
Modifications of attentional bias and emotion processing in PTSD after EMDR treatment

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Abstract

Avoidance and hypervigilance to reminders of a traumatic event are among the main characteristics of post traumatic stress disorder (PTSD). Attentional bias toward aversive cues in PTSD has been hypothesized as being part of the dysfunction causing etiology and maintenance of PTSD. The aim of the present study was to investigate the cognitive strategy underlying attentional bias in PTSD and whether normal cognitive processing is restored after a treatment suppressing core PTSD symptoms, as well as brain functioning while processing emotions. Nineteen healthy controls were matched for age, sex and education to 19 PTSD patients. We used the emotional Stroop and Detection of Target tasks, before and after an average of 4.1 sessions of Eye Movement Desensitization and Reprocessing (EMDR) therapy. They also underwent fMRI recordings in task of emotional faces recognition. We found that on both tasks, patients were slower than controls in responding in the presence of emotionally negative words compared to neutral ones. After symptoms removal, patients no longer had attentional bias, and responded similarly to controls. In addition, brain activities modified in PTSD patients (at the prefrontal cortex) were restored after treatment. These results support the existence of an attentional bias in PTSD patients due to a disengagement difficulty. This bias may be related to prefrontal activity disorders that have also been restored after symptom removal.

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