some children say they do not want to talk about their memories because they are fearful of being overwhelmed. Some have amnesia for the traumatising events in their lives and some drop out of treatment. Contrary to the recommendations in the international guidelines (Cohen et al., 2010), these children often do not receive trauma-focused treatment out of fear of destabilising the child. We do not want to 'wake up sleeping dogs'.

The sleeping dogs method. The sleeping dogs method (Struik, 2019) is used to stabilise, prepare and engage children in EMDR or trauma-focused cognitive behavioural therapy and support them to complete therapy (Struik et al., 2017). It is a holistic, collaborative approach that can be used by professionals who are not trained in EMDR to prepare children for referral to an EMDR therapist. The term 'sleeping dogs' refers to the traumatic memories that the child does not want to talk about. The child's barriers to talking about their traumatic memories are analysed by their answers to 19 questions with 'yes' or 'no', and treatment targets only specific identified barriers, which significantly shortens the preparation phase. For example, children can be worried about the consequences if they talk about their memories or worry their parents will be angry if they do. Discussing the consequences and having a parent encourage the child to engage in EMDR can remove these barriers. Many children do not want to talk about their trauma for fear of making their parents upset, or because they blame themselves and are ashamed. When parents acknowledge the child's innocence and discuss a plan to manage their own anger or fear with their child, it can reduce the child's guilt and shame and lessen their worry about the parent. The child's network/whanau is engaged in treatment and psychoeducation, and they can motivate the child for EMDR. Especially with intergenerational trauma, the network/whanau is often very supportive as they do not want the child to end up in the same cycle.

EMDR with Children with Developmental Trauma

Once the barriers are removed and a child engages in EMDR, it is important to build a support network around the child to prevent dropout. Once the traumatic memories no longer cause distress, many of these children are less angry, anxious and depressed, and no longer display sexualised behaviour.

Their school performance improves, they feel more confident and start building emotional and social skills and healthier relationships (Greenwald et al., 2012).

EMDR in Unstable Conditions

It is also often believed, in the absence of research supporting this belief, that EMDR is not possible when children live in unsafe and chaotic circumstances, in out of home care or are refugees. When children self-harm or suicidal, it is often argued they are not stable enough for EMDR, despite research recommending a trauma-informed approach (Asarnow & Mehlum, 2019). EMDR addresses the traumatic memories and reduces shame and guilt, all of which lead to symptom reduction. In a 2-week intensive EMDR and exposure treatment programme without stabilisation, van Pelt et al. (2021) included only teenagers with high risk for decompensation who failed trauma treatment because of severe self-harming and suicidal behaviour. After treatment, 63% of the teenagers no longer met PTSD criteria and none showed worsening symptoms. Studies have also shown that EMDR can be done safely with adults who dissociate (Zoet et al., 2018) or have psychoses (van den Berg et al., 2015).

> *Fifteen-year-old Ty witnessed domestic violence and experienced sexual abuse by his father and paternal grandfather. When he was aged 8 years, he went to live with his maternal grandmother. He had irregular contact with his parents, to whom he remained very loyal. His father committed suicide a year ago. Ty struggled with rage and had been self-harming for a few years. He was referred for treatment after a suicide attempt and refused to discuss his trauma. The clinician believed Ty's symptoms were trauma related and identified his potential barriers. After several discussions with Ty's mother, who was in prison for dealing drugs, she made a video recording for Ty. She told him that the family violence, and her depression and drug use were not his fault, but that she struggled with her own trauma history. She had suspected the sexual abuse and deeply regretted not pursuing action to stop it. She said she could understand Ty's anger and disappointment in her and wished he would engage in EMDR so he could feel relief. After viewing the recording with his grandmother, Ty was less angry and started disclosing more details to her. A few weeks later Ty's paternal aunt met with him and the clinicians. She explained that she and her brother, Ty's father, had been sexually abused by Ty's grandfather and that he had told her just before his suicide how much he regretted doing the same to his son. She told him that she believed that his father would really want him to engage in EMDR and heal from all the traumas. Ty cried and agreed to engage in EMDR. The clinician arranged for his grandmother*

and aunt to take him with the family dog to therapy and spend the afternoon and evening together afterwards. Ty processed his memories in four 2-hour sessions on consecutive days and after the last session, they visited his father's grave. He went back to school and got into a relationship. He was no longer violent or suicidal and stopped self-harming.

EMDR can be performed effectively and safely with children in unstable conditions; however, it is important to analyse potential barriers and prepare for them if needed.

Conclusion

EMDR is an evidence-based treatment for children who have experienced traumatising events and is used with children with a range of presentations. According to the adaptive information processing model established by the founder of EMDR (Shapiro, 2007), memories of negative events are dysfunctionally stored in neural networks, and information stored in these unprocessed memories of events underlies clinical symptoms. Clinicians can contribute to the recognition of childhood trauma by actively asking clients about traumatic experiences and sexual abuse specifically, as clients often to do not recognise a link between these experiences and their presentation. Clinicians can provide psychoeducation about the impact of trauma, inform clients about EMDR as a treatment option, prepare and refer them for EMDR or provide EMDR themselves. Wake up those sleeping dogs!

Implications for Practice

- Clinicians can contribute to the recognition of childhood trauma by actively asking clients about traumatic experiences and sexual abuse specifically.
- Clinicians can provide psychoeducation about the impact of trauma.
- Clinicians can inform clients about EMDR as a treatment option, prepare and refer them for EMDR or provide EMDR themselves.

Conflict of interest

Arianne Struik could benefit from publication of this article by an increase sale of books or training.

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