COMMENTARY

The evolution and future of eye movement desensitisation and reprocessing therapy[†]

Paul W. Miller

SUMMARY

Eye movement desensitisation and reprocessing (EMDR), a therapy initially developed by Dr Francine Shapiro for treating post-traumatic stress disorder, has broadened its scope to include other forms of stress and trauma, even showing promise for physical health conditions. This commentary on a series of three articles on EMDR in this journal outlines the therapy's underlying theoretical model, adaptive information processing (AIP), which involves trauma-focused case conceptualisation. It also introduces the work of the EMDR Council of Scholars, which identified three categories of treatment: EMDR psychotherapy, EMDR treatment protocols and EMDR-derived techniques. Finally, it considers EMDR training and credentialing and the aim of current leaders in the EMDR community to solidify EMDR's standing as a scientifically validated, front-line trauma therapy, while honouring Shapiro's legacy of striving to end the cycle of violence, especially in low- and middle-income countries.

KEYWORDS

Eye movement desensitisation and reprocessing (EMDR); adaptive information processing (AIP) model; trauma-focused case conceptualisation; training and accreditation; task-shifting.

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The evolution of eye movement desensitisation and reprocessing (EMDR) as a trauma-focused approach, created by the late Dr Francine Shapiro initially as eye movement desensitisation (Shapiro 1989), means that EMDR therapy now has an indisputable place in the treatment of post-traumatic stress disorder (PTSD) (Udo 2022) and it is recommended as a first-line treatment for PTSD in most international clinical practice guidelines (de Jongh 2024). Two colleagues are recognised as being present with Dr Francine Shapiro at the birth of EMDR: Robbie Dutton and Arnold (AJ) Popky. The effect of eye movements in reducing distress and the vividness of traumatic memories was recognised by Dr Shapiro, and the procedural step to 'follow my fingers' as the mechanism of delivery of the bilateral stimulation was her pragmatic response when Popky was unable to shuttle his eyes spontaneously as she sought to demonstrate the technique to him. Eventually, the eight-phase, 'three-pronged' standard protocol and the procedural steps were described (Shapiro 1989) and this core has remained relatively unchanged (de Jongh 2024).

The first of a series of three articles published in this issue of *BJPsych Advances* outlines EMDR's theory, procedure and use in PTSD (Udo 2023); the second discusses its promise for other stress and trauma conditions (Javinsky 2022) and the third explores EMDR's potential utility in physical health conditions (Udo 2023).

Adaptive information processing and case conceptualisation

During the development of EMDR, the main impediment to its acceptance was that experts could not understand how eye movements led to the observed improvements in mental health. Multiple putative neurobiological mechanisms for EMDR therapy grew out of the scrutiny of the element of the method that clinicians and researchers found most puzzling, i.e. the bilateral stimulation (BLS). Initially, researchers explored the orienting reflex and classic Pavlovian conditioning (MacCulloch 1996); given that the eye movements of the intervention resembled those of rapid eye movement (REM) sleep, the neurobiology of sleep became an area of interest. Research started with REM sleep (Stickgold 2002) and then slow-wave sleep (SWS) mechanisms were explored (Pagani 2017). Much of the early work examined isolated neurobiological systems and this benefited from the subsequent exploration of interconnectivity and functionality within the brain, which has led to the working-memory taxation theory championed by Dutch researchers (de Jongh 2024). This theory that bilateral stimulation taxes the working memory has informed a version of EMDR, referred to as EMDR 2.0 (Matthijssen 2021).

Adaptive information processing (AIP) is described as an innate information processing

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system in the human; it is proposed that the innate biological phenomenon of stochastic resonance operates in the human neurological system to facilitate the filtering, focusing and processing of information in the brain (Miller 2018). Although this theorisation and exploration of putative neurobiological mechanisms fascinates many clinicians, it can more often confuse. Nevertheless, it was the articulation of the AIP model – a trauma-focused case-conceptualisation model (Solomon 2008) – that helped EMDR extend beyond PTSD.

The AIP model is built on three key principles (Solomon 2008). First, it proposes that humans have a natural information processing system that takes in sensory data and adapts it, blending new information with existing memories and learning. It states that when this fails, the resultant dysfunctionally linked memory network (DLMN) is pathogenic. This DLMN is state-specific, containing all the thoughts, feelings, emotions and input at the point it was created. Second, it guides a clinician's therapeutic endeavour through the case conceptualisation. Finally, it forecasts the outcome of therapy, suggesting that transforming pathogenic memories to an adaptive resolution eliminates the harmful impact of unresolved trauma stored in the DLMN.

Clinically, AIP case conceptualisation means that the therapeutic endeavour focuses on the original pathogenic memory network (e.g. of being bitten by a dog), rather than on the presenting problem (e.g. current obsessive–compulsive disorder phenomenology) that has originated from that experience. Diagnosis invokes the medical model of mental disorder and brings with it the challenge of comorbidity and potential stigma: a trauma-focused formulation such as AIP is less stigmatising when applied as a stand-alone model, distinct from the medical model (Ross 2008). These frameworks view psychological symptoms as meaningful responses to potentially harmful environments, and symptoms are viewed as attempts to adapt, reflecting human agency and a capacity for meaning-making. Although diagnostic labels may seem explanatory, they have been described as lacking scientific validity and can foster stigma (Allsopp 2019). Mental health experts are increasingly being asked to look past diagnoses and consider factors such as trauma and life experiences as causes of mental distress.

Beyond merely following the protocol: the relational imperative

The AIP model and the EMDR standard protocol are important; however, the best predictor of a positive outcome in psychotherapy remains the quality of the therapeutic relationship and this is likely to be the same for EMDR therapy (Dworkin 2005). The importance of case conceptualisation and building a therapeutic alliance is emphasised in EMDR training in Brazil (Carvalho 2023), and many trainers worldwide support this emphasis.

Pedagogy – EMDR training and credentialing

For those who have been building the EMDR community, initially as innovators and latterly as trainers and supervisors, the key to quality assurance is competency benchmarks. Training and credentialing need to go hand in hand, as the former, being foundational, allows professionals to build on a secure base, with the latter determining the quality of what is built. Currently there is a dearth of research into the pedagogy of EMDR training and the current training model (which largely consists of independent trainers who are commercially in competition with one another, making such research challenging to conduct). The pedagogy of EMDR training and credentialing is a potential area for research and the study of EMDR trainings based in universities should be explored along with other commercial training models.

The Council of Scholars and the Future of EMDR Project

The Council of Scholars, a group of international EMDR academics and leaders, was brought together to future-proof EMDR therapy and assure its longevity and ongoing scientific standing as a front-line trauma-focused therapy (www.emdrcouncilofscholars.org). Initially, its Future of EMDR Project was to be a gift to the originator of the paradigm, but it became a memorial following her untimely death in June 2019. Dr Francine Shapiro was renowned for encouraging research and academic publication pertaining to EMDR and was active in drawing up the International Society for Traumatic Stress Studies' (ISTSS) 2019 guidelines on PTSD prevention and treatment. Dr Shapiro was a humanitarian who wanted to end the cycle of violence. EMDR therapy has a strong link with humanitarian work and is regularly part of capacity-building to address trauma, particularly in low- and middle-income countries (LMICs) (Farrell 2020). The Council of Scholars' 'What is EMDR?' workgroup spent 2 years crafting a unified definition of EMDR therapy to keep pace with field innovations. They propose three categories of treatment: EMDR psychotherapy, EMDR treatment protocols and EMDR-derived techniques (Laliotis 2021). It is these last two categories that facilitate utilisation in trauma-capacity building projects, as they allow for task-shifting. An example of this type of work

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is Trauma Psycho-Social Support Plus (TPSS+), which is AIP informed, involves task-shifting and is suitable for use in LMICs.

Shapiro's legacy

Equipping people with the AIP-informed case conceptualisation model for mental disorder brings hope, teaching them that their presenting phenomena are meaningful attempts to adapt. AIP case conceptualisation enables a transdiagnostic trauma-informed approach that shifts away from both the medical diagnostic and the stress–diathesis models. A person is not biologically broken; rather, they are understandably disordered by the set of extreme circumstances that they have experienced. This echoes the words of Karl Menninger, who was essentially an abolitionist in respect of psychiatric diagnoses, albeit his brother William Menninger authored *Medical 203* – the publication that heavily influenced the ICD and DSM. Helen Spandler quotes Karl as saying:

> 'An individual having unusual difficulties in coping with his environment struggles and kicks up the dust, as it were. I have used the figure of a fish caught on a hook. His gyrations must look peculiar to other fish that don't understand the circumstances; but his splashes are not his affliction, they are an effort to get rid of his affliction and as every fisherman knows these efforts may succeed' (Spandler 2006: p. 55).

AIP case conceptualisation reminds us to identify the 'hook', and in so doing we move closer to Dr Shapiro's goal of ending the cycle of violence.

Data availability

Data availability is not applicable to this article as no new data were created or analysed in this study.

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Declaration of interest

P.W.M. is an EMDR Europe Accredited Trainer and EMDR Institute Facilitator; he leads a commercial EMDR training organisation and teaches on the EMDR PGDip and MSc courses in Worcester University, UK. He was the inaugural Chair of the Training and Credentialing workgroup of the Council of Scholars.

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