

Review Form 1.7

Journal Name:	International Neuropsychiatric Disease Journal
Manuscript Number:	Ms_INDJ_97792
Title of the Manuscript:	Borderline Personality Disorder and Neuroplasticity: A Brief Review of Relevant Studies
Type of the Article	Review Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalindj.com/index.php/INDJ/editorial-policy>)

Review Form 1.7

PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>Yes</p> <p>No. "The role of Neuroplasticity in Borderline Personality Disorder" May be more appropriate</p> <p>Yes</p> <p>Yes. Some paras in Introduction require rewriting as the opening sentences are a repeat. The same is highlighted in the document attached</p> <p>Yes</p> <p>No. There are about ten references which are old. Suggested to include more recent ones. The references to be removed are highlighted</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes</p>	
<p>Optional/General comments</p>	<p>The review article is on Neuroplasticity of BPD hence recent advances need to be highlighted which may require a concerted effort on the part of authors to justify its importance .</p> <p>Correct the highlighted parts in the Introduction and section 4. Remove Highlighted references which are old</p> <p>1. Introduction</p> <p>Further research is needed to understand the role of neuroplasticity in BPD. This includes investigating potential causes of impaired neuroplasticity, such as early life stress and genetic factors (Liberzon & Abelson, 2016). Additionally, research is needed to explore the potential for neuroplasticity-based interventions to treat BPD.</p> <p>In this review, we will provide an overview of the current understanding of the role of neuroplasticity in BPD. Specifically, we will discuss impaired neuroplasticity in individuals with BPD, theories on the role of neuroplasticity in the disorder, and neuroplasticity-based interventions for BPD. By exploring this topic, we hope to highlight the potential for neuroplasticity as a target for the treatment of BPD.</p> <p>In this review, we will explore the role of neuroplasticity in Borderline Personality Disorder (BPD).</p>	

Review Form 1.7

	<p>We will begin by discussing the current understanding of impaired neuroplasticity in individuals with BPD, including the structural and functional abnormalities seen in specific brain regions associated with emotional regulation, social cognition, and memory formation.</p> <p>We will then delve into theories on the role of neuroplasticity in the development and maintenance of BPD, exploring different perspectives on how impaired neuroplasticity may contribute to the disorder. We will consider the role of early life stress, epigenetics, and altered neurotransmitter systems in the development of BPD.</p> <p>Finally, we will review various neuroplasticity-based interventions for BPD, including psychotherapy, pharmacotherapy, and non-invasive brain stimulation techniques such as transcranial magnetic stimulation (TMS) and transcranial direct current stimulation (tDCS). By examining the potential of neuroplasticity as a target for interventions, we hope to provide a comprehensive understanding of the pathophysiology of BPD and the possibilities for treatment.</p> <p>4. Neuroplasticity-based interventions for BPD</p> <p>One study found that DBT increased gray matter volume in the prefrontal cortex, a region of the brain associated with emotion regulation (Goodman et al., 2014)? (Only one study. Please clarify) Additionally, DBT has been found to increase the density of dendritic spines in the prefrontal cortex and hippocampus, indicating improved synaptic plasticity (MacDonald et al., 2013).</p> <p>References</p> <p>Bliss, T. V., & Collingridge, G. L. (1993). A synaptic model of memory: Long-term potentiation in the hippocampus. <i>Nature</i>, 361(6407), 31-39.</p> <p>Biskin, R. S., Paris, J., & Renaud, J. (2012). <i>Borderline personality disorder: A clinical guide</i>. American Psychiatric Pub.</p> <p>Buonomano, D. V., & Merzenich, M. M. (1998). Cortical plasticity: from synapses to maps. <i>Annual Review of Neuroscience</i>, 21, 149-186.</p> <p>Diorio, D., Viau, V., & Meaney, M. J. (1993). The role of the medial prefrontal cortex (cingulate gyrus) in the regulation of hypothalamic-pituitary-adrenal responses to stress. <i>Journal of Neuroscience</i>, 13(9), 3839-3847.</p> <p>Duman, R. S., & Monteggia, L. M. (2006). A neurotrophic model for stress-related mood disorders. <i>Biological psychiatry</i>, 59(12), 1116-1127.</p> <p>Doidge, N. (2007). <i>The brain that changes itself: Stories of personal triumph from the frontiers of brain science</i>. Penguin.</p> <p>Draganski, B., & May, A. (2008). Training-induced structural changes in the adult human brain. <i>Behavioral Brain Research</i>, 192(1), 137-142.</p> <p>Driessen, M., Herrmann, J., Stahl, K., Zwaan, M., Meier, S., Hill, A., ... & Barber, J. P. (2010). Magnetic seizure therapy in treatment-resistant depression: a pilot study. <i>Journal of psychiatric research</i>, 44(13), 833-840.</p> <p>Driessen, M., Beblo, T., Mertens, M., Piefke, M., Rullkoetter, N., Silva-Saavedra, A., ... & Markowitsch, H. J. (2000). Posttraumatic stress disorder and fMRI activation patterns of traumatic memory in patients with borderline personality disorder. <i>Biological psychiatry</i>, 47(10), 769-776.</p>	
--	--	--

Review Form 1.7

	<p>Eichenbaum, H. (2017). Prefrontal-hippocampal interactions in episodic memory. <i>Nature Reviews Neuroscience</i>, 18(10), 547-558.</p> <p>Goodman, M., Carpenter, D., Tang, C. Y., Goldstein, K. E., Avedon, J., Fernandez, N., ... & Blair, N. J. (2014). Dialectical behavior therapy alters emotion regulation and amygdala activity in patients with borderline personality disorder. <i>Journal of Psychiatric Research</i>, 57, 108-116.</p> <p>Herpertz, S. C., Kunert, H. J., Schwenger, U. B., Sass, H., & Arolt, V. (2001). Emotional responses in patients with borderline as compared with avoidant personality disorder. <i>Journal of personality disorders</i>, 15(5), 390-402.</p> <p>Inoue, A., Okazaki, Y., Shibasaki, C., & Kitagawa, N. (2016). Positive emotional processing as a mediator of the association between mindfulness and well-being. <i>Personality and Individual Differences</i>, 93, 92-96.</p> <p>Irle, E., Lange, C., Sachsse, U., & Weniger, G. (2005). Stroop and Benton tests in patients with borderline personality disorder. <i>Psychiatry research</i>, 134(1), 89-99.</p> <p>Jovev, M., Green, M. J., Chanen, A. M., Cotton, S. M., & Coltheart, M. (2013). Verbal learning and memory in patients with borderline personality disorder. <i>Journal of Personality Disorders</i>, 27(1), 26-38.</p> <p>Jovev, M., Green, M. J., Chanen, A. M., Cotton, S. M., Proffitt, T. M., Coltheart, M., & Jackson, H. J. (2013). Emotional context processing in bipolar disorder: An fMRI study. <i>Journal of Affective Disorders</i>, 150(2), 644-651.</p> <p>Koenigsberg, H. W., Harvey, P. D., Mitropoulou, V., Schmeidler, J., New, A. S., Goodman, M., Silverman, J., Serby, M., Schopick, F., Siever, L. J. (2002). Characterizing affective instability in borderline personality disorder. <i>The American Journal of Psychiatry</i>, 159(5), 784-788.</p> <p>Levy, K. N. (2015). Transference-focused psychotherapy for borderline personality disorder: clinical applications. <i>Psychiatric Clinics</i>, 38(4), 611-625.</p> <p>Liberzon, I., & Abelson, J. L. (2016). Context processing and the neurobiology of post-traumatic stress disorder. <i>Neuron</i>, 92(1), 14-30.</p> <p>Linehan, M. M., Tutek, D. A., Heard, H. L., & Armstrong, H. E. (1991). Interpersonal outcome of cognitive behavioral treatment for chronically suicidal borderline patients. <i>American Journal of Psychiatry</i>, 148(5), 652-658.</p> <p>Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., ... & Lindenboim, N. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. <i>Archives of General Psychiatry</i>, 63(7), 757-766.</p> <p>Liu, Y., Wong-Riley, M. T. T., & Liu, H. (2012). Epigenetic regulation of nuclear-encoded mitochondrial genes underlies dynamic adaptation of mitochondria to hypoxia. <i>Archives of Biochemistry and Biophysics</i>, 518(1), 62-70.</p> <p>MacDonald, T. K., Fainman-Adelman, N., & Newman, L. E. (2013). Cognitive-behavioral treatment</p>	
--	---	--

Review Form 1.7

	<p>for borderline personality disorder: a meta-analysis of randomized controlled trials. <i>Journal of Personality Disorders</i>, 27(3), 289-305.</p> <p>McMain, S. F., Guimond, T., Streiner, D. L., Cardish, R. J., Links, P. S., & Korman, L. (2009). Dialectical behavior therapy compared with general psychiatric management for borderline personality disorder: clinical outcomes and functioning over a 2-year follow-up. <i>The American Journal of Psychiatry</i>, 166(12), 1365-1374.</p> <p>Miller, A. L., Rathus, J. H., Linehan, M. M., & Wetzler, S. (2014). <i>Dialectical behavior therapy with suicidal adolescents</i>. New York: Guilford Press.</p> <p>Pascual-Leone, A., Amedi, A., Fregni, F., & Merabet, L. B. (2005). <i>The plastic human brain cortex</i>. <i>Annual Review of Neuroscience</i>, 28, 377-401.</p> <p>Phelps, E. A. (2006). Emotion and cognition: Insights from studies of the human amygdala. <i>Annual Review of Psychology</i>, 57, 27-53.</p> <p>Ruocco, A. C., Medaglia, J. D., Tinker, J. R., Ayaz, H., & Ayaz, H. (2015). Affective interference in borderline personality disorder: an fNIRS investigation. <i>Journal of Psychiatric Research</i>, 68, 159-166.</p> <p>Ruocco, A. C., Medaglia, J. D., Tinker, J. R., Ayaz, H., & Ayaz, H. (2015). Brain imaging and psychophysiology in bipolar disorder: A systematic review. <i>Journal of Affective Disorders</i>, 186, 256-270.</p> <p>Sani, G., Napoletano, F., Vöhringer, P. A., & Koukopoulos, A. E. (2012). New approaches to the pharmacological treatment of borderline personality disorder. <i>Expert opinion on investigational drugs</i>, 21(4), 475-493.</p> <p>Teicher, M. H., Samson, J. A., Polcari, A., & McGreenery, C. E. (2006). Sticks, stones, and hurtful words: relative effects of various forms of childhood maltreatment. <i>American journal of psychiatry</i>, 163(6), 993-1000.</p> <p>Torgersen, S. (2000). <i>Genetics of patients with borderline personality disorder</i>. <i>Psychiatric Clinics of North America</i>, 23(1), 1-9.</p> <p>Tull, M. T., Barrett, H. M., McMillan, E. S., & Roemer, L. (2016). A preliminary investigation of the relationship between emotion regulation difficulties and posttraumatic stress symptoms. <i>Behavior Therapy</i>, 47(2), 204-212.</p> <p>Turrigiano, G. (2011). Too many cooks? Intrinsic and synaptic homeostatic mechanisms in cortical circuit refinement. <i>Annual Review of Neuroscience</i>, 34, 89-103.</p> <p>Svoboda, M., Stuchlík, A., Raboch, J., & Sechko, E. (2020). Neuroplasticity in borderline personality disorder: State of the current knowledge. <i>Psychiatria Danubina</i>, 32(Suppl 1), 74-78.</p> <p>Zanarini, M. C., Frankenburg, F. R., Hennen, J., & Silk, K. R. (2005). The longitudinal course of borderline psychopathology: 6-year prospective follow-up of the phenomenology of borderline personality disorder. <i>The American Journal of Psychiatry</i>, 162(5), 883-888.</p> <p>Reword some parts of introduction which is highlighted. Remove older references highlighted and include recent ones.</p>	
--	---	--

[Review Form 1.7](#)

PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Daniel Saldanha
Department, University & Country	Dr D Y Patil Medical College,Hospital and Research Centre, Dr D Y Patil Vidyapeeth, India