

---

**SOCIAL EXCLUSION LEADS TO A REDUCTION OF OXYTOCIN PLASMA LEVELS IN BORDERLINE PATIENTS COMPARED TO HEALTHY SUBJECTS**

A. Jobst<sup>1</sup>, A. Albert<sup>1</sup>, C. Bauriedl-Schmidt<sup>1</sup>, C. Mauer<sup>2</sup>, B. Renneberg<sup>3</sup>, A. Buchheim<sup>2</sup>, L. Sabap<sup>1</sup>, P. Falkai<sup>1</sup>, P. Zill<sup>1</sup>, F. Padberg<sup>1</sup>

<sup>1</sup>Psychiatry, Ludwig-Maximilians-University, Munich, Germany ; <sup>2</sup>Psychology, Universität Innsbruck, Innsbruck, Austria ; <sup>3</sup>Psychology, Freie Universität Berlin, Berlin, Germany

---

**Background:** Besides affective instability and identity diffusion, disturbances in social interactions are a core symptom of borderline personality disorder (BPD). Interpersonal problems in BPD have been suggested to be associated with oxytocin dysregulation. To directly address this hypothesis, we investigated oxytocin plasma levels during a social exclusion (ostracism) paradigm in female BPD patients.

**Methods:** Twenty-two female BPD patients (diagnosed according to DSM-IV) and twenty-one healthy controls matched for gender, age, and education underwent repeated neuroendocrine measurements in a standardized laboratory setting during the Cyberball paradigm, a virtual ball-tossing game that evokes a social exclusion situation. Emotional reactions were assessed and oxytocin and cortisol levels measured at baseline and 5, 15, and 40 min after Cyberball.

**Results:** After social exclusion, oxytocin plasma levels were lower in BPD patients than in healthy controls, whereas cortisol levels did not differ between groups. BPD patients showed distinct differences in emotion regulation compared to healthy participants and reacted to social exclusion with an increase of other-focused negative emotions, particularly anger and contempt.

**Conclusions:** Our pilot study suggests that the oxytocin system shows a differential response to social exclusion in BPD patients compared to healthy controls. This difference may be related to the high rejection sensitivity of BPD patients and their difficulties in resolving social conflict.