Araştırma / *Original article*

Childhood traumas in patients with bipolar disorder: association with alexithymia and dissociative experiences

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ABSTRACT

Objective: *The number of studies investigating the traumatic events experienced during childhood period in patients with bipolar disorder (BD) are limited and to our knowledge no previous study was conducted about alexithymia and dissociative experiences of these patients as well. Besides investigation of childhood traumas and associated dissociative and alexithymic properties, identification of the differences between BD patients with and without childhood trauma (CT) was aimed in this study.* ***Methods:*** *Among the admissions to the psychiatry outpatient clinic, 70 BD patients and 70 healthy control subjects were included into the study. Structured Clinical Interview for DSM-IV Axis-I Disorders, Dissociative Experiences Scale (DES), Childhood Trauma Questionnaire (CTQ) and Toronto Alexithymia Scale (TAS-20) were administered.* ***Results:*** *Mean subscale and total scores of patients with BD in both CTQ and TAS-20, and mean DES score were found to be significantly higher than healthy control subjects. Psychopathological acts, number of episodes and suicide attempts were higher in the BD patients with childhood trauma history than that of the BD patients without any history of childhood trauma. Additionally, positive correlations were found between 'sexual abuse' and alexithymia total score along with 'difficulty identifying feelings' subscale score. Moreoever, mean DES score was also found to be positively correlated with 'difficulty identifying feelings' subscale score, 'difficulty to describe feelings' subscale score, alexithymia total score, and episode frequency.* ***Conclusion:*** *These results highlight the importance of protective mental health in the treatment of BD and reveal that childhood traumas should be questioned when evaluating patients especially with the diagnosis of BD.* ***(Anatolian Journal of Psychiatry 2016; 17(3):188-195)***

Keywords: *bipolardisorder, childhoodtrauma, dissociation, alexithymia*

Bipolar bozukluk hastalarında çocukluk çağı travmaları: Aleksitimi ve dissosiyatif yaşantılarla ilişkileri

ÖZ

Amaç: *Bipolar bozukluk (BB) hastalarında çocukluk döneminde yaşanan travmatik olayları araştıran çalışmalar sınırlıdır ve bildiğimiz kadarıyla hastalarda aleksitimi ve dissosiyatif deneyimleri araştıran bir çalışma yoktur. Bu çalışmada çocukluk çağı travmaları ve ilişkili dissosiyatif ve aleksitimik özellikler yanında çocukluk çağı travması (ÇT) olan ve olmayan BB hastaları arasındaki farklılıkların tanımlanması amaçlanmıştır.* ***Yöntem:*** *Psikiyatri polikliniğine başvuran 70 BB hastası ve 70 sağlıklı kontrol çalışmaya alındı. DSM-IV Eksen-I Bozukluklar için Yapılandırılmış Klinik Görüşme (SCID-I), Dissosiyatif Yaşantılar Ölçeği (DES), Çocukluk çağı Travma Anketi (CTQ) ve Toronto Aleksitimi Ölçeği (TAS-20) uygulandı.* ***Bulgular:*** *BB hastalarının CTQ ve TAS-20 alt ölçek ve toplam puanları ve DES puanı sağlıklı kontrollere göre anlamlı oranda daha yüksekti. Psikopatolojik davranışlar, nöbet ve intihar*

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girişimi sayısı çocukluk çağı travması olan BB hastalarında olmayanlara göre daha yüksekti. Ek olarak, cinsel istismar ve aleksitimi toplam puanı arasında 'duyguları tanımlamada güçlük' açısından pozitif korelasyon bulundu. Ortalama DES puanı ile 'duyguları tanımlamada güçlük', 'duyguları tarif etmede güçlük' alt ölçekleri, aleksitimi toplam puanı ve nöbet sıklığı arasında pozitif korelasyon bulundu. ***Sonuç:*** *Bu sonuçlar, BB'de koruyucu ruh sağlığının önemini vurgulamış ve özellikle BB hastalarını değerlendirirken çocukluk çağı travmalarının sorgulanması gerekliliğini açığa çıkarmıştır.* ***(Anadolu Psikiyatri Derg 2016; 17(3):188-195)***

Anahtar sözcükler: *Bipolar bozukluk, çocukluk çağı travması, dissosiyasyon, aleksitimi*

INTRODUCTION

The efforts to elucidate the roles of psychosocial factors along with neurobiological factors in the etiology of BD will improve success of diagnosis and treatment of this disorder. A lot of factors are listed under the etiological factors of BD and childhood traumas were reported to be among them in a number of studies. Given the chronic and obviously disabling natures and the high treatment costs of BD, the importance of childhood traumas would better be understood.[1,2]

Severe psychological traumas that were impossible to cope with usual defence and coping mechanisms may create specific effects on psyhological structure. These experiences are called as psychological traumas. In addition to accidents and natural disasters, psychological traumas in childhood period may be secondary to sexual, physical, emotional abuse, and also neglect. When abuse or neglect recurrently happens in childhood period they may cause some psychiatric disorders which have manifestations also in adulthood.[3] Sexual, physical, and emotional abuse and neglect are common both in patients with psyhiatric disorders and in general population.[3-7] Some associations between childhood abuse and neglect experiences and some psychiatric conditions like mood disorders, dissociative disorders, and suicide attempts were previously shown in the literature.[8,9]

Childhood traumas were found to be associated with alexithymia as well.[10]According to the studies in the literature, alexithymia is a quite commonly seen condition in psychiatric disorders.[11-16] However, alexythymic properties of BD patients have not been studied yet. The studies which investigated the association of alexithymia and childhood traumas retrospectively concluded that patients with alexithymia had more childhood abuse or trauma histories than normal population.[10] In a study, increased number of childhood abuse and neglect identified among a self-mutilating sample of patients were suggested to be associated with alexithymia.[17]

On the other hand, the associations between childhood traumas and dissociative phenomena have been the subject of many previous studies and became a well-known information.[5,7,18-21] Childhood abuse or neglect experiences and also dissociative experiences were reported to be more frequent in psychiatric patients who had attempted to a suicide or self-mutilative behavior than other pyschiatric patients who had not.[18]

To our knowledge, in addition to childhood traumas, alexithymia and dissociative experiences have not been studied in BD patients yet. Since dissociative and alexythymic properties may exist among the long term effects of childhood traumas in adulthood, investigation of their frequencies and their associations with each other have also been included into the study. Additionally, determination of the differences between BD patients with and without childhood trauma has also been aimed.

METHODS

Study sample

Among the patients who admitted to GATA Haydarpasa Training Hospital Psychiatry Outpatient Clinic, 70 BD patients who were in their euthymic phase and 70 age and gender matched healthy control subjects were included into the study. Patients were being diagnosed as bipolar affective disorder according to the DSM-IV-TR by two psychiatrists who were blind to each other. All participants gave written informed concent. Local ethical council approval was obtained for the research.

Inclusion criteria were as follows: being literate, being between 18 and 65 years of age, lack of any comorbid psychiatric diagnosis, and being in the euthymic phase of BD at the time of enrollment to the study.

Data collection

Semi-structured Interview Form for Patients with Bipolar Disorder: It was prepared by using the accumulated data after a literature search

thouroughly in the field. First part of this form was designed for collection of demographical variables of the patients (age, marital status, economical status, education, job, social security). Second part was for the collection of data about the clinical features, number of episodes, hospitalizations, and suicide attempts.

Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I): It is a structured form and administered by clinicians to investigate DSM-IV Axis-I diagnoses. Validity and reliability of its Turkish version has been demonstrated by Ozkurkcugil and colleagues.[22]

Childhood Trauma Questionnaire (CTQ): It is a self-report questionnaire that was first developed by Bernstein and colleagues to assess retrospectively traumas and neglect during childhood and adolescence. There are two different kinds of CTQ comprising 28 and 53 questions (the form with 28 questions was used in this study). Physical abuse (sum of the scores of items 8, 9, 10, 14, and 16), physical neglect (sum of the scores of items 1, 3, 5, 15, and 28), emotional abuse (sum of the scores of items 2, 7, 13, 17, and 24), emotional neglect (sum of the scores of items 4, 6, 12, 18, and 27), and sexual abuse (sum of the scores of items 19, 20, 22, 23, and 26). Scores are seperately determined. The items 4, 6, 12, 15, 18, and 27 are scored inversely.[23] It was also shown reliable and valid in Turkish population.[24]

Toronto Alexithymia Scale (TAS-20): It is a self-report likert-type questionnaire composed of 20 items which can be scored between 1 (absolutely disagree) and 5 (absolutely agree). Items 4, 5, 10, 18, and 19 are inversely scored. 'Difficulty in identifying feelings' subscale (TAS-1) is composed of 7 items (items 1, 3, 6, 7, 9, 13, and 14) and is defined as the difficulty in identifying feelings and differentiating them from accompanying bodily sensations. 'Difficulty describing feelings' subscale (TAS-2) is composed of 5 items (2, 4, 11, 12, and 17) and is defined as difficulty in explaining emotions to others. 'Externally-oriented thinking' subscale (TAS-3) is composed of 8 items (items 5, 8, 10, 15, 16, 18, 19, and 20) and is used to measure the tendency of individuals to focus their attention externally. Higher scores obtained from subscales and total scores show higher levels of alexithymia. Reliability and validity of its Turkish version was shown by Sayar and Kose.[25]

Dissociative Experiences Scale (DES): It is a self-report scale comprises 28 questions. General DES score, ranges between 0 and 100, is calculated simply by dividing the sum of scores of all questions to 28. The validity and reliability of Turkish version of the scale has been demonstrated byYargic and colleagues.[26]

Statistical analysis

Statistical analysis of the data were done by using SPSS (Statistical Package for Social Sciences) for Windows 13.0. Mean, standard deviation, and percentages of the data were presented as the comparisons of independent groups. For descriptive statistics arithmetic mean and standart deviations were used. The parameters of both BD group and control group were compared by using t test. For correlations Pearson correlation test and lineer regression analysis were used. Statistically significance level was set as $p<0.05$.

RESULTS

The Demographical variables of 70 BD patients and 70 healthy control subjects were given in Table 1. Mean age of BD patients was 34.73±12.04 years, where as, it was 34.01±6.08 years in the control group ($p>0.05$). There was no statistically significant difference between groups when the mean education levels of both groups were compared (12.04±3.86 years in BD group and 13.47±2.93 years in control group). Economical status and marital status of both groups were also similar statistically ($p>0.05$).

The five subscale and total scores in CTQ-28, the three subscale and total scores in TAS-20, and DES general score of patients with BD were found to be significantly higher than that of control group ($p<0.05$) (Table 2).

The mean total score of CTQ-28 in patient group was 45.34, whereas, standard deviation was 15.41. After summing them, the cut-off score was accepted to be 61 for the CTQ-28 in the study. Hence, the 23 patients who had a CTQ-28 total score equal or over 61 were defined as 'group with childhood trauma', the other 47 patients who had scores below 61 were defined as the 'group without childhood trauma'. Besides higher number of episodes, a higher frequency of suicide attempts was observed in patients with childhood trauma when compared to the patients without childhood trauma ($p<0.05$). Data about these findings are shown in Table 3.

Linear regression analysis did not reveal any asssociation between CTQ-28 total score, TAS-

20 total score, and DES score of the patient group (p=0.52). On the other hand, positive correlations were found between CTQ-28 sexual abuse and TAS-1 and TAS-2 scores in the patient group. Additionally, there were positive correlations

Table 1. Demographical features of the subjects

Variables	Patient group n	%	Control group n	%	p
Marital status					>0.05
Married	29	41.4	41	58.6	
Unmarried	31	44.3	21	30.0	
Widowed	1	1.4	0	0.0	
Divorced	9	12.9	8	11.4	
Education					>0.05
Primary school	12	17.1	3	4.3	
High school	26	37.2	32	45.7	
University	30	42.8	13	18.6	
Master/doctorate	2	2.9	22	31.4	
Economical status					>0.05
Lower	11	15.7	6	8.6	
Middle	50	71.4	50	71.4	
Upper	9	12.9	14	20.0	
Gender					>0.05
Female	23	32.9	23	32.9	
Male	47	67.1	47	67.1	

Table 2. Comparison of mean scores of CTQ-28, TAS-20, and DES between patient and control groups

	Study groups	n	Mean±SD	p
CTQ Emotional neglect	Patient group	70	13.29±4.92	0.001
	Control group	70	9.47±3.9	
CTQ Emotional abuse	Patient group	70	11.51±5.05	0.001
	Control group	70	6.89±2.17	
CTQ Physical neglect	Patient group	70	7.93±3.66	0.001
	Control group	70	6.31±1.95	
CTQ Physical abuse	Patient group	70	6.73±3.18	0.004
	Control group	70	5.47±1.73	
CTQ Sexual abuse	Patient group	70	6.19±3.09	0.014
	Control group	70	5.23±0.95	
CTQ Total	Patient group	70	45.34±15.41	0.001
	Control group	70	33.31±8.19	
TAS-1 (Difficulty identifying feelings)	Patient group	70	19.43±7.92	0.001
	Control group	70	13.46±5.32	
TAS-2 (Difficulty describing feelings)	Patient group	70	14.09±5.12	0.001
	Control group	70	11.23±4.37	
TAS-3 (Externally oriented thinking)	Patient group	70	22.34±4.9	0.001
	Control group	70	19.41±4.94	
TAS Total	Patient group	70	55.04±15.85	0.001
	Control group	70	43.90±12.47	
DES Mean score	Patient group	70	19.57±17.61	0.001
	Control group	70	8.41±9.4	

SD: standard deviation; CTQ-28: Childhood Trauma Questionnaire-28; TAS: Toronto Alexithymia Scale; DES: Dissociative Experineces Scale

Table 3. Comparison of the patients with and without childhood trauma in terms of suicide attempt psychopathology history and episode numbers

Features		Trauma history present	not present	Test	p
Suicide attempt	present	12	13	4.04*	0.044
	not present	11	34		
Psychopathology history	present	12	8	5.69*	0.017
	not present	11	39		
Number of episodes		5.52±0.64	3.57±0.46	2.41**	0.018

**: Pearson χ^2 value, **: t value*

Table 4. Correlation coeffients and p values of study variables in BD patients

		EmNg	EmAb	PhyNg	PhyAb	SexAb	TAS-1	TAS-2	TAS-3	DES
EmNg	r	1.000	0.824	0.581	0.502	0.344	0.034	0.067	-0.029	0.008
	p		0.000	0.000	0.000	0.004	0.780	0.582	0.813	0.946
EmAb	r	0.824	1.000	0.538	0.472	0.380	0.070	0.127	0.041	0.074
	p	0.000		0.000	0.000	0.001	0.566	0.296	0.737	0.543
PhyNg	r	0.581	0.538	1.000	0.546	0.250	0.014	0.082	-0.076	0.056
	p	0.000	0.000		0.000	0.037	0.908	0.502	0.534	0.645
PhyAb	r	0.502	0.472	0.546	1.000	0.097	0.129	0.173	-0.115	0.074
	p	0.000	0.000	0.000		0.427	0.286	0.152	0.344	0.541
SexAb	r	0.344	0.380	0.250	0.097	1.000	0.239	0.221	0.192	-0.141
	p	0.004	0.001	0.037	0.427		0.046	0.066	0.111	0.243
TAS-1	r	0.034	0.070	0.014	0.129	0.239	1.000	0.861	0.546	0.444
	p	0.780	0.566	0.908	0.286	0.046		0.000	0.000	0.000
TAS-2	r	0.067	0.127	0.082	0.173	0.221	0.861	1.000	0.453	0.363
	p	0.582	0.296	0.502	0.152	0.066	0.000		0.000	0.002
TAS-3	r	-0.029	0.041	-0.076	-0.115	0.192	0.546	0.453	1.000	0.190
	p	0.813	0.737	0.534	0.344	0.111	0.000	0.000		0.116
DES	r	0.008	0.074	0.056	0.074	-0.141	0.444	0.363	0.190	1.000
	p	0.946	0.543	0.645	0.541	0.243	0.000	0.002	0.116	

BD: bipolar disorder; EmNg: Emotional neglect subscale score, EmAb: Emotional abuse subscale score; PhyNg: Physical neglect subscale score; PhyAb: Physical abuse subscale score; SexAb: Sexual abuse subscale score; DES: DES mean score; r: Pearson's correlation coefficient; p: statistically significance level

also between DES score and TAS-1, TAS-2, TAS total, and episode frequency in patient group. Frequency of sucide attempts in the patient group was shown to be positively correlated with TAS-1 and TAS-2. All correlation coefficients and their significance levels are given in Table 4.

DISCUSSION

In this study, mean scores of childhood trauma, alexithymia, and dissociative experiences in patients with BD were found to be significantly higher than that of healthy control subjects. In BD patients, those who had childhood trauma also had higher frequencies of history of any psychopathology, total number of episodes and suicide attempts than BD patients without childhood traumas. On the other hand, positive correlations were observed between 'sexual abuse scores' and 'alexithymia total' and 'difficulty identifying feelings' subscale scores. Additionally, positive correlations were also found between 'number of suicide attempts' and 'difficulty identifying feelings' and 'difficulty describing feelings' subscores; and between DES mean score and 'difficulty identifying feelings', 'difficulty describing feelings' subscores, alexithymia total score and episode frequency of BD, as well.

Childhood traumas may be comorbid to many physical or psychiatric disorders. A significant association is present between childhood traumas and mood disorders. Although the association between childhood traumas and depression have been investigated in many previos studies, number of studies exploring childhood traumas and their effect to the course of disease in bipolar disorder remain relatively limited.[27] Studies about this association concluded that childhood traumas were more common among BD patients when compared with general population.[27-33] Parallel to this suggestion childhood traumas were significantly higher among the BD patients in our study. In a study included patients with BD-I and BD-II, childhood traumas were reported in 48.3% of the participants.[34] In our study, it was found as 32.9% (n=23) in BD pa-tients.

Some previous studies have previously compared BD patients wtih and without childhood trauma. BD patients with childhood trauma have been reported to have earlier diasease onset, increased number of manic and depressive episodes, rapid-cycling, suicide attempt, and comorbid substance abuse/dependence than BD patients without childhood trauma.[30-32,34-39] Similarly, in our study frequencies of psychopathology history, total number of episodes, and suicide attempt were higher in BD patients with childhood trauma than BD patients without any childhood trauma. Studies reporting a progressive deterioration in general functioning of BD patients secondary to recurrences of the episodes greatly highlight the importance of this issue.[29]

Childhood traumas have been found to be related with alexithymia.[10] In two previous studies alexithymic properties were determined in 7.6-39.8% in psychiatry outpatient clinics. According to many other studies alexithymia is quite common in psychiatric disorders.[10-16] Consistent with these studies, in our study alexithymia was observed to be higher in BD patients than healthy control subjects. To our knowledge, there has been no specific study which has investigated alexithymia in BD patients. On the other hand, association of alexithymia with childhood traumas has been the subject of some previous studies.[10,13,40] Recent studies concluded that childhood traumas and abuses were more prevalent in alexithymic patients when compared to healthy control subjects.[10,13] This suggestion is hand in hand with our findings showing association of sexual abuse with alexithymic properties in general or to be more specific with 'difficulty identifying feelings'. According to Krystal, feelings are in the form of undifferentiated and somatic experiences in the earlier periods of life. Then, they gradually become differentiated during development of affects and verbalized.[41] If any psychological trauma happens to a child during a specific developmental phase, then development of his/her affects may pause in that phase. Hence, alexithymic patients are accepted to be fixed in earlier phases of their affect development because of the psychological traumas they experienced in their early lives. Similarly, according to Freyberger, secondary alexithymia is a condition that may develop after a severe physical illness or psychological trauma and may be persistent or transient.[42,43]

Another important finding of the present study is the positive correlations observed between number of suicide attempts and the scores obtained from 'difficulty identifying feelings' and 'difficulty describing feelings' subscale scores in TAS-20. Support to this finding comes from the results of some previous studies in the literature.[10,13,14,44] This finding may suggest that alexithymic BD patients may be directing their suppressed anger to themselves secondary to their disability in verbalization due to the difficulties that they experience in identifying and expressing their own feelings. Thisfinding may be interpreted in such a way that BD patients with alexithymic properties may have a higher tendency for a suicide attempt because of higher degrees of social isolation they experience and lower levels of functioning in their lives and consequently decreased treatment seeking behaviour.

Association of childhood traumas and dissociative phenomena has been the subject to many previous studies and to date it is a classical information.[5,7,18-21] However, as far as we know expect the present study no other studies investigated dissociative experiences in BD patients. In our study, dissociative experiences were found to be higher in BD patients than healthy control subjects. Surprisingly, there was no significant association between childhood traumas and dissociative symptoms in our study population. Explanations to this finding may be lower than expected DES scores due to the assesment of patients in euthymic period of their illness, exclusion of comorbid psychiatric conditions, and small sample size of the study. One of the findings of this study is the increased number of episodes by increase in dissociative symptoms. This might have been accounted for higher number of episodes found in BD patients with childhood trauma. It has previously been suggested that childhood abuse and neglect might be associated with dissociative disorders and self-muti-

lative behavors including suicide attempt.[8,9,18] Parallel to this suggestion suicide attempt was observed more frequently in BD patients with childhood trauma. The importance of this point can be better understood when the loss of 10-19% of BD patients secondary to suicide, which is almost 15 times greater than normal population, is taken into consideration.[28]

Small sample size and use of self-report scales (CTQ, TAS, DES) rather than more objective tests are the limitations of our study.

CONCLUSIONS

Consequently, childhood traumas seem to be more prevalent in BD patients than healthy control subjects. Additionally, BD patients appear to have higher levels of alexithymic and dissociative symptoms. Furthermore, an association between sexual abuse and alexithymia may be described in BD patients. Higher frequencies of mood episodes and suicide attempt found in BD patients with childhood trauma history go along with the suggestion that childhood traumas may be among the important factors determining the etiology, treatment, and prognosis of BD. Results in this study also highlight the significance of preventive mental health approach and remind the need for noting childhood traumas when managing the patients with BD diagnosis.

Authors' contributions: *O.Y.: Design of the study, data collection, statistics; M.A.A.: Design of the study, data collection; Ü.B.S.: Design of the study, data collection; R.T.: Design of the study, writing the manuscript, language editing, statistics; Y.B.: Writing the manuscript, statistics, language editing; A.A.: Design of the study, data collection; H.B.: Design of the study, data collection; C.B.: Design of the study, writing the manuscript; S.E.: Design of the study, writing the manuscript; M.Ç.: Senior author, design of the study, writing the manuscript.*

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