

# Oxytocin and borderline personality disorder

## Preliminary results

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### Background

The neuropeptide oxytocin (OXT) has been linked to complex social behavior and cognition and seems to play an important role in attachment behavior and regulation of social stress across species.

Borderline personality disorder (BPD) is a disabling psychiatric disorder associated with interpersonal problems, and it has been suggested that deficits in social cognition might explain these difficulties.

We therefore hypothesized that BPD patients display lower levels of OXT compared to healthy controls, and that measures of general psychopathology would correlate negatively with OXT levels.

### Methods

The OXT levels of 38 female participants (BPD group  $n = 18$ , matched control group  $n = 20$ ) with a mean age of 29,5 years (SD 9,2) were measured through plasma samples. Psychopathology was assessed with the following test battery:

**Psychopathology:** SCID-II, MINI, HAM-D

**Symptoms:** SCL-90, SIPP-118, PSS

**Affect regulation:** SHI, BPAQ, BIS-11, ALS-18, SBQ-R, TAS-20

**Childhood adversities:** CTQ, YPI-R

### Results

Preliminary analysis showed no significant difference between the two groups in terms of OXT levels (see Table 1) and no significant correlations between OXT and any of our measures of general psychopathology. However, post hoc analyses showed a significant relationship between civil status and OXT ( $p < 0.05$ ) within the patient group indicating higher levels of OXT for patients in a romantic relationship (see Table 2).

Table 1

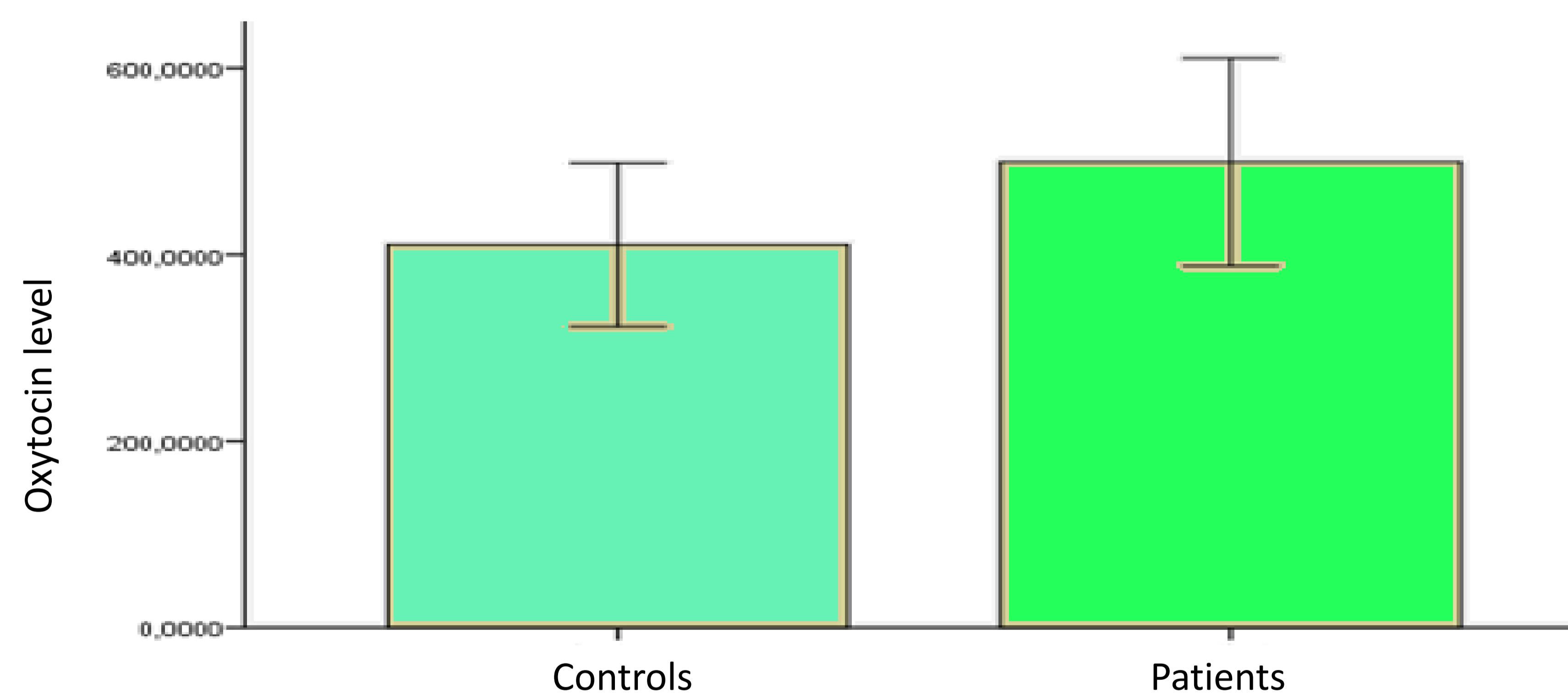
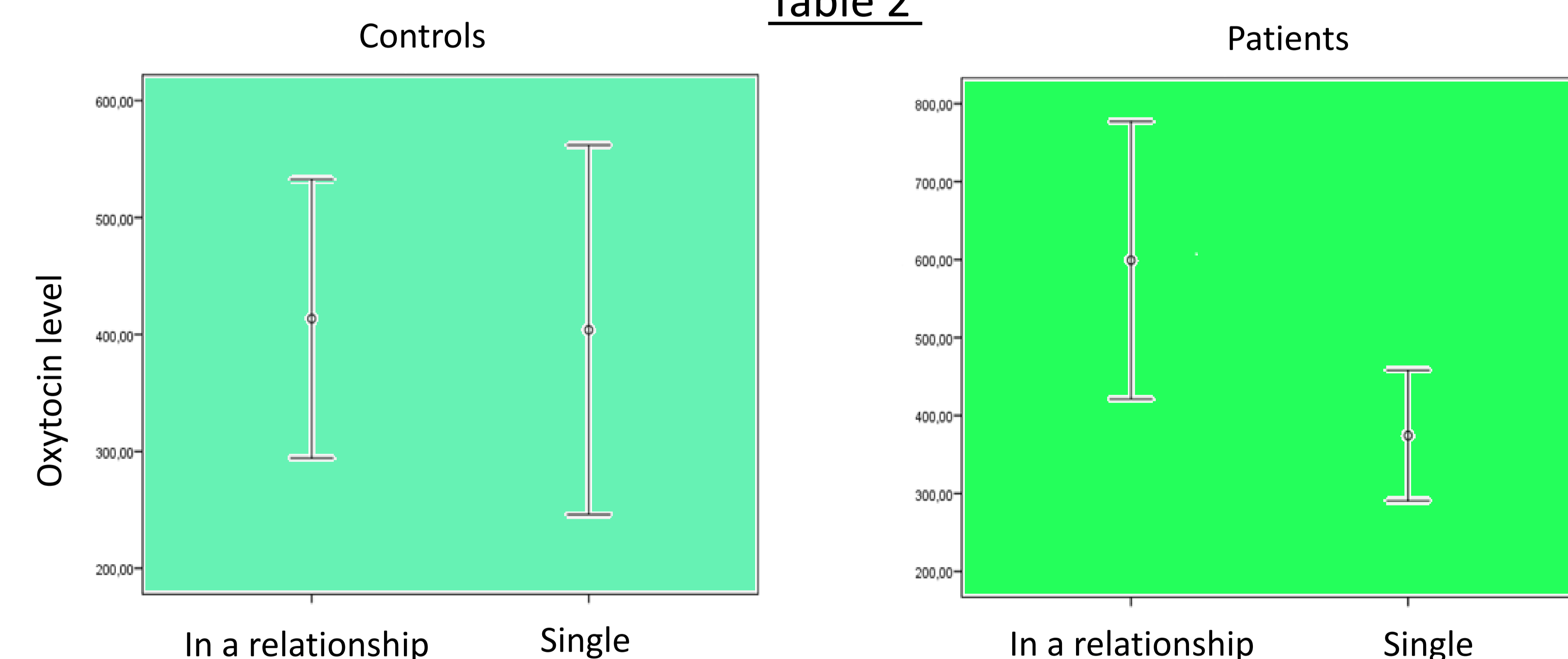


Table 2



### Discussion

Contrary to our expectations, we did not find lower OXT levels in the BPD group. Possible explanations include OXT's stress reducing properties and emerging evidence that the effects of OXT seem to vary depending on factors like genetics, sex, attachment style, context and psychiatric disorders (Bartz et al., 2011, Olff et al., 2013).

The positive correlation between romantic status and OXT found in our material might be an indicator of the distress many BPD patients experience when faced with the threat of abandonment.

It must however be noted that the results are preliminary and should be considered with caution due to their limited statistical power.

### References

J. Bartz, J. Zaki, N. Bolger, K. Ochsner (2011): *Social effects of oxytocin in humans: context and person matter*. Trends in Cognitive Sciences, July 2011, Vol. 15, No. 7

M. Olff, J. L. Frijling, L. D. Kubzansky, B. Bradley, M. A. Ellenbogen, C. Cardoso et al. (2013): *The role of oxytocin in social bonding, stress regulation and mental health: an update on the moderating effects of context and interindividual differences*. Psychoneuroendocrinology 38, pp. 1883–1894.