

# Borderline personality disorder and cognition: unraveling the enigma one piece at a time!

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## Letter to the Editor

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Dear Editor,

Aslan et al<sup>1</sup> conducted a study on patients with borderline personality disorder that investigated cognition, impulsivity, and the correlation of these parameters with symptom severity of borderline personality disorder. The authors also compared these parameters with matched healthy controls. The selection criteria are carefully chosen for the enrolment of the participants in this study. The study interestingly reported a significant positive association between borderline personality disorder symptom severity and impulsivity. Also, the cognitive flexibility of patients with borderline personality disorder is significantly compromised than the healthy controls; however, no association between borderline symptom severity and cognitive functions was measured.<sup>1</sup>

Earlier evidence suggests significant impairment of social cognition and neurocognition in patients with borderline personality disorder, significantly impairing their real word functioning.<sup>2,3</sup> The severity of the psychopathology of borderline personality disorder is associated with the extent of neurocognitive impairment.<sup>2</sup> Researchers explained the possibility of cognitive deficits as endophenotype markers in borderline personality disorder as the cognitive deficits are closely related to the clinical symptoms of borderline personality disorder.<sup>3</sup> Due to the significance of cognitive errors in borderline personality disorder, the psychotherapeutic interventions focus on the correction of cognitive errors and schemas in these patients.

The study of Aslan et al<sup>1</sup> has not ruled out psychiatric comorbidities like other personality disorders, depression, and anxiety disorders in their study, which can be a major confounder in this study. Though the authors have acknowledged their limitations, it is known that these psychiatric conditions can significantly affect cognition and impulsivity as well as can mask the symptom severity of borderline personality disorder. Future research should consider measuring cognition in borderline personality disorder, excluding these psychiatric comorbidities. Similarly, several medical conditions like migraine, epilepsy, and other neurological conditions (even if they are stable) may have an effect on cognition and impulsivity, which also need to be considered in such research. Treatment of medical conditions (eg, antiepileptics for epilepsy; topiramate and valproate for migraine) can also change impulsivity and affect cognitive function.<sup>4</sup> Interestingly, no association was found between the severity of borderline personality disorder and cognitive functioning, though there was a significant positive association between the severity of borderline symptoms and impulsivity. It is well known that impulsivity is related to the failure of the response inhibition process (a critical executive function).<sup>5</sup> As the symptom severity of borderline personality is increasing the impulsivity, the cognitive function should decline linearly in a significant manner. However, the absence of such findings can be attributed to the small sample size (n = 26) and the possibility of the interplay of multiple other noncognitive factors involved in impulsivity and borderline symptom severity. Also, the presence of comorbid conditions might act as confounders to alter the association between cognitive function and borderline symptom severity. Most of the existing research that evaluated cognitive functioning among patients with borderline personality disorder is limited by a small sample size and measurement of cognitive function as a cross-sectional measure. Longitudinal studies on a larger sample size addressing all possible confounding factors may give better insight into the association of cognitive function with symptoms of borderline personality disorder

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