Online Eye Movement Desensitization and Reprocessing for the Treatment of Post-Traumatic Stress Disorder

Posttraumatic stress disorder (PTSD) is a mental illness associated with a high risk of suicide and self-injury, a poor prognosis, and difficult treatment. The reported prevalence of PTSD varies between different countries and cultural backgrounds. The lifetime prevalence in adults in the United States is 6.1%1; in low-income countries like those in Africa, it ranges from 30.6% to 37%;2 and in China it is 0.4%.3 Post-traumatic stress disorder is related to the occurrence and development of various mental diseases. It is more likely to be comorbid with other mental diseases, and the prognosis of such patients is worse.4-5 The burden of PTSD on society is very high, and PTSD patients are faced with many occupational, financial, and interpersonal pressures.6

Current treatments for PTSD include psychotherapy, pharmaceuticals, and a combination of both. Eye movement desensitization and reprocessing (EMDR) therapy is internationally recognized as a first-line treatment for PTSD and is a popular choice among psychotherapists and patients.7 However, traditional EMDR therapy has drawbacks, including high costs and travel expenses for patients. In China, long waiting times at major hospitals can further delay timely treatment, especially in economically underdeveloped areas. Eye movement desensitization and reprocessing therapy is therefore rarely used in poor regions. Patients who live in these areas must travel by car or plane to receive EMDR treatment, adding to the financial cost and time. Fortunately, the rapid development of network technology means that online communication is becoming more convenient, thus greatly facilitating online diagnosis and treatment. Online EMDR therapy could therefore address the cost and time limitations associated with EMDR therapy for PTSD.

Online EMDR therapy follows the same principles and steps as traditional EMDR therapy but is delivered online, often via video conference. This is different from computerized treatment, which is delivered without a therapist.8 Although there is currently only limited research on online EMDR therapy, surveys suggest that psychotherapists are conducting online psychotherapy with their patients,9 especially during the COVID-19 pandemic. Eye movement desensitization and reprocessing associations around the world have drawn up guidelines for the practice of online EMDR therapy. The European EMDR Association suggests that only patients who have previously received EMDR therapy from the therapist and who have a good relationship with them should receive online EMDR therapy.10 However, the Australian EMDR Association disagrees with this stance.11 The European EMDR Association did not recommend online EMDR treatment for patients with dissociative disorders or dissociative mechanisms, processing blocks and resistances, risk of suicide, or who have never received EMDR treatment.12

There have been few studies published on online EMDR. Three studies examined online EMDR combined with other treatments, but these were single-arm, non-blinded studies with small sample sizes. Although positive results were obtained, these studies require cautious interpretation. The earliest study was reported in 2013 in Australia. Spence et al13 conducted a single-arm, open-label trial involving 15 subjects diagnosed with PTSD. They were treated with network-based cognitive behavioral therapy combined with network-based EMDR for 6 weeks. Four subjects withdrew, leaving 11 subjects who completed the study. After treatment, 6 subjects no longer met the diagnostic criteria for PTSD, and their depression and anxiety also improved significantly after treatment. No serious adverse events were reported, thus...
confirming that online EMDR treatment was feasible and relatively safe. Bongaerts et al.\(^{14}\) tested the safety and effectiveness of online, trauma-focused psychotherapy in 6 patients with complex PTSD. Prolonged exposure therapy, EMDR therapy, and exercise were used in the study. All 6 subjects completed the study. During the treatment period and a 1-month follow-up period, none of the subjects experienced any disease deterioration or adverse events. After treatment, 4 subjects no longer met the diagnostic criteria for PTSD, and remained in the follow-up. This study confirmed the relative safety of online EMDR treatment, even for patients with complex PTSD. Eser Sağaltıcı et al.\(^{15}\) conducted a study on online EMDR treatment in 16 patients with PTSD caused by novel coronavirus, with 14 completing the study. Symptoms of trauma, depression, and anxiety were significantly improved following treatment compared to before treatment.

Online EMDR therapy is now performed all over the world, and many EMDR associations have issued regulations regarding its use. Nevertheless, several challenges remain with this form of EMDR therapy. Firstly, the online communication equipment and network may be unstable, leading to the interruption of treatment and thus affecting the results. Fisher\(^{8}\) suggested having standby equipment ready to solve this problem. Secondly, it is risky for patients with unstable conditions to use online EMDR therapy. The European EMDR Association advises that patients who are at risk of suicide should not undergo online EMDR therapy.\(^{11}\) Thirdly, the choice of site can be a problem for patient treatment. Online EMDR therapy requires a quiet space, and it may be difficult for some patients to find a place that meets this criterion. Patients have different attitudes toward online EMDR therapy. Those with place phobia and poor communication skills are more willing to receive online EMDR therapy, but those who are concerned about privacy leakage and a poor network environment are reluctant to receive online EMDR therapy.\(^{10,16}\)

The development of online EMDR therapy makes it more convenient to obtain psychotherapy and can greatly reduce the treatment cost and patient time. Online EMDR therapy is more readily accessible, and even patients in remote areas with poor medical resources can be treated at a lower cost. This is important for achieving an equitable allocation of medical resources. Currently, however, there are no randomized controlled clinical trials with a high level of evidence regarding the benefits of online EMDR therapy for PTSD patients. Moreover, there is still no uniform standard for the duration of online EMDR treatment, the time of each treatment, and how to ensure the safety of patients during treatment. In the future, it will be necessary to carry out randomized controlled clinical trials of online EMDR therapy in PTSD patients to address these unknowns.

**Declaration of Interests:** The authors have no conflict of interest to declare.

**Funding:** This study was funded by the National Natural Science Foundation of China (81971287), Beijing Municipal Health and Wellness Committee’s High-level Talents Training Program (2022-3-037).

**References**