The Relationship of Childhood Abuse and Neglect with Suicide Attempts in an Adult Unipolar Depression Sample

Erişkin Unipolar Depresyon Örnekleminde Çocukluk Çağı İstismar ve İhmal Yaşantılarının İntihar Girişimi ile İlişkisi

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ABSTRACT

Introduction: Unipolar depression is an important psychiatric disorder that leads to an increased risk of suicide. However, not all depression patients attempt suicide. This reflects the presence of other factors that may be related to suicide other than the sole presence of psychopathology. Drawing upon the clinical evidence linking childhood abuse and neglect experiences with suicide; this study aimed at investigating the relationship of childhood abuse and neglect experiences with suicide attempts in patients with unipolar depression.

Method: One hundred six unipolar depressed patients between the ages of 18 and 65 were included in the study. Patients with comorbid psychiatric disorders, neurological disorders, alcohol-substance abuse problems, and a Beck Depression Inventory (BDI) score of <17 were excluded from the study. The BDI, Childhood Trauma Questionnaire (CTQ-28), State-Trait Anger Expression Inventory (STAXI), and the Suicide Behavior Questionnaire (SBQ) were administered to all patients. Suicidal and non-suicidal cases were determined according to clinic interviews and the patients' responses in the SBQ.

Results: Sixty-four patients have previously attempted suicide. Although there was no significant difference between unipolar depression patients with a history of suicide attempts and patients with no history of suicide attempts in terms of average age, education and marital status, however, female/male ratio in the former group was determined to be significantly higher. BDI, STAXI continuous anger and outward anger average scores, and average CTQ-28 emotional abuse, physical abuse and total scores were significantly higher in the group with a history of suicide attempts. The predictors of suicide attempts were higher BDI and CTQ-28 physical abuse scores and female gender. The predictors for average SBQ scores were determined as higher BDI, CTQ-28 sexual abuse, and STAXI outward anger and continuous anger scores.

Conclusion: Childhood physical and sexual abuse experiences are important factors in evaluating the presence of suicide attempts and risk of suicide in patients with unipolar depression. Careful questioning of traumatic childhood experiences during psychiatric examinations and monitoring of depression patients is crucial in determining treatment protocols and preventing suicide attempts. (Archives of Neuropsychiatry 2014; 51: 133-140)

Key words: Suicide, depression, childhood trauma

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ÖZET

Amaç: Unipolar depresyon, intihar riskinin arttığı önemli bir psikiyatrik hastalıktır. Bununla birlikte her depresyon hastası intihar girişiminde bulunmamaktadır. Bu durum, psikopatoloji varlığının dışında intiharla ilişkili olabilecek başka faktörlerin etkili olabileceğini düşündürmektedir. Çocukluk çağı istismar/ihmal yaşantılarının, intihar ile ilişkili olduğu bilinmektedir. Bu çalışmadaki amacımız, çocukluk çağı istismar ve ihmal yaşantılarının unipolar depresyon hastalarında intihar girişimi ile ilişkisini araştırmaktır.

Yöntem: Çalışmaya 18-65 yaş aralığında 106 unipolar depresyon hastası dahil edilmiştir. Komorbid psikiyatrik hastalığı, nörolojik hastalığı, alkol-madde kötüye kullanımı olanlar ve Beck Depresyon Ölçeğine (BDÖ) göre 17 puan altında puan alanlar çalışmaya dahil edilmemiştir. Tüm olgulara BDÖ, Çocukluk Çağı Travma ve İhmal Yaşantıları Ölçeği (CTQ-28), Sürekli Öfke ve Öfke İfade Tarzı Ölçeği (SÖÖTÖ), İntihar Davranış Ölçeği (İDÖ) uygulanmıştır. İntihar girişimi olan ve olmayan olgular İDÖ yanıtına ve klinik görüşmelere göre belirlenmiştir.

Bulgular: Çalışmaya alınan hastaların 64'ü hayatının bir döneminde intihar girişiminde bulunmuş, 42'si hiç intihar girişiminde bulunmamıştır. İntihar girişiminde bulunmuş unipolar depresyon olguları ile hiç intihar girişimi olmamış hastalar arasında yaş ortalamaları, eğitim ve medeni durum özellikleri açısından istatistiksel farklılık bulunmazken, intihar girişimi olan grupta kadın/erkek oranı, girişimi olmayan gruptan anlamlı olarak yüksek tespit edildi. İntihar girişimi olan grupta BDÖ, SÖÖTÖ sürekli öfke ve öfke dışı puan ortalamaları, CTQ-28 duygusal istismar, fiziksel istismar ve toplam puan ortalamaları anlamlı olarak yüksek bulundu. Çalışmada geçmişte intihar girişiminde bulunmanın yordayıcıları olarak yüksek BDÖ ve CTQ-28 fiziksel istismar puanları ve kadın cinsiyette olma bulunmuştur. İDÖ puan ortalamalarının yordayıcılarının BDÖ, CTQ-28 cinsel istismar, SÖÖTÖ öfke dışı ve sürekli öfke puan ortalamaları yüksekliği olduğu bulunmuştur.

Sonuç: Çocukluk çağı fiziksel ve cinsel istismar yaşantıları unipolar depresyon hastalarında intihar girişimi varlığı ve intihar davranışı riskinin değerlendirilebilmesinde önemli etkenlerdir. Çocukluk çağı travmatik yaşantılarının depresyon hastalarının psikiyatrik muayenesi ve izleminde dikkatle sorgulanması, tedavi protokolünün belirlenmesinde ve intihar girişimlerinin engellenmesinde oldukça önemlidir. (Archives of Neuropsychiatry 2014; 51: 133-140)

Anahtar kelimeler: İntihar, depresyon, çocukluk çağı travması

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Introduction

Unipolar depression is a significant psychiatric disease with increased risk of suicide (1,2,3). It has been reported that approximately 50% of depression patients attempt suicide once in their lifetime (2). However, not each patient with unipolar depression attempts suicide (4,5,6). This suggests presence of other factors which may be related with suicide besides psychopathology. Inadequacy of presence of psychopathology to explain suicidal behavior led investigators to develop a model which might explain suicidal behavior, namely stress-predisposition model (7,8). This model proposes that suicide behavior occurs as a result of interaction of diathesis with stress (transient mood conditions, psychopathology, bad experiences, use of alcohol-sedative) (9). Diathesis which differentiates patients with a high-risk for suicidal behavior from the one with a low risk includes factors with long-term effects and affect the individual's response to stressors and depends on environmental factors (childhood traumas, personality etc.) and genetic factors (10).

Population studies have demonstrated that childhood traumas is one of the predisposing factors (diathesis) which render the individual prone to suicide by interacting with stress factors (11,12,13,14,15,16,17,18). In a population study, Fuller (19) demonstrated that physical abuse in the childhood might be an independent risk factor which determines lifelong suicidal ideation. In a population study conducted with female subjects, Akyüz (19) found that all subtypes of childhood trauma were clearly related with suicidal attempt.

In studies which examined the relation between history of childhood trauma and suicidal behavior in patients with unipolar depression, different information was obtained about the issue of which type of childhood trauma increased predisposition to suicide. In studies conducted with patients with unipolar depression, physical and sexual abuse were emphasized specifically and it was reported that these subtypes of abuse had a marked effect on suicide attempt. Brodsky and Oquendo (4) reported that depressive adults who had experienced physical or sexual abuse in their childhood had a significantly higher rate of suicide attempt compared to the ones who had no history of trauma. In a population study conducted with depressive women, Mc Holm et al. (20) reported that physical abuse was the only subtype of trauma which showed marked correlation with suicide ideation. On the other hand, experiences of emotional neglect and abuse in the childhood have also been reported to be related with suicide attempt besides physical and sexual abuse (2,20,21). In a study conducted with a unipolar depression sample, the scores of emotional abuse and emotional neglect experienced in the childhood and the scores of total childhood trauma and the lifelong aggression scores were found to be markedly higher in individuals who had a history of suicide attempt at any time of their lives compared to the ones who had no history of suicide attempt, but only emotional neglect was reported to be markedly related with the risk of suicide (2). In a population study, Mullen (21) mentioned the relation of emo-

tional abuse with suicide attempt and reported that emotional abuse may be related with depression and suicide in adulthood. Similarly, Bifulco (22) demonstrated that emotional abuse experienced in the childhood showed a marked correlation with lifelong depression and suicide attempt.

It has been reported that aggression which has been proposed to be one of the diathesis factors may be a mediator both in the relation between childhood traumas and suicide attempt and the relation between mental diseases and suicide attempt (23,24,25,26,27). Pompili (25) proposed that impulsivity and aggression might explain the causal relation between depression and suicide. Dumais (6) demonstrated that aggressive behavior was related with suicidal behavior especially in the subjects aged between 18 and 40 years. It has been reported that anger which is a type of expression of aggression is more common in individuals who have had traumatic experiences in the childhood (29), these individuals may experience difficulty in coping with anger (28) and may be more prone to experience repetitive anger attacks accompanying destructive behaviors (damage to property, violence) (29).

In studies conducted with various samples, it was observed that suicide attempt was related with different childhood traumatic experiences and anger experiences. However, this information of us shows a difference in patients with unipolar depression.

Based on this information, the aim of our study was to investigate the effects of childhood experiences of abuse or neglect on suicide in patients with unipolar depression by jointly evaluating all subtypes of trauma and diathesis factors which have been reported to cause to predisposition to suicide including anger in order to contribute to clarify different findings demonstrated in previous studies.

Methods

The study was conducted with the patients who presented to the outpatient clinic of Bakırköy Prof. Dr. Mazhar Osman Mental Health and Neurological Diseases Education and Research Hospital between December 2009 and March 2010. Local ethics committee approval was obtained for the study and written informed consent was obtained from the patients.

Participants

150 literate outpatients aged between 18 and 65 years who had major depressive disorder according to DSM-IV-TR diagnostic criteria without comorbid Axis-1 diagnosis were interviewed. The patients who were diagnosed with major depression with psychotic features, who had comorbid neurological diseases including mental retardation, dementia, Parkinson's disease, degenerative diseases, multiple sclerosis, who had alcohol or substance addiction and who had a Beck Depression Scale (BDS) score below 17 were not included in the study.

The Sociodemographic Data Form, SCID-I (The Structured Clinical Interview for DSM-IV Axis I Disorders), CTQ-28 (The Childhood Trauma Questionnaire), BDS (Beck Depression In-

ventory), CSTAS (Continuous State-trait Anger Scale), Suicidal Behavior Scale (SBS) were administered to the patients.

Twenty-five of 150 patients who were interviewed were excluded from the study, because they filled in the forms inadequately, 8 were excluded, because they had comorbid neurological diseases and 11 were excluded, because they had alcohol or substance addiction. The study was completed with the remaining 106 patients (62 women and 43 men). Presence of suicidal attempt was determined by clinical interview and SDS.

Measurements

The Sociodemographic Data Form

An interview form designed by the investigators was used to evaluate the gender, age, education level, marital status, current and past disease states, history of diagnosis and treatment, comorbid states and familial history of the patients.

The Structured Clinical Interview for DSM-IV Axis I Disorders

This is the clinical interview form structured by First et al. (30) for DSM-IV Axis I disorders. The adaptation and reliability studies of SCID-I for Turkey were performed by Özkürkçügil et al. (31). SCID-I determines if an Axis I diagnosis has been present at any time (lifelong prevalence) and presence or absence of the symptoms of disorder in the last 1 month.

The Childhood Trauma Questionnaire (CTQ-28)

This assessment tool developed by Bernstein et al. (32) is composed of a total of 28 questions. With this scale five subscores including childhood sexual, physical, emotional abuse and emotional and physical neglect and the total score composed of the combination of these are obtained. The Turkish validity and reliability study of the scale was performed by Şar et al. (33).

Beck Depression Inventory (BDI)

This scale which was developed by Beck et al. (34) is composed of 21 questions and measures the physical, emotional, cognitive and motivational symptoms observed in depression. The objective of the scale is not to make a diagnosis of depression, but to determine the degree of depression symptoms. A high total score indicates a high depression severity. Its validity and reliability study for our country was performed (35). In the validity and reliability study conducted with outpatients, a score of 17 was accepted as the cut-off point for BDI.

The Continuous State-Trait Anger Scale (CSTAS)

This scale was developed by Spielberger et al. (36) to determine the types of expression of anger. It is a 4-point Likert type scale composed of 34 items. The first 10 items of the scale measure continuous anger and the following 24 items measure the types of expression of anger. The Turkish adaptation of the scale was performed by Özer (37).

Suicidal Behavior Scale (SBS)

This scale was developed by Linehan and Nielsen (38) in 198. Its validity and reliability study for Turkey was performed by Bayam et al. (39). The scale is composed of four questions which question "Suicide plan and attempt, suicide ideation, suicide threat and repeatability of suicide". The lowest score which can be obtained on the SBS scale is 0 and the highest

score is 14. The highest score obtained has been stated to be the severest suicide behavior. In addition, each item can be assessed inside itself.

Statistical Analysis

SPSS 18.0 for Mac program was used in the statistical analyses. When evaluating the data, descriptive statistical methods (mean, standard deviation, frequency) were used and Student's t test was used in comparison of the quantitative measurements which showed parametric distribution. In comparison of the qualitative data, chi-square test was used in 2x2 tables and multiple tables. Fisher's exact test was used, when necessary. Pearson's correlation analysis was used in assessment of the relations between the scale scores. Prospective logistic regression analysis was performed to determine the predictors of presence of suicide attempt where the status of suicide attempt was considered the dependent variable and the BDI total score, CTQ emotional, physical, sexual abuse scores, Continuous State trait anger scores, mean ages and gender were considered the independent variables. Stepwise regression analysis was performed to determine the predictors of the mean scores of SBS which evaluated suicidal behavior where the SBS scale scores were considered as the dependent variable and the age, gender, BDI score, Continuous State-Trait Anger scores, CTQ-28 emotional, physical, sexual abuse and emotional neglect subscale scores were considered as the independent variables. The results were evaluated in a confidence interval of 95% at a significance level of $p < .05$.

Results

The mean age of the patients included in the study was 36.58 ± 11.91 years. 60.4% ($n=64$) of 106 unipolar depression patients reported that they attempted suicide at least once in their lifetime. The mean number of suicide attempts of the patients who attempted suicide was found to be 2.83 ± 3.51 (range: 1-20). The mean age at the time of the first suicide attempt was found to be 27.44 ± 11.50 (range: 9-65). The final suicide attempt of 37 patients (34.9%) occurred at most one month before the study.

The sociodemographic properties of the patients who did and did not attempt suicide are summarized in Table 1. No statistical difference was found between the two groups in terms of mean age, education and marital status ($p > .05$), whereas the female/male ratio was found to be significantly higher in the group with suicide attempt compared to the group who had no suicide attempt ($\chi^2=5.814$; $p < .05$) (Table 1).

Comparison of the clinical assessment mean scale scores between the patients who did and did not have suicide attempt is summarized in Table 2. In the group with suicide attempt, the mean scores of BDI and CSTAS, CTQ-28 emotional abuse, physical abuse and total scores were found to be significantly higher (Table 2).

As a result of forward logistic regression analysis where suicide attempt was considered as the dependent variable and BDI total score, CTQ emotional, physical, sexual abuse scores,

CSTAS scores, mean ages and gender were considered as the independent variables, BDI, CTQ-28 physical abuse and gender were found to be significant predictors of presence of suicide attempt in the past (Table 3).

When the relation between Suicidal Behavior Scale and clinical assessment scales was evaluated, a positive significant relation was found between the mean SBS score and BDI ($r=.601$), CSTAS continuous anger ($r=.298$), inward anger ($r=.301$), outward anger ($r=.325$), CTQ-28 emotional abuse ($r=.315$), physical abuse ($r=.345$), sexual abuse ($r=.284$), emotional neglect ($r=.268$) and total scores ($r=.371$).

As a result of stepwise regression analysis performed to determine the predictors of the mean scores of Suicidal Behavior Scale in the sample where the age, gender, BDI score, CSTAS continuous anger, inward anger and outward anger, CTQ-28 emotional, physical, sexual abuse and emotional neglect sub-scale scores were considered as the independent variables, it was found that BDI, CTQ-28 sexual abuse, CSTAS outward anger and continuous anger scores had a significant effect on the scores of the Suicidal Behavior Scale (Table 4).

Discussion

In our study, it was found that 60,4% of the patients attempted suicide at least for one time, the patients who attempted suicide were mostly composed of women and the mean scores of BDI, CSTAS continuous anger, outward anger, CTQ-28 emotional abuse, physical abuse and mean total scores were significantly higher in the patients who attempted suicide compared to the ones who did not attempt suicide. It was found that the mean BDI score, female gender and physical abuse experiences in the childhood were determinants of suicide attempt in the past and the mean scores for BDI, sexual abuse in the childhood and outward and continuous anger were determinants of the mean scores of SBS.

Mood disorders are the psychiatric disease with the highest risk of suicide (40). Depressive disorders have been found in 35-80% of the individuals who had attempted suicide (41). The life-long suicide rates in patients diagnosed with depression have been reported to range between 28% and 50% (2,42,43). In our study, presence of suicide attempt was found in 60.4% of the patients. This rate is compatible with the previous studies and shows that suicide attempt is common in patients with unipolar depression (2,41,42,43).

Completed suicide is more common in men, while the rates of suicide attempt are higher in women (44). It has been reported that women with depression have a higher rate of suicide ideation and carry a higher risk for suicide attempt compared to men (20). This rate has been reported to be about 55.6% for lifelong suicide ideation and about 23.9% for lifelong suicide attempt (20). In a population study, Joiner (15) found that women and the young ones reported suicide attempt with a higher rate. In the study of Sarchiapone (2) in which depression patients who did and did not have suicide attempt were compared, no difference was found in terms of mean age, while the patients who had a suicide attempt were mostly single, female and unemployed. The female/male ratio for suicide attempt in our country has been reported to be 2:1 (40). Higher rates of suicide in women in our study supported the information in the literature.

In our study, the mean scores of BDI, CSTAS continuous anger and outward anger were found to be significantly high in the group who had suicide attempt. Brodsky (4) found the scores for impulsivity and aggression to be higher in depressive patients with at least one suicide attempt compared to the ones who had no suicide attempt. Again, Sarchiapone (2) found higher aggression scores in depressive patients with suicide attempt compared to the ones who had no suicide attempt. Moreno et al. (45) demonstrated that anger was a marked diagnostic indicator both for depression and suicide. In another study, it was proposed that negative self-perception, outward anger, inward

Table 1. Age, gender, education states by suicide attempt

		Suicide attempt		t	p
		Yes n=42	No n=64		
Age	Mean $\pm$ SD	39.10 $\pm$ 10.82	34.92 $\pm$ 12.37	1.782	.078
		N (%)	N (%)	χ^2	p
Gender	Female	19 (45.2%)	44 (68.8%)	5.814	.016
	Male	23 (54.8%)	20 (31.3%)		
Education	Primary school	16 (38.1%)	27 (42.2%)	1.248	.742
	Secondary school	6 (14.3%)	13 (20.3%)		
	High-school	14 (33.3%)	17 (26.6%)		
	University	6 (14.3%)	7 (10.9%)		
Marital status	Married	29 (69.0%)	33 (51.6%)	3.193	.074
	Single	13 (31.0%)	31 (48.4%)		

t: Student's t test, x2: chi-square test.

anger and dissatisfaction about inter-personal relations might be determinants of depression severity (46). Based on this information, high BDI scores and high outward and continuous anger scores suggest that features including anger in depressive patients might be in interaction with depression severity and these features might increase depression severity and a severe depressive period might lead the individuals to more angry behavior.

Studies have demonstrated that childhood traumas are one of the predisposing factors which render the individual prone to suicide (11,12,13,14,15,16,17,18). Sarchiapone (2) found the total CTQ scores and emotional abuse and emotional neglect scores to be markedly higher in depressive patients with suicide attempt compared to the ones with no suicide attempt, whereas Erol (47) found higher emotional abuse, emotional neglect, physical abuse and sexual abuse in depressive patients with suicide attempt compared to the control group. In a population study conducted with female subjects, Akyüz (19) found more frequent physical abuse, emotional abuse, sexual abuse and neglects in the group with suicide attempt. Similarly, we found the mean scores of CT-28 emotional abuse, physical abuse and mean total scored to be higher in depressive patients with suicide attempt compared to the ones who had no suicide attempt in our study. In addition, it was found that physical abuse, BDI scores and gender were predictors of suicide attempt in the past. McHolm (20) proposed that the trauma type which might be most closely related with suicide ideation was physical abuse in the child-

hood in depressive women reporting suicide ideation. Enns (48) reported that physical abuse in the childhood was related with suicide ideation or suicide attempt independent of Axis-1 diagnosis in the adulthood. In a population study conducted recently, it was reported that physical abuse in the childhood might be a risk factor determining lifelong suicide ideation similar to the results we obtained in our study (18). Considering these results, especially experience of physical abuse in the childhood should be interrogated in detail and should be considered during treatment in patients with depression who have attempted suicide.

It is important to determine the risk factors for suicide in the psychiatric patient population. In most population studies and in most studies conducted under the title of various diagnoses, it has been reported that especially a positive history of sexual abuse (11,13,49,50) and/or physical abuse (4,14,15,16,18,51) has a marked effect on the risk of suicide. Joiner (15) reported that sexual abuse involving especially physical abuse and violence were physically painful experiences supporting the theory he developed previously (Joiner's theory) and thus carried a higher risk for suicide attempt, whereas Brown (52) proposed that various childhood trauma subtypes in the population might be related with future suicide attempt, but only sexual abuse in the childhood was the strongest independent risk factor for suicide. In the study of Chandy (53) in which the effects of sexual abuse in the childhood on suicide and substance abuse conducted with adolescents composed mostly of male individuals, the rates of suicide attempts, suicide ideation and suicide risks were found to be markedly higher in 370 male adolescents who reported a history of sexual abuse compared to the ones who had no history of sexual abuse. In the study of Ratikan (54) in which depressive adults who did and did not have a history of sexual abuse, it was concluded that the ones who had a history of sexual abuse were more prone to suicide. Bedi (55) proposed that history of sexual abuse was related with increased depression and suicide ideation, suicide plan and suicide attempt. In another study conducted with a sample composed mostly of depressive patients who were evaluated after a suicide attempt, it was proposed that history of sexual abuse could have a direct effect on suicide ideation (56). Brodsky and Oquendo (4) reported that both history of physical and sexual abuse and impulsivity and aggression scores were related with suicide attempt in depressive patients and proposed that childhood abuses might be an environmental risk factor for development of impulsivity and aggression as well as suicide attempt. Ryan (57) proposed that individuals with traumatic experienced in the childhood gave response with anger in the adulthood when a perception of danger occurs even if danger related with the traumatic event does not persist, because anger might continue as a danger response after traumatic experience. Similarly, it was found that experiences of sexual abuse in the childhood were important factors together with depression severity, outward anger and continuous anger in assessment performed to determine the factors affecting the risk of suicide. In conclusion, it was thought that sexual abuse was a significant factor determining

Table 2. Comparison of clinical scales between unipolar depression patients with and without suicide attempt

	Suicide attempt		t	p
	No Mean±SD	Yes Mean±SD		
BDI	27.31±9.98	34.28±10.43	3.400	<.001
CSTAS				
Continuous anger	23.21±6.55	26.98±7.37	-2.689	.008
Inward anger	18.40±4.34	20.13±4.76	-1.882	.063
Outward anger	17.12±4.46	19.31±5.93	-2.044	.043
Anger control	19.88±4.60	18.45±5.13	1.458	.148
CTQ-28				
CTQ Emotional abuse	2.03±.61	2.44±.89	-2.566	.012
CTQ Physical abuse	1.32±.65	1.88±1.32	-2.514	.013
CTQ Sexual abuse	1.13±.43	1.41±.85	-1.943	.055
CTQ Emotional neglect	2.45±.97	2.83±1.24	-1.671	.098
CTQ Physical neglect	3.53±.33	3.55±.46	-.237	.813
CTQ total	9.35±1.95	10.71±3.08	-2.539	.013
t: Student's t test was used. CTQ: Childhood Trauma Questionnaire, CSTAS: Continuous State-trait Anger Scale, BDI: Beck Depression Inventory. For results marked bold: p<.05				

Table 3. Factors affecting suicide attempt according to the results of logistic regression analysis

Model	Variables	B	p	Ratio of possibilities	95% interval confidence	
1	BDI	.067	.002	1.070	1.025	1.116
	Constant	-1.637	.015	.195		
2	Gender	.907	.035	2.477	1.064	5.766
	BDI	.065	.003	1.067	1.022	1.114
3	Constant	-2.083	.004	.125		
	Physical abuse	.488	.050	1.629	.985	2.693
	Gender	1.085	.016	2.960	1.221	7.178
	BDI	.051	.027	1.052	1.006	1.101
	Constant	-2.541	.005	.080		

Table 4. Factors which affect the mean score of Suicidal Behavior Scale according to linear regression analysis

Model		B	Standard error	Beta	t	p
1	Constant	-.183	.708		-.258	.797
	BDI	.163	.021	.601	7.672	.000
	Constant	-1.191	.760		-3.460	.001
2	BDI	.157	.021	.579	7.636	.000
	Sexual abuse	.916	.304	.228	3.011	.003
3	Constant	-2.843	.945		-3.007	.003
	BDI	.148	.020	.543	7.287	.000
	Sexual abuse	.851	.296	.212	2.878	.005
	Outward anger	.111	.040	.208	2.786	.006
4	Constant	-2.573	.941		-2.735	.007
	BDI	.165	.022	.608	7.595	.000
	Sexual abuse	.857	.291	.213	2.940	.004
	Outward anger	.196	.058	.368	3.409	.001
	Continuous anger	-.094	.047	-.234	-2.026	.045

Model 1: F=58.85, SD=1.104, p<.001, Adjusted R2=.355

Model 2: F=36.24, SD=2.103, p<.001, Adjusted R2=.402

Model 3: F=28.33, SD=3.102, p<.001, Adjusted R2=.439

Model 4: F=22.92, SD=4.101, p<.001, Adjusted R2=.455

predisposition to suicide both alone and with its effects on anger and depression.

Emotional abuse is an independent, strong determinant of interpersonal relations and affect dysregulation (58). In addition, it shows a marked relation with the schemas of predisposition to giving harm, self-sacrifice, deficiency or shame. These schemas may cause the individual to experience emotional difficulties and develop depression and anxiety disorder in the future (59). It has been proposed that internalization of the negative interaction between the exploiter caregiver and the abused child by the child may be responsible of long-term effects by way of negative cognitions (60). In population studies, it was reported that emotional abuse showed a marked relation with depression and suicide attempt in the adulthood (21) and for a life time (22). On the other hand, Miniati (61) compared depressive patients with and without emotional abuse and found no difference in

terms of lifelong suicide attempts. In our study, emotional abuse scores were found to be higher in individuals with suicide attempt, but were not found to be determinative in terms of past suicide attempts and the risk of suicide. Nevertheless, this result we obtained suggests that emotional abuse may have long-term effects, even if it is not determinative factor for suicide. It seems important how children exposed to abuse perceive, evaluate and internalize this experience (62). It is thought that they would be more prone to psychiatric diseases including suicide, depression and anxiety when they confront with a stress factor in the future years because of negative cognitions and negative beliefs about themselves.

Our study has some limitations. Firstly, our study was conducted in a limited sample and only in patients with unipolar depression. Therefore, it is not appropriate to generalize the study results to the whole population. Another limitation is the fact

that a limited number of clinical data were considered and factors including personality characteristics and aggression were not evaluated while assessing the risk of suicide. Studies with larger samples investigation these variables are needed.

It can be stated that traumatic childhood experiences may increase the risk of suicide in the adulthood with their long-term effects. Therefore, it is rather important to question especially physical abuse and sexual abuse in patients who present with depressive complaints. Prospective studies on this issue will contribute to better understanding the causal relation between experiences of abuse in the childhood and suicidal behavior and establishing a treatment plan.

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