

The Comorbidity and Gender Difference of Borderline Personality Disorder

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Abstract: Borderline personality disorder (BPD) is one of the most pervasive and common personality disorders. This disorder is characterized as being abnormally sensitive to interpersonal slight, unstable self-image, erratic emotionality and propensity of self-destruction. This study will be demonstrating the studies from proceeding years to illustrate the characteristics of borderline personality disorder through the aspects of comorbidity and gender difference. With the consistent result given by those studies, we found that there was a significant difference in terms of comorbidity and symptoms between male patients and female patients. Male patients tended to have the characteristic of externalizing the distress (being more aggressive, narcissistic, and antisocial), while female patients tended to have the characteristic of internalizing the distress (being more anxious, insecure, and depressed). Future study can further investigate the cause of this uneven distribution and focus more on male patients.

1. Introduction

Personality is one of the few factors that help distinguish humans from other animals. In our daily life, personality seems to play a crucial role in our social interaction and working. In the manner of clinical psychology, the treatment and assessment of personality disorder has also long been one of the interests to researchers and scholars in order to better understand psychiatric diagnoses and public mental health. Borderline personality disorder (BPD) is categorized as one of the personality disorders. BPD is characterized as being abnormally sensitive to interpersonal slight, unstable self-image, erratic emotionality and propensity of self-destruction. The prevalence of BPD in general public is 1.7%. On psychiatric clinics or hospitals aspect, the prevalence of BPD is 15-28% [1-3]. The data suggests that it possesses a great proportion of patients in clinics and hospital seeking help for psychological problem. Given information demonstrates that BPD is by no mean a mental health issue that can be overlooked.

The earliest discovering about borderline personality could be traced back to 1938, when a psychoanalyst named Adolph Stern discovered a subgroup of his patients who disregarded the usual boundaries of psychotherapy and did not fit into the classification system which was used to dividing neurosis and psychosis [4]. However, the first investigation about borderline personality was originated from Otto Kernberg. He defined borderline personality organization as one of the three forms of personality organization. The other two were psychotic personality organization and neurotic personality organization. He later on described patients with borderline personality disorders as indicating a consistently low level of ego organization. He also suggested that patients with borderline personality disorder demonstrated a presence of ego weakness. To his understanding, ego weakness is presented as a fragile ego barrier. When an individual is attacked by id derivatives, it is unable to prevent them from breaking through the ego [5, 6]. Over decades, there were fair amount of research studies conducted in attempt to investigate the pattern of BPD from multiple aspects. Several researchers' studies addressed that genders should be considered as a variable in BPD because of the pronounced gender difference in terms of the distribution of BPD patients. According to DSM-IV-TR, female has 3 time higher prevalence of borderline personality disorder than male [7]. Interestingly, various studies also suggested that comorbidity of BPD could play a significant role in illustrating the difference between genders. For the psychologists who further investigate this area in the future, a

review study that illustrates those patterns in BPD can be valuable. In this case, this study summarized the findings in proceeding years to indicate the characteristics of BPD through the aspects of comorbidity and gender difference. We introduced how Axis-I disorders and Axis-II disorders comorbid with BPD based on previous studies. We also summarized previous findings about the gender difference among BPD patients. Besides, this study also mentioned a model designed by previous psychologist to explain the potential cause of gender difference.

2. BPD and comorbidity

2.1 BPD and axis I disorder

According to the clarification of DSM III-R, Axis-I disorders are defined as symptom disorders including schizotypal, schizophrenic disorders, mood disorders, and substance use disorders. Zanarini was one of the first researchers that started investigating comorbidity between BPD and axis I disorder. According to Zanarini, several previous studies have consistently demonstrated that borderline personality disorder patients meet the same DSM criteria of axis I disorders. In current study, Zanarini refined the design from the previous researches. For example, current study adopted a semi-structured research interview. To avoid experimenter bias, the information of comparison group and experiment group was also blinded to the interviewers. Five hundred and twenty participants went through several interview processes to assess their borderline status and the symptoms of the axis I. The result demonstrates that, compared to the other personality disorders, patients with BPD had a significantly higher rate of meeting the criteria of Mood disorder, Anxiety disorder, and Eating disorder. This study also presents a comparison between the BPD's comorbidity and the other personality disorder's comorbidity among the participants with same sex. The result indicates that, among the female patients, participants with BPD had a significantly higher rate of comorbidity in the areas of mood disorders, anxiety disorders, social phobia, PTSD, and eating disorders. Among the male patients, participants with BPD had a significantly higher rate of comorbidity in the areas of mood disorders, anxiety disorders, social phobia, and panic disorders. Given information from the study's result, it is reasonable to surmise that BPD has a strong association with mood disorder, anxiety disorder, and eating disorder [8].

2.2 BPD and axis II disorder

According to the clarification of DSM III-R, Axis-II disorders are referring to personality disorders cause impairment in daily social or occupational ability. Common Axis-II disorders are antisocial disorder, narcissistic disorder, passive-aggressive disorder, histrionic disorder, dependent disorder, schizotypal disorders, and borderline personality disorders. In 1998, Zanarini conducted a study to investigate the comorbidity between axis II disorders and borderline personality disorder. In this study, 502 participants were involved. The participants were divided into BPD patients group and control group (patients with the other axis-II disorders). The researchers interviewed the BDP patients and the control group, and compared the result to the criteria of axis-II disorders. The study result discovered that BPD is strongly correlated with axis-II disorders. More specifically, compared to the control group, BPD patients exhibited significantly higher comorbidity rate of paranoid personality disorder, schizotypal personality disorder, avoidant personality disorder, dependent personality disorder, and self-defeating personality disorder in the study [9]. Beyond that, Zanarini also compared BDP patients with the patients with other Axis-II disorder in the aspect of traumatic experience. This study was concerning adult experience of victimization (being raped or physically abused) among BDP patients and other Axis-II disorder (personality disorder and development disorder) patients. 362 personality-disordered participants (including 290 BDP patients and comparison group of (290 BDP, 72 axis-ii comparison group) was included in this study. The data was collected in three different forms of interviews. The result suggests that among the BDP patients, 46% of them reported experience of violence. Furthermore, compared to Axis-II control group, the BDP patients are more likely to report an experience of being raped or having abusive partners. However, among the BDP patients, female patients are more likely to report the experience of being assaulted sexually or physically compared to

male patients. Compared to male, significantly higher percentage of being victim in general was found in female BPD patients [10].

3. Gender pattern in BPD

3.1 Gender difference

Before Zanarini, there was very little empirical study attempted to investigate the gender pattern of the BDP patients. Zanarini summarized the reason behind that from several aspects: 1. undeveloped diagnostic interview 2. Lack of interest in developing categorical system 3. Instable criteria of diagnosis. In 1998, Zanarini conducted the first study to investigate the effect of gender on the axis-II comorbidity of BPD patients. In this study, 502 participants were divided into BPD patients group and axis-II disorder control group. The study result suggests that male patients with BPD exhibited higher rate of comorbidity of paranoid personality disorders, antisocial personality disorders, passive-aggressive personality disorders, and narcissistic personality disorders. Female patients with BPD exhibited higher rate of comorbidity of dependent personality disorder [9]. In 2002, Zlotnick interviewed 1500 patients which include 149 patients who were diagnosed with BDP. The structure of the interview was a replication of what Zanarini applied for his study. Among those BDP patients, there were 105 women and 44 men. This study was mainly concerned about the gender difference of comorbidity pattern among patients. The result suggests that male patients with BPD had a significantly higher rate of meeting the criteria for Axis I disorders such as substance abuse disorder, intermittent explosive disorder, and antisocial disorder. On the other hand, female participants had a significantly higher rate of meeting the criteria for Axis II disorders such as eating disorder. Furthermore, Zlotnick addressed that disorders which do not include impulsivity as a feature, such as panic disorder and major depression, did not demonstrate a significant difference between female and male in terms of comorbidity. This suggests that, in this study, gender difference were only specific to impulse-related disorders such as BDP [11].

Following former researcher's steps, Johnson also investigated the gender difference of BDP. However, instead of focusing solely on Axis I and Axis II disorders, current study was concerned about the gender difference of borderline personality disorder from five different aspects: (1) the axis I and axis II diagnosis, (2) personality disorder criteria, (3) childhood trauma histories, (4) psychosocial functioning, (5) personality trait and temperament. Personality disorder criteria is assessed by semistructured interview named Diagnostic Interview for DSM-IV Personality Disorders (DIPD-IV). The items of the DIPD consist of 9 components (Intense anger, Affective instability, Chronic emptiness, Identity disturbance, Paranoid, Avoid abandonment, self-injury/suicide, Impulsivity, Unstable relationships). Trauma Assessment for Adults was applied to assess traumatic events of BDP patients. Psychosocial functioning was set to assess participant's impairment for employment, household duties, student works, and recreation. Personality trait and temperament was assessed by negative temperament, aggression, detachment, and the other 13 items associated with the deficits of emotion controlling. Two hundred and forty participants with borderline personality disorder were interviewed in this study, including 175 women and 65 men. For Axis I Life time Diagnoses such as PTSD, Eating disorder, and Substance disorders, researcher found that women participants had a significant dominance in this area. For the Axis II, the result shows that male participants had a significantly higher rate on Narcissistic and Antisocial personality disorder, while female participants had a significantly higher rate on Schizotypal personality disorder [12].

Tadic extend the existing data of current information about axis I comorbidity and axis II comorbidity. The researcher of this study applied the similar study on BPD patients in German. During 1999 to 2005, 159 participants (includes 49 male, and 110 female) that met the criteria for BPD were included in this study. What's worth to notice is that the participants are all Caucasian descent. Consistent with the result from former study, this study's result demonstrated that male patients with BPD had a significantly higher comorbidity in the area of substance use disorder, while female patients

with BPD were likely to have higher comorbidity in the area of affective disorder, anxiety disorder, and eating disorder [13].

More recently, Silberschmidt looked more into the gender difference of the BPD comorbidity. In this study, Silberschmidt involved 770 participants, including 211 male. Compared to previous studies, the researchers in this study expanded the sample size of male participants. Also, unlike previous studies, the age group is more variable, ranging from ages of 18 to ages of 65. Besides, different from the former studies in which the researcher straightforwardly conducting the interview for the participants, this study excluded the participants who received therapy within the past 3 months and the participants who used certain types of antidepressants. The result of the study replicates most of the findings from previous study. For female BPD patients, they had significantly higher comorbidity rates of eating disorder, major depressive disorder, and any lifetime comorbid disorders. For male, the study showcases significantly higher comorbidity rates of antisocial personality disorder. However, interestingly, this study also demonstrated that female BPD patients possessed a higher psychological distress (anxiety, depression, hostility, phobic anxiety, somatic) overall compared to male participants. Female patients also seemed to be disturbed more severely in terms of daily life compared to male patients, especially romantic relationship [14].

Most recently, Sher examined the pattern of gender difference among the BPD patients. More specifically, other than replicating previous studies examination on BPD's comorbidity difference based on different genders, Sher also investigated how male patients and female patients could have in common. Besides that, the researchers also included education, impulsiveness, aggression and suicidal behavior as the factors affected by BPD. The participants in this study involved 81 healthy male, 82 healthy female, 145 male participants with BPD, and 203 female participants with BPD. Some of the results are still consistent with former findings. For example, male patients were likely to have higher comorbidity rate of Narcissistic personality disorder, antisocial personality disorder, paranoid personality disorder, schizotypal personality disorder and substance use disorder. In this study, the result suggests that female participants were likely to have higher rate of dependent personality disorder, obsessive-compulsive personality disorder. Furthermore, the result also suggests that, compared to female patients, male patients tended to exhibit more intense emotional swinging, more non-planning impulsiveness, and more aggression. Besides, male patients in this study were also less educated compared to female patients. However, the result also suggested that both female and male patients exhibited higher verbal or physical aggression, and impulsiveness than healthy person. Interestingly, BPD patients surprisingly scored higher on the social performance compared to the healthy participants [15].

3.2 Inner mechanism

The studies above investigated the gender difference from two dimensions: axis I and axis II. From the very first study about BPD comorbidity to the recent one, the clinical presentation suggested that male BPD patients have higher comorbidity rate of antisocial personality disorder and substance use disorder, while female BPD patients have a higher comorbidity rate of anxiety disorder, major depression, dysthymia and PTSD. Also those studies suggested that male patients tend to exhibited higher rate of aggression or impulsiveness compared to females. James and Taylor defined disorders such as antisocial personality disorder and substance use disorder as externalizing disorders. Patients with externalizing disorders tend to exhibit a tendency of expressing the distress inwards. They also categorized disorders like anxiety disorder, major depression, dysthymia and PTSD as internalizing disorders. Patients with this disorder tend to have a propensity of expressing the distress outward. They established the externalize-and-internalize model in which different BPD symptoms were categorized into multidimensional of indicators of internalizing and externalizing disorders (see Figure 1). It suggests that externalizing dimension have stronger association with BPD male patients than female patients, and internalizing dimensions is more strongly related to BPD female patients. This model seems to be able to explain those findings indicated above which suggested that disorders such as antisocial personality disorder, substance-abuse disorder, are more pervasive in male BPD patients,

while disorders like anxiety disorder, major depression, dysthymia and PTSD are found more pervasive in female BPD patients [16].

4. Conclusion

This study summarized how the investigation of the pattern of BPD developed in proceeding years. The first part of this study mainly introduced how one of the pioneers in this area Zanarini illustrated the pattern of the comorbidity between axis-I and axis-II disorders. From those studies Zanarini suggested a strong relationship between borderline personality disorders and both axis-I and axis-II disorders. The second part of the study mainly focused on illustrating the gender difference of borderline personality disorders and how the studies in this field changed over the years. From Zanarini's first investigation about the impact of gender difference on the axis-II comorbidity of BPD patients, to recent study in which Sher demonstrated how the characteristics of male patients differed from female patients in terms of comorbidity and what both genders had in common, the psychologists keep filling the gap of BPD by expanding the study from multiple dimensions. There is also a study mentioned how the inner mechanism was explained by psychologists. Of course, some ongoing limitation still existed in these studies. It is not difficult to notice how unevenly distributed the participants from different genders are. For most of those studies, the sample population is likely to be lopsided to female patients. The reason behind that is maybe because the majority of the BPD is consisted of female. Future studies can further investigate what reason causes the uneven distribution of BPD male and female patients, and further fill the population gap caused by lack of male patients. Those studies above implied two major manners of BPD to the society: 1. Compared to the other personality disorders, BPD seems to have a higher comorbidity of axis-I and axis-II disorders 2. There is a significant difference in terms of comorbidity and symptoms between male patients and female patients. Those two implications can inspire the society and clinics how borderline personality disorders and the other mental disorders are related and why BPD patients of different genders should be treated differently. For example, female BPD patients should be encouraged to express their distress outward because they tend to dissolve the stress and anxiety by themselves. On the other hand, male BPD patients should also be more emotionally taken care of because the potential aggressiveness and abnormal personality characteristics caused by this disorder might be converted into damage to others and society. These valuable insights can serve to inform mental health professionals, the patients themselves, and the general public by illuminating the potential differences enabling choice and control to improve individual and society well-being.

References

- [1] Kulacaoglu F, Kose S. Borderline Personality Disorder (BPD): In the Midst of Vulnerability, Chaos, and Awe [J]. *Brain Sciences*, 2018, 8(11): 201-.
- [2] Crawford O A, Khan T S, Zimbron J. Rethinking Risk Assessments in a Borderline Personality Disorder Unit: Patient and Staff Perspectives [J]. *Cureus*, 2021.
- [3] Tolman R M, Wang H C. Domestic violence and women's employment: fixed effects models of three waves of women's employment study data. [J]. *American Journal of Community Psychology*, 2005, 36(1-2): 147.
- [4] Gunderson J G. *Borderline Personality Disorder: A Clinical Guide* [J]. American Psychiatric Press, 2008.
- [5] Kernberg, O F. Borderline personality organization. [J]. *Journal of the American psychoanalytic Association*, 1967, 15(3), 641-685,
- [6] Kernberg O F. The treatment of patients with borderline personality organization. [J]. *Int J Psychoanal*, 1968, 49(4): 600-619.

- [7] Skodol A E, Bender D S. Why are women diagnosed borderline more than men? [J]. *Psychiatric Quarterly*, 2003, 74(4): 349.
- [8] Zanarini M C, Frankenburg F R, Dubo E D, et al. Zanarini, M.C. Frankenburg, F.R. Dubo, E.D. Sickel, A.E. Trikha, A. Levin, A. Reynolds, V. (1998). Axis I Comorbidity of Borderline Personality Disorder. *American Journal of Psychiatry* (155), 1733- 1739 [J]. *American Journal of Psychiatry*, 1998, 155: 1733-1739.
- [9] Zanarini M C, Frankenburg F R, Dubo E D, et al. Zanarini, M.C. Frankenburg, F.R. Dubo, E.D. Sickel, A.E. Trikha, A. Levin, A. Reynolds, V. (1998). Axis II Comorbidity of Borderline Personality Disorder. *Comparative Psychiatry*, (39)5, 296-302. 1998.
- [10] Zanarini M C, Frankenburg F R, Reich D B, et al. Violence in the lives of adult borderline patients.[J]. *Journal of Nervous & Mental Disease*, 1999, 187(2): 65-71.
- [11] Zlotnick C, Rothschild L, Zimmerman M. The Role of Gender in the Clinical Presentation of Patients with Borderline Personality Disorder [J]. *Journal of Personality Disorders*, 2002, 16(3): 277-82.
- [12] Johnson D M, Shea M T, Yen S, et al. Gender differences in borderline personality disorder: findings from the collaborative longitudinal personality disorders study [J]. *Comprehensive Psychiatry*, 2003, 44(4): 284-292.
- [13] T ad i& c acute, André, Wagner S, et al. Gender differences in axis I and axis II comorbidity in patients with borderline personality disorder. [J]. *Psychopathology*, 2009, 42(4): 257-263.
- [14] Silberschmidt A, Lee S, Zanarini M, et al. Gender Differences in Borderline Personality Disorder: Results from a Multinational, Clinical Trial Sample [J]. *Journal of Personality Disorders*, 2015, 29(6): 1.
- [15] L, Sher, S, et al. Gender differences and similarities in aggression, suicidal behaviour, and psychiatric comorbidity in borderline personality disorder [J]. *Acta Psychiatrica Scandinavica*, 2019.
- [16] James L M, Taylor J. Revisiting the structure of mental disorders: Borderline personality disorder and the internalizing/externalizing spectra [J]. *British Journal of Clinical Psychology*, 2011, 47 (Pt 4): 361-380.