

Psychological pain and traumatic experiences in bipolar disorder

Bipolar bozuklukta psikolojik acı ve travmatik yaşantılar

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ABSTRACT

Aim: The present study attempted to explore the traumatic experiences of patients with bipolar disorder (BD), uncover the prevalence frequency of psychological pain and associated suicidal ideation among them, and investigate the relationships between these variables.

Materials and Methods: Sixty BD type I patients and 60 healthy controls were included in the study. We collected the data using The Sociodemographic Information Form, The Traumatic Experience Checklist (TEC), The Beck Scale for Suicidal Ideation (BSSI), The Visual Analogue Scale (VAS), The Psychache Scale (PS), The Beck Depression Inventory (BDI), and The Young Mania Rating Scale (YMRS).

Results: The findings showed the patient group scored significantly higher on the scales than the control group. A significant positive correlation was observed between PS and BSIS, TEC composite total trauma scores, BDI, YMRS and VAS. Their PS total score was significantly predicted by the TEC composite scores of emotional neglect, emotional, physical and sexual abuse, sexual harassment, and trauma score. And the patients' TEC total score significantly predicted their BSSI score.

Conclusion: Overall, compared to the healthy controls, the BD patients had more traumatic experiences, also felt more psychological pain and experience greater severity of suicidal ideation. In addition, while the number of trauma significantly predicted the severity of suicidal ideation, its type and severity significantly predicted psychological pain. Ultimately, the processes and causes of mental suffering among BD patients, a risk group for suicide, should always be under the spotlight even during the remission period.

Keywords: Bipolar disorder, psychache, psychological pain, suicide, trauma, trauma experiences.

ÖZ

Amaç: Çalışmada Bipolar Bozukluk (BB) tanılı hastalardaki travmatik yaşantı, psikolojik acı ve ilişkili olduğu düşünülen intihar düşüncesi sıklığının tespitiyle, aralarındaki olası ilişkinin incelenmesi ve ön görücülerin saptanması amaçlanmıştır.

Gereç ve Yöntem: Çalışmaya 60 BB tip I tanılı hasta ve 60 sağlıklı kontrol dahil edildi. Sosyodemografik Veri Formu, Travmatik Yaşantılar Ölçeği (TEC), İntihar Düşüncesi İçin Beck Ölçeği (BSIS), Vizuel Analog Skala (VAS), Psikolojik Acı Ölçeği (PS), Beck Depresyon Ölçeği (BDI) ve Young Mania Rating Scale (YMRS) uygulandı.

Bulgular: Hasta grubunun tüm ölçek puanları kontrol grubunun puanlarından anlamlı şekilde yüksek bulunmuştur. PS ile BSIS, TEC birleşik travma puanı, TEC toplam travma puanı, BDI, YMRS, VAS pozitif yönde anlamlı korelasyon görülmüştür. PS puanını duygusal ihmal, duygusal istismar, bedensel istismar, cinsel taciz, cinsel istismar, birleşik travma puanı TEC ve VAS skoru yordamaktadır. BSIS puanını ise toplam travma puanı TEC yordamaktadır.

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Sonuç: *BB hastaları sağlıklı kontrollerden daha fazla travmatik yaşantıya sahiplerdir, aynı zamanda psikolojik acıyı daha fazla hissetmekte ve intihar düşüncesinin şiddetini daha fazla yaşamaktadır. Travmanın tipi ve ciddiyeti psikolojik acıyı, sayısı intihar düşüncesi şiddetini yordamaktadır. İntihar açısından riskli bir grup olan BB hastalarının zihinsel acı çekme süreçlerinin ve nedenlerinin sorgulanması remisyon döneminde de dikkat edilmesi gereken bir husustur.*

Anahtar Sözcükler: *Bipolar bozukluk, psikolojik acı, intihar, travma, travma yaşantıları.*

INTRODUCTION

Bipolar disorder (BD) is a chronic mood disorder with depressive and manic or mixed episodes, leading to functional impairment. It is well-documented that about half of BD patients attempt suicide at least once in their lifetime. Even though the periods of the disorder appear with varying symptoms, the patients bear a significant risk compared to the general population regarding both suicide attempts and completed suicide (1). Traumatic events are also known to be risk factors for suicidal behavior (2). According to its contemporary definition in the Diagnostic and Statistical Manual for Mental Disorders 5th edition (DSM-5), a traumatic event is something directly exposed to, witnessed, learned, or experienced, being confronted with death or serious injury, or being sexually assaulted. (3). Traumatic events may occur in childhood as well as in any period of one's lifetime. It is hypothesized that early traumatic life experiences predispose to the development of the disorder and, thus, will lay the ground for a neural substrate for triggering mood disorders. In addition, traumatic experiences showing up as physical, emotional, and sexual neglect and abuse are also risk factors for suicidal behavior (4). It was previously reported that traumatic events, particularly in early childhood, not only trigger the very first episode of BD but also affect the course and prognosis of the disorder, boosting the rate of suicide attempts among the patients (5, 6).

Psychological pain (or psychache) is denoted as mental suffering due to confrontation with traumatic events, loss, or unexpected and undesirable situations. The extended literature has recently suggested that psychological pain is not only associated with depressive disorder but also a clinical picture that may exist in other psychiatric disorders. In essence, it is often aired that one feels psychological pain when involved in hate, shame, insecurity, humiliation, and hopelessness in traumatic events. Even unbearable levels of psychosocial pain may lead one to attempt suicide to get rid of the pain (7).

Psychological pain, a relatively novel research subject, has not been touched upon among BD patients, although we are well-informed on

childhood traumas in this patient group. BD patients may be prone to suicide not only in mania and depression but also during remission; thus, the predictors of suicide need to be uncovered during remission too. Ultimately, we believe psychological pain to be worth exploring among BD patients, considering them as a group susceptible and vulnerable to traumatic experiences. Hence, the present study attempted to explore past traumatic experiences of BD patients (e.g., emotional, physical, and sexual abuse and neglect), uncover the prevalence of psychological pain and associated suicidal ideation among them, and investigate the relationships between these variables.

MATERIALS and METHODS

Ethical Consideration

In addition to permissions from relevant local institutions, we obtained ethical approval for our study from the Non-Interventional Research Ethics Committee of Fırat University (dated 11.18.2021 and numbered 2021/12—17). We carried out the study in line with the Declaration of Helsinki and sought written informed consent from all participants agreeing to participate in this study voluntarily.

Power analysis

Using the G*Power program (version 3.1) (8) at a moderate effect size (Cohen's $d = 0.5$), a power of 80%, and a 95% confidence interval, we calculated the minimum sample size of the study as 128 individuals, 64 each for the patient and control groups. Then, we reached out to 93.75% of the sample size (120 individuals).

Sample

Patient group: Sixty patients, presenting to the Psychiatry Clinic of Fethi Sekin City Hospital, diagnosed with Bipolar Disorder Type I according to DSM-5 diagnostic criteria, in remission, and satisfying the research criteria, were randomly recruited to the study.

Control group: We randomly selected sixty age- and sex-matched healthy controls not meeting any disease criteria in DSM-5 and not presenting to and receiving any treatments in any psychiatry clinics before.

Diagnostic assessment

Inclusion criteria were as follows: being aged 18-65 years, being in BD remission according to DSM-5 (subclinical anxiety and depressive symptoms were included), being free of any chronic physical pathology or neurological disease (e.g., epilepsy, LVH), history of head trauma, and cognitive impairment that would affect the distribution of psychiatric symptoms, providing their written informed consent, and having no mental retardation.

Measures and Procedure

After collecting their signed consent forms, we administered the participants a sociodemographic information form, the Traumatic Experience Checklist (TEC), the Beck Scale for Suicidal Ideation (BSSI), the Visual Analogue Scale (VAS), the Psychache Scale (PS), the Beck Depression Inventory (BDI), and the Young Mania Rating Scale (YMRS). We resorted to DSM-5 to explore any comorbid psychiatric disorders among the participants. Filling out the questionnaires took about 40 minutes, and we considered a YMRS score below 12 and a BDI score below 17 to be euthymic.

Sociodemographic Information Form: We designed the form to seek information about the participants' age, sex, height, weight, employment status, marital status, educational attainment, occupation, place of residence, socioeconomic status, family structure, psychiatric treatment status, family history of psychiatric disorders, and physical health status.

Beck Scale for Suicidal Ideation (BSSI): It is a five-factor scale designed to assess the severity of suicidal ideation (9). The scale has no cutoff score, and one may get a maximum score of 38; higher scores indicate severe suicidal ideation. Ozelik et al. (10) adapted the scale into Turkish.

Beck Depression Inventory (BDI): It is a 3-point Likert-type inventory consisting of 21 items. While the threshold score is 17, one may score between 0 and 63 on the scale. Hisli (11) performed its validity and reliability study in the Turkish context.

Psychache Scale (PS): Holden et al. (12) developed the 13-item PS. The responses to the items on this five-point Likert-type scale range between "Never" and "Always" or "Strongly disagree" and "Strongly agree." It was previously documented that the scale successfully distinguishes those who attempted suicide and those who did not. It demonstrates the frequency

of psychological pain rather than its severity (12). Demirkol et al. (13) explored the psychometric properties of its Turkish version.

Traumatic Experiences Checklist (TEC): It seeks 29 types of past traumatic experiences without term restrictions (i.e., childhood or early adulthood). The questions focus mainly on three essential points: 1) whether the event happened or not, 2) how old one was at the time of the event, and 3) how much the event affected the person psychologically (14). One gives 1 point for each event they experienced and 0 for those not experienced. The TEC total score ranges from 0 to 29, indicating the number of traumatic events experienced. In addition, the scale allows composite scores for each trauma type (emotional neglect, emotional abuse, physical abuse, sexual abuse, sexual harassment). The trauma composite score ranges from 0 to 69 and indicates the severity of the impacts of traumatic experiences. Şar (15) carried out its Turkish validity and reliability study. Besides, we created a Visual Analog Scale (VAS) for the participants to choose to what extent (1 = lowest severity, 10 = highest severity) they were affected by the previous traumatic event(s).

Young Mania Rating Scale (YMRS): The items cover core symptoms defined in the BD manic episode, grading from mild to severe. The validity and reliability study of its Turkish version was performed by Karadağ et al. (16). The euthymia criterion is considered < 12 points.

Statistical Analysis

We presented the categorical data as numbers (n) and percentages (%), while continuous data were shown as median (interquartile range). The categorical data were compared between the groups with the chi-square test (Pearson's Chi-square). Since the Kolmogorov-Smirnov test resulted in a non-normal distribution, we analyzed the data using the Mann-Whitney U test and Spearman's correlation analysis. The variables yielding significant relationships in the correlation analysis were included in the linear regression analysis to identify the predictors of psychological pain and suicidal ideation. We performed the analyses on SPSS 22.0 (Statistical Package for Social Sciences; SPSS Inc., Chicago, IL) and accepted a *p*-value < 0.05 as statistically significant.

RESULTS

A total of 120 participants, 60 patients and 60 controls, were included in the study. We found

that alcohol and/or substance use (23.2% vs. 8.3%) and smoking (38.3% vs. 21.7%) among the patients were significantly more frequent than the controls ($p = 0.024$ and 0.046 , respectively). Similarly, the patient group had significantly higher rates of automutilation (18.3% vs. 0%) and

suicide (45% vs. 0%) compared to the control group ($p < 0.001$). Yet, we could not reach significant differences between the groups by their sociodemographic characteristics and family history ($p > 0.05$) (Table-1).

Table-1. Sociodemographic characteristics of the groups.

	Patient		Control		p^*	
	N	%	N	%		
Age, Median (IQR)	31.0 (27.0-35.0)		30.0 (25.5-35.5)		0.310**	
Sex	Female	35	58.3	30	50.0	0.360
	Male	25	41.7	30	50.0	
Marital status	Single	22	36.7	24	40.0	0.118
	Married	28	46.7	33	55.0	
	Divorced	10	16.7	3	5.0	
Educational attainment	Middle school and below	16	26.7	18	30.0	0.750
	High school	20	33.3	22	36.7	
	University	24	40.0	20	33.3	
Place of residence	District	16	26.7	17	28.3	0.838
	City	44	73.3	43	71.7	
Socioeconomic status	Low	13	21.7	9	15.0	0.235
	Moderate	33	55.0	42	70.0	
	High	14	23.3	9	15.0	
Employment status	Employed	32	53.3	37	61.7	0.356
	Unemployed	28	46.7	23	38.3	
Alcohol and/or substance use	Yes	14	23.3	5	8.3	0.024
	No	46	76.7	55	91.7	
Smoking	Yes	23	38.3	13	21.7	0.046
	No	37	61.7	47	78.3	
Family history of psychiatric disorders	Yes	16	26.7	8	13.3	0.068
	No	44	73.3	52	86.7	
Automutilation	Yes	11	18.3	0	.0	<0.001
	No	49	81.7	60	100.0	
Suicide	Yes	27	45.0	0	.0	<0.001
	No	33	55.0	60	100.0	
Suicide by drugs	Yes	18	66.7	-	-	-
	No	9	33.3	-	-	
Suicide by hanging	Yes	6	22.2	-	-	-
	No	21	77.8	-	-	
Suicide by sharp instruments	Yes	4	14.8	-	-	-
	No	23	85.2	-	-	
Suicide by jumping from a height	Yes	2	7.4	-	-	-
	No	25	92.6	-	-	
Medication	None	10	16.7	-	-	-
	Mood stabilizers	10	16.7	-	-	
	Antipsychotics	10	16.7	-	-	
	Multiple medications	30	50.0	-	-	
Suicide age, Median (IQR)	20.0 (18.0-23.0)		-		-	
Duration of the diagnosis (years), Median (IQR)	6.0 (4.0-10.0)		-		-	
Total number of episodes, Median (IQR)	3.0 (2.0-4.0)		-		-	
Number of depressive episodes, Median (IQR)	1.5 (1.0-2.0)		-		-	
Number of manic episodes, Median (IQR)	1.0 (1.0-2.0)		-		-	
Total number of hospitalizations, Median (IQR)	1.0 8 (.0-2.0)		-		-	

*Chi-square analysis, **Mann-Whitney U test. IQR: Interquartile Range.

Table-2. The groups' scores on the scales.

	Patient	Control	p^*
	Median (IQR)	Median (IQR)	
Emotional neglect composite	7.0 (4.0-10.0)	2.0 (.0-4.0)	<0.001
Emotional abuse composite	4.0 (3.0-8.0)	.0 (.0-2.0)	<0.001
Physical abuse composite	4.5 (.0-10.0)	.5 (.0-2.0)	<0.001
Sexual harassment composite ^a	.0 (.0-4.0)	.0 (.0-0)	<0.001
Sexual abuse composite ^a	.0 (.0-0)	.0 (.0-0)	0.028
Trauma composite (TEC)	22.0 (12.0-27.0)	4.0 (.0-10.0)	<0.001
Total trauma score (TEC)	7.0 (6.0-10.0)	2.0 (.0-4.0)	<0.001
BDI	10.0 (5.0-14.0)	1.0 (.0-5.0)	<0.001
YMRS	3.5 (1.0-5.0)	.0 (.0-0)	<0.001
PS	19.5 (15.0-26.5)	13.0 (13.0-14.0)	<0.001
VAS	6.0 (4.0-8.0)	.0 (.0-4.0)	<0.001
BSSI	2.0 (.0-4.0)	.0 (.0-0)	<0.001

*Mann-Whitney U test. IQR: Interquartile Range

^aMean rank values differ between these variables with the same median values.

BDI: Beck Depression Inventory, BSSI: Beck Scale for Suicidal Ideation, PS: Psychache Scale, TEC: Traumatic Experiences Checklist, VAS: Visual Analog Scale, YMRS: Young Mania Rating Scale

Table-1. The correlations of the PS ve the BSSI scores with the study parameters.

	PS		BSSI	
	r	p	r	p
BSSI total score	.688	.000		
Suicide age	.355	.069	-.059	.770
Duration of the diagnosis (years)	-.129	.325	-.053	.688
Total number of episodes	.101	.442	.166	.204
Number of depressive episodes	.212	.103	.237	.068
Number of manic episodes	-.262	.043	-.120	.362
Total number of hospitalizations	.143	.276	.120	.362
Emotional neglect composite score	.428	.001	.453	.000
Emotional abuse composite score	.424	.001	.306	.017
Physical abuse composite score	.149	.254	.310	.016
Sexual harassment composite score	.575	.000	.603	.000
Sexual abuse composite score	.560	.000	.490	.000
Trauma composite score TEC	.638	.000	.639	.000
Total trauma score TEC	.524	.000	.674	.000
BDI	.781	.000	.763	.000
YMRS	.495	.000	.701	.000
VAS	.898	.000	.767	.000

BDI: Beck Depression Inventory, BSSI: Beck Scale for Suicidal Ideation, PS: Psychache Scale, TEC: Traumatic Experiences Checklist, VAS: Visual Analog Scale, YMRS: Young Mania Rating Scale

The patients scored significantly higher on all the scales than the control group ($p < 0.05$) (Table-2). Besides, we determined emotional neglect (100%), emotional abuse (91.6%), physical abuse (73.3%), sexual harassment (33.3%), and sexual abuse (20%) in the patient group at the specified rates.

When it comes to the scale scores, the patients' PS score showed significant positive associations with their BSSI, BDI, YMRS, VAS, and TEC total

scores and the TEC composite scores of emotional neglect, emotional abuse, sexual abuse, sexual harassment, and trauma. Moreover, we found significant positive correlations between their BSSI score and their BDI, YMRS, VAS, and TEC total scores and the TEC composite scores of emotional neglect, emotional abuse, sexual abuse, sexual harassment, and trauma (Table-3).

Table-2. The findings of the linear regression analysis.

	β	SE	Standard β	<i>t</i>	<i>p</i>
PS ($R^2 = 0.769$; $F = 17.350$; $p < 0.001$)					
BISI	-.408	.393	-.124	-1.038	0.304
Number of manic episodes	1.598	1.027	.118	1.556	0.126
Emotional neglect composite score	-4.289	1.200	-1.884	-3.574	0.001
Emotional abuse composite score	-3.798	1.185	-1.699	-3.206	0.002
Physical abuse composite score	-4.008	1.184	-2.741	-3.386	0.001
Sexual harassment composite score	-4.175	1.294	-1.414	-3.227	0.002
Sexual abuse composite score	-2.941	1.190	-.652	-2.472	0.017
Trauma composite score TEC	4.063	1.164	5.471	3.491	0.001
Total trauma score TEC	-.228	.215	-.132	-1.062	0.294
BDI	.131	.187	.110	.699	0.488
YMRS	-.209	.303	-.067	-.691	0.493
VAS	2.094	.474	.835	4.416	<0.001
BISI ($R^2 = 0.646$; $F = 11.778$; $p < 0.001$)					
Emotional neglect composite score	.340	.449	.492	.758	0.452
Emotional abuse composite score	.297	.443	.437	.670	0.506
Physical abuse composite score	.350	.442	.788	.792	0.432
Sexual harassment composite score	.420	.482	.468	.870	0.388
Sexual abuse composite score	.569	.440	.415	1.294	0.202
Trauma composite score TEC	-.345	.435	-1.530	-.794	0.431
Total trauma score TEC	.191	.074	.365	2.582	0.013
BDI	.049	.070	.135	.700	0.487
YMRS	.144	.110	.152	1.315	0.195
VAS	.163	.174	.214	.936	0.354

BDI: Beck Depression Inventory, BSSI: Beck Scale for Suicidal Ideation, PS: Psychache Scale, TEC: Traumatic Experiences Checklist, VAS: Visual Analog Scale, YMRS: Young Mania Rating Scale

In the patient group, the TEC total scores and PS scores of those who committed suicide were significantly higher than those who did not commit suicide ($p < 0.001$).

The multiple linear regression analysis yielded that the patients' PS score was significantly predicted by the TEC composite scores of emotional neglect ($\beta = -4.289$, $p = 0.001$), emotional abuse ($\beta = -3.798$, $p = 0.002$), physical abuse ($\beta = -4.000$, $p = 0.001$), sexual abuse ($\beta = -4.175$, $p = 0.002$), sexual harassment ($\beta = -2.941$, $p = 0.017$), and trauma ($\beta = 4.063$, $p = 0.001$) and the VAS score ($\beta = 2.094$, $p < 0.001$). Finally, their BSSI score was significantly predicted by their TEC total score ($\beta = 0.191$, $p = 0.013$) (Table-4).

DISCUSSION

The BD patients in this study reported having experienced emotional neglect (100%), emotional abuse (91.6%), physical abuse (73.3%), sexual harassment (33.3%), and sexual abuse (20%) at the specified rates. Our findings showed

significant differences between the patients and the controls by their scores on the scales. Accordingly, the patient group had more traumatic experiences, higher suicidal thoughts even in remission, and more prevalent psychological pain. Moreover, despite being a semi-quantitative measure, they scored higher on the VAS. And the TEC total scores and PS scores of the patient group who committed suicide were significantly higher than those who did not commit suicide.

The relevant literature highlighted that neglect and abuse in childhood, as well as the neurobiological alterations initiated by traumatic experiences, are more prevalent among psychiatric patients compared to the healthy population (17). In addition, it was previously reported that mood disorders are more common particularly among those exposed to emotional neglect and sexual abuse exacerbated by genetic and environmental interactions (18). In a clinical sample from Turkey, mood disorders were found more frequently in the participants reporting to

have been exposed to emotional neglect (19). A study with 100 BD patients concluded that almost half of the patients experienced severe abuse in at least one category (37% emotional, 37% physical, and 21% sexual) (20). Another study with 116 euthymic BD type I patients in the Turkish population reported the rates of childhood trauma to be 45%-68%, physical abuse to be 25.9%, emotional abuse to be 26.7%, sexual abuse to be 20.7%, and physical and emotional neglect to be 39.7% (21). Interestingly, we found these rates to be much higher than those reported so far. Although our sample had a relative ethnic similarity with the sample in the study by Erten et al. (21), regional and cultural differences in sampling may have mediated the different findings. Nevertheless, it was noteworthy that each BD patient experienced emotional neglect according to their responses, assisted by a psychiatrist when needed, on the TEC. Failure to satisfy the need for "bonding and affection" (22), which comes after basic physiological and security needs, may lead to neurodevelopmental issues and difficulties in emotion regulation (23). Considering that environmental factors also have a role in the etiology of BD (3), traumatic experiences may have somehow triggered neurogenesis in these patients, affecting the onset and episodes of the disorder.

To the best of our knowledge, the only data on psychological pain levels among BD patients were collected by the Turkish validity and reliability study for the Mee-Bunney Psychological Pain Assessment Scale. The study concluded the mean psychological pain level among BD patients to be 45.88 without additional evidence for the patients' episodes. Our BD patients in remission had a median PS score of 19.5 (24). The more the patients had traumatic experiences (except for physical abuse), the more frequent they had psychological pain. Moreover, according to their TEC scores, they had increased severity of suicidal ideation as the total number of traumatic events increased. Thus, our result may imply that the more one is exposed to all aspects of trauma (emotional, physical, and sexual), the more severe the suicidal ideation appears. A study with BD patients reported a positive correlation between childhood traumas and suicide (25). In fact, traumas may contribute to the BD cycle and symptom severity (26). Another study concluded significant positive associations between the

severity of childhood traumas and suicidal thoughts and behaviors among BD patients (27). A recent meta-analysis suggested that exposure to childhood traumas is associated with an increased risk of suicidal behavior in BD (28). Hence, our findings are consistent with the previous results revealing the link between increased suicidal ideation and traumatic experiences in BD.

In this study, the elevated frequency of psychological pain was correlated with the VAS scores and the severity of depressive symptoms and suicidal ideation. Similarly, the previous literature acknowledged psychological pain as a risk factor for suicide (7). However, we concluded that psychological pain did not significantly predict the severity of suicidal ideation. A meta-analysis study revealed that individuals with suicidal ideation feel greater psychological pain than those without (7). As well as psychological pain, suicidal ideation also covers one's capacity to commit suicide, environmental factors, hopelessness, problem-solving skills, self-perception, and sense of belonging. Therefore, our finding may be explained by the multifactorial structures of suicidal ideation and psychological pain and their likely heterogeneity with other variables (29). Despite substantial evidence supporting the association between suicide and psychological pain, the literature lacks systematic studies (30).

Another noteworthy finding of our study was that the trauma composite and the VAS scores predicted psychological pain, among which emotional neglect and sexual abuse were the strongest predictors of psychological pain. These findings may point out that the quality and severity of the trauma, rather than its quantity, function on psychological pain more. Psychological pain is predicted by unrequited spiritual needs and a lack of care, affection, compassion, and social support. Meanwhile, it should be noted that the PS measures the frequency of psychological pain better than its severity. However, psychological pain among individuals with trauma may be much more severe than expected; therefore, psychological pain is sometimes considered a mechanism of coping with trauma and emotional avoidance (31). On the other hand, trauma refers to the number of traumas on the TEC. The predictive relationship between trauma composite scores and the BSSI score may indicate that the quantity of trauma also predicts the severity of suicidal ideation.

The apparent strength of the present study is the inclusion of BD patients in remission, eliminating the confusion associated with episodes. However, we carried out this cross-sectional study in a single center. In addition, although the literature offers generic definitions for trauma and psychological pain, interpreting these concepts based on self-report scales may be influenced by culture and duration of trauma.

CONCLUSION

Overall, we concluded that the BD patients in remission experienced emotional neglect, emotional abuse, physical abuse, sexual harassment, and sexual abuse more than the healthy controls. The BD patients had more traumatic experiences, felt more psychological pain even in remission, and had greater severity of suicidal ideation. The severity of past traumatic

experiences predicted mental suffering, showing up as negative affect (e.g., pain, sadness, grief, and shame). Finally, the number of traumatic experiences predicted the severity of suicidal ideation. It is well-known that the etiology of BD is rather complex and that it is triggered by the combination of many risk factors. Nevertheless, further research may elaborate on the mechanisms behind psychological pain and traumatic experience of BD patients. In addition, the process and causes of mental suffering among BD patients, who are vulnerable to suicide, should be considered in the remission period.

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Conflict of Interest: The authors declare that they have no competing interests.

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