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Borderline Personality Disorder: Risks Factors and Treatment

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Abstract: Borderline personality disorder (BPD) is a mental disorder that is common among adolescents and is characterized by mood instability, impulsivity, and disruption in interpersonal relationships and self-image. Symptoms presented at an early age can be used as predictors for the diagnosis of BPD later in life. Therefore, it is important to identify the possible factors that may increase the risk of developing BPD in order to aid in diagnosis and plan for future treatment. Effective prevention and treatment of BPD require an understanding of these risk factors. The aim of this paper is to provide a thorough overview of the risk factors associated with the presence of BPD, through an in-depth exploration. It has been determined that a number of risk variables, including those linked to genetics, neurobiology, and the environment, have a role in the early onset of BPD. Unfortunately, it is still difficult in terms of the diagnosis of BPD. Misdiagnosis or underdiagnosis happens not only due to the challenges brought by the comorbidities, but also due to the stigma associated with BPD which hindered the progress of BPD treatment. More future research is needed, with more focus on specific genes, gene links underpinned and the diversity of the sample. The actions of professionals, clinicians, and the public are required for destigmatization with a more objective understanding of BPD based on a systems perspective.

Keywords: borderline personality disorder, risk factors, diagnosis, treatment

1. Introduction

There is considerable debate around Borderline Personality Disorder (BPD), particularly due to its terminology and associated stigma. Adolf Stern originally used the word “borderline” in 1938 for patients who were on the borderline between the states of neurosis and psychosis [1]. In 1980, the Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) made BPD officially become a personality disorder diagnosis which was further modified and expanded in DSM-5. According to its current diagnostic criteria, patients with BPD are characterized by severe patterns including unstable interpersonal relationships, self-image, affects, and marked impulsivity [2].

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2. Impact of BPD Symptoms

2.1. Prevalence of BPD and Its Relationship with the Suicide Rate

In terms of its prevalence, an estimated 1.6% median population of the general public is diagnosed with BPD, whereas among the clinical population of psychiatrists, the diagnostic rate is substantially greater, up to 20% [2]. The prevalence of BPD is anticipated to decline as getting older [2]. Given this high prevalence, BPD is still understudied compared with other personality disorders [3]. BPD is also known due to its high suicidal rate, around 8%-10% clinical population with BPD, and 60%-70% of people with BPD have attempted to commit suicide [4]. Due to such a high risk of suicide, in addition to patients' instability with regard to their emotions and behaviour, especially in the context of clinical and research, mental health professionals' attitudes towards this patient group remains negative. People with BPD often be labelled as "problematic", "untreatable" and "difficult" during the diagnosis and treatment process [5]. Clinicians tend to be less sympathetic and optimistic towards patients with BPD and are even more inclined to avoid treating and working with them. Consequently, this negative attitude can adversely influence the treatment outcomes.

2.2. Symptoms of Patients with BPD

Interpersonal instability, disturbance of self-image, emotional dysregulation, and behavioural dysregulation are four separate phenotypes that may be used to classify the symptoms of BPD. [6]. People with BPD can be very sensitive when dealing with interpersonal relationships since those relationships are unstable and conflict. They often idealise others and become more demanding when their inner demands are met, while when they are disappointed or ignored by others, they feel intense sadness and anger by devaluating others [6]. Such mood switches can be rapid and sudden based on their current emotional state. In fact, patients desire intimacy, they make frantic efforts to avoid separation, and desperate attempts to maintain close relationships. Even though, they still tend to avoid and reject such relationships. This is because they fear abandonment and always feel insecure, avoidant or ambivalent, which is closely related to their attachment patterns, mostly insecure attachment. In addition, self-disturbance is another core feature of BPD. Specifically, the self-image, self-identity, objectives, values, and interests of people with BPD may shift frequently and BPD people frequently struggle to maintain a stable sense of self [6]. Due to the sense of emptiness, people with BPD may have difficulty making decisions or setting goals because they lack a clear sense of who they are or what they want. Furthermore, people with BPD always have difficulty controlling their emotions. Patients may have intense and rapid emotional reactions to everyday events or interactions, such as anxiety, irritation, depression, and so on. When their emotions often become very reactive to the stimulus in the external environment, emotional outbursts will be present as a result. This can trigger impulsive behaviour (such as engaging in risky sexual behavior, substance abuse, binge eating or reckless driving), and self-harm behavior (suicidal behavior or suicidal ideation) [2].

2.3. The Onset of BPD and the Necessity of Early Intervention

Like other personality disorders, there has been an ongoing debate regarding the onset of BPD in adolescence, but it is now widely accepted. According to the current epidemiological data, BPD in adolescents can be diagnosed at 11 ages, and the prevalence of BPD among teenagers is approximately 3% [7]. However, studies indicate that young individuals are often hesitant to seek diagnosis, even reluctant to apply treatment guidelines in routine clinical care [8]. As a result, adolescents with BPD are at risk of being missed or overlooked entirely.

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The current BPD diagnostic criteria do not account for developmental characteristics or the unique challenges that young people encounter. For instance, because BPD's clinical presentation tends to change over time [3], it displays several different signs and symptoms as a person's personality develops. This highlights the need for gaining a more nuanced comprehension of the risk factors that could lead to the emergence of BPD and the significance of early detection and intervention.

3. Diagnosis of BPD

For the diagnosis of BPD, DSM-5 section II diagnostic criteria list nine criteria, and the four groups of phenotypes are identical to the general criteria for personality disorder diagnosis [6]. Meanwhile, at least five of the nine criteria presented have to be met to make a BPD diagnosis. However, the diagnosis of BPD is challenging, as it is often misdiagnosed or underdiagnosed due to the complexity and overlap of its symptoms with other mental health conditions. The study suggests that 88% of people with BPD also had a history of anxiety disorders, such as Generalized Anxiety Disorder (GAD) and Post-Traumatic Stress Disorder (PTSD), and they often have a comorbid substance use disorder, such as alcohol or drug dependence[6]. Comorbidity can complicate the diagnosis and treatment of BPD in distinguishing between the symptoms of different disorders. For example, bipolar disorder and BPD share some common key features, such as affective instability, emotion dysregulation, and recurrent suicide attempts. Due to this high overlap, these two disorders have even been questioned that whether they should be categorised into the same spectrum [9]. Between 10% to 20% of people diagnosed with either bipolar disorder or BPD also have the cooccurrence, while in fact, most of the patients have only one of these disorders [9]. Therefore, a thorough clinical assessment is needed for making an accurate diagnosis, identifying comorbid conditions, and developing an appropriate treatment plan.

Semi-structured diagnostic interviews and self-report questionnaires are frequently utilised in medical BPD diagnosis evaluations, and they are more effective and valid compared with clinician-assigned personality disorder diagnoses [8]. In some cases, patients with BPD do not realize that their behaviours meet the criteria for diagnosis, as the way of behaving and feeling might be normal for them only. Thus, final assessments should include the clinician's observation as support, and the combination of both clinical interviews and self-report tends to be optimal for identifying BPD criteria [8].

4. Genetic Factors for BPD

Despite the fact that the precise causes of BPD are not yet fully understood, several factors that increase the risk of developing it have been recognized. Similar to most mental disorders, the onset of BPD cannot be explained by a single factor, but multiple risk factors are involved and generally caused by a combination and interaction of genetic, neurobiological, and environmental factors.

BPD is found to have a high heritability, and several twin studies have reported similar results where the data of heritability is around 0.67 [10], suggesting that BPD may have a significant genetic component that is passed down via families. In addition, those who have a first-degree relative with BPD have a three-to-four-fold higher risk of developing BPD than those who are without [10]. Even though such high heritability is given, the data available are still rare [6]. So far, there are no known genetic pathways underpinning BPD or specific genes linked to BPD that have been identified, despite the fact that hereditary factors play a role in the emergence of BPD [10].

Likewise, temperamental characteristics play a significant role in genetic factors that might give rise to the development of BPD. Previous studies have indicated that personality traits are inheritable and can manifest at an early stage, which becomes stable personality traits over time [6]. Several personality traits have been identified, including affective instability, impulsivity, and low self-

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control [4], which can also be precocious factors in recognizing BPD at the early stage. These aggregations of traits are found to be less influenced by shared familial circumstances, which may indicate a genetic predisposition [10].

5. Neurobiological Factors

Abnormalities in the hypothalamic-pituitary-adrenal (HPA) axis hormones are discovered (such as FKBP5 and CRHR) in patients with BPD, and these polymorphic variants can be used for diagnostic purposes [11]. A stronger association is present when childhood trauma exposure is present in patients with BPD, and individuals with BPD who have experienced childhood trauma exhibit a greater frequency of risk alleles of FKBP5 (rs3798347-T and rs10947563-A) than those without such trauma [11]. Additionally, the abnormalities in the HPA axis can lead to an increase in cortisol secretion, which is essential in maintaining the HPA axis functions [11]. Serotonin involves in the key function of controlling impulsivity and aggression, and disturbances in serotonergic functioning are the common features found in BPD patients [12]. The brains of BPD patients differ structurally and functionally due to abnormalities in the neuroendocrine system, such as decreased volume in the hippocampus, amygdala and frontal cortex volumes [12].

The study by Gunderson and colleagues illustrates four typical phenotypes discovered in BPD patients and the underlying neural mechanisms associated with brain circuits [6]. The alternations in midline brain circuits, such as the temporoparietal junction, explain incorrect beliefs about oneself and others. The hyper-reactivity of negative stimuli can be caused affect the regulation circuit, such as the prefrontal lambic; while the alternations in reward and control circuits explain the impulsivity, including the ventral striatum. The amygdala and medial prefrontal regions, as well as the connection of the dorsolateral prefrontal cortex and posterior insula, are linked to the emotional pain processing system.

6. Environmental Factors

Parents, with the home environment they created, are thought to have a substantial impact on children's early development. In addition, a maladaptive parenting style is strongly associated with the development of BPD, including Poor maternal satisfaction, abandonment, inadequate affection, and severe punishment [6]. These poor and negative parenting practices are linked to social and emotional issues of offspring throughout childhood, increasing the risks of the development of BPD [13]. Family psychopathology also has a significant positive association with the BPD development found in their children. At the same time, there is a vicious circle of increased risk of children developing BPD and negative poor parenting practices. Since children with BPD are often seen as a burden to parents [13], there is a negative impact on the child's parenting style and attitude. Therefore, prolonged exposure to a maladaptive family environment only further increases the risk of developing BPD or worsens a diagnosis of BPD.

The symptoms of BPD are tightly related to the key characteristics of patterns of insecure attachment, such as affective instability, feelings of emptiness, loneliness, and fears of abandonment. Moreover, the significance of attachment in predicting the onset of BPD is verified. In particular, disorganized attachment can be present in the disruption in the early attachment between children and parents, such as early mother-child separation. In the study conducted by Crawford and colleagues [14], the impact of maternal separation on predicting BPD was studied, and it confirmed that early separations can be predictive of the symptoms showing in early adulthood. Besides, the function of mentalization is impaired in BPD people, which refers to the cognitive process of reflecting on oneself and others, and then they also tend to have poor boundaries between themselves and others. Moreover, people with BPD may find it difficult to establish and sustain stable relationships, which can

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exacerbate insecure attachment patterns. Insecure attachment patterns and BPD symptoms may then reinforce one another in a vicious cycle. Consequently, this can exacerbate the symptoms of BPD, such as the fear of abandonment, the disturbance of self-image and borderline personality pathology later in life [14].

The traumatic experiences that happened in childhood, including child abuse (such as physical, sexual, and emotional abuse) and neglect (such as poor supervision and maternal separation), and victimization (peer bullying), all elevate the likelihood of developing BPD [3]. Furthermore, children who have experienced traumatic abuse or neglect will show deficits in several mental functions, such as emotion dysregulation, negative instability, and self-destructive behaviors [6].

It is noteworthy that social-group interactions have now drawn greater attention in the contribution to the onset of BPD. Victimization happens during childhood and can lead to the development of BPD, and can also give rise to unstable relationships, instability of emotions, and dysregulated behaviour in adolescence [8], and this is more likely to happen when given exposure to a poor environment.

7. Discussion

In conclusion, genetic-related factors (high heritability and temperamental characteristics), neurobiological abnormalities (HPA axis hormones, cortisol secretion, serotonergic functioning, neuroendocrine system) and precocious environmental factors, including poor parenting style, attachment anxiety, traumatic exposure (verbal, physical, and sexual abuse, maternal neglect in childhood, and persistent exposure to peer bully victimisation during infancy) are those that have the strongest links with the early onset of BPD.

7.1. Future Direction on Genes-related Studies

One aspect that can be focused on is further research on the specific genes or gene links underpinned that are commonly and particularly found in BPD people. Currently, Distel and colleagues found that chromosome 9 has a strong linkage with BPD [15]. Nevertheless, this linkage is also associated with other psychiatric disorders, such as bipolar disorder. This might be due to their overlapped symptoms [15]. This brings one current concern with regard to BPD, the challenge of diagnosis and treatment of comorbidity. This even remains in the entire field of psychopathology. As the challenge of diagnosis literalism, it is difficult to not rely on the labels in the diagnostic manual. At the same time, most of the resources are used to explore the diagnostic labels, instead of studying the biopsychosocial mechanism underlying the psychopathology [16].

One thing that has to be realized is that the understanding of BPD should be built on the systems perspective [16]. The systems perspective emphasizes the interactions of biopsychosocial factors which are independent and require the understanding of each individual micro level of risk factors to the higher and more comprehensive levels.

7.2. Psychopathologies

Three psychopathologies are being widely adopted for treating BPD. Dialectical behavioral therapy (DBT), Mentalization-based Treatment (MBT), and Transference-focused psychotherapy (TFP) have gained wide acceptance in the treatment of BPD. They are effective in enhancing the psychological functions of individuals with BPD, such as interpersonal functioning and self-awareness. [6]. DBT focuses more on observable problematic behavior. Through instructions and treatments, BPD patients' capabilities and motivation can enhance behavior regulation (such as reduced self-injury behavior, and suicidal attempts), the development of self-respect, stability in emotions (reduce negative distress) and the development of self-respect as well.

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The aim of interventions in MBT is to stabilize emotional expression, and it tends to help patients to develop their own capabilities of mentalizing and understating thoughts and emotions of their own and others. This therapy is proven to be effective when reflective functions show improvements, such as social cognition changes [17]. In addition, more positive interpersonal relationships, greater stability of the self-image, and more regulated emotions can be developed with MBT.

TFP focuses on poor interpersonal relationships and affective instabilities and developing coping strategies for the associated conflicts. The reactivation of patients' internal split-off emotions will be explored during the interactions with their therapists in the transference.

BPD people are often resistant to, or unable to communicate with others to share their inner thoughts, increasing the difficulty of receiving treatments to recover. In this circumstance, group therapy or peer support groups may be beneficial, as persons with comparable lived experiences of BPD are more prone to communicate, receive emotional support, and learn from each other's coping strategies. This can give information and help BPD patients, which can be an effective means of enhancing social support and reducing isolation. These treatments can also help persons with BPD feel more in control of their situation and more empowered.

With this understanding, access to evidence-based treatments should be improved and implemented, so that more individuals with BPD in real-world settings can be supported. Also, it should be ensured that these treatments are individualized to meet the need of each patient. The follow-ups of psychotherapies are crucial, and more studies should keep track of the long-term progression of people whose mental conditions have been improved so that it can be adequate to make the commitment of its effectiveness to the general public. Early identification of BPD and early intervention can be crucial in preventing the development of more severe symptoms and reducing the impact of the disorder on an individual's life.

7.3. Pharmacology

There is little evidence for the pharmacological treatment of BPD, and it remains under-studied in comparison to the research on the psychotherapy of BPD. It is noteworthy that there is no medicine that has been demonstrated to be an effective medical treatment agent for BPD [6], even though there is still a significant amount of BPD patients receiving pharmacological treatment to relieve the symptoms. In a recent study conducted by Stoffers-Winterling and colleagues, they searched for 46 studies that involved 2769 BPD patients and compared the different medications or combinations of medications (including antipsychotics, antidepressants, and mood stabilizers) to placebo [18]. Their results indicate that there is little to no difference in medications in treating BPD symptom severity. Medication only serves as an adjuvant rather than the primary treatment of BPD, and medications should only be taken in a short-term period to minimize the harm brought by the side effects. A combination of medication and psychotherapies are recommended in treating BPD while avoiding polypharmacy as possible.

7.4. Current Concerns and Future Suggestions of Stigma Related to BPD

Currently, it is challenging for individuals to seek help and receive treatments to avoid being labelled as having a mental illness [5], as the stigma associated with BPD still widely remains. From two perspectives, stigma is likely to be eliminated to some degree. As for the researchers, the usage of the theory that elicits false preconceptions of BPD should be avoided during the writing process. In the majority of instances, restating stereotyped pertinent ideas increases the picture or stereotype (difficult, untreatable) of BPD people, but these theories are not always being critically evaluated [5]. Thus, conclusions should be strictly formed based on the diagnosis criteria and using the words from it, such as emotional instability instead of repeated biased words. The use of language and choice of

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words are of utmost importance. From the perspective of clinicians, their training should be ensured that all the information is accurately informed and have a positive attitude in treating and working with BPD people. In addition, many healthcare professionals may not have the training or understanding to treat BPD patients properly. Educating and training healthcare professionals on the most effective approaches to managing BPD can enhance the quality of care delivered to patients with BPD.

More studies are required, these might include longitudinal studies examining the development of BPD across time and across cultures, as well as studies focusing on the unique experiences of persons with BPD who have successfully recovered. Additionally, future studies should also pay attention to the diversity of the sample, considering various cultural and social backgrounds, as well as the distribution of gender. In fact, the majority of BPD studies used white females as samples, and this bias might lead to the general prevalence and diagnostic rate differences [5]. More aspects should be taken into account, such as the various social economic status, and cultural backgrounds. Destigmatizing BPD is a long process that requires the actions of more than professionals but the general population, and it involves raising the public's awareness of a more comprehensive understanding of BPD through education and awareness campaigns. This might help reduce the negative perceptions surrounding BPD and promote understanding and acceptance.

8. Conclusion

In summary, the onset of BPD is a multifaceted process that incorporates a variety of risk factors, such as genetic, environmental, and neurobiological ones. Besides, BPD displays several impacts on the perspectives of both individuals (emotion dysregulation, mood instability, impulsive behavior, erratic behavior, and self-harm behavior) and societal functioning (identity disturbance and interpersonal dysfunction). There are also several treatments for BPD patients, including psychotherapies (DBT, MBT, and TFP), and pharmacotherapy. Future research should study more on the effectiveness of different treatments or combinations of different approaches.

Although much remains unknown about the exact causes of BPD, the evidence reviewed in this paper suggests that early intervention and effective treatment can play a significant role in mitigating the impact of these risk factors and improving outcomes for individuals with BPD. Moreover, the present study suggests that further research is necessary to identify the mechanisms underlying BPD.

In pursuit of improved approaches for prevention, diagnosis, and treatment, researchers and physicians should continue working together on the exploration of BPD.

References

[1] *Stern, A. (1938). Psychoanalytic investigation of and therapy in the border line group of neuroses. The Psychoanalytic Quarterly, 7(4), 467-489.*

[2] *American Psychiatric Association, D., & American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders: DSM-5 (Vol. 5, No. 5). Washington, DC: American Psychiatric Association.*

[3] *Bozzatello, P., Bellino, S., Bosia, M., & Rocca, P. (2019). Early detection and outcome in borderline personality disorder. Frontiers in Psychiatry, 10, 710.*

[4] *Oldham, J. M. (2006). Borderline personality disorder and suicidality. American Journal of Psychiatry, 163(1), 20-26.*

[5] *Masland, S. R., Victor, S. E., Peters, J. R., Fitzpatrick, S., Dixon-Gordon, K. L., Bettis, A. H., Navarre, K. M., & Rizvi, S. L. (2022). Destigmatizing Borderline Personality Disorder: A Call to Action for Psychological Science. Perspectives on Psychological Science, 0(0).*

[6] *Gunderson, J., Herpertz, S., Skodol, A. et al. Borderline personality disorder. Nat Rev Dis Primers 4, 18029 (2018).*

[7] *Guilé, J. M., Boissel, L., Alaux-Cantin, S., & de La Rivière, S. G. (2018). Borderline personality disorder in adolescents: prevalence, diagnosis, and treatment strategies. Adolescent Health, Medicine and Therapeutics, 199-210.*

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[8] *Bozzatello, P., Garbarini, C., Rocca, P., & Bellino, S. (2021). Borderline personality disorder: risk factors and early detection. Diagnostics, 11(11), 2142.*

[9] *Zimmerman, M., Morgan, T.A. Problematic Boundaries in the Diagnosis of Bipolar Disorder: The Interface with Borderline Personality Disorder. Curr Psychiatry Rep 15, 422 (2013).*

[10] *Gunderson, J. G. (2011). Family study of borderline personality disorder and its sectors of psychopathology. Arch. Gen. Psychiatry 68, 753.*

[11] *Cattane, N., Rossi, R., Lanfredi, M., & Cattaneo, A. (2017). Borderline personality disorder and childhood trauma: exploring the affected biological systems and mechanisms. BMC Psychiatry, 17, 1-14.*

[12] *Ruocco, Anthony C. PhD; Carcone, Dean MA. A Neurobiological Model of Borderline Personality Disorder: Systematic and Integrative Review. Harvard Review of Psychiatry 24(5):p 311-329, 9/10 2016.*

[13] *Goodman, M., Patil, U., Triebwasser, J., Hoffman, P., Weinstein, Z. A., & New, A. (2011). Parental burden associated with borderline personality disorder in female offspring. Journal of Personality Disorders, 25(1), 59-74.*

[14] *Crawford, T. N., Cohen, P. R., Chen, H., Anglin, D. M., & Ehrensaft, M. (2009). Early maternal separation and the trajectory of borderline personality disorder symptoms. Development and Psychopathology, 21(3), 1013-1030.*

[15] *Distel, M. A., Hottenga, J. J., Trull, T. J., & Boomsma, D. I. (2008). Chromosome 9: linkage for borderline personality disorder features. Psychiatric Genetics, 18(6), 302-307.*

[16] *Fried, E. I. (2022). Studying mental health problems as systems, not syndromes. Current Directions in Psychological Science, 31(6), 500-508.*

[17] *Bateman, A., Campbell, C., Luyten, P., & Fonagy, P. (2018). A mentalization-based approach to common factors in the treatment of borderline personality disorder. Current Opinion in Psychology, 21, 44-49.*

[18] *Stoffers-Winterling, J. M., Storebø, O. J., Ribeiro, J. P., Kongerslev, M. T., Völlm, B. A., Mattivi, J. T., ... & Lieb, K. (2022). Pharmacological interventions for people with borderline personality disorder. Cochrane Database of Systematic Reviews, (11).*