

## The Effects of Emotional Working Memory Training on Trait Anxiety

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**Abstract :** Trait anxiety is a pervasive tendency to attend to and experience fears and worries to a disproportionate degree, across various situations. This study sought to determine if participants who undergo emotional working memory training will have significantly lower scores on the trait anxiety scales post-intervention. The study also sought to determine if emotional regulation mediated the relationship between working memory training and trait anxiety. Forty-nine participants underwent 20 days of computerized emotional working memory training called Emotional Dual n-back, which involves viewing a continuous stream of emotional content on a grid, and then remembering the location and color of items presented on the grid. Participants of the treatment group had significantly lower trait anxiety compared to controls post-intervention. Mediation analysis determined that working memory training had no significant relationship to anxiety as measured by the Beck's Anxiety Inventory-Trait (BAIT), but was significantly related to anxiety as measured by form Y2 of the Spielberger State-Trait Anxiety Inventory (STAI-Y2). Emotion regulation, as measured by the Emotional Regulation Questionnaire (ERQ), was found not to mediate between working memory training and trait anxiety reduction. Results suggest that working memory training may be useful in reducing psychoemotional symptoms rather than somatic symptoms of trait anxiety. Moreover, it proposes for future research to further look into the mediating role of emotion regulation via neuroimaging and the development of more comprehensive measures of emotion regulation.

**Keywords :** anxiety, emotion regulation, working-memory, working-memory training

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