

P02-412 - BORDERLINE PERSONALITY DISORDER - A DYSREGULATION OF THE ENDOGENOUS OPIOID SYSTEM?

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The neurobiology of borderline personality disorder (BPD) remains unclear. Dysfunctions of several neurobiological systems have been discussed, including serotonergic, dopaminergic, and other neurotransmitter systems.

Here we present a theory that alterations in the sensitivity of opioid receptors or the availability of endogenous opioids constitute part of the underlying pathophysiology of BPD.¹ The alarming symptoms and self-destructive behaviors of the affected patients may be explained by uncontrollable and unconscious attempts to stimulate their endogenous opioid system (EOS) and the dopaminergic reward system, regardless of the possible harmful consequences. Neurobiological findings that support this hypothesis are reviewed: Frantic efforts to avoid abandonment, frequent and risky sexual contacts, and attention-seeking behavior may be explained by attempts to make use of the rewarding effects of human attachment mediated by the EOS. Anhedonia and feelings of emptiness may be an expression of reduced activity of the EOS. Patients with BPD tend to abuse substances that target μ -opioid receptors. Self-injury, food-restriction, aggressive behavior, and sensation-seeking may be interpreted as a desperate attempt to artificially set the body to "survival mode", in order to mobilize the last reserves of the EOS. BPD-associated symptoms, such as substance abuse, anorexia, self-injury, depersonalization, and sexual overstimulation, can be treated successfully with μ -opioid receptor antagonists.

An understanding of the neurobiology of BPD may help in developing new treatments for patients with this severe disorder.

¹Bandelow, B., C. Schmahl, P. Falkai and D. Wedekind (2010). "Borderline personality disorder: A dysregulation of the endogenous opioid system?" Psychol Rev 117(2): 623-36.