*Original Article*

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# Childhood Trauma and Dissociative Experiences in Female Borderline Disorder With and Without Substance Dependence

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## Abstract

**Objectives:**
**To detect differences between female borderline personality disorder (BPD) with and without substance dependence as regards childhood trauma and dissociation.**

**Methods:**
**In total, 40 female BPD patients [diagnosed by structured clinical interview of the diagnostic and statistical manual fourth edition (SCID) II] were compared with 40 female BPD patients with substance dependence (diagnosed by SCID I and SCID II) attending the outpatient clinic in Kasr Al-Ainy hospital (Tools: Childhood Traumatic Questionnaire, Borderline Personality Disorder Severity index, and Dissociative Experience Scale).**

**Results:**
**BPD patients had more childhood trauma and dissociative experiences than BPD with substance dependence patients. There was a statistically significant correlation between childhood trauma and dissociative experiences in BPD patients, whereas there was no statistically significant correlation between childhood trauma and dissociative experiences apart from sexual abuse in BPD with substance dependence patients.**

**Conclusions:**
**The findings have clinical implications for the management of female BPD with and without substance dependence.**

**Key Words: females, borderline personality disorder, substance dependence, childhood trauma, dissociation**

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Borderline personality disorder (BPD) refers to a psychiatric condition that is characterized by unstable interpersonal relationships, fear of abandonment, difficulties in emotion regulation, feelings of emptiness, chronic dysphoria or depression, as well as impulsivity and heightened risk-taking behaviors. Paranoid ideation and dissociative states are also transient features of the syndrome. Moreover, many patients with BPD show recurring self-injurious or suicidal behavior.[1]

Research estimates that BPD occurs in 1% to 3% of general populations[2–4] and in up to 10% of outpatient populations.[5]

The ratio of female individuals to male individuals with the disorder is greater in clinical populations than it is in the general population. The ratio is 3:1 in clinical settings.[6] Multiple epidemiologic surveys of the United States' general population, however, have found that lifetime prevalence of BPD does not differ significantly between men and women. This discrepancy suggests that women with BPD are more likely to seek treatment than men.[7] Substance use disorders (SUD) are more common in men outpatients with BPD than women outpatients with BPD.[8,9]

Several studies have shown high comorbidity between BPD and SUD.[10] It has been suggested that the comorbidity results from causal links between SUD and BPD.[11]

Recent theory suggests that BPD symptoms and associated features (eg, mood lability, drug and alcohol addiction) may reflect an underlying dysregulation of the endogenous opioid system.[12] The endogenous opioid system plays an important role in the brain reward system and in the modulation of response to stressors. Such an account can explain the experience of emotion dysregulation and use of substances in this patient group, mediated by reduced sensitivity of endorphin receptors or low levels of endogenous opioids.[12] This study aims to detect differences between female BPD with and without substance dependence as regards childhood trauma and dissociation.

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The authors declare no conflict of interest.

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## PARTICIPANTS AND PROCEDURES

Participants were recruited from outpatient female attendees at Kasr Al-Ainy School of Medicine, Cairo University, Egypt. A sample size of 80 female patients was aimed for, and all consecutive attendees at the clinic were interviewed. They were further divided into 2 groups: group A and group B. Group A comprised 40 female patients diagnosed as BPD without substance dependence according to the Diagnostic Statistical Manual IV (DSM-IV) criteria for Axis II disorders [structured clinical interview of the diagnostic and statistical manual fourth edition (SCID) II], with a mean age of (24.55 with 6.77 SD). Group B comprised 40 female patients diagnosed as borderline personality disorder with substance dependence (SBPD), with mean age of 31.30 and 11.01 SD. Patients were excluded from the study if they had any comorbid psychiatric disorder.

All eligible subjects (based on self-reports of drug use) were then subjected to a urinalysis for psychoactive substances to confirm or exclude their use of these substances. The interviews were conducted in quiet, comfortable settings; the nature and scope of the study was discussed with each patient, and written informed consent was obtained from all patients before the interview. Ethical approval was obtained from the ethical and research committee of the Departments of Psychiatry, Kasr Al-Ainy School of Medicine.

### Measurements

Data were collected by way of semistructured interview. The following measures were used:

Structured Clinical Interview for DSM-IV (SCID I)[13] Arabic version[14]: The Structured Clinical Interview for DSM-IV-TR axis I disorders (SCID I) is a clinician-administered, semistructured interview for use with psychiatric patients or with nonpatient community subjects who are undergoing evaluation for psychopathology. It was developed to provide coverage of psychiatric diagnosis according to DSM-IV.

Structured clinical interview for DSM-IV Axis II Disorders (SCID II)[13] Arabic version[15]: The Structured Clinical Interview for DSM-IV Axis-II-11 Personality Disorders is a (semi) structured interview of 108 questions, arranged according to diagnosis, yielding both categorical diagnoses and dimensional scores for each of the DSM-IV personality disorders.

Borderline personality disorder severity index (BPDSI)[16]: The BPDSI-IV is a semistructured interview and consists of 70 items, arranged in 9 subscales representing the 9 DSM-IV BPD criteria. For each item, the frequency of the last 3 months is rated on an 11-point scale, running from 0 (never) to 10 (daily). Identity disturbance items form an exception and are rated on 5-point Likert scales, running from 0 (absent) to 4 (dominant, clear, and well-defined), multiplied by 2.5. The total score is the sum of the 9 criteria scores (range, 0 to 90). The original version of the BPDSI was translated into Arabic by the researcher and back-translated into English by a colleague after taking permission from the author to translate into Arabic to use it in the current research.

Childhood Traumatic Questionnaire (CTQ)[17] Arabic version[18]: The CTQ provides screening for histories of abuse and neglect. It is a 28-item questionnaire. It includes 5 subscales, 3 assessing abuse (physical, emotional, and sexual) and 2 assessing neglect (emotional and physical).

Dissociative Experience Scale (DES)[19]: DES is a psychological self-assessment questionnaire that measures dissociative symptoms. It contains 28 questions and returns an overall score as well as 4 subscale results. Subjects were asked to make a slash on 100-mm linnets and indicate where they fall on a continuum for each question. DES is intended to be a screening test.

### Statistical Analysis

Data were coded and entered using the statistical package SPSS (Statistical Package for the Social Science) version 23. Data were summarized using mean, SD, median, minimum, and maximum in quantitative data and using frequency (count) and relative frequency (percentage) for categorical data. Comparisons between quantitative variables were carried out using the nonparametric Kruskal-Wallis and Mann-Whitney tests.[20] For comparing categorical data, the $\chi^2$ test was performed. The Exact test was used instead when the expected frequency was <5.[21] $P<0.05$ were considered as statistically significant.

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**TABLE 1.** Dissociative Experience Scale in Both Groups

| | Group A (N = 40) | | Group B (N = 40) | | |
|---|---|---|---|---|---|
| **Scale** | **Mean** | **SD** | **Mean** | **SD** | **P** |
| Dissociative Experience Scale | 40.06 | 15.92 | 37.44 | 18.04 | 0.317 |

## RESULTS

There was a statistically significant difference between both groups as regards age and marital status. Divorce rate was higher in group B than group A. Group A patients were more paranoid and had more dissociative experiences than group B, and this difference was statistically significant (Table 1). There was a statistically significant difference between both groups as regards physical abuse, emotional abuse, sexual abuse, emotional neglect, and total scales, whereas there was no statistically significant difference between both groups as regards the physical neglect scale. Group A patients were more severely affected in physical abuse scale, emotional abuse scale, sexual abuse scale, and total scale than group B patients, whereas group B was more severely affected as regards emotional neglect than group A, and this difference was statistically significant (Table 2).

According to DES, group A had more dissociative experiences than group B, with no statistical significance. However, there was a statistically significant correlation between childhood trauma (physical abuse, emotional abuse, sexual abuse, physical neglect, emotional neglect) and dissociative experiences in group A. It was significant in group B in sexual abuse (Tables 3, 4).

## DISCUSSION

In this study, BPD patients were more paranoid and had more dissociative experiences than the SBPD group, and this difference was statistically significant between both groups. This suggests that substance use may be a form of "chemical dissociation" to numb the effect of childhood abuse, a finding confirmed by other studies.[22–25] This is consistent with the common view of substances as a means of avoiding trauma-related emotions and memories, and some evidence for this hypothesis has been found.[26] However, it is also known that substances are sometimes used to access trauma-related emotions or memories,[27] and SUD samples sometimes show high rates of dissociation;[28] thus, there is likely not only one function but various ones that occur in different people and at different times. Additionally of note, both substance use and withdrawal may be confused with dissociation,[25] and substance-related cognitive impairment may be associated with difficulty in reporting dissociative and other psychiatric symptoms. In sum, this study showed that there is likely to be a complex constellation of associations between dissociation, SUD, and trauma. Our results showed that both BPD and SUD are often associated with early adverse life experiences (eg, childhood physical/sexual abuse),

**TABLE 2.** Childhood Traumatic Questionnaire in Both Groups

| | Group A (N = 40) | | Group B (N = 40) | | |
|---|---|---|---|---|---|
| **Scales** | **Mean** | **SD** | **Mean** | **SD** | **P** |
| Physical abuse | 16.15 | 7.26 | 11.30 | 7.07 | 0.007** |
| Emotional abuse | 15.72 | 6.88 | 10.98 | 5.50 | 0.001** |
| Sexual abuse | 11.90 | 6.99 | 9.08 | 5.94 | 0.049* |
| Physical neglect | 12.25 | 3.13 | 11.08 | 2.66 | 0.066 |
| Emotional neglect | 13.00 | 5.63 | 15.65 | 5.91 | 0.028* |
| Total | 69.15 | 16.87 | 57.82 | 12.81 | 0.002** |

*,**Statistical significance.

**TABLE 3.** Correlation Between Childhood Traumatic Questionnaire and Dissociative Experience Scale in Group A

| Subscale (Childhood Traumatic Questionnaire) | Dissociative Experience Scale |
|---|---|
| Physical abuse | |
| Correlation coefficient | 0.382 |
| *P* | 0.024* |
| N | 40 |
| Emotional abuse | |
| Correlation coefficient | 0.502 |
| *P* | 0.002* |
| N | 40 |
| Sexual abuse | |
| Correlation coefficient | 0.392 |
| *P* | 0.020* |
| N | 40 |
| Physical neglect | |
| Correlation coefficient | 0.385 |
| *P* | 0.022* |
| N | 40 |
| Emotional neglect | |
| Correlation coefficient | 0.403 |
| *P* | 0.016* |
| N | 40 |

*Statistical significance.

**TABLE 4.** Correlation Between Childhood Traumatic Questionnaire and Dissociative Experience Scale in Group B

| Subscale (Childhood Traumatic Questionnaire) | Dissociative Experience Scale |
|---|---|
| Physical abuse | |
| Correlation coefficient | −0.239 |
| *P* | 0.160 |
| N | 40 |
| Emotional abuse | |
| Correlation coefficient | −0.199 |
| *P* | 0.251 |
| N | 40 |
| Sexual abuse | |
| Correlation coefficient | −0.343 |
| *P* | 0.044* |
| N | 40 |
| Physical neglect | |
| Correlation coefficient | −0.228 |
| *P* | 0.188 |
| N | 40 |
| Emotional neglect | |
| Correlation coefficient | −0.218 |
| *P* | 0.209 |
| N | 40 |

*Statistical significance.

which were in harmony with others[10] who added that these early life experiences may contribute to the development of disinhibitory psychopathology. Results were also consistent with.[24,29] We found that the BPD group was more severely affected in all scales of abuse and neglect as well as the total scale than the SBPD group, and these differences were significant in physical abuse, emotional abuse, sexual abuse, and total scales, whereas the SBPD group was more severely affected as regards emotional neglect than the BPD group; this difference reached statistical significance. Results were inconsistent with others.[22,30] However, SBPD patients might have learned to cope with childhood abuse through a mechanism of "chemical dissociation" that developed instead of psychological dissociation.[25] Moreover, we found a significant correlation between different types of childhood trauma (physical, emotional and sexual abuse, and physical, and emotional neglect) and dissociation in the BPD group. This makes further elaboration and confirmation of our previous findings and are consistent with those of.[22,25,31] In the study, there was no statistically significant correlation between physical abuse, emotional abuse, physical neglect, emotional neglect, and dissociation in SBPD, whereas there was inversely proportional correlation between sexual abuse and dissociation, a result in line with other studies.[22,25] These studies claim that substance abusers might have learned to cope with childhood abuse through a mechanism of "chemical dissociation" that developed instead of psychological dissociation. We suggest that this mechanism deprived

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them from gaining sympathy from the surrounding people, as in our community substance abuse is a socially unaccepted illness with the individuals having a lack of responsibilities and relationship problems and dissatisfaction compared with the psychological dissociative mechanism. This could explain the significantly higher divorce rates in the SBPD group than in the BPD group in our and other studies (S.F. Abolmagd, Unpublished data; 2011).[32]

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