Proceedings of the 4th International Conference on Educational Innovation and Philosophical Inquiries
DOI: 10.54254/2753-7048/13/20230852

Borderline Personality Disorder: Pertinent Review of Etiology, Impact, and Comparison of Treatments

Hao Xi[1,a,*]

[1]*College of Art and Science, Boston University, 725 Commonwealth Avenue, Boston, MA, US*
a. xihao@bu.edu
**corresponding author*

Abstract: Between 1% and 3% of the population suffers with borderline personality disorder (BPD), and those who have it are more likely to take their own lives or injure themselves. Moreover, violence exists among families and interpersonal relationships involved by BPD patients, which massively affects people around them. Using PsychInfo and Google Scholar, this article reviews the research on BPD in the general population that was published between the years 2000 and 2023 in scholarly publications. The complex biopsychosocial factors that add to the occurrence of BPD in the general population and discusses evidence-based treatment options for managing symptoms are highlighted. Different treatments are suitable for different ages and gender groups and also target different symptoms. Additionally, the review offers recommendations for effective online treatment during the pandemic era. Psychiatrists can use this report to gain insights on improving their therapies, while the general population can benefit from a general review of BPD and possible family support with patients.

Keywords: borderline personality disorder (BPD), cognitive behavior therapy (CBT), dialectical behavior therapy (DBT), mentalization-based therapy (MBT), adolescent identity treatment (AIT)

1. Introduction

The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V) classifies borderline personality disorder (BPD) as a personality disorder located under subtype B. It is based on a widespread pattern of impulsivity, self-esteem, and interpersonal fluctuation, which often begins in the beginning stages of adulthood and appears in many circumstances [1]. BPD patients frequently exhibit agitated efforts to stop real or imagined dereliction, emotional instability due to excessive mood reactivity, and difficulty controlling their emotions. In more severe forms of BPD, patients may have psychotic symptoms such as hallucinations and dissociation, as well as low self-esteem, which can be defined as the act of undervaluing oneself [2]. BPD can, in general, significantly affect a person's life. Thus, it is crucial that mental health providers focus more on the diagnostic standards and accessible therapies to support patients in managing their symptoms.

There is a higher risk of suicide attempt among people with borderline personality disorder who previously has experience of involving in violence, and this risk may be increased even more by co-occurring illnesses including severe depressive disorder and drug abuse [3]. Early prevention,

DOI: 10.54254/2753-7048/13/20230852

precise diagnosis, and efficient treatment are urgently required given the significant impact of BPD on mental health and suicidal behavior.

With the pandemic leading to a significant shift towards online treatment programs, it is crucial to evaluate effectiveness of online intervention to ensure that individuals with BPD receive adequate care during these challenging times. Additionally, the pandemic has increased the possibility of BPD diagnosis in adolescents, making it important to review the impacts of BPD on this age group and the available treatment options. The purpose of this research is to investigate whether or not COVID-19 is affecting the effectiveness of online treatment programs for BPD. This study aims to conduct a review of the literature on the BPD, evaluate the effectiveness of online treatment programs, and offer recommendations for future research that can enhance treatment options both during and after the pandemic. This article is intended for healthcare professionals, researchers, and individuals with BPD and their families.

2. Method

This article aims to review the pertinent literature regarding BPD, with a general focus on etiology and impact, and an evaluation of current treatment therapies. To provide a foundation for the study, major diagnostic criteria for BPD were obtained and cited from the DSM-V. The review also makes suggestions for further research and addresses the studies' present limitations.

3. Discussion and Suggestion

Several factors, including genetics, neurobiology, social cognition, and biosocial context, contribute to the complicated etiology of BPD. The most popular theory is Linehan's biosocial theory – a condition of mood dysregulation, borderline pattern is produced by linkages between inherited vulnerabilities and environmental variables [4].

3.1. A Biosocial Model for BPD

First, the biological factor is associated with the level of neurotransmitter, including serotonin, dopamine, and acetylcholine in the patients' brain. Yet, because they are so sensitive to a diverse environment over the course of patients' lives, biological factors do not ultimately determine BPD.

As a basic characteristic, affective dysfunction is represented by high emotional sensitivity, a gradual return to the initial emotional intensity and difficulty controlling intense emotional reactions [4]. Linehan presents her theory by creating a biosocial model, in which dysfunction in controlling mood can be a result of ineffective caregivers' pattern, which is a family trait, and also the negative developmental environment such as social isolation and problematic peer relationships.

3.2. Social-cognitive Factors for BPD

Childhood experiences related to violence can also affect the neurocognition function in adolescents, thus developing into BPD finally [5]. Adverse childhood experiences(ACEs) such as maltreated, abused both from caregivers and outside world, unattachment, and emotional invalidation of children can contribute to brain alterations in hippocampus, amygdala, and prefrontal cortex, which are all parts associated with impulsivity and dissociation symptoms of BPD.

Social-cognitive factors refer to dysfunction in interpersonal relationship and mentalization capacities. Anthony Bateman and Peter Fonagy define the term "meaning-making" as the process by which people assign meaning to themselves and others, both covertly and overtly, in relation to their subconscious states and mental processes [6]. Individuals with BPD show reduced mentalizing

DOI: 10.54254/2753-7048/13/20230852

capacities, which accounts for their problems in emotional regulation and managing impulsivity in interpersonal relationships [6].

The development of BPD in adolescents can be really complicated in that both genetic or biological factors inherited from parents and external environmental factors interact together, exposing the individual to the threat of BPD.

4. Impacts

As previously discussed, BPD can have severe impacts on individuals, suicidal attempts and nonsuicidal self-injury (NSSI). Greater affective instability can significantly differentiate between suicide thoughts and attemptors, which is consistent with Linehan's theory that affective instability is a major factor contributing to suicidal behavior in BPD patients.

The serious impact of BPD is not limited to merely suicidal behaviors. The harm caused by BPD patients is not only directed to themselves, but also to people around them. In a multinomial regression study of BPD and violence behaviors toward both self and others, Harford and his colleagues categorize the violence into self-directed, other-directed, combined, and no violence. As a result, other-directed violence behaviors are of similar rates with suicidal or self-directed behavior (29.7% vs. 35.0%) in BPD patients, and 70.7% conducted combined ones, including regular physical fights and presentation of anger and hostility towards around [7]. BPD is also associated with intimate partner violence (IPV), in particular, including hostility, suspiciousness, and risk taking, which can bring death and injury both mentally, physically, and sexually [8].

5. Treatments

Various therapies exist in treating BPD, but the mechanisms and reasonings are slightly different, and different therapies have different effects on patients with different symptoms.

5.1. Cognitive Behavior Therapy (CBT) and Dialectical Behavior Therapy (DBT)

Self-perceptions or reactions of patients to diverse circumstances may be influenced by their thoughts or actions. Cognitive behavior therapy (CBT) focuses mainly on the patients themselves, giving them opportunities to talk about their thoughts and problems and find ways to adjust the abnormal thinking patterns. Instead of letting patients be controlled by negative thoughts, therapists will help them rebuild thinking scripts with logic and reasonings used by the general population. CBT has been found to have a positive curative effect on reducing the number of suicidal acts, emotional dysfunction beliefs and instability, and distress symptoms in representative BPD samples [9].

On the other hand, dialectical behavior therapy (DBT) is an extension of CBT that aims at the patients with extreme emotions, helping them react with the environment in a less emotion-directed method. Dialectical behavior therapy (DBT) is an interpersonal conversation treatment that treats patients who experience intense emotions. Generally, it focuses on helping patients accept the reality of their life and behaviors, thus finally helping them change their life. Through weeks of individual and group intervention, patients are taught with emotion regulation skills and validation strategies. DBT is first adapted for use with adolescents suicidal in response to a limited empirically supported psychological treatment several decades ago. Increasing evidence shows that DBT is a promising therapy for adolescents with erratic behaviors, including but not limited to suicide or NSSI [10]. Older adults and adolescents who received DBT skills training group therapy (DBT-ST) report this therapy to be effective, as maladaptive symptoms and health services requirements are reduced, thereby decreasing the burden of public health institutions, although additional treatment should be added to treat more complex and severe symptoms [11].

DOI: 10.54254/2753-7048/13/20230852

CBT can improve the cognitive errors and unstable thinking patterns among the intervened patients, but the two therapies have different focus of symptoms in that DBT aims more at acceptance and decrease of suppression.

5.2. Mentalization-based Therapy (MBT)

Mentalization-based therapy is primarily aimed at stabilizing self-esteem and maintaining an ideal state of arousal in a controlled environment [6]. Normally, the general population have the ability to focus and differentiate their emotional states and others', and how behaviors are shaped by those mental states. MBT is based on the assumption that BPD patients, generally, lack the ability of mentalization, and their symptoms will be improved if and only if they can perceive the mental states of others. [6]. It is conducted in both individual and group forms in which patients learn to establish a stable relationship with both therapists and other patients in a friendly environment, thus mainly focusing on recovering the interpersonal relationships of patients.

Parasuicidal behaviors, interpersonal functioning, and anxiety and depression levels are only some of the symptoms of BPD and concomitant illnesses that have shown improvement with the use of MBT. Qualitative research also displays that avatar-MBT to be promising as an addition to traditional MBT to facilitate gaining perspective and separating one's emotions, and group participation in a group of 15 BPD patients [12]. Specifically, the therapy is also useful for adolescents group BPD patients. Although the results are limited to female, patients who received a one-year structuralized MBT represent improved individual symptoms including normally discussed depression and suicidal behaviors and also interpersonal disability, for example, enhanced trust and more attachment with peer and parents [13]. However, the difference in effectiveness of MBT and treatment as usual (TAU) has not been proved in adolescents yet, as shown in a study of a randomized controlled trial. MBT in groups (MBT-G) and TAU has been shown to have equal improvements in treating BPD, although they both reduce the severe symptoms of BPD and decrease the threat of patients to be exposed continuously to symptoms as they age [14].

5.3. Adolescent Identity Treatment (AIT)

Adolescents are one of the main sufferers of the general population of BPD. As is discussed before, childhood violence behaviors from caregivers and the world can shape the malformation of patients' thinking patterns and cause difficulty in regulating mood and retaining healthy relationships with peers and parents. Therapy specifically targets adolescents is called adolescent identity treatment (AIT). It is a direct therapy that combines modified aspects of transference-focused psychotherapy with psychological education, behavior-oriented family plans, and work with the client's parents. It mainly addresses adolescents' growing environment and emphasizes the importance of family and social support.

Firstly, psychiatrists will assess each patient's causes and development paths so that the results and treatments will be designed individually. Then a written home plan is given to conduct for about half a year, in which the patients will be rewarded for appropriate behaviors and clarified for perception between themselves and their families. AIT has been shown to significantly increase the functioning of combination of psychological and social system as measured by the German version of the Children's Global Assessment Scale [15]. Statistically, 69.2% of AIT patients show advanced affect and recovery from BPD.

5.4. Online Therapy

Research on online therapies emerge as covid spread and affect all over the world because in-person treatments are strongly restricted. Video consultation is also used in diagnosing and offering

DOI: 10.54254/2753-7048/13/20230852

treatments. In the results of a survey given to 1120 patients, including the frequency of calling and meeting online, immediate emotional reaction to lockdown, and satisfaction measurement, it has been displayed that although the format change, level of satisfaction remains high with treatment follow-up [16].

Regarding the effectiveness of online therapies and ehealth programs, BPD patients are able to improve from those treatments but are strongly dependent on relationships with doctors. An interactive eHealth aid for BPD called Priovi uses schema therapy, whose functions are also evaluated through research. Priovi is better at recovering cognitive processes in BPD patients than it is at treating interpersonal issues [17]. Thus, the effectiveness of online treatments should be further evaluated, especially regarding how certain formats of connection between patients and psychiatrists can aim at specific criteria of BPD from DSM-V.

6. Discussion

With the beginning of the pandemic era, the opportunity for in-person therapies greatly reduced, especially CBT or DBT which requires proximate interactions between patients and psychiatrists. On the other hand, potential victims of BPD patients have a higher probability to be diagnosed in this special time because the quarantine, isolated time, and potential loss of closeness due to the virus expose them to an irregular mood and distorted image of self. In this way, transition to online treatment and increasing number of therapies is required. Specifically, certain machines either recording neural images or serving other functions cannot be moved to the online environment, then solutions need to be made. Prognosis is also important in treating mental disorders, so how can scientists ensure the online DBT or MBT therapies really work for patients? This provides a potential focus of further research of the effectiveness of the online treatment of BPD. Moreover, the current field of evaluation of psychological therapies lacks enough experiments and research that compare the effectiveness of traditional in-person and online treatments. If the conventional one is tested to have better prognosis and less side effects, is the use of online therapies still worth utilizing? If the virtual one is confirmed to be more superior, then psychiatrists should also decide how to broadly publicize and spread it. In this way, multi-layer studies addressing the effectiveness of subgroups of the general population, such as gender, ages, and races, should be done.

In addition, since AIT is a relatively new trend of treatment that specifically targets teenagers, it has relatively small successful cases compared with other therapies. Since BPD is generally an interpersonal problem for patients, will the involvement of family actually benefit them or only exacerbated the symptoms? Same problem should be considered under the context of adolescents' age because in particular, 13 to 17 is a rebellious age for them to be overly supervised by their parents. Thus, more experiments of this treatment should be done to further assess its effectiveness.

7. Conclusion

In its whole, BPD is explicable through the use of the biopsychosocial model. A patient can inherit potential intention to various levels of neurotransmitters that leads to specific symptoms of BPD related to certain brain areas. External factors such as childhood violent or isolated experiences and non-attachment can also exacerbate adolescents BPD. Besides, BPD has dangerous effects on adolescents with the remarkable suicide and mortality rates than the general population, leading adolescents to potential post-traumatic stress disorder (PTSD) threats resulting from self-harm. To solve the trending problem among patients, several therapies are evaluated so that different individuals with different symptoms can all meet their needs to overcome the disorder.

DOI: 10.54254/2753-7048/13/20230852

References

[1] American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5). Washington, DC: American Psychiatric Association Publishing; 2013.

[2] Zanarini, M. C., Frankenburg, F. R., Hennen, J., Reich, D. B., & Silk, K. R. (2005). The McLean Study of Adult Development (MSAD): overview and implications of the first six years of prospective follow-up. Journal of personality disorders, 19(5), 505–523.

[3] Amore, M., Innamorati, M., Vittorio, C.D., Weinberg, I., Turecki, G., Sher, L., Paris, J., Girardi, P. and Pompili, M. (2014), Suicide Attempts in Major Depressed Patients with Personality Disorder. Suicide Life Threat Behav, 44: 155-166.

[4] Crowell, S. E., Beauchaine, T. P., & Linehan, M. M. (2009). A biosocial developmental model of borderline personality: Elaborating and extending Linehan's theory. Psychological bulletin, 135(3), 495–510.

[5] Estric, C., Calati, R., & Lopez-Castroman, J. (2022). Adverse Childhood Experiences and Neurocognition in Borderline Personality Disorder: A Call-to-Action Perspective Review. Harvard review of psychiatry, 30(4), 248–260.

[6] Bateman, A., & Fonagy, P. (2010). Mentalization based treatment for borderline personality disorder. World psychiatry : official journal of the World Psychiatric Association (WPA), 9(1), 11–15.

[7] Harford, T. C., Chen, C. M., Kerridge, B. T., & Grant, B. F. (2019). Borderline Personality Disorder and Violence Toward Self and Others: A National Study. Journal of personality disorders, 33(5), 653–670.

[8] Munro, O. E., & Sellbom, M. (2020). Elucidating the relationship between borderline personality disorder and intimate partner violence. Personality and mental health, 14(3), 284–303.

[9] Davidson, K., Norrie, J., Tyrer, P., Gumley, A., Tata, P., Murray, H., & Palmer, S. (2006). The effectiveness of cognitive behavior therapy for borderline personality disorder: results from the borderline personality disorder study of cognitive therapy (BOSCOT) trial. Journal of personality disorders, 20(5), 450–465.

[10] Klein, D. A., & Miller, A. L. (2011). Dialectical behavior therapy for suicidal adolescents with borderline personality disorder. Child and adolescent psychiatric clinics of North America, 20(2), 205–216.

[11] Heerebrand, S. L., Bray, J., Ulbrich, C., Roberts, R. M., & Edwards, S. (2021). Effectiveness of dialectical behavior therapy skills training group for adults with borderline personality disorder. Journal of clinical psychology, 77(7), 1573–1590.

[12] Falconer, C. J., Cutting, P., Bethan Davies, E., Hollis, C., Stallard, P., & Moran, P. (2017). Adjunctive avatar therapy for mentalization-based treatment of borderline personality disorder: a mixed-methods feasibility study. Evidence-based mental health, 20(4), 123–127. [13] Bo, S., Sharp, C., Beck, E., Pedersen, J., Gondan, M., & Simonsen, E. (2017). First empirical evaluation of outcomes for mentalization-based group therapy for adolescents with BPD. Personality disorders, 8(4), 396–401.

[13] Jørgensen, M. S., Storebø, O. J., Bo, S., Poulsen, S., Gondan, M., Beck, E., Chanen, A. M., Bateman, A., Pedersen, J., & Simonsen, E. (2021). Mentalization-based treatment in groups for adolescents with Borderline Personality Disorder: 3- and 12-month follow-up of a randomized controlled trial. European child & adolescent psychiatry, 30(5), 699–710.

[14] Schmeck, K., Weise, S., Schlüter-Müller, S., Birkhölzer, M., Fürer, L., Koenig, J., Krause, M., Lerch, S., Schenk, N., Valdes, N., Zimmermann, R., & Kaess, M. (2023). Effectiveness of adolescent identity treatment (AIT) versus DBT-a for the treatment of adolescent borderline personality disorder. Personality disorders, 14(2), 148–160.

[15] Kjell-Einar Zahl, Geir Pedersen, Ingeborg Ulltveit-Moe Eikenaes, Line Indrevoll Stänicke, Theresa Wilberg, Åse-Line Baltzersen, Mona Skjeklesaether Pettersen, Benjamin Hummelen, Espen Arnevik, Merete Selsbakk Johansen & Elfrida Hartveit Kvarstein (2022) Avoidant and borderline personality disorder patients during the first Covid-19 wave in Norway – a survey-based comparison of therapy changes and patients' accommodations, Nordic Journal of Psychiatry

[16] Köhne, S., Schweiger, U., Jacob, G. A., Braakmann, D., Klein, J. P., Borgwardt, S., Assmann, N., Rogg, M., Schaich, A., & Faßbinder, E. (2020). Therapeutic Relationship in eHealth-A Pilot Study of Similarities and Differences between the Online Program Priovi and Therapists Treating Borderline Personality Disorder. International journal of environmental research and public health, 17(17), 6436.