

Is a hormone the key to understanding borderline personality disorder?

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In the current issue of *Psychotherapy and Psychosomatics* a group of German investigators is reporting on the potential effects of a hormone in borderline personality disorder. Besides affective instability and identity diffusion, borderline personality disorder (BPD) patients show impaired interpersonal functionality. Recently, altered oxytocin regulation has been suggested to be one mechanism underlying such interpersonal dysfunctions in BPD, i.e. reduced plasma oxytocin levels were found in BPD, which were negatively correlated with a history of childhood trauma.

To directly address the hypothesis of an altered oxytocin regulation in BPD, the Authors exposed 22 women with BPD and 21 healthy controls matched for gender, age and education to a [social exclusion](#) (ostracism) situation. Feeling rejected and isolated from others can be experimentally simulated using the Cyberball paradigm, a virtual ball-tossing game during which participants are excluded by the other players.

Results showed that BPD subjects showed a reduction of oxytocin [plasma levels](#) following social exclusion compared to healthy subjects. Baseline oxytocin peripheral levels were not correlated with age, severity of clinical symptoms, or most measures of the emotional reaction, or related to the menstrual cycle. In the BPD group, a negative association between physical and emotional abuse during childhood (CTQ) and return of oxytocin levels to baseline was found. Specifically, the higher the level of emotional and physical abuse was, the smaller the change of

oxytocin became. On the contrary, cortisol levels did not differ between BPD patients and controls.

This is the first study investigating oxytocin plasma levels during a social exclusion paradigm showing a reduction of oxytocin plasma levels after social exclusion in BPD patients compared to healthy controls.

More information: Jobst A, Albert A, Bauriedl-Schmidt C, Mauer MC, Renneberg B, Buchheim A, Sabass L, Falkai P, Zill P, Padberg F. "Social Exclusion Leads to Divergent Changes of Oxytocin Levels in Borderline Patients and Healthy Subjects." *Psychother Psychosom* 2014;83:252-254

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