

Treatment associated with changes in brain activity in borderline personality disorder

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According to newly published research, a specialized psychotherapy has been linked to changes in activation patterns in certain areas of the brain in patients with borderline personality disorder (BPD), suggesting its impact may go deeper than symptom change.

A team of researchers including Mark F. Lenzenweger, distinguished professor of psychology at Binghamton University, recruited ten women with BPD from the New York Presbyterian Hospital/Weill Cornell Medical College and conducted this neuroimaging study using functional magnetic resonance imaging (fMRI) methods. These patients were treated for one year with transference-focused [psychotherapy](#) (TFP), an evidence-based treatment proven to reduce symptoms across multiple cognitive-emotional domains in BPD. Treatment with TFP was associated with relative activation increases in cognitive control areas and relative decreases in areas associated with emotional reactivity. According to researchers, these findings suggest that TFP may potentially facilitate symptom improvement in BPD.

"These findings represent the genuine frontier of clinical science in understanding the effects of psychotherapy," said Lenzenweger. "Think of it—talk therapy that impacts neural or brain functioning."

"These results advance our currently limited understanding of neural mechanisms associated with psychodynamically oriented psychotherapy," wrote the researchers. "Activation in [certain parts of the brain] was associated with improvements in behavioral constraint, emotional regulation and/or aggression in patients with BPD."

The study, "Frontolimbic neural circuit changes in emotional processing and inhibitory control associated with clinical improvement following transference-focused psychotherapy in [borderline personality disorder](#)," was published online Oct. 8 in *Psychiatry and Clinical Neurosciences*.

More information: David L. Perez et al. Frontolimbic neural circuit changes in emotional processing and inhibitory control associated with clinical improvement following transference-focused psychotherapy in borderline personality disorder, *Psychiatry and Clinical Neurosciences* (2015). [DOI: 10.1111/pcn.12357](#)

Provided by Binghamton University

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