Delay discounting and response disinhibition under acute experimental stress in women with borderline personality disorder and adult attention deficit hyperactivity disorder.


Abstract

BACKGROUND:
Impulsivity is a core feature of borderline personality disorder (BPD) and attention deficit hyperactivity disorder (ADHD). In BPD, impulsive behavior primarily occurs under acute stress; impulse control deficits under non-stress conditions may be partly related to co-morbid ADHD. We aimed to investigate whether acute experimental stress has an impact on self-reported impulsivity, response inhibition (action withholding, action cancelation) and delay discounting in BPD compared to ADHD.

METHOD:
Thirty female BPD patients, 28 female ADHD patients (excluding patients with co-morbid BPD and ADHD), and 30 female healthy controls (HC) completed self-reports and behavioral measures of impulsivity (IMT, assessing action withholding; GoStop, measuring action cancelation, Delay Discounting Task) under baseline conditions and after an experimental stress induction (Mannheim Multicomponent Stress Test).

RESULTS:
Both patient groups reported higher impulsivity than HC, ADHD reported higher trait impulsivity than BPD. On the IMT, ADHD showed significant action-withholding deficits under both conditions, while BPD performed significantly worse than HC under stress. In BPD but not ADHD and HC, action-withholding deficits (IMT) were significantly increased under stress compared to baseline, while no group/stress effects were found for action cancelation (GoStop). Delay discounting was significantly more pronounced in BPD than in HC (no stress effect was found).

CONCLUSIONS:
In BPD, behavioral deficits in action withholding (but not in action cancelation) appear to be influenced by acute experimental stress. Delay discounting seems to be a general feature of BPD, independent of co-morbid ADHD and acute stress, possibly underlying typical expressions of behavioral impulsivity in the disorder.