Axis I Dissociative Disorder Comorbidity in Borderline Personality Disorder and Reports of Childhood Trauma

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Objective: The purpose of this study was to examine the dissociative disorder comorbidity of borderline personality disorder and its relation to childhood trauma reports in a nonclinical population.

Method: In April 2003, 1301 college students were screened for borderline personality disorder using the Structured Clinical Interview for DSM-IV Personality Disorders. The Childhood Trauma Questionnaire and Steinberg's dissociation questionnaires were also administered. During May and June 2003, 80 students with a diagnosis of borderline personality disorder and 111 nonborderline students were evaluated using the Structured Clinical Interview for DSM-IV Dissociative Disorders by an interviewer blind to the diagnosis and scores obtained during the first phase.

Results: The prevalence of borderline personality disorder was 8.5%. A significant majority (72.5%; 58/80) of the borderline personality disorder group had a dissociative disorder, whereas this rate was only 18.0% (20/111) for the comparison group ($p < .001$). Childhood emotional and sexual abuse, physical neglect, and total childhood trauma scores had significant effect for borderline personality disorder ($p < .001$, $p = .038$, $p = .044$, and $p = .003$, respectively), whereas emotional neglect and diminished minimization of childhood trauma had significant effect for dissociative disorder ($p = .020$ and $p = .007$, respectively).

Conclusion: A significant proportion of subjects with borderline personality disorder have a comorbid dissociative disorder. Lack of interaction between dissociative disorder and borderline personality disorder diagnoses for any type of childhood trauma contradicts the opinion that both disorders together might be a single disorder. Recognizing highly prevalent but usually neglected Axis I dissociative disorder comorbidity in patients with borderline personality disorder may contribute to conceptual clarification of this spectrum of psychopathology.

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Following a period of debate about its relationship with affective disorders and schizophrenia, the borderline syndrome was classified as an Axis II personality disorder in DSM-III.[1,2] However, several studies[3–5] have demonstrated that patients with borderline personality disorder often meet DSM criteria for a number of common Axis I disorders, such as major depression, substance abuse, anxiety disorders, and somatization disorder. Hudziak et al.[5] found no cases of "pure" borderline personality disorder, that is, borderline personality disorder without comorbidity. It is not known if these other disorders define the patients more appropriately with regard to choice of and response to treatment, natural history, outcome, and family illness patterns. Representing a "definitional"[6] or even a "conceptual artifact,"[4] these comorbidities may be a consequence of the overlap of the defining symptoms used to identify borderline personality disorder and other disorders. Thus, Akiskal et al.[7] consider borderline personality disorder syndrome to be "an adjective in search of a noun."

Dissociation and dissociative disorders constitute one of the various aspects of this controversy. Namely, research concerning paranoid ideation, depersonalization, and derealization among patients with borderline personality disorder led to the introduction of the ninth diagnostic criterion in the DSM-IV. This criterion of borderline personality disorder states that "during periods of extreme

stress, transient paranoid ideation or dissociative symptoms may occur, but these are generally of insufficient severity or duration to warrant an additional diagnosis."[8(p651)] Most recently, Sar et al.[9] demonstrated that 64.0% of consecutive psychiatric outpatients with DSM-III-R borderline personality disorder have a DSM-IV Axis-I dissociative disorder diagnosis concurrently. This finding is supported by those of previous studies that demonstrated high frequency of dissociative symptoms among patients with borderline personality disorder[10-12] and high borderline personality disorder comorbidity in patients with dissociative disorders.[13,14] Thus, for a considerable proportion of borderline personality patients, dissociative phenomena are not simply stress-related or transient, but they are enduring symptoms of a dissociative disorder that warrants a separate diagnosis.

Partly due to limited awareness about this comorbidity, empirical research on the nature of the interface between the 2 categories has been rather scarce. In fact, both disorders have common roots historically. Dissociative disorder, together with conversion disorder, is linked traditionally to the concept of hysteria.[15] Pointing to the overlap with somatization disorder, antisocial personality disorder, and substance use disorder, Hudziak et al.[5] underlined the relationship of borderline personality disorder with Briquet's syndrome (hysteria). Accordingly, a recent study[16] demonstrated that there was wide overlap between dissociative disorders and borderline personality disorder in a subgroup of patients with conversion disorder along with dysthymic disorder, major depression, somatization disorder, and childhood trauma history. The elimination of the ancient term *hysteria* from psychiatric terminology[17] may have led contemporary researchers to overlook this historical continuity, although the term has been replaced with the modern concept of dissociative disorders.

Similar to patients with borderline personality disorder, dissociative disorder patients may also have suicide attempts and self-mutilative behavior,[9,13] and they may enter quasi-psychotic episodes.[18] High rates of childhood abuse and/or neglect have been reported as central to both borderline personality disorder[19–22] and dissociative disorders.[22–24] Although many other factors (e.g., temperament and other forms of biological vulnerability) may also play a role, childhood traumas seem to contribute to the development of this spectrum of disorders.

On the basis of these similarities, some authors argue that both disorders together might be a single disorder. As one pole of this unitary view, dissociative disorders are considered an epiphenomenon of borderline personality disorder by some authors.[25,26] Pursuing the opposite but still unitary view, Chu and Dill[22] argue that borderline personality disorder is a type of posttraumatic syndrome involving the mechanism of dissociation. Dissociation in response to childhood traumas may be at the core of the pathogenic process that results in symptomatology embodied in the diagnoses of both disorders. The high psychiatric comorbidity among traumatized patients led some authors to subsume these phenomena in a new diagnostic category of complex posttraumatic stress disorder (PTSD) with features close to borderline personality disorder criteria.[27] Symptoms of affect dysregulation, lack of impulse control, alterations in self-perception, impairment in interpersonal relationships and occupational functioning, dissociative symptoms, self-destructive behavior, anger dyscontrol, and substance abuse are considered as core features of this syndrome. In fact, the association with early trauma and PTSD does not seem to be unique to this type of personality disorder.[28]

Studies on borderline personality disorder and dissociative disorders have usually been conducted in more disturbed clinical populations. As both disorders are usually unstable conditions, cross-sectional clinical studies demonstrate their phenomenology when in a crisis period. The present study attempted to determine the frequency and characteristics of DSM-IV dissociative disorders among participants with borderline personality disorder in a nonclinical population in a blind and controlled fashion. In order to evaluate 1 possible aspect of the relationship, we also compared the participants according to their childhood trauma reports.

METHOD

Participants

The study, conducted from April to June 2003, included 1301 students (554 women, 42.6%) from various schools of Cumhuriyet University in Sivas, Turkey, who were matriculated for the spring semester of the year 2003. The sample (15.0%) was recruited randomly from 8698 students (3819 women, 43.9%) in all schools of the university. The mean (SD) age of the participants was 20.7 (1.69) years (range, 18–29). Men were slightly older at 20.8 (1.74) years than women at 20.4 (1.58) years ($t = 4.20$, $df = 1298$, $p < .001$). The students who agreed to participate provided written informed consent after the study procedures had been fully explained. The review board of the Cumhuriyet University approved the project.

Instruments

Structured Clinical Interview for DSM-IV Personality Disorders. The Structured Clinical Interview for DSM-IV Personality Disorders (SCID-II) is a semistructured interview developed by Spitzer et al.[29] It serves as a diagnostic instrument for Axis II personality disorders. The self-report version of this instrument is used for initial screening, whereas all participants who endorse a sufficient number of personality disorder criteria are then evaluated using the semistructured interview. In a study[30] with 2 interviewers who independently evaluated 50 psychiatric patients, including 41 patients with borderline

personality disorder, the Turkish version of the SCID-II had an interrater reliability of 0.95 (kappa) for borderline personality disorder.

Steinberg's dissociation questionnaires. The Steinberg dissociation questionnaires consist of 5 separate self-rating scales developed by Steinberg.[31] Evaluating the severity of dissociative amnesia, depersonalization, derealization, identity confusion, and identity alteration, the questionnaires are focused on basic dimensions of dissociative psychopathology, which are also represented in the 5 subscores of the Structured Clinical Interview for DSM-IV Dissociative Disorders (SCID-D).[32] A score between 1 and 5 is assigned to each item. The item scores are added up to total scores for each of the 5 scales. "Normal" items, which are placed among pathologic items of the scales, do not contribute to the total scores (i.e., only a score of zero is assigned to them at the computation). The unpublished 2002 Turkish translation by V.S. was used in this study.

Childhood Trauma Questionnaire. The Childhood Trauma Questionnaire (CTQ) is a 28-item self-report instrument developed by Bernstein et al.[33] that evaluates childhood emotional, physical, and sexual abuse and childhood physical and emotional neglect. Possible scores for each type of childhood trauma range from 1 to 5. The sum of the scores derived from each trauma type provides the total score ranging from 5 to 25. There is also a minimization/denial of trauma score with a range of 0 to 3. It is derived from 3 items that contribute to the score if endorsed for maximum (5 on a range of 1 to 5): "There was nothing I wanted to change about my family," "I had the perfect childhood," and "I had the best family in the world." The Cronbach's α for the factors related to each trauma type ranges from 0.79 to 0.94, indicating high internal consistency.[33] The scale also demonstrated good test-retest reliability over a 2- to 6-month interval (intraclass correlation = 0.88). The unpublished 1996 translation by V.S. was used in this study.

Structured Clinical Interview for DSM-IV Dissociative Disorders. The Structured Clinical Interview for DSM-IV Dissociative Disorders is a semistructured interview developed by Steinberg.[32] It is used to make DSM-IV diagnoses for all dissociative disorders. The scores of the interview distinguish dissociative patients from controls significantly, and there is high interrater reliability (κ = 0.92) on dissociative disorder diagnoses.[34] Information about the validity and reliability of the Turkish version (unpublished 1993 translation by V.S., H. Tutkun, L. I. Yargic, T. Kundakci, and E. Kiziltan) has been reported elsewhere.[9]

Procedure

All participants (N = 1301) were screened by 3 psychiatry residents using the borderline personality disorder section of the SCID-II. The interviewers had extensive experience in administering the instrument to clinical and nonclinical populations. The CTQ and the Steinberg self-rating dissociation questionnaires were also administered to all participants. In the second phase of the study, all students who were diagnosed as having borderline personality disorder were invited for a structured interview. The SCID-D was administered to these students and a nonborderline comparison group randomly selected from the same population. All interviews in the second phase of the study were conducted by a female psychiatrist (G.A.) who had extensive experience using this instrument and who was blind to the diagnosis and scores obtained in the first phase of the study.

Analysis

The statistical package SPSS 13.0 for Windows (SPSS Inc., Chicago, Ill.) was used for all the analyses. Categorical variables were compared by means of the χ^2 statistics. Fisher exact test was used if the expected value in any cell of the 2-by-2 table was less than 5. Continuous variables were compared by means of Student t test. One-way analysis of variance (ANOVA) with gender as covariant was used to compare 4 patient groups (borderline and nonborderline groups with and without a comorbid dissociative disorder) on childhood trauma scores. Both main effects on borderline personality or dissociative disorder diagnosis and interaction between diagnostic groups were computed. For all statistical analyses, p values were 2-tailed, and the level of significance was set at p = .05.

RESULTS

Of 1301 participants, 111 (8.5%) endorsed 5 or more of the 9 DSM-IV borderline personality disorder criteria in the structured interview. They were slightly older (mean ± SD age = 21.0 ± 2.03 years) than the remaining nonborderline subjects (20.6 ± 1.65 years) (t = 2.29, df = 1298, p = .022). Forty-two students (37.8%) with borderline personality disorder were female, whereas this rate was 43.0% (512/1190) for the nonborderline students (χ^2 = 1.12, df = 1, p = .290). There was no difference in mean ± SD age between female (20.6 ± 1.86 years) and male (21.2 ± 2.10 years) students with borderline personality disorder (t = 1.56, df = 109, p = .123).

Eighty students with borderline personality disorder (72.1% of the invited group) and 111 nonborderline students participated in the second phase. The 31 borderline students who did not participate in the second phase were unavailable due either to direct refusal (N = 10) or to low cooperation (no show, absenteeism at school, etc.). There was no difference in age between participants with borderline personality disorder who did not take part in the second phase (mean ± SD = 21.4 ± 2.16 years) and those who did (20.9 ± 1.98 years) (t = 1.09, df = 107, p = .279). Women made up 45.0% (N = 36) of borderline students

Table 1. Prevalence of Dissociative Disorders Among Participants With Borderline Personality Disorder and Nonborderline Comparison Group[a]

Diagnosis, N (%)	Borderline Personality Disorder (N = 80)	Comparison Group (N = 111)	χ^2 (df = 1)	p
Any dissociative disorder	58 (72.5)	20 (18.0)	57.12	< .001
Dissociative disorder NOS	34 (42.5)	7 (6.3)	38.00	< .001
Dissociative amnesia	10 (12.5)	5 (4.5)	4.11	.043
Dissociative identity disorder	8 (10.0)	1 (0.9)	…[b]	.004
Depersonalization disorder	6 (7.5)	6 (5.4)	0.35	.556

[a]Diagnoses based on the Structured Clinical Interview for Dissociative Disorders.
[b]Fisher exact test.
Abbreviation: NOS = not otherwise specified.
Symbol: … = not applicable.

who participated and 19.4% (N = 6) of those who did not; this difference was significant ($\chi^2 = 5.31$, df = 1, p = .021). There was no difference in age between borderline personality disorder group (mean ± SD = 20.9 ± 1.98 years) and nonborderline comparison group (20.5 ± 1.53 years) either (t = 1.61, df = 189, p = .110). Forty-five percent (N = 36) of the borderline group and 36.0% (N = 40) of the comparison group were women ($\chi^2 = 1.56$, df = 1, p = .233). There was no difference in age between women (mean ± SD = 20.5 ± 1.95 years) and men (21.2 ± 1.98 years) with borderline personality disorder who participated in the second phase (t = 1.53, df = 78, p = .130).

According to the SCID-D, 58 participants (72.5%) with borderline personality disorder had a dissociative disorder, whereas this rate was only 18.0% (N = 20) for the nonborderline comparison group (Table 1). This difference was significant. Dissociative identity disorder, dissociative disorder not otherwise specified (DDNOS), and dissociative amnesia were significantly more frequent in the borderline group than the comparison group. None of the participants in either group was diagnosed as having dissociative fugue; it existed only as a symptom of a supraordinate category (i.e., either dissociative identity disorder or DDNOS). Depersonalization disorder did not differentiate the 2 groups either.

As the most prevalent comorbid diagnosis, the DDNOS group requires a detailed description. Most of these participants (N = 26) were suffering from conditions similar to dissociative identity disorder; i.e., they had distinct personality states without fitting criteria of the latter fully. Two of the 8 remaining participants had possession experiences. Six participants who had a combination of amnesia and depersonalization symptoms were also subsumed under the supraordinate category of DDNOS because this combination pointed to the presence of a single complex dissociative disorder rather than 2 separate disorders. The highest symptom scores (mean ± SD) of this group on the SCID-D were depersonalization (2.64 ± 0.88) and dissociative amnesia (2.45 ± 0.94). These figures were 1.95 ± 0.96 for identity confusion, 1.67 ± 1.00 for derealization, and 1.40 ± 0.63 for identity alteration.

As a confirmation of the dissociative disorder comorbidity rates derived from structured clinical interview, there were significant differences between borderline personality group and comparison group on self-rating assessment as well (Table 2). Moreover, self-rating and clinician-rated assessments correlated significantly: depersonalization (r = 0.46, N = 191, p < .001), derealization (r = 0.29, N = 191, p < .001), dissociative amnesia (r = 0.29, N = 191, p < .001), and identity alteration (r = 0.24, N = 191, p = .001).

Of the dissociative borderline group, 50.0% (N = 29) were female, and this rate was 31.8% (N = 7) for the nondissociative borderline group; this difference was not significant ($\chi^2 = 2.13$, df = 1, p = .144). There was also no difference in age (mean ± SD) between dissociative (20.9 ± 2.0 years) and nondissociative (20.9 ± 1.9 years) borderline groups (t = 0.03, df = 78, p = .980). Because gender differences are basic information relevant for further analysis, we documented them in childhood trauma reports in the overall sample (Table 3). Men had higher scores than women on emotional and physical neglect and sexual abuse, and they also had higher total trauma scores.

Table 4 presents the childhood trauma scores in borderline personality disorder and comparison groups according to the dissociative disorder status. Main effects of the 2 diagnoses for childhood trauma scores and the interaction of 2 diagnoses on childhood trauma scores have also been reported in Table 4. Emotional and sexual abuse, physical neglect, and total trauma scores had significant effect for borderline personality disorder, whereas only emotional neglect and diminished minimization of childhood trauma had significant effect for dissociative disorder. On the other hand, there was no interaction between 2 diagnoses for any type of childhood trauma; thus, the higher trauma scores of the dual-diagnosis group represent merely an additive effect of 2 diagnostic groups.

Minimization or denial of childhood trauma score was significantly diminished for dissociative disorder (Table 4). In support of this observation and suggesting the presence of 2 different constructs, there was also no positive correlation between minimization/denial of childhood trauma score and the SCID-D dissociative amnesia score (r = –0.11, N = 191, p = .116).

DISCUSSION

A significant proportion of young college students (72.5%) with DSM-IV borderline personality disorder had an Axis I dissociative disorder. This figure is close

Table 2. Dissociative Symptoms Among Participants With Borderline Personality Disorder (BPD) and Nonborderline Comparison Group

	SCID-D					Steinberg Self-Rating Scales				
Dissociative Symptom	Range	BPD (N = 80), Mean ± SD	Comparison Group (N = 111), Mean ± SD	t[a]	p	Range	BPD (N = 80), Mean ± SD	Comparison Group (N = 111), Mean ± SD	t[a]	p
Amnesia	1–4	2.16 ± 1.04	1.18 ± 0.59	8.29	< .001	10–50	24.9 ± 5.4	20.3 ± 5.1	6.07	< .001
Depersonalization	1–4	2.08 ± 1.08	1.18 ± 0.54	7.53	< .001	14–70	33.0 ± 9.5	23.6 ± 6.2	8.21	< .001
Identity confusion[b]	1–4	1.69 ± 0.96	1.07 ± 0.32	6.27	< .001	13–65	…	…	…	…
Derealization	1–4	1.44 ± 0.85	1.00 ± 0.00	5.40	< .001	12–60	26.2 ± 9.8	17.1 ± 5.1	8.33	< .001
Identity alteration	1–4	1.36 ± 0.70	1.05 ± 0.25	4.42	< .001	11–55	25.9 ± 7.4	18.0 ± 5.6	8.39	< .001
Total score	5–20	8.60 ± 3.22	5.41 ± 1.31	9.41	< .001	…	…	…	…	…

[a]df = 189.
[b]Steinberg dissociation questionnaire data were missing for assessment of identity confusion.
Abbreviations: BPD = borderline personality disorder, SCID-D = Structured Clinical Interview for Dissociative Disorders.

Table 3. Gender Differences in Childhood Trauma Questionnaire Scores in the Overall Student Sample (N = 1301)

Childhood Trauma	Women (N = 554), Mean ± SD	Men (N = 747), Mean ± SD	t[a]	p
Emotional neglect	1.76 ± 0.67	2.01 ± 0.73	6.23	< .001
Physical neglect	1.20 ± 0.35	1.32 ± 0.41	5.44	< .001
Sexual abuse	1.13 ± 0.33	1.21 ± 0.44	3.62	< .001
Emotional abuse	1.32 ± 0.46	1.35 ± 0.47	1.29	.199
Physical abuse	1.08 ± 0.30	1.10 ± 0.27	1.16	.247
Minimization of trauma	0.77 ± 0.91	0.68 ± 0.85	1.75	.081
Total trauma score	6.49 ± 1.50	6.99 ± 1.60	5.69	< .001

[a]df = 1299.

to the rate (64.0%) yielded among outpatients with DSM-III-R borderline personality disorder in a clinical setting.[9] High dissociation scores obtained independently by self-rating assessments supported the accuracy of this comorbidity. Although the high prevalence of borderline personality disorder among dissociative patients has been a well-known observation,[13,14] many previous research projects overlooked the reciprocal aspect of this comorbidity; i.e., dissociative disorders as an Axis I diagnosis were not screened at all.[35,36]

In a screening study using the self-rating Dissociative Experiences Scale, Zanarini et al.[12] found that only 26.2% of the patients with borderline personality disorder had a score similar to that (> 30.0) reported by patients meeting PTSD or dissociative disorders criteria, whereas 42.1% of the patients had a rather moderate level of dissociation. This cutoff score on a self-rating scale is too high for screening dissociative disorders on a sensitive level, and direct use of structured clinical interviews is more accurate in capturing all cases of dissociative disorders in a population.[24,37] Nevertheless, in accordance with our findings, a recent survey conducted on a random national sample of experienced clinicians in North America revealed that a significant proportion (53.3%) of their patients with borderline personality disorder had a dissociative disorder diagnosis in the first axis.[38]

Besides documenting the comorbidity, the present study was also concerned with a possible relationship between the 2 disorders from the angle of childhood trauma reports. After elimination of gender effects, in the present study, both categories were related to different kinds of childhood trauma; i.e., borderline personality disorder diagnosis was related to childhood emotional and sexual abuse, physical neglect, and total childhood trauma severity, whereas dissociative disorder diagnosis was related to emotional neglect (Table 4). As the 2 diagnoses did not interact with each other for childhood trauma scores in variance analysis, the findings of the present study did not support the opinion that borderline personality disorder and dissociative disorder together might be a single disorder.

Retrospective reports of childhood trauma are subject to possible reinterpretation of childhood experiences. However, this phenomenon may happen in both directions.[39] Somewhat paradoxically, as aversive contents, childhood traumas can be subject to minimization or denial as well.[40] In the present study, dissociative disorder diagnosis had a significant main effect on a lower minimization/denial score (Table 4). Thus, patients with dissociative disorder do not seem to idealize their childhood environment; i.e., they may be rather prone to disclose adverse childhood experiences.

Developing complete awareness about and being able to disclose traumatic experiences are complex processes that are also relevant issues for psychotherapy research besides nosologic considerations. A recent study demonstrated that higher thought suppression mediates the relationship between negative affective intensity/reactivity and borderline personality disorder symptoms, after controlling for a history of childhood sexual abuse.[41] Thus, chronic efforts to suppress unpleasant thoughts may be a regulation strategy underlying the relationship between intense negative emotions and borderline personality dis-

Table 4. Childhood Trauma Questionnaire Scores in Borderline Personality Disorder (BPD) and Nonborderline Comparison Group According to the Dissociative Disorder (DD) Status[a]

	BPD, mean ± SD		Comparison Group, mean ± SD		One-Way ANOVA (df = 1,186) Main Effects					
					BPD		DD		Interaction	
Childhood Trauma	DD Present (N = 58)	DD Absent (N = 22)	DD Present (N = 20)	DD Absent (N = 91)	F	p	F	p	F	p
Emotional abuse	1.72 ± 0.75	1.61 ± 0.52	1.30 ± 0.33	1.26 ± 0.35	17.08	< .001	0.63	.429	0.15	.700
Emotional neglect	2.37 ± 0.95	2.03 ± 0.86	2.16 ± 0.95	1.86 ± 0.66	2.09	.150	5.52	.020	0.12	.732
Sexual abuse	1.37 ± 0.57	1.24 ± 0.34	1.19 ± 0.33	1.12 ± 0.33	4.38	.038	2.06	.153	0.38	.540
Physical neglect	1.46 ± 0.55	1.42 ± 0.57	1.31 ± 0.45	1.25 ± 0.39	4.12	.044	0.45	.502	0.02	.882
Physical abuse	1.20 ± 0.56	1.12 ± 0.32	1.05 ± 0.14	1.09 ± 0.28	1.75	.188	0.10	.747	0.68	.412
Minimization of trauma	0.45 ± 0.82	0.95 ± 0.95	0.55 ± 0.76	0.86 ± 0.84	0.00	.984	7.43	.007	0.37	.542
Total trauma score	8.11 ± 2.60	7.41 ± 1.73	7.01 ± 1.69	6.58 ± 1.26	9.39	.003	3.29	.071	0.37	.545

[a]One-way ANOVA, BPD, and DD diagnoses as independent variables and gender as covariate.
Abbreviation: ANOVA = analysis of variance.

order symptoms. Namely, in a previous study[16] on conversion disorder, minimization/denial of childhood trauma was demonstrated among patients with no concurrent dissociative disorder. This paradox is also in accordance with no correlation between dissociative amnesia and minimization/denial of childhood trauma scores in the present study; apparently, minimization or denial of trauma is a phenomenon different from dissociative amnesia and represents rather an adaptation to traumatic experience.[39] Combination of depersonalization and amnesia in a subgroup of DDNOS cases in the present study may also reflect the ongoing alternation between approaching (which evokes depersonalization feelings) and avoiding (which maintains amnesia) aversive mental contents as a further (and rather unsuccessful) adaptation or coping process.[42]

Previous studies yielded contradictory findings about the relationship between childhood trauma and dissociative symptomatology in borderline personality disorder. Two studies on female borderline inpatients found that childhood history of sexual abuse is a risk factor for dissociative symptomatology.[10,11] In contrast, 2 other studies[43,44] found that childhood sexual abuse is not a risk factor for dissociative experiences in either men or women meeting criteria for borderline personality disorder; these studies found that borderline personality disorder itself is the single significant risk factor for the level of dissociation. The diagnoses of both borderline personality disorder and complex PTSD were significantly higher in women reporting early-onset abuse than in those with late-onset abuse.[45] Obviously, not only the type of developmental trauma but also its infliction time may be related to the selection of the pathway leading to a specific subsequent psychopathology.

A 27-year follow-up study revealed that borderline personality disorder improves symptomatically over time, with only 7.8% of the sample still meeting criteria for the disorder.[46] Thus, borderline personality disorder criteria represent a phenomenology limited to adolescence and young adulthood that may be only a phase of a long-lasting psychopathologic process. The present study cannot determine if "pure" borderline personality disorder and the "dual" diagnosis category represent 2 conditions such that the person may move from one to the other in longitudinal course; no previous study has inquired into this either. The prevalence of borderline personality disorder (8.5%) determined in a college population in the present study is much higher than the rates reported in previous studies (i.e., between 1% and 3% in the community).[47–49] This high rate seems to be related to the young age of the participants. Most of these students had come from different regions of the country, and they were in a transitory period of life in terms of solving attachment issues with their families of origin and were trying to test their identities in a new environment. Due to culturally common overprotective attitudes of parents, this adjustment may extend to the early 20s in Turkey.

In contrast to clinical studies,[9] women were not overrepresented among participants with borderline personality disorder in the present study. There was also no difference in gender between dissociative and nondissociative borderline groups. Thus, we believe that participants from both genders share common risk factors in our study group, which consists of relatively stable college students who may differ from those seen in clinical studies. Nevertheless, male participants were even more traumatized than female participants in the present study (Table 3). Apparently, female borderline and/or dissociative patients take contact with psychiatry more readily than men do. This may be due to the severity of their condition or due to the more open attitude of women to recognize and disclose their psychological problems, whereas men may be more prone to hide them.

The high epidemiologic comorbidity documented in the present study may have several reasons. There may be shared risk factors, 1 of the disorders may itself be a risk factor for the other, or there may be fuzzy boundaries between the 2 diagnoses. As the present study inquired into

only childhood trauma reports (out of several other possibly confounding factors), this issue cannot be considered as resolved yet. However, better recognition of the highly prevalent but usually neglected Axis I dissociative disorder comorbidity of borderline patients may contribute to conceptual clarification of this spectrum of psychopathology.

In order to facilitate this insight among clinicians and researchers, potential revisions in the criteria of both disorders in the DSM-V should be taken into account. From the angle of the present study, the ninth criterion of borderline personality disorder concerning "transient dissociative symptoms" blurs the boundaries between 2 categories, and it may be deleted. On the other hand, the rather narrow definition of dissociative identity disorder in the DSM-IV and, as a consequence, placement of the most typical and common chronic dissociative conditions in the DDNOS category, as if they were atypical forms, makes a revision inevitable. Placement of the DDNOS cases with distinct personality states as a subtype of dissociative identity disorder (as partial dissociative identity disorder) or subsuming both dissociative disorder groups in a broader category of major dissociative disorder and development of polythetical diagnostic criteria for these patients that allow a selection from a large pool of symptoms should be taken into consideration.[50,51]

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