NÖRO PSİKİYATRİ ARŞİVİ

Research Article

Arch Neuropsychiatr 2015 • DOI: 10.5152/npa.2015.7459

Relationship of Suicidal Ideation and Behavior to Attachment Style in Patients with Major Depression

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ABSTRACT

Introduction: The attachment theory aims to understand close relationships in adulthood based on the relationship of a child with the caregiver. Attachment styles are classified as secure, preoccupied, fearful and dismissing, which are the subtypes of insecure attachment style. Insecure attachment is suggested to be related to depression and suicide. In this study, the relationship of suicidal ideation and behavior to attachment style is investigated in patients diagnosed with major depression.

Methods: Sixty-two patients diagnosed with major depressive disorder according to the DSM-IV-TR criteria were taken and divided into two groups, 31 patients with and 31 patients without a past suicide attempt. Sixty healthy volunteers matched with the patients for age, gender and education and comprised the control group. Sociodemographic and clinical data form, Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), Hamilton Depression Rating Scale (HDRS), Experiences in Close Relationships Scale (ECR), Scale of Suicidal Ideation and Suicidal Behavior Scale were applied to the groups.

Results: In the patients with depression, ECR anxiety and avoidance scores were found to be higher compared with those in the control group. There were no differences in the anxiety and avoidance scores between the patients with and without suicide attempt. The rate of participants who showed secure attachment style in the control group was higher than that of those with depression. In the patients with fearful attachment style, the suicide attempt rate was found to be higher than the other groups. A positively significant relationship was detected between ECR anxiety score and scores of HDRS suicide item, Scale of Suicidal Ideation and Suicidal Behavior Scale.

Conclusion: Patients with depression were more anxious and more avoidant and showed more insecure attachment. In patients with depression with fearful attachment style, suicide attempts were more common.

Keywords: Attachment, depression, suicide attempt

INTRODUCTION

Suicide is an urgent situation for mental health workers, which requires first-degree intervention (1) and is one of the leading causes of death in developed countries, especially in the younger age group (2). Although the incidences of completed suicide and attempted suicide in Turkey are lower than those in other European countries and the United States, the crude suicide rate was reported as 3.75 deaths per 100.000 deaths in 2005 (3). Attempted suicides were found to be 10–30 times more frequent than completed suicides and more common among females (1,3). Biological, psychological and sociocultural factors are the causes of suicide (1,3) and gender, age, marital status, family features, education, professional and economical status, environmental factors and life events are considered as risk factors (1,2,3,4,5). In addition, history of depression, past suicide attempts and family history of suicide are among the risk factors (3,5,6).

Suicide is present among the symptoms of major depression and borderline personality disorder in DSM-IV-TR (7). Moreover, 50–70% of completed suicides were reported in patients with depression and major depression was found to be one of the diagnoses most commonly encountered in patients who attempted suicide (1,3,6,8,9).

Attachment is described as an affective bond developed by someone to his significant others (10). This bond, which is built between an infant and his/her primary care giver within the first years of life, becomes an important part of the personality and this feature showing resistance to change during the entire lifetime, significantly determines human behavior "from the cradle to the grave" (11,12,13,14). The infant's relationship with an attachment figure leads to the development of positive or negative internal working models about self and others. These models, which strengthen with repeating interactions during the development, remain partially stable during adulthood and determine the attachment style (13,15,16).

Attachment styles were first described as secure, anxious-avoidant and anxious-ambivalent, which are the subtypes of insecure attachment style (13,15,16,17). In addition, a disorganized attachment style was stated by Main and Solomon (18).

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Received: 07.10.2013 **Accepted:** 16.04.2014 **Available Online Date:** 07.07.2015

According to Bowlby (14), internal working models include two major dimensions: internal model of self (self-model) and attachment figure model (other-model). Based on this idea, Bartholomew and Horowitz (19) claimed that the self- and other-models are fundamental dimensions that determine attachment styles and classified attachment styles as secure, preoccupied, fearful and dismissing. A person with a secure attachment style would have both positive self- and other-models, whereas a combination of positive self but negative other models leads to a dismissing attachment style. A person with a preoccupied attachment style would have negative self- and positive-other models and a combination of negative self- and other-models causes fearful attachment styles (15,19). Brennan and Shaver (20) stated that as a result of analyzing these dimensions, attachment-related anxiety and attachment-related avoidance dimensions could be used to determine attachment styles.

While attachment style is accepted as a general risk factor for psychopathology (21,22), it has been suggested that depression is related to insecure, especially fearful and preoccupied attachment, styles (11,23,24,25,26,27,28). Insecure attachment was also found to be related to suicidal ideation and behavior in many studies (21,29,30).

Although the relationship of attachment to suicide and depression was emphasized in many studies, the relationship of attachment (dimensional and categorical) to suicidal ideation and behavior in depression was not directly investigated in a homogenous group constituted only by patients with major depression.

In our study, it was aimed to investigate the relationship of suicidal ideation and behavior to attachment in patients diagnosed with major depression. We hypothesized that insecure attachment style may increase the suicide risk in patients with major depression, In particular, those with a fearful attachment style could be the group with the highest suicide risk because of their negative beliefs about both themselves and others.

METHODS

Selection and Creation of Groups

Eighty patients who consecutively applied to the psychiatry outpatient clinic of Bakirkoy Prof. Dr. Mazhar Osman Research and Training Hospital for Psychiatry, Neurology and Neurosurgery and who were diagnosed with major depressive disorder according to DSM-IV-TR criteria with Hamilton Depression Rating Scale (HDRS) equal to or more than 16 were included in the study. Ethical approval for the study was given by the ethics committee of the same institution.

The participants were required to be between 18 and 65 years and literate. Exclusion criteria were alcohol or psychoactive substance abuse or dependence currently or in the last one month, clinically detected mental retardation or pervasive developmental disorder, dementia and the diagnosis of a psychiatric disorder due to a general medical condition.

The patients who agreed to participate in the study after reading the informational text and who gave written informed consent were included in the study. Among the 80 patients included in the study, patients who were diagnosed with comorbid bipolar disorder, psychotic disorders and dissociative disorders according to the DSM-IV-TR criteria were excluded and the results of 62 patients were evaluated. The patients were divided into two groups as patients with or without a past suicide attempt. A healthy control group comprised 60 healthy volunteers matched with the patient group for age, gender and education.

Assessment Scales

Sociodemographic and clinical data form, Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I), HDRS, Experiences in Close Relationships Scale (ECR), Scale of Suicidal Ideation and Suicidal Behavior Scale were applied to the groups.

Sociodemographic and Clinical Data Form: This is an interview form including questions about the sociodemographic features and medical history of patients prepared by researchers according to the aim of the research.

SCID-I: The scale was designed to investigate Axis I diagnoses according to the DSM-IV criteria and was adapted to Turkish by Özkürkçügil et al. (31).

HDRS: This scale was developed to measure the severity of depressive symptoms and the validity and reliability study of the Turkish form was conducted by Akdemir et al. (32). In this 17-item scale, the items were rated between 0 and 4 and 0 and 2 and higher scores indicate more severity for this symptom.

ECR: This scale, which was developed by Brennan et al. (20), measures anxiety and avoidance dimensions similarly to the model of Bartholomew and Horowitz and classifies people into four attachment categories. While the secure attachment style resides in low anxiety and avoidance dimensions, the fearful attachment style, which is in the opposite pole, is characterized with high levels in both dimensions. The preoccupied attachment style is determined with high anxiety and low avoidance, whereas the dismissing attachment style is determined with low anxiety and high avoidance (Figure 1). The scale is constituted by a total number of 36 items and each dimension is measured by 18 items. Participants evaluate to which extent each item defines them using a 7-point Likert-type scale. The scale was adapted to Turkish by Sümer (33).

Scale of Suicidal Ideation: This scale aims to measure the severity of suicidal ideation and the validity and reliability study of the Turkish version was conducted by Dilbaz et al. (34). In the scale, which is formed by 17 questions with answers as yes/no, the total scores range between 0 and 17 and the highest score corresponds to a more significant suicidal ideation.

Suicidal Behavior Scale: This scale investigates life-long suicidal behavior, suicidal ideation and suicide repeatability. The validity and reliability study of Turkish version was conducted by Bayam et al. (35). In this scale, which includes four items, the scores range between 1 and 14 and the highest scores define more serious suicidal behavior.

Statistical Analysis

Statistical Package for the Social Sciences (SPSS Inc., Chicago, IL, USA) 16 for Windows was used to analyze data obtained in the study. Student's t-test was used for the comparison of parameters with normal distribution and Mann–Whitney U test for the comparison of parameters without normal distribution. In the comparison of qualitative data, chi-square test was used and when the expected frequencies were not found, Fisher's exact test was used. The significance was evaluated in the $p<0.05$ and $p<0.01$ levels. In the comparison of quantitative data, one-way ANOVA was used for the comparison of parameters with normal distribution and Bonferroni test was used to determine the group that causes the difference as a post hoc method. Kruskal–Wallis test was used for parameters without normal distribution and Mann–Whitney U test was used to determine the group that causes the difference.

Table 1. Comparison of sociodemographic data between the patients with depression with and without suicide attempt and the control group

n: 122		Without suicide attempt (n=31) n (%)	With suicide attempt (n=31) n (%)	Control (n=60) n (%)	χ^2	p
+Gender	Female	26 (83.9)	29 (93.5)	54 (89.3)	1.578	0.475
	Male	5 (16.1)	2 (6.5)	13 (10.7)		
++Marital status	Single	6 (19.4)	9 (29)	18 (30)	4.093	0.712
	Married	20 (64.5)	17 (54.8)	36 (49.3)		
	Divorced/separated	5 (16.1)	5 (16.1)	5 (8.3)		
+Education	Primary school	8 (25.8)	5 (16.1)	18 (30)	2.078	0.389
	High school and superior	23 (74.2)	26 (83.9)	42 (70)		
++Professional status	Unemployed/housewife	18 (58.1)	16 (51.6)	8 (13.3)	26.561	0.001*
	Regularly working	10 (32.3)	14 (45.2)	43 (71.7)		
	Other	3 (9.7)	1 (3.2)	9 (15)		
+People living with	Nuclear family	28 (90.3)	20 (64.5)	47 (78.3)	7.536	0.111
	Extended family	1 (3.3)	7 (22.6)	5 (8.3)		
	Other/Alone	2 (6.5)	4 (12.9)	8 (13.3)		

+Fisher's exact test, ++Chi-square test, *p<0.01

RESULTS

From the 122 participants included in the study, 62 patients were diagnosed with major depression and 60 were healthy volunteers. The number of patients who had a suicide attempt among the patients with depression was 31.

In the patients with suicide attempt, 29 (93.5%) were female and 2 (6.5%) were male. In the patients without suicide attempt, 26 (83.9%) were female and 5 were (43.3%) male and in control group, 54 (89.3%) were female and 13 (10.7%) were male. The mean age of patients with suicide attempt was 31.48±9.71 years, that of patients without suicide attempt was 37.85±8.74 years and that of the group with suicide attempt was to be found statistically significantly lower than group without suicide attempt ($p<0.05$). There was no significant difference in gender and education level between groups with and without suicide attempt. As for working situation, the rate of patients who were regularly working was found to be significantly higher than that of the patients with depression with and without suicide attempt ($p<0.01$). Other results obtained by this comparison are shown in Table 1.

The duration of illness of the 62 patients with depression who participated in the study ranged between 0.25 and 33 years with a mean of 6.88±7.58 years. There was no statistical difference in the duration of illness between the two groups with and without suicide attempt ($p>0.05$). The number of suicide attempts ranged between 1 and 10 in patients with suicide attempt and the mean number of attempts was found to be 2.51±1.80. The rate of patients who were hospitalized was statistically significantly higher in patients with suicide attempt compared with those without suicide attempt ($p<0.01$). There was no statistically significant difference between the two groups in non-psychiatric diseases ($p>0.05$).

Total scores and scores of suicide item in HDRS were compared between the patients with and without suicide attempt and no statistically significant difference was found between the two groups in the HDRS total scores ($p>0.05$). The scores of suicide item in HDRS was statistically significantly higher ($p<0.01$) in the group with suicide attempt (2.67±1.04) than in that without suicide attempt (1.16±1.12). The scores of Scale of Suicidal Ideation and Suicidal Behavior Scale in the group with suicide attempt (10.87±3.24 and 6.00±2.40, respectively) were statistically significantly higher ($p<0.01$) than in that without suicide attempt (7.12±3.77 and 2.77±2.78, respectively).

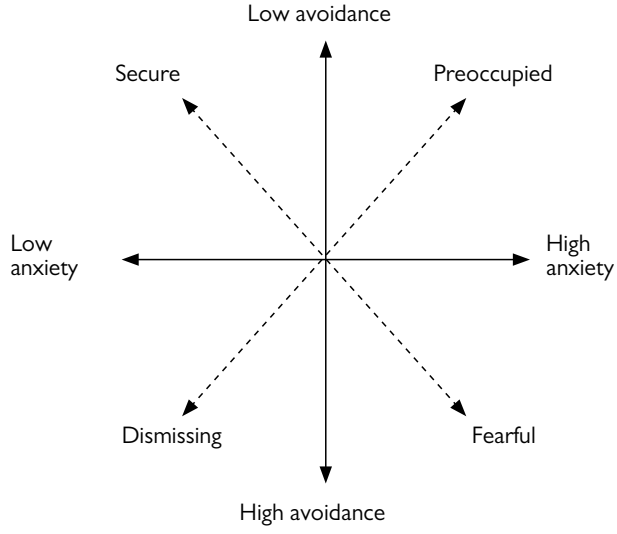

Figure 1. Four-category model of attachment with anxiety and avoidance dimensions (20)

The mean score of ECR of all patients participating in the study was 77.66±12.66 in the avoidance subscale and 74.84±23.19 in the anxiety subscale. The comparison between the scores of ECR in the patients with suicide attempt, without suicide attempt and the control group revealed that the avoidance score of the control group was found to be statistically significantly lower than the groups with and without suicide attempt

Table 2. Comparison of ECR scores between the patients with depression with and without suicide attempt and the control group

n: 122	Without suicide attempt (n=31)	With suicide attempt (n=31)	Control (n=60)		
ECR	Mean±SD	Mean±SD	Mean±SD	F/χ^2	p
$^{++}$Avoidance	80.74±11.73	81.38±14.93	74.15±10.99	9.764[b]	0.008*
$^{+}$Anxiety	83.38±17.41	88.67±20.98	63.28±21.10	19.861[a]	0.001*

$^{+}$One way ANOVA, $^{++}$Kruskal–Wallis test, 01 [a]F value, [b]χ^2 value, **p<0.01. ECR: experiences in close relationships scale; SD: standard deviation

Table 3. Attachment styles of the participants according to ECR

n: 122	Without suicide attempt (n=31) n (%)	With suicide attempt (n=31) n (%)	Control (n: 60) n (%)	χ^2	p
Fearful	3 (9.7)	8 (25.8)	3 (5)	31.773	0.001*
Dismissing	18 (58.1)	10 (32.3)	27 (45)		
Secure	1 (3.2)	3 (9.7)	24 (40)		
Preoccupied	9 (29)	10 (32.3)	6 (10)		

Chi-square test, *p<0.01

(p<0.01). There was no statistically significant difference between the groups with and without suicide attempt (p>0.05). The anxiety score of the control group was found to be statistically significantly lower than that of the groups with and without suicide attempt (p<0.01). There was no statistically significant difference between the groups with and without suicide attempt (p>0.05). The results obtained by these comparisons are shown in Table 2.

The mean scores of the avoidance and anxiety subscales of ECR of all the patients who participated in the study were accepted as cut-off point and thus, the attachment styles of the patients were determined in four categories according to their ECR avoidance and anxiety scores. There was a statistically significant difference between groups in the attachment styles (p<0.01). The rate of patients who had the secure attachment style was higher in the control group than that in the groups with and without suicide attempt. In the group consisting of patients with the fearful attachment style, the rate of patients with suicide attempt was found to be higher than the other groups. The results obtained by this comparison are shown in Table 3.

There was a significant positive correlation between the scores of ECR anxiety subscale and those of suicide item in HDRS and the scores of Scale of Suicidal Ideation and those of Suicidal Behavior Scale (p<0.05).

DISCUSSION

Experiences in close relationships scale, which evaluates attachment in two dimensions by measuring anxiety and avoidance scores and classifies people into four attachment categories with clustering method using these dimensions, was used in our study (33). Both avoidance and anxiety scores of the healthy control group were significantly lower than those in the patients with depression in our study. There was no statistically significant difference between the avoidance and anxiety scores of the patients with and without suicide attempt. On the other hand, when the participants were classified into attachment categories according to ECR scores, the rate of patients who had the secure attachment style was higher in the control group compared with that in the patients with depression with and without suicide attempt. The rate of patients who attempted suicide was also higher among patients who had the fearful attachment style.

The attachment-related avoidance dimension reflects the degree of willingness of a person to establish a close relationship and the quality of expectations about others (33). People who have a high avoidance score inhibit proximity seeking using deactivation strategies in situations which stimulate attachment system. These people ignore the need for proximity, attachment and the support of someone else and use exaggerated self-esteem as a defense (36). The anxiety dimension indicates attachment-related anxiety, which arises from hypersensitivity to rejection and abandonment in close relationships (33). People with a high anxiety score feel overstimulated when a perception of threat occurs in interpersonal relationships and exaggerate the possible negative consequences of a threatening situation. These people are described as hypersensitive to love/be loved, extremely dependent on their partner and their need to obtain support, assurance and validation from others (36).

Major depression was reported to be related with the insecure, especially the fearful and preoccupied, attachment styles in literature (11,23,24,27,28). The negative effect of the insecure attachment style on the prognosis of depression was also stated (29,37). It was suggested that the loss of primary caregivers, his/her rejecting attitude, or insufficiency may cause feelings of helplessness and hopelessness and perception of self as worthless and not lovable and perception of others as unreachable and internal working models developed in this way may cause depression (11). The finding that not getting enough or proper care from parents are associated with depressive symptoms supports this suggestion (38,39). In our study, the finding that avoidance and anxiety scores of the healthy control group were significantly lower than patients with depression is consistent with that in literature.

In studies investigating the relation of suicide to attachment styles, insecure attachment was found to be associated with suicidal ideation and behavior (21,29,30). Suicidal ideation and behavior have been suggested to be related to the preoccupied attachment style by Wright et al. (40), the anxious attachment style by Stepp et al. (21) and the fearful and preoccupied attachment styles by Lessard et al. (30). Another study revealed that dismissing the attachment style may predict an increased suicide attempt risk (29). In our study, consisting with the findings in literature, the rate of patients who have the secure attachment style was found to be higher in the healthy control group. Considering that in our study, the rate of patients with suicide attempt was found to be higher in the group consisting

of patients with the fearful attachment style, it may be interpreted that the fearful attachment style was related to suicide risk. The fearful attachment style is exactly the opposite of the secure attachment style and is described by the presence of high scores in the anxiety and avoidance dimensions. This attachment style reflects the individual feelings of worthlessness and expectations that others are untrustable and rejecting (33). Poor family support and social support, loneliness and hopelessness are reported as factors increasing suicide risk in literature (41,42,43,44,45,46). It is suggested that in people who have the fearful attachment style, feelings of worthlessness and low self-esteem as well as the negative perception of the environment may reduce seeking help from others and may thus increase suicidal tendency by causing poor social support, loneliness and hopelessness.

In our study, a positively significant correlation was detected between the ECR anxiety score and the scores of HDRS suicide items, Scale of Suicidal Ideation and Suicidal Behavior Scale, which predict the risk of suicide. This finding suggests that increasing anxiety scores were associated with an increased suicide risk.

To examine the relation between attachment and suicide in major depression, other psychiatric disorders, which may be seen comorbid to depression and which may be associated with suicide risk, were excluded in our study and a homogenous group was tried to be obtained. Therefore, no information was obtained about other clinical patterns that may lead to suicide. The wide range of the duration of illness in our patients may be considered as a limitation of our study, but the absence of a significant difference in the duration of illness between the groups with and without suicide attempt reduced the potential impact of this variable on the results of the study. In our study, the majority of patients were women and Axis II disorders that could be important in terms of suicidal behavior were not considered and these may also be seen as limitations of this study.

Consequently, the patients with depression showed more anxious and avoidant attachment features dimensionally and the insecure attachment is more common in this group according to the results of our study. Although no direct relation was found between past suicide attempts and these two dimensions, it may be suggested that the anxiety dimension was related to suicidal ideation and behavior. In the patients with the fearful attachment style, higher rates of suicide attempt are seen.

Our results suggest that attachment plays a role in the appearance of suicidal ideation and behavior in the patients with depression. The assessment of attachment features and determination of the attachment style may be helpful to predict suicide risk in the treatment and follow-up of patients with depression.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study has received no financial support.

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