The Investigation on the Public Awareness and Treatment of Borderline Personality Disorder

Xiang Li¹, Haojia Ma^{2,a,*}

¹Cambridge International Exam Center in Shanghai, Shanghai Experimental Foreign Language School, Shanghai, China ²Shijiazhuang Foreign Language School International Curriculum Center, Shijiazhuang, China a. gongrou@ldy.edu.rs *corresponding author

Abstract: Borderline Personality Disorder (BPD) is a mental disorder that is often accompanied by symptoms of dysfunction, which is common among young people. This study started with a survey to collect the public awareness of BPD. After survey, the authors found that the public awareness was not sufficient enough. Therefore, the study decided to carry out a review of treatment methods for BPD. The authors conducted a interview with a therapist who had a cas about BPD to dicuss the procedure and effective of psychotherapies. After reviewing previous studies and interview, the main finding of the review is that DBT (Dialectical Behvaioral Therapy) and MBT (Mentalisation-Based Therapy) were found to have the best efficacy as they both focus on control of emotions and behaviors, while medical treatment may have led to worse outcomes. Therefore, this study contributes to helping therapists select appropriate treatments and remind relevant institutions to pay attention to BPD. Moreover, it tends to give the therapist certain selection guidance and list some methods to increase the popularity of BPD in public.

Keywords: Borderline personality disorder, Public awareness, Treatments

1. Introduction

In recent years, there have been quite a few studies on borderline personality disorder, which motivated the authors to consider whether the public has not paid enough attention to the occurrence of BPD in adolescents [1]. Therefore, the present study made a questionnaire on the public's understanding of BPD. A total of 266 samples were collected; 41.73% of them had never heard of BPD, and 25.19% of them had a misunderstanding of the cause of BPD which would be explained in the Results section. This reminds people that it is extremely important for the public to learn about BPD. Patients with BPD often find it difficult to find supportive relatives and friends. This is because they often have difficulties in maintaining a stable relationship in interpersonal communication. Sometimes they are very aggressive and dependent, which leads to a lack of social ability.

At present, the more recognized treatment methods for BPD are drug treatment and psychotherapy, and psychotherapy is divided into Cognitive Behavioral Therapy [2,3], Psychoanalysis, or Psychodynamics [4]. Also, there are some improved therapies based on the previous psychotherapies, including Dialectical Behavior Therapy and Mentalization-Based Therapy [5-7]. This article will

^{© 2023} The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

focus on the analysis of psychotherapy and discuss the comparisons and effectiveness between those psychotherapies.

2. Literature Review

2.1. The Description of BPD

Patients with BPD often look forward to but are afraid of intimacy and have the possibility of self-injury. The related symptoms and diagnosis of borderline personality disorder have been included in DSM-5 (and there are relatively clear instructions. The main symptoms are shown in Figure 1[8]. Between 2008 and 2014, the incidence of BPD was 11.6% (95% CI 8.8-15.1) from 2008 to 2014. Although the incidence of BPD is low, it can still lead to dysfunction and self-harm [9].

2.2. Current Neurological, Biological Explanations and Treatments for BPD

The biological and neuroscience research on borderline personality disorder (BPD) is constantly developing. At present, it is believed that the physiological etiology of BPD involves multiple aspects, including genetics, neurotransmitters, brain structure, and function. The following are some specific research directions and relevant literature to support the discussion of the physiological etiology of BPD:

2.2.1. Neurotransmitters

Neurotransmitters are chemicals in the brain that transmit signals, such as serotonin (5-HT) and dopamine (DA). Studies have found that patients with BPD may have dysfunctional neurotransmitters, especially neurotransmitter systems related to emotion regulation and impulsive behavior [10].

2.2.2. Brain Function

People with BPD may have differences in brain structure and function, research has shown. For example, some studies have found that people with BPD may have abnormalities in brain regions involved in emotion regulation and cognitive control, such as the prefrontal cortex and amygdala [11].

2.3. Current CBT Explanations and Treatments for BPD

Cognitive behaviorism explains the etiology of borderline personality disorder (BPD), which is mainly based on cognitive theory and behavioral learning theory. Also, it believes that the psychological etiology of BPD can be attributed to the following aspects:

According to Beck's schema theory, BPD patients may have unstable cognitive schemas, including negative cognitions and interpretations of self, others, and the world [12]. These may have strong self-denial and self-identification issues about themselves, strong idealization or devaluation of others, who feel insecure and untrustworthy about the world. This cognitive pattern can lead to difficulty regulating emotions and instability in behavior. The instability that people with BPD display in their relationships is due to their fear of being abandoned. In addition, cognitive behaviorism believes that the development of BPD may be related to the individual's early trauma experience. For example, experiences such as trauma, abandonment, or abuse in childhood may have an impact on an individual's cognitive and emotional development, leading to the formation of BPD [13].

2.3.1. Cogntivite Bahviourial Treatment

Cognitive behavioral therapy is mainly based on Beck's cognitive theory, which believes that bad emotions and behaviors are caused by individuals' unreasonable or negative cognitive concepts about

events. Emotional and behavioral problems can be improved by changing negative thought patterns and behavioral patterns. CBT focuses more on behavior change than other psychotherapeutic approaches. It focuses on results and focuses on the present moment. During the treatment, the therapist will gradually guide Clients to gradually transform thoughts and behaviors into correct and reasonable ones [12].

2.3.2. Dialectal Behavioural Treatment

DBT is a multimodal, principles-based treatment approach that enhances emotion regulation by balancing acceptance of an individual's emotional experiences and problem-solving to promote behavioral change.

DBT was developed by Marsha Linehan and is based on Cognitive Behavioral Therapy and Reality Therapy. Compared to CBT, it focuses more on emotion regulation and interpersonal issues, while emphasizing acceptance and effectiveness. According to a Cochrane Review, BDT is the most effective psychotherapy for BPD, which is effective in reducing suicide attempts, self-harm, and anger, while improving general functioning [14].

2.4. Psychodynamic or Psychoananlysis Explanation and Treatment

As referred to in Levy's book, he noticed an idea of identity diffusion. He believes that patients with BPD do not have an integrated self-concept [4]. The contradictory opinions and judgments are expressed, but there is no sign showing that they are aware of integrating those things as a whole. He also observed that those patients lack the ability to integrate those separated parts, which this ability can help patients cope with complicated structures [4].

2.4.1. Psychodynamic Treatment

Levy and his colleagues believe that it is needed to promote the maturity of patients' self, which means touching their own emotions and accepting them. It cannot fully rely on empathy because it is always limited and the patient must be frustrated as a result. However, if the frustrations are not too intense, the patient can develop a more mature structure.

The therapist needs to carefully analyze the patient's multiple motivations for idealization, disappointment, narcissistic withdrawal, and devaluation [4]. Another concern in the treatment of borderline patients is the patient's mobility issues. Patients may be able to get rid of unbearable inner tension through action. The therapist must ensure that the patient's action is translated into understanding.

2.4.2. Mentalisation-Based Theory and Treatment

Mentalization-Based Therapy is based on psychoanalysis and attachment theory. It emphasizes that people need to understand that behavioral capacity is based on intentional mental states, including desires, beliefs, etc., relative to internal and external attacks. The mental status of BPD patients remains unstable in this regard.

MBT helps people with BPD to think before reacting to their own and others' perceived feelings. With the exercise of thinking ability, patients can gradually master the skills of dealing with their feelings and related behaviors [6].

2.4.3. Transference-Focused Psychotherapy

TFP is a psychodynamic, manualized treatment based on object relations theory [15]. Yeomans and his colleagues (outline the therapeutic approach of TFP as follows: "(1) maintaining the treatment

frame; (2) the therapist's affective responses are contained and made use of; (3) promote in the steps of the process of interpretive"(p. 450). During therapy, therapists are asked to be mindful of their reactions to clients, maintaining an accepting, reflective posture when dealing with these reactions. Therapists use clarification to help the client identify feelings as well as their representations of self and others [15].

3. Methodology

3.1. Materials

3.1.1. Questionnaire

When exploring the research direction, authors wanted to investigate the public's awareness of BPD, so this study conducted a questionnaire survey. The name of it is 'A survey of public awareness of borderline personality disorder (BPD)'.

This questionnaire contains both open and closed questions to collect both quantitative and quantitative data. There are 12+1 questions in the questionnaire, which respectively tested the subjects' understanding of BPD, its etiology, orientation, possible follow-up treatment methods, and education level (see Figure 2 in Appendix).

3.1.2. Procedure

3.1.2.1. Sampling

The survey gathered 266 samples in the end. The majority of participants come from China, including 176 samples from Hebei Province, 47 samples from Shanghai City, etc. 41.7% of participants (111) had never heard of BPD before. 64.7% of participants (172) had little or no knowledge of BPD. 25.2% of them (67) have a wrong understanding of its cause because they chose the option of 'bad living habit' in question (4), but there is no evidence to show bad living habits could cause such mental disorders. 13 participants (4.89%) chose the option of 'dislike of eating bananas', which is our option to test the validity in question (4). After the collection of data, the correlations between factors are specially tested by using Pearson Correlation Analysis via SPSS.

3.2. Interview

3.2.1. Diagnose

According to the interview, patient A has presented numerous BPD symptoms. It includes uncontrollable anger and emotional instability in response to events in the patient's life while discussing them with the therapist, which respectively corresponds to criteria 8, 6, and 2 in the DSM-5, which is shown in Figure 1 [8].

Parents' occupations and work patterns influenced A's paranoid performance to some extent, corresponding to criteria 9.

A interprets the father as being abandoned due to his position, corresponding to criteria 1.

A also has the problem of impulsive consumption, corresponding to criteria 4.

After some significant event, A presents a suicide threat, corresponding to criteria 5.

There was also an unstable self-identity (criteria 3) and a manifestation of 'Chronic feelings of emptiness' (criteria 7).

Therefore, based on those symptoms, the therapist considered that A's symptoms met several of the diagnostic criteria of BPD.

This is the therapist's judgment process in choosing which treatment modality to use

Extract1:

The core of this case is A's internal paranoid object relationship and idealized object relationship. The empathy of this marginal level of personality organization is often dominated by emotion, and the empathy is often at the level of consciousness. The therapist decided to adopt Transference-Focused Psychotherapy and put the treatment focus on the aspect of empathy analysis - the analysis of A's behavior and counterempathy.

3.2.2. Treatment

The therapist found that A has paranoia and idealized object relations. Usually, emotions would guide the transference of this level of borderline personality organisation. The transference is also on the conscious level. Thus the therapist chose Transference-Focused Psychotherapy (TFP).

The therapist addressed the parts of reversal of characters and idealisation transference. As for the reversal of characters, patient A sometimes change herself into the role of therapist. The therapist pointed out that the patient hoped to turn her identity as a powerless and passive client into a competent therapist through the defense mechanism of role reversal. Therefore, role reversal is used to resist the pain of being treated inappropriately by parents passively in childhood. For the idealisation transference, A has a projection on the therapist as the role of 'ideal good father'. The patient created an 'ideal good father' to treat the traumatic experience brought by her father.

Extract2:

The therapist responded: 'There is a power within you that supports you to move away from the pain of childhood abuse and into a power of authority over others, just as you can instruct me how to do a good job in therapy. If your parents know this, they will have the opportunity to become your ideal parents, at least eliminate inappropriate attitudes toward you, and your childhood pain will be greatly reduced or eliminated. It's your subconscious teaching to parents -- to turn 'bad parents' into' good parents.'

As for the effectiveness of treatment, the interviewee as the therapist referred that the phases of this treatment approach generally focus on the stability of the patient. Effectiveness depends on the condition that patients can stabilize when they encounter stimuli and do not react as quickly as before to produce emotional changes.

Extract3:

Interviewer: How can you tell if a treatment is effective when you can't see a specific effect?

Therapist: Treatment outcome in a case, generally described as need.

For example, "unstable", which changes quickly, can be stabilized when encountering stimuli, and does not respond as quickly as before to emotional changes, which is the performance of improvement.

At the end of the interview, the interviewee claimed that this case is still under treatment. The therapist needs to remain inclusive enough to support this client, promoting trust and building rapport.

4. Discussion

4.1. The comparisons of Different Treatments

4.1.1. Drug Treatment

The main findings of previous studies are that drug therapy requires other psychological therapies to achieve a good therapeutic effect, and pure drug therapy may ignore the cognitive part, resulting in the wrong understanding and distorted expression of emotions that are not improved, thus failing to achieve a good therapeutic effect. In a randomized controlled trial,30 patients were divided into psychodynamic therapy plus drug therapy and drug therapy alone [16]. In the drug treatment group, the borderline component score decreased to a certain extent in the post-treatment evaluation, but

rebounded in the three-month and six-month follow-up, indicating that simple drug treatment can have a certain effect in the short term, but it does not have a good effect in the long term. Therefore, the treatment method based on psychological treatment and supplemented by drug treatment is more effective. However, there is still controversy about drug therapy as a supplement. In the study carried out by Lieslehto, J. and his colleagues, they show that major drugs were associated with an increased risk of hospitalization, including Benzodiazepine, Antipsychotic medication and antidepressant medication and several other medications [17]. All of these studies suggest that most drug treatments are ineffective or even harmful in the treatment of BPD [17].

4.1.2. The Comparison between Dialectical Behavior Therapy and Mentalization-Based Therapy

Different treatment methods are suitable for various types of BPD patients; DBT treatment is significantly better than TAU in alleviating patients' suicidal tendencies, self-harm tendencies, and depressive symptoms [18]. Recording to the etiology of BPD proposed by Linehan, the patient formed a distorted pattern of emotional expression due to the wrong expression and reinforcement of emotions since childhood, which led to the occurrence of BPD over a long period [13]. From the overview, the main purpose of DBT is to correct the patient's emotional expression pattern and let patients have a more rational approach to mood adjustment, rather than through suicide, self-harm, overeating, and other behaviors, which means that DBT is suitable for the cause of BPD. Its advantage is that there are certain treatment theories and preliminary data support, but there is no complete evidence to support the basic theory of the mechanism of change [19].

MBT therapy is a new therapy which is derived from psychodynamic therapy [6]. The leading theory aims to improve patients' ability to mentalise, which mainly refers to the ability to understand the mental state of self and others and understand that self and others are independent and influence each other. In a randomized trial of MBT (Patients with BPD had positive outcomes in suicide and self-harm, depression, and interpersonal relationships after 18 months of treatment [20]. After eight years of follow-up, the study indicates that the therapeutic effect of MBT is significantly higher than that of TAU, but there is still a certain recurrence rate [7]. As in the present study, the main target of the questionnaire is more general, then there is no question about any kind of treatment in the questionnaire and the result is not as detailed as it [3].

In the MBT theory, the reason for BPD is that the attachment system becomes too sensitive and reacts excessively due to early trauma, resulting in insufficient mental capacity. Bateman and Fonagy propose a model to explain the development of BPD, which consists of four parts [21]. Therefore, the goal of treatment is to cultivate patients' ability to adjust their nervous system [22]. The Cochrane Review points out that DBT is the most effective psychotherapy for BPD, showing good improvement in reducing suicidal tendencies, self-harm, and extreme emotional expression, as well as improving general function, which is consistent with the present study[14].

There are also some controversial results: in a recent randomized investigation experiment, StorebøOJ and his colleagues investigated the efficacy of different treatments for BPD, and the results showed that: The severity of BPD in patients with DBT during initial treatment, the tendency to self-harm, psychosocial functioning showed good improvement. MBT gets a good outcome in decreasing the risk of self-harm and suicidal tendencies. Further experiments and data are needed to prove this [23].

4.1.3. The comparison between Psychodynamic Therapy and Cognitive Behavior Therapy

In Lin Tsung-Jen et al. 's study, they surveyed a total of 82 college students with a history of suicide and randomly assigned them to DBT or CBT.[24] Both groups showed significant reductions in

suicide attempts and depression after the intervention and six-month follow-up. In the CBT group, pattern errors in cognition were effectively improved, while the DBT group saw an increase in receptivity and a decrease in inhibition scores. Both sets of data can improve depression and suicidal tendencies in college students with BPD to some extent, which may be caused by increasing emotional strategies and response strategies, the authors suggest. This suggests that both DBT and CBT are effective treatments for BPD, with different directions and approaches leading to different outcomes in different aspects.

Among them, DBT and CBT have the following differences [25,26]:

a). Focus and emphasis:

DBT focuses on instructing patients in ways to express emotions, while CBT focuses on changing cognitive patterns and establishing healthy beliefs.

b). Verification and change:

DBT validates an individual's emotions and experiences and encourages them to make positive changes in their lives, while CBT focuses on changing negative thinking and behavior to reduce symptoms and improve coping strategies.

c) Treatment techniques:

DBT covers emotional regulation techniques, adversity tolerance techniques, interpersonal effectiveness, and mindfulness exercises, while CBT primarily uses behavioral experimentation, cognitive reconstruction, and homework to challenge and modify negative cognitive patterns and behaviors.

d). Individual and Group form:

DBT includes individual therapy and group training that encourages peer support and skill bonding, whereas CBT, while it can be done in groups, is more common with individual therapy.

e). Duration of treatment:

DBT is typically a long-term treatment, lasting a few months to a year or more, while CBT is shorter in duration and can focus on specific problems or symptoms.

The choice between DBT and CBT depends on the individual's needs, preferences, and the therapist's expertise. Two therapies have been identified as effective in helping people with BPD improve their mood, relationships, ability to live, and more.

4.1.4. The comparison between Dialectical Behavior Therapy and Cognitive Behavior Therapy

Psychodynamic therapy has made some breakthroughs in treatment, but studies have shown that its universality is questionable and may not be suitable for all situations [27]. Psychodynamic therapy requires a certain ability to talk about and react to emotions and requires a significant time commitment. Compared with psychodynamic therapy, CBT may achieve good results in a shorter period and is suitable for most situations. CBT focuses on problem-solving, and there is some data support at present, so CBT may be more widely used than traditional psychodynamic therapy [28].

4.1.5. Transference-Focused Psychotherapy

In the study by Doering and colleagues, they compared the efficacy of TFP with community therapy. The results showed that the TFP group reduced the number of symptoms of BPD after one year of treatment, and improved personality organization, social skills, suicidal tendencies, length of hospital stay, and number of hospital stays [29]. There was no significant change in self-injurious behavior between the two treatment groups. According to the authors, at present, there are available data to support part of its theory, but there is still a lack of data to support its complete theory, so the efficacy of TFP needs further experiments and data to confirm [29].

4.2. Limitation and Application

After collecting the data, the authors found some imperfections in the questionnaire design, which may be improved in the next study to increase the reliability and validity. To start with, 76.8% of the participants had university or postgraduate education or above, and participants with higher education may have a wider range of knowledge than those with lower education, so there may be participant variables, resulting in lower reliability and validity. 66.2% of the participants were from Hebei, China, which may have a bias in regional knowledge popularization, resulting in participant bias and lower validity and reliability. In the questionnaire, the authors investigated the participants' cognition of BPD, but the participants may be ashamed to show their knowledge is not extensive enough, to hide the fact that they do not know, or they know BPD but are modest and do not show it, so there may be social desirability, which leads to the decline of validity.

The above problems may lead to the low reliability and validity of this study, so the correlation analysis of the data in this study is insignificant or significant but low value.

As for the comparisons between different treatments, those studies have relatively low significance to show superiority. Which may cause uncertainty in the results. More scientific evidence is needed to support a more solid conclusion.

The results of the questionnaire show that: in question 1, about 41.72% (n=111) of the participants had heard of borderline personality disorder before, which is not a low proportion, and due to the bias of the participants, the actual proportion may be higher, so the public is less aware of BPD. In question 8, about 62.41% (n=166) of the participants were certain or suspected that they or their friends had BPD, but in question 8.1, 50.77% were certain or suspected that they or others around them had BPD based on the previous introduction, indicating that most people are uncertain about the symptoms of BPD and may make wrong judgments. Therefore, it is important to popularize the relevant knowledge of BPD to the public, which should arouse the public's attention to borderline personality disorder.

In the popularization of borderline personality disorder, several methods can be implemented. Publish popular science videos about BPD on the Internet. Carry out mental health classes in primary and high school. Hold science lectures for the general public in universities or other public places. Intervention in the early stages is necessary as it can reduce multiple stresses on further treatments. Therefore, setting up related classes in schools can rise people's awareness on this basis.

5. Conclusion

In this research, authors found that there is insignificant research evidence showing that DBT and MBT are the best among other treatments. However, this type of treatment requires communication skills and a longer duration. Such psychotherapies need the therapist's patients and acceptance. As for Drug treatment, it may result in a higher risk, so it might be better to treat patients using drugs as an assist.

Nearly half of the participants have never heard of BPD before, and 62% of them believe they or people around them may have BPD symptoms. It shows that public knowledge is still not abundant enough to cope with the situation of having mental issues. Therefore, governments and related psychological societies should be pushed to carry out further promotions of mental health knowledge.

For the limitation of this study, a survey on a wider population may be able to improve the validity of the questionnaire. In terms of the interview, more interviews of other different treatments are probably helpful to provide a better understanding of the mechanism and process of those treatments.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] Lieb, K., Völlm, B., Rücker, G., T2immer, A., & Stoffers, J. M. (2010). Pharmacotherapy for borderline personality disorder: Cochrane systematic review of randomised trials. The British Journal of Psychiatry, 196(1), 4-12.
- [2] Gartlehner, G., Crotty, K., Kennedy, S., Edlund, M. J., Ali, R., Siddiqui, M., ... & Viswanathan, M. (2021). Pharmacological treatments for borderline personality disorder: a systematic review and meta-analysis. CNS drugs, 1-15.Beck, A. T. (Ed.). (1979). Cognitive therapy of depression. Guilford press.
- [3] Beck, A. T. (Ed.). (1979). Cognitive therapy of depression. Guilford press.
- [4] Raymond A Levy et, al (2022) Psychopathology and the psychodynamics of neurosis p338
- [5] Linehan, M. M. (1993). Skills training manual for treating borderline personality disorder. Guilford press.
- [6] Bateman, A., & Fonagy, P. (2004). Psychotherapy for borderline personality disorder: Mentalization-based treatment.
- [7] Bateman, A., & Fonagy, P. (2006). Mentalization-based treatment for borderline personality disorder: A practical guide. Oxford, UK: Oxford University Press.
- [8] Anderson, D. K., Lord, C., Risi, S., DiLavore, P. S., Shulman, C., Thurm, A., & Pickles, A. (2017). American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders. Washington, DC: Author. The Linguistic and Cognitive Effects of Bilingualism on Children with Autism Spectrum Disorders, 21, 175.
- [9] Meaney, R., Hasking, P., & Reupert, A. (2016). Prevalence of borderline personality disorder in university samples: systematic review, meta-analysis, and meta-regression. PloS one, 11(5), e0155439.
- [10] McCloskey, M. S., Phan, K. L., Angstadt, M., Fettich, K. C., Keedy, S., & Coccaro, E. F. (2016). Amygdala hyperactivation to angry faces in intermittent explosive disorder. Journal of Psychiatric Research, 79, 34-41.
- [11] Ruocco, A. C., Amirthavasagam, S., Choi-Kain, L. W., & McMain, S. F. (2013). Neural correlates of negative emotionality in borderline personality disorder: an activation-likelihood-estimation meta-analysis. Biological psychiatry, 73(2), 153-160.
- [12] Beck, A. T., Freeman, A., & Davis, D. D. Associates (2004) Cognitive Therapy of Personality Disorders.
- [13] Linehan, M. M., & Kehrer, C. A. (1993). Borderline personality disorder. Clinical handbook of psychological disorders, 2.
- [14] Stoffers-Winterling, J. M., Voellm, B. A., Rücker, G., Timmer, A., Huband, N., & Lieb, K. (2012). Psychological therapies for people with borderline personality disorder. Cochrane database of systematic reviews, (8).
- [15] Diamond, D., Yeomans, F. E., Stern, B., Levy, K. N., Hörz, S., Doering, S., ... & Clarkin, J. F. (2013). Transference-focused psychotherapy for patients with comorbid narcissistic and borderline personality disorder. Psychoanalytic Inquiry, 33(6), 527-551.
- [16] Xiaozhou, Chen & Qijia, shi. (2014). A comparative study of psychodynamic orientation and pharmacotherapy for borderline personality disorder. Nerve injury and functional reconstruction, 9(4), 281-284.
- [17] Lieslehto, J., Tiihonen, J., Lähteenvuo, M., Mittendorfer-Rutz, E., Tanskanen, A., & Taipale, H. (2023). Comparative effectiveness of pharmacotherapies for the risk of attempted or completed suicide among persons with borderline personality disorder. JAMA network open, 6(6), e2317130-e2317130.
- [18] Mehlum, L., Tørmoen, A. J., Ramberg, M., Haga, E., Diep, L. M., Laberg, S., ... & Grøholt, B. (2014). Dialectical behavior therapy for adolescents with repeated suicidal and self-harming behavior: a randomized trial. Journal of the American Academy of child & adolescent psychiatry, 53(10), 1082-1091.
- [19] Rizvi, S. L., Steffel, L. M., & Carson-Wong, A. (2013). An overview of dialectical behavior therapy for professional psychologists. Professional Psychology: Research and Practice, 44(2), 73–80.
- [20] Bateman, A., & Fonagy, P. (1999). Effectiveness of partial hospitalization in the treatment of borderline personality disorder: A randomized controlled trial. American Journal of Psychiatry, 156, 1563–1569.
- [21] Bateman, A., & Fonagy, P. (2010). Mentalization-based treatment for borderline personality disorder. World Psychiatry, 9(1), 11–15.
- [22] Fonagy, P., & Bateman, A. W. (2006). Mechanisms of change in the mentalization-based treatment of BPD. Journal of clinical psychology, 62(4), 411-430.
- [23] Storebø OJ, Stoffers-Winterling JM, Völlm BA, Kongerslev MT, Mattivi JT, Jørgensen MS, Faltinsen E, Todorovac A, Sales CP, Callesen HE, Lieb K, Simonsen E. Psychological therapies for people with borderline personality disorder. Cochrane Database of Systematic Reviews 2020, Issue 5. Art. No.: CD012955.
- [24] Tsung-Jen Lin, Huei-Chen Ko, Jo Yung-Wei Wu, Tian Po Oei, Hsien-Yuan Lane & Chung-Hey Chen (2019) The Effectiveness of Dialectical Behavior Therapy Skills Training Group vs. Cognitive Therapy Group on Reducing Depression and Suicide Attempts for Borderline Personality Disorder in Taiwan, Archives of Suicide Research, 23:1, 82-99,

- [25] Lynch, T. R., Chapman, A. L., Rosenthal, M. Z., Kuo, J. R., & Linehan, M. M. (2006). Mechanisms of change in dialectical behavior therapy: Theoretical and empirical observations. Journal of clinical psychology, 62(4), 459-480.
- [26] Kredlow, M. A., Szuhany, K. L., Lo, S., Xie, H., Gottlieb, J. D., Rosenberg, S. D., & Mueser, K. T. (2017). Cognitive behavioral therapy for posttraumatic stress disorder in individuals with severe mental illness and borderline personality disorder. Psychiatry Research, 249, 86-93.
- [27] Caligor, E., Diamond, D., Yeomans, F. E., & Kernberg, O. F. (2009). The Interpretive Process in the Psychoanalytic Psychotherapy of Borderline Personality Pathology. Journal of the American Psychoanalytic Association, 57(2), 271–301.
- [28] 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.
- [29] Doering, S., Hörz, S., Rentrop, M., Fischer-Kern, M., Schuster, P., Benecke, C., . . . Buchheim, P. (2010). Transference-focused psychotherapy v. treatment by community psychotherapists for borderline personality disorder: Randomised controlled trial. The British Journal of Psychiatry, 196(5), 389-395.

Appendix

Borderline Personality Disorder

Diagnostic Criteria

301.83 (F60.3)

A pervasive pattern of instability of interpersonal relationships, self-image, and affects, and marked impulsivity, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:

- 1. Frantic efforts to avoid real or imagined abandonment. (**Note:** Do not include suicidal or self-mutilating behavior covered in Criterion 5.)
- 2. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation.
- 3. Identity disturbance: markedly and persistently unstable self-image or sense of self.
- Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating). (Note: Do not include suicidal or selfmutilating behavior covered in Criterion 5.)
- 5. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior.
- 6. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphoria, irritability, or anxiety usually lasting a few hours and only rarely more than a few days).
- 7. Chronic feelings of emptiness.
- 8. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).
- 9. Transient, stress-related paranoid ideation or severe dissociative symptoms.

Figure 1: The Diagnostic Criteria of Borderline Personality Disorder from DSM-V [8].

A survey of public awareness of borderline personality Disorder (BPD)

(Formal Version)

This questionnaire is only used for data collection and does not disclose privacy Symptoms of Borderline Personality Disorder (BPD) often begin to manifest during adolescence, and some adolescents with BPD tendencies may exhibit the following related symptoms:

Emotional instability: Adolescents may exhibit dramatic mood swings, and their moods can change rapidly in a short period of time, from excitement and pleasure to anger and depression. Interpersonal problems: Adolescents may have confusion and confusion about their own identity and value, and make a stable self-perception.

Impulsive behavior: Adolescents with BPD tendencies may exhibit impulsive and risky behaviors, such as self-harm, substance abuse, and irresponsible sexual behavior.

Feelings of emptiness: Adolescents may have confusion and confusion about their own identity filing this emotional void.

Intense fear of abandonment: Adolescents with BPD tendencies may develop intense fear and anxiety about being abandoned or rejected and may exhibit impurpropriate responses.

Self-harm and suicidal tendencies: Adolescents with BPD may exhibit resistent anoner mobilems. Adolescents with BPD may exhibit or accurate the accurate of the confusion of th

Anger problems: Adolescents may exhibit persistent anger problems and may develop violent or aggressive behavior when agitated. Have you ever heard of borderline personality disorder(BPD)? Do you know someone who has borderline personality disorder or [Single choice question]

1. Yes has symptoms related to it? [Single choice question] Yes Not Sure In what sources have you heard about borderline personality 8.1. If you know that you or someone around you has BPD, how do disorder in the past year? [Multiple choice question] [Single choice question] *Depend on the first option of question 8 Relatives and Friends Hospital diagnosis As described above 2. Roadside publicity Network media As described above Others Paper media Never heard of School Others: How much do you know about borderline personality disorder If you or someone close to you was suspected of having borderline personality disorder, would you seek help? [Single choice question] [Single choice question] Yes 1. Know a lot about No 2. Know something about 3. Not Sure 3. Know little about Did not know before 4. Which of the following do you think might be the cause of borderline personality disorder? [Multiple choice question] * 10. If you have symptoms, what kind of treatment would you seek? [Multiple choice question] * Relatives, friends, teachers, family Genetic factor Hospital 2. Interpersonal relationship problem Psychological counseling Network help 3. Early traumatic experiences (e.g. being abused, sexually assaulted, etc.) 4. Major accident 5. Dislike of eating bananas 6. Lack of self-adjustment ability Bad living habit 11. If you or someone close to you is suspected of having borderline Do you think borderline personality disorder can be cured? [Single choice question] * personality disorder, which treatment is preferred? [Single choice question] No Drug therapy Counseling or other skills training (e.g., social skills) Not Sure Not sure What do you think is the main treatment for borderline personality What is your education level? disorder? [Single choice question] * [Multiple choice question] * Primary school Drug therapy Junior high school Counseling or other skills training (e.g., social skills) Senior high school University Postgraduate and above Do you think that interpersonal problems in people with borderline personality disorder may lead to other mental health problems? [Single choice question] Yes Not Sure

Figure 2: The survey of public awareness of Borderline Personality Disorder