

Psychotic symptoms in borderline personality disorder: An update

Alessandra D'Agostino^{1*}, Mario Rossi Monti¹, and Vladan Starcevic²

¹ Borderline & Body Lab, Department of Humanistic Studies, University of Urbino, Italy

² University of Sydney, Faculty of Medicine and Health, Sydney Medical School, Nepean Clinical School, Discipline of Psychiatry, Sydney, Australia

This is an accepted manuscript version for an article published in the journal *Current Opinion in Psychiatry*. Copyright to the final published article belongs to Wolters Kluwer Health.

If you wish to cite this paper, please use the following reference: D'Agostino, A., Rossi Monti, M., & Starcevic, V. (2019). Psychotic symptoms in borderline personality disorder: An update. *Current Opinion in Psychiatry*, 32(1), 22-26. DOI: 10.1097/YCO.0000000000000462

* Correspondence to Dr. Alessandra D'Agostino, Borderline & Body Lab, Department of Humanities, University of Urbino, Italy, via Saffi 15, 61029, Urbino (PU), Italy. Tel: +39-339-3727371; E-mail: ales.dagostino@gmail.com

Abstract

Purpose of review

The purpose of this article is to review the most recent literature on psychotic symptoms in borderline personality disorder (BPD).

Recent findings

Both auditory hallucinations and delusional ideation (especially paranoid delusions) are relatively common in individuals with BPD. It is still difficult to distinguish these and related phenomena in BPD from the corresponding experiences in psychotic disorders and schizophrenia, despite numerous attempts to do so. The terminology introduced to help with this effort has not been particularly useful. The presence of auditory hallucinations may affect the course of BPD negatively. Psychotic symptoms in BPD seem to be significantly related to the context (usually stressful events) and appear or intensify in response to situational crisis. The role of certain co-occurring disorders in increasing the risk of psychotic symptoms in BPD remains uncertain.

Summary

Psychotic symptoms in BPD continue to be poorly understood. Further research should try to ascertain the relationships between hallucinations and delusions on one hand and the processing of trauma, emotion regulation, distress tolerance and interpersonal sensitivity on the other. Ultimately, such endeavor will contribute to developing more effective treatments for BPD.

Keywords

Borderline personality disorder; Psychotic symptoms; Hallucinations; Paranoid delusions; Trauma.

Introduction

Psychotic symptoms in borderline personality disorder (BPD) are common, puzzling, distressing and challenging to treat [1*]. The frequency of psychotic symptoms in BPD ranges widely between 13% and 60% [1*,2*,3,4] and they are more heterogeneous than what current international nosography (e.g., DSM-5) suggests [1*]. No consensus exists on the characteristics of psychotic symptoms associated with BPD [5]. Most studies have examined auditory verbal hallucinations in BPD [2*], and use of ambiguous terms like “quasi-psychotic thought” [6,7] and “pseudo-hallucinations” [8] in this context has been common. The aim of this article is to review recent literature on psychotic symptoms in BPD, with a focus on the two phenomena that have received most attention: perceptual disturbances and delusional ideation.

Perceptual disturbances

The most common perceptual disturbances in BPD are hallucinations. Hallucinatory experiences in BPD are often referred to as “pseudo-hallucinations” to distinguish them from “true” hallucinations in schizophrenia and other psychotic disorders. However, definitions of “pseudo-hallucinations” have been vague and inconsistent [1*,4,5,9,10,11] and largely unable to make this distinction [1*,4,5,9,10]. Therefore, this term appears to be misleading and should best be avoided [1*,4,5,9,10,11]. Recent studies found the frequency of “true” hallucinations in individuals with BPD to range from 26% to 54% [12*,13,14]. Auditory hallucinations are the most frequent type (21%-59%) of hallucinations in borderline patients, followed by visual (30%-33%), olfactory (10%-30%) and tactile (13%) hallucinations [3,12*]. Although non-auditory hallucinations do not appear to be uncommon in BPD, they have largely been neglected in the literature.

Auditory hallucinations in BPD consist mostly of verbal abuse and are generally experienced as distressing [12*]. Recent reviews of auditory hallucinations in BPD [13,14] suggest that there are both similarities and differences with the corresponding phenomena in psychotic disorders. Similarities have been found with regards to distress level and the negative and critical content of the voices [1*,3,10,15,16] and in terms of where the voices are coming from [17] and cognitive response to voices (e.g., belief about the power and malevolence of the dominant voice) [15]. The differences between auditory hallucinations experienced by individuals with BPD and those with psychotic disorders pertain mainly to the context in which they appear in individuals with BPD. This context has been described as interpersonal or relationship difficulties [18], increased stress [19,20] and reminders of past traumatic events [17]. Furthermore, voices triggered by memories of trauma have been reported to be more distressing, negative, controlling and critical than the voices typically experienced by individuals with psychotic disorders [20]. However, studies reporting these differences are not definitive and suffer from various limitations [13].

A recent study [21*] comparing auditory hallucinatory experiences in patients with BPD, posttraumatic stress disorder (PTSD) and schizophrenia reported several interesting findings. First, a dimensional framework for understanding the phenomenon of hearing voices was proposed; at one end of the spectrum are “partial hallucinations” (occurring in the internal subjective space of the individual, with preserved insight and associated with less childhood sexual abuse and lower levels of derealization/depersonalization), at the other end are auditory hallucinations (i.e., those typical of schizophrenia) and between these extremes are “trauma intrusive hallucinations” (occurring externally from the individual, experienced as pervasive, distressing and uncontrollable voices and associated with higher rates of childhood sexual abuse and significantly higher level of derealization/depersonalization). Second, the diagnosis was a poorer predictor of the experience of “trauma intrusive

hallucinations” compared to the history of childhood sexual abuse and levels of derealization/depersonalization scores. Finally, a higher frequency of derealization/depersonalization in patients with “trauma intrusive hallucinations” suggested that dissociation might be a mediating factor.

The presence of hallucinations in BPD correlated with a number of co-occurring psychiatric disorders, especially PTSD [4,12*]. Clinical significance of auditory verbal hallucinations is reflected in their associations with shorter intervals before hospitalization, more frequent hospitalizations and significantly more suicide plans and attempts in recent times [22,23*].

Auditory hallucinations are relatively common in individuals with BPD, confirming that their presence does not necessarily suggest a psychotic disorder [24]. Apart from the context in which they appear, these phenomena may be difficult to distinguish from the corresponding experiences by individuals without BPD. The proposed dimensional approach to auditory hallucinatory experiences in BPD, PTSD and schizophrenia remains to be tested. Whether auditory hallucinations characterize mainly the more severely ill borderline patients is unclear. It seems that the presence of auditory hallucinations in BPD has negative implications for the course of BPD, but this suggestion, as well as other aspects of perceptual disturbances in BPD, call for further study.

Delusional ideation

The frequency of delusional ideation in BPD patients ranges from 17% to 29%, with a dominance of paranoid content [3-5,23]. However, unlike studies of hallucinations in BPD, delusions in BPD have generally received less attention, with no publication exclusively devoted to them. Accordingly, recent studies have broadly explored psychotic symptoms in borderline patients [1*,2-5,9,10,25]. One study examined delusions from a transdiagnostic

perspective and included BPD among other psychiatric disorders [26]. The most important finding of all this research is that delusions in BPD cannot be easily distinguished from delusions appearing in the context of other psychopathology. For example, paranoid delusions in BPD often persist over time [4,27], which makes them similar to paranoid delusions in schizophrenia.

Other research has attempted to differentiate between “quasi-psychotic thoughts” in BPD from “true psychotic thoughts” in psychotic disorders [6,7], reporting that there are three main types of disturbed cognition in BPD: “non-psychotic thought” (including odd thinking, unusual perceptual experiences and non-delusional paranoia), “quasi-psychotic thought” and “true psychotic thought”. According to Zanarini [6,7], “quasi-psychotic experiences” represent delusions or hallucinations that are circumscribed (i.e., pertaining to limited aspects of thought or perception), short-lived (i.e., lasting only hours to days) and non-bizarre (e.g., a belief that childhood adversity was deserved), whereas “true psychotic experiences” refer to delusions or hallucinations that are widespread (i.e., pertaining to broad aspects of thought or perception), long-standing (i.e., lasting weeks to months or longer) and disconnected from shared reality (e.g., a dead parent is now alive). One study [6] followed 50 BPD patients prospectively for 2 years and found that over that period, 100% reported disturbed but “non-psychotic thought”, 40% reported “quasi-psychotic thought” and none reported “true psychotic thought”. However, 14% reported experiencing “true psychotic thought” at some stage in their lives. The other study [7] followed BPD patients for 16 years, with the following findings: a) all types of disturbed but “non-psychotic thought” were common and remained prominent during the 16 years, with 86% of borderline patients reporting odd thinking at study entry, 76% reporting some type of unusual perceptual experience and 87% reporting non-delusional paranoia; b) “quasi-psychotic thought” was common at study entry (57%), but its frequency decreased significantly after 16 years to 7%;

c) “true psychotic thought” (as experienced by psychotic patients) was rare (no more than 7%).

A more recent study [5] comparing borderline and schizophrenic patients found that the former presented with ubiquitous odd thinking, unusual perceptual experiences, non-delusional paranoia and frequent transient, circumscribed and “atypical” psychotic experiences (i.e., both “non-psychotic thought” and “quasi-psychotic thought”). In addition, this study found some bizarre, Schneiderian first-rank symptoms (i.e., “true psychotic thought”) in borderline patients.

Delusional ideation in BPD is not uncommon and usually involves paranoid content. Attempts to distinguish between delusions in BPD and delusions in other disorders have not been particularly fruitful. Quasi-delusional thinking seems to be more frequent than delusional beliefs in BPD, but more work is needed to make a clearer distinction between the two. Use of inconsistent or imprecise terminology has hampered progress. Moreover, it would be important to investigate the frequency with which delusional ideation co-occurs with perceptual disturbances in individuals with BPD.

Co-occurrence with other psychiatric disorders and the risk of psychotic symptoms in borderline personality disorder

The presence of persistent psychotic symptoms in BPD has been attributed to the co-occurrence with other psychiatric disorders, such as mood disorders, PTSD and substance use disorders [4,25,28*]. With regards to mood disorders, Benvenuti et al. [29] found that features of bipolarity were associated with psychotic experiences in BPD patients. Evidence suggests that childhood traumatic experiences and co-occurring PTSD can predispose BPD individuals to psychotic symptoms [30-32]. Finally, two studies found an increase in psychotic symptoms (e.g., visual hallucinations) in BPD patients with substance use disorders

compared to BPD patients without substance use disorders [33,34], although other research did not confirm this finding [35]. Further studies are necessary to ascertain whether psychotic symptoms in BPD occur regardless of the co-occurring disorders and better understand the risk of psychotic symptoms in BPD in the context of the co-occurring psychopathology.

Psychotic symptoms in BPD could also be related to the co-occurring psychotic disorders, but little is known about the frequency with which psychotic disorders are encountered in patients with BPD [28*]. This is to some extent due to the fact that the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) [36] and the International Classification of Diseases and Related Health Problems (ICD-10) [37] do not allow the diagnosis of BPD to be made in the presence of a major psychotic disorder [28*]. However, a recent study [28*] ignored this diagnostic requirement and found psychotic disorders in 38% of BPD patients, with psychotic disorder not otherwise specified being the most common (20%). Schizophrenia (2%), substance-induced psychotic disorder (2%) and brief psychotic disorder (1%) were far less common in this group of BPD patients. The impact of these psychotic disorders on the frequency, severity and other characteristics of psychotic symptoms in BPD patients is not well understood.

The trauma, situational/interpersonal reactivity and psychotic symptoms in borderline personality disorder

Childhood trauma is highly prevalent in patients with BPD, with childhood sexual abuse alone being reported by 40%-76% of patients [4,38] and childhood emotional abuse being reported by up to 92% of patients [25,39,40]. While there is a robust evidence of the relationship between childhood trauma and later development of psychotic symptoms in individuals with various forms of psychopathology [41-43], similar evidence in patients with BPD does not exist [4].

Psychotic symptoms in BPD seem to be significantly related to stressful events and appear or intensify in response to situational crisis, mainly of an interpersonal nature [1*,4,9,20,21,44,45]. This situational/interpersonal reactivity is often a consequence of childhood trauma, and psychotic symptoms in BPD may thus be indirectly linked to such trauma [4]. Some research suggests that the relationship between psychotic symptoms and reactivity to stress appears to be particularly strong in BPD, when compared to other disorders [19]. This reactivity to stress includes paranoia and a broad range of psychotic experiences, such as hallucinations [4]. These findings are in accordance with recent research trends that increasingly highlight the role of situational triggers (e.g., rejection, abandonment, disappointment in others, isolation, interpersonal offenses, betrayals and identity threats) in the development and exacerbation of symptoms in BPD patients [46,47*].

Conclusion

Psychotic symptoms in BPD remain a complex and insufficiently understood phenomenon. They challenge the traditional dichotomy between psychosis and neurosis (or non-psychotic disorders) and thus cast doubt on the very term “psychotic symptoms”. Other terms often used in this context, such as “pseudo-hallucinations”, have been unhelpful and confusing, which suggests that they should be abandoned. Auditory hallucinations and paranoid delusions seem to be the most common psychotic symptoms in patients with BPD. Much effort has been made to better distinguish between psychotic symptoms in BPD and those that occur in psychotic disorders, most notably schizophrenia. This effort has not produced consistent results, which raises the question about an adequate approach to investigating psychotic experiences in BPD. Future research is likely to yield better results if it focuses more on the quality of the psychotic symptoms in BPD and the context in which they occur or become more prominent. Investigating the links between psychotic symptoms on one hand

and traumatic experiences, emotion dysregulation, distress tolerance and interpersonal sensitivity on the other, may also be a promising approach. A better understanding of psychotic phenomena in BPD should help efforts to treat BPD individuals more effectively.

Key points

- Psychotic symptoms in borderline personality disorder (BPD) are common, distressing and difficult to treat.
- The most common psychotic symptoms in BPD are auditory hallucinations and paranoid delusions.
- It is not clear whether and to what extent certain disorders co-occurring with BPD increase the risk of psychotic symptoms.
- Individuals with BPD may be more prone to developing psychotic symptoms in response to some stressful events.
- Future research should focus more on the quality of the psychotic symptoms in BPD and the context in which they occur or become more prominent, aiming to develop means of treating borderline patients more effectively.

Acknowledgements

None.

Financial support and sponsorship

None.

Conflicts of interest

None.

References

1. Schultz HE, Hong V. Psychosis in borderline personality disorder: How assessment and treatment differs from a psychotic disorder. *Current Psychiatry* 2017; 16:24-29.

*A comprehensive review of psychotic symptoms in BPD, proposing their distinction from psychotic symptoms in primary psychotic disorders (e.g., schizophrenia) and addressing treatment implications.

2. Frías A. Positive psychotic symptoms in patients with borderline personality disorder: a valuable but still not completely understood clinical marker of the illness. *Australasian Psychiatry* 2018; 26:327.

*A brief, but effective summary of the most relevant issues related to psychotic symptoms in BPD.

3. Pearse LJ, Dibben C, Ziauddeen H, *et al.* A study of psychotic symptoms in borderline personality disorder. *J Nerv Ment Dis* 2014; 202:368–371.
4. Schroeder K, Fisher HL, Schäfer I. Psychotic symptoms in patients with borderline personality disorder: Prevalence and clinical management. *Curr Opin Psychiatry* 2013; 26:113-119.
5. Oliva F, Dalmotto M, Pirfo E, *et al.* A comparison of thought and perception disorders in borderline personality disorder and schizophrenia: psychotic experiences as a reaction to impaired social functioning. *BMC Psychiatry* 2014; 14:239.
6. Zanarini MC, Gunderson JG, Frankenburg FR. Cognitive features of borderline personality disorder. *Am J Psychiatry* 1990; 147:57–63.
7. Zanarini MC, Frankenburg FR, Wedig MM, *et al.* Cognitive experiences reported by patients with borderline personality disorder and Axis II comparison subjects: A 16-year prospective follow-up study. *Am J Psychiatry* 2013; 170:671-679.

8. El-Mallakh RS, Walker KL. Hallucinations, pseudohallucinations, and parahallucinations. *Psychiatry* 2010; 73:34–42.
 9. Adams B, Sanders T. Experiences of psychosis in borderline personality disorder: A qualitative analysis. *J Ment Health* 2011; 20:381-391.
 10. Merrett Z, Rossell SL and Castle DJ. Comparing the experience of voices in borderline personality disorder with the experience of voices in a psychotic disorder: a systematic review. *Aust N Z J Psychiatry* 2016; 50:640–648.
 11. Van der Zwaard R, Polak MA. Pseudohallucinations: A pseudoconcept? A review of the validity of the concept, related to associated symptomatology. *Compr Psychiatry* 2001; 42(1):42-50.
 12. Niemantsverdriet MBA, Slotema CW, Blom, JD, *et al.* Hallucinations in borderline personality disorder: Prevalence, characteristics and association with comorbid symptoms and disorders. *Sci Rep.* 2017; 7:13920.
- *A comprehensive study of hallucinations in BPD, exploring their prevalence, characteristics and associations with co-occurring symptoms and disorders.
13. Gras A, Amad A, Thomas P, *et al.* Hallucinations and borderline personality disorder: A review. *Encephale* 2014; 40:431-438.
 14. Hepworth CR, Ashcroft K, Kingdon D. Auditory hallucinations: A comparison of beliefs about voices in individuals with schizophrenia and borderline personality disorder. *Clinical Psychology and Psychotherapy* 2013; 20:239–245.
 15. Slotema CW, Daalman K, Blom JD, *et al.* Auditory verbal hallucinations in patients with borderline personality disorder are similar to those in schizophrenia. *Psychological Medicine* 2012; 42:1873–1878.

16. Tschoeke S, Steinert T, Flammer E, *et al.* Similarities and differences in borderline personality disorder and schizophrenia with voice hearing. *Journal of Nervous and Mental Disease* 2014; 202:544–549.
17. Suzuki H, Tsukamoto C, Nakano Y, *et al.* Delusions and hallucinations in patients with borderline personality disorder. *Psychiatry and Clinical Neurosciences* 1998; 52:605–610.
18. Glaser JP, Van OJ, Thewissen V, *et al.* Psychotic reactivity in borderline personality disorder. *Department of Psychiatry and Neuropsychology* 2010; 121:125–134.
19. Yee L, Korner AJ, McSwiggan S, *et al.* Persistent hallucinosis in borderline personality disorder. *Comprehensive Psychiatry* 2005; 46:147–154.
20. Wearne D, Curtis GJ, Genetti A, *et al.* Where pseudo-hallucinations meet dissociation: a cluster analysis. *Australas Psychiatry* 2017; 25:364-368.

*An interesting study exploring the possible links between perception and integration of consciousness based on the assessments of hallucinations and derealization/depersonalization in patients with BPD.

21. Schroeder K, Schätzle A, Kowohl P, *et al.* Prevalence and phenomenology of psychotic-like symptoms in borderline personality disorders - Associations with suicide attempts and use of psychiatric inpatient treatment. *Psychother Psychosom Med Psychol* 2018. Epub ahead of print. doi: 10.1055/s-0043-124473.
22. Slotema CW, Niemantsverdriet MB, Blom JD, *et al.* Suicidality and hospitalisation in patients with borderline personality disorder who experience auditory verbal hallucinations. *Eur Psychiatry* 2017; 41:47-52.

*One of the few recent studies examining the impact of auditory hallucinations in BPD on suicidal ideation, suicide attempts, crisis-service interventions and hospital admissions.

23. Kingdon DG, Ashcroft K, Bhandari B, *et al.* Schizophrenia and borderline personality disorder: similarities and differences in the experience of auditory hallucinations, paranoia, and childhood trauma. *J Nerv Ment Dis* 2010; 198:399–403.
24. Waters F, Blom JD, Jardri R. Auditory hallucinations, not necessarily a hallmark of psychotic disorder. *Psychol Med* 2018; 48:529-536.
25. Bebbington P, Freeman D. Transdiagnostic Extension of Delusions: Schizophrenia and Beyond. *Schizophr Bull.* 2017; 43:273-282.
26. Barnow S, Arens EA, Sieswerda S, *et al.* Borderline personality disorder and psychosis: A review. *Curr Psychiatry Rep* 2010; 12:186-195.
27. Slotema CW, Blom JD, Niemantsverdriet MB, *et al.* Comorbid diagnosis of psychotic disorders in borderline personality disorder: Prevalence and influence on outcome. *Frontiers in Psychiatry* 2018; 9:84.

*One of the few studies examining the prevalence of psychotic disorders in patients with BPD and their predictive value for the outcome of BPD.

28. Benvenuti A, Rucci P, Ravani L, *et al.* Psychotic features in borderline patients: is there a connection to mood dysregulation? *Bipolar Disord* 2005; 7:338–343.
29. Berenbaum H, Thompson RJ, Milanek ME, *et al.* Psychological trauma and schizotypal personality disorder. *J Abnorm Psychol* 2008; 117:502–519.
30. Gracie A, Freeman D, Green S, *et al.* The association between traumatic experience, paranoia and hallucinations: a test of the predictions of psychological models. *Acta Psychiatr Scand* 2007; 116:280–289.
31. Kilcommons AM, Morrison AP. Relationships between trauma and psychosis: an exploration of cognitive and dissociative factors. *Acta Psychiatr Scand* 2005, 112:351–359.

32. Pope HG Jr, Jonas JM, Hudson JI, *et al.* An empirical study of psychosis in borderline personality disorder. *Am J Psychiatry* 1985; 142:1285–1290.
33. Dowson JH, Sussams P, Grounds AT, *et al.* Associations of self-reported past “psychotic” phenomena with features of personality disorders. *Compr Psychiatry* 2000; 41:42–48.
34. Miller FT, Abrams T, Dulit R, *et al.* Psychotic symptoms in patients with borderline personality disorder and concurrent Axis I disorder. *Hosp Community Psychiatry* 1993; 44:59–61.
35. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*. Washington, DC: American Psychiatric Association; 2013.
36. World Health Organization. *International Classification of Diseases and Related Health Problems, Tenth Revised Edition*. Geneva: World Health Organization; 2008.
37. Teicher MH, Samson JA, Polcari A, *et al.* Sticks, stones, and hurtful words: relative effects of various forms of childhood maltreatment. *Am J Psychiatry* 2006; 163:993–1000.
38. Laporte L, Paris J, Guttman H, Russell J. Psychopathology, childhood trauma, and personality traits in patients with borderline personality disorder and their sisters. *J Pers Disord* 2011; 25:448–462.
39. Sack M, Sachsse U, Overkamp B, Dulz B. Trauma-related disorders in patients with borderline personality disorders: Results of a multicenter study. *Nervenarzt* 2013; 84:608-14.
40. Schafer I, Fisher HL. Childhood trauma and posttraumatic stress disorder in patients with psychosis: clinical challenges and emerging treatments. *Curr Opin Psychiatry* 2011; 24:514–518.

41. Kessler RC. The National Comorbidity Survey of the United States. *Int Rev Psychiatry* 1994; 6:365–376.
42. Shevlin M, Murphy J, Read J, *et al.* Childhood adversity and hallucinations: a community-based study using the National Comorbidity Survey Replication. *Soc Psychiatry Psychiatr Epidemiol* 2011; 46:1203–1210.
43. Laddis A. the pathogenesis and treatment of emotion dysregulation in borderline personality disorder. *Scientific World Journal* 2015; 2015: 179276.
44. Rossi Monti M. Trauma e deliri transitori borderline. In: *Il soggetto nei contesti traumatici* (pp. 188-199). Edited by Centro Psicoanalitico Romano. Roma, IT: FrancoAngeli; 2009.
45. Miskewicz K, Fleeson W, Arnold EM, *et al.* A contingency oriented approach to understanding borderline personality disorder: Situational triggers and symptoms. *J Pers Disord* 2015; 29:486-502.
46. D'Agostino A, Rossi Monti M, Starcevic V. Models of borderline personality disorder: Recent advances and new perspectives. *Curr Opin Psychiatry* 2018; 31:57-62.

*A comprehensive review of theoretical-clinical models of BPD, which also proposes an interpersonal dysphoria model of BPD, with a particular focus on both dispositional and situational factors in the development of BPD symptoms.