

# Comparison of Childhood Traumatic Experience and Attachment Styles among Patients Who Attempt Suicide with Drugs and the Healthy Control Group

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## Abstract

It is indicated that there is a high connection between early traumatic experiences and suicidal behaviors. The aim of this study is to compare early traumatic experience and attachment styles of patients in suicide attempts with the healthy control group. The study involved 76 people who had attempted suicide with drugs and 84 healthy controls who did not have any psychiatric disorder. For evaluation we have used; a sociodemographic data form, Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), Childhood Traumas Questionnaire (CTQ-28) and Relationship Scales Questionnaire (RSQ) with those who agreed to participate in the study. Fearful attachment styles from the relation scale survey of those who attempted suicide were significantly higher than the control group ( $p<0.001$ ). BDI ( $p<0.001$ ), BAI ( $p<0.001$ ), emotional abuse ( $p<0.001$ ), physical abuse ( $p=0.001$ ), emotional neglect ( $p<0.001$ ), physical neglect ( $p<0.001$ ) and sexual abuse ( $p=0.001$ ) scale scores were statistically higher in suicide attempters than those of the control group. Negative early life experiences and attachment style constitute the main beliefs of a person, and these beliefs may be presented in how he/she builds personal relationships and in interpersonal problems. Early traumatic experiences and attachment styles evolving on this axis have an important role in the formation of psychopathologies.

**Keywords:** Suicide, attachment style, childhood traumas, depression, anxiety

## Öz

### İlaç Alarak İntihar Girişiminde Bulunan Hastalar ve Sağlıklı Kişiler Arasında Bağlanma Stilleri ve Çocukluk Çağı Travmatik Deneyimlerin Karşılaştırılması

Erken travmatik deneyimler ile intihar davranışı arasında yüksek bir bağlantı olduğu belirtilmektedir. Bu çalışmada; ilaç alarak intihar girişiminde bulunan kişilerdeki bağlanma stilleri ve erken travmatik yaşantıların sağlıklı kontrollerle karşılaştırılması amaçlanmıştır. Çalışmada; ilaçla intihar girişiminde bulunan 76 kişi ve herhangi bir psikiyatrik bozukluğu olmayan 84 sağlıklı kişi ele alınmıştır. Çalışmayı kabul edenlerde; sosyodemografik veri formu, Beck Depresyon Envanteri (BDE), Beck Anksiyete Envanteri (BAE), Çocukluk Çağı Travmaları Ölçeği (CTQ-28) ve İlişki Ölçekleri Anketi (İÖA) kullanılmıştır. İntihar girişiminde bulunan kişilerde ilişki ölçeği anketine ait korkulu bağlanma stilleri, kontrol grubuna göre istatistiksel olarak anlamlı düzeyde yüksek bulunmuştur ( $p<0,001$ ). İntihar girişiminde bulunan grupta BDE ( $p<0,001$ ), BAE ( $p<0,001$ ), duygusal istismar ( $p<0,001$ ), fiziksel istismar ( $p=0,001$ ), duygusal ihmal ( $p<0,001$ ), fiziksel ihmal ( $p<0,001$ ) ve cinsel istismar ( $p=0,001$ ) alt ölçek puanları, sağlıklı kontrol grubuna göre istatistiksel olarak anlamlı düzeyde yüksek bulunmuştur. Kişinin erken yaşlardaki olumsuz deneyimleri ve bağlanma biçimleri, kişinin belli başlı inanışlarını oluşturur ve bu inanışlar, ilişki kurma biçimi ve kişiler arası problemlerde kendisini gösterebilir. Erken travmatik deneyimler ve bu ekseninde gelişen bağlanma stilleri, psikopatolojilerin oluşumunda önemli bir yere sahiptir.

**Anahtar Kelimeler:** İntihar, bağlanma stilleri, çocukluk çağı travma, depresyon, anksiyete

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## INTRODUCTION

Suicide is generally defined with suicidal thoughts, suicide attempt and completed suicide. It is reported that the rate of suicidal thoughts is 13.5%, the rate of suicide plan is 3.9% and the rate of suicide attempt is 4.6% throughout life, and every year about one million people die because of suicide (World Health Organization, 2014; Kessler, Borges, & Walters 1999). Studies on reasons of suicidal thoughts and attempts have been conducted over a wide range, and several factors have been considered. The most accepted one among these is the Stress-Diathesis Model. As a result of comprehensive epidemiologic studies with this model, mental disorders and addiction are evaluated as very strong risk factors, whereas life events and early childhood experiences are assessed as low risk factors for suicide attempt (Mościcki, 1997).

Early traumatic experiences and neglect can be related to negative emotional, cognitive and neurodevelopmental changes and can lead to predisposition to several mental disorders, including suicidal behaviors (Lee & Hoaken, 2007). In a compilation of clinical studies regarding suicide, it is seen that traumatic experiences in childhood create a predisposition to suicide attempts (Santa Mina & Gallop, 1998).

Childhood traumatic experiences are stated to be the risk factors for the occurrence of several mental diseases, a major one being depressive disorder (Smith et. al., 2012; Afifi et. al., 2008). In addition, it was reported that individuals with suicide attempts had more major depressive disorder and childhood traumatic experiences than psychiatric controls (Sarchiapone et. al., 2009). Similarly, many recent studies show that suicide attempts of patients with other psychiatric disorders are closely related to childhood traumatic experiences (Felitti et. al., 1998; Roy, 2005). Besides, a relationship has been found between the absence of an emotional relationship between parent and child, and the non-controlled impulsive behaviors (Tarquis, 2005). Evaluation of attachment features in childhood has an important role in studies on adulthood psychopathologies (Jinyao et. al., 2012; Mikulincer & Shaver, 2012).

The term “attachment” was first used by Bowlby. The theory of attachment argues that attachment to a mother or other relaxing entity is an important function in protecting a child’s life (Bowlby, 1988; Wei, Heppner, & Mallinckrodt 2003; Mikulincer et. al., 2003). Besides, several attachment styles are suggested to be risk factors for

depressive disorder and future suicide attempts (Blatt & Homann, 1992; Freudenstein et. al., 2011). In the attachment disorder occurring as a result of childhood traumatic experiences, negative life events at older ages present a predisposition to thoughts of death. This predisposition may result in suicide attempts in case of failure in coping strategies after acute stressful life events and lack of help (Smith et. al., 2012). In studies on alignment of suicide attempts and styles, an insecure attachment style is thought as responsible risk factor (Grunebaum et. al., 2010; Mandal & Zalewska, 2011; Zeyrek, Gençöz, Bergman, & Lester 2009). Studies evaluating the relation between attachment and suicide have mainly been carried out with children and adolescents (Baca-Garcia et. al., 2007; Lyons-Ruth, Bureau, Holmes, Easterbrooks, & Brooks, 2003). Thus, there is a limited knowledge on attachment styles and suicide in adulthood.

In this study, we aimed to compare the attachment styles of a homogeneous group who had attempted suicide with drugs; with the attachment styles of non-suicide attempters, and to evaluate the effect of early traumatic experiences in these two groups.

## METHOD

### Participants

This study involved patients who entered the Bursa Yüksek İhtisas Training and Research Hospital emergency services with attempted suicide using drugs between April 2013 and June 2015. After the first intervention against intoxication and intensive care follow-up for the patients, psychiatric consultations and outpatient follow-ups were performed. During the psychiatric follow-up patients who volunteered to participate and met the inclusion criteria were recruited for the study. A total of 76 suicide-attempters were involved in the study between the ages of 18–73, of whom 59 were female (77.6%) and 17 were male (22.4%). The control group consisted of 84 individuals, of whom 64 were female (76.2%) and 20 were male (23.8%), who did not have any psychiatric complaints, with no psychopathology diagnosis in psychiatric examination (according to DSM-5 diagnosis criteria) and who declared to not have any suicidal thoughts or suicide attempts in the past. The patients were examined by psychiatrist conducting the study. The inclusion criteria for the study were attempting suicide with drugs, agreeing to participate in the study and agreeing to be kept under observation.

Exclusion criteria were presence of mental limitations at a level of avoiding answering the evaluation scales, non-literacy or presence of an acute psychotic disorder. Permission from the ethics committee was obtained for the research and all participants provided informed consent.

## Measures

**Sociodemographic variables.** The sociodemographic data form evaluated the variables which are age, sex, educational attainment, marital and working status, history of previous suicide attempts, family history of psychiatric disorder, family history of suicide attempts.

**Depressive symptoms: Beck Depression Inventory (BDI).** This instrument is a 21-item self-report inventory that assesses affective symptoms of depression including hopelessness, irritability, feelings of guilt, pessimism, worthlessness, self-dislike, and suicidal thoughts; as well as somatic symptoms such as loss of appetite, fatigue, difficulties sleeping and concentrating (Beck, 1961). It is widely used to detect the presence of depressive mood and to measure the severity of depression. The answer to each question was scored on a scaled value of 0 to 3, and the total score determined the severity of depression. The cut-off point of the scale on the validity and reliability for Turkish version was reported as 17 (Hisli, 1989).

**Anxiety symptoms: Beck Anxiety Inventory (BAI).** This is a self-evaluation scale of 21 items developed by Beck, Epstein, Brown and Steer (1988). Each item is scored between 0–3. It aims to determine the frequency of anxiety symptoms that the individual has felt in the last 7 days. The total score shows the severity of the anxiety that the individual experiences. The Turkish validity and reliability of the scale was determined by Ulusoy, Sahin, and Erkmen (1998).

**Childhood traumatic experiences: Childhood Traumas Questionnaire (CTQ-28).** This is a self-report questionnaire of 28-items developed by David P. Bernstein et al. (Bernstein et al., 2003). It is a five-point Likert type of scale graded between 1 and 5. It contains questions evaluating emotional, physical and sexual abuse and physical and emotional neglect in childhood. It allows calculation of traumatic experience subscales and total score, separately (Şar, Öztürk, & İkikardeş, 2012).

**Attachment styles: Relationship Scales Questionnaire (RSQ).** RSQ is a 30 item instrument and was developed

by Griffin and Bartholomew (1994). It was adapted to Turkish by Sümer and Güngör (1999). The participants mark each statement on a scale of 7 grades according to how they describe themselves and their general attitudes in close relationships (friendship, fellowship, romantic relationships, etc.) (1 = does not describe me at all; 7 = absolutely describes me). Secure, fearful, dismissing and preoccupied attachment styles are evaluated.

## Statistical Procedures

For assessment of sociodemographic properties, descriptive statistical techniques such as percentage and mean were used. Pearson Correlation Analysis was utilized for determination of the relation between RSQ, CTQ-28, BDI and BAI. Independent samples T test was used to compare scores of RSQ, CTQ-28, BDI and BAI in suicide-attempter group or control group. We used Mann-Whitney U Test to compare scores of RSQ, CTQ-28, BDI and BAI in multiple suicide attempters or single suicide attempters. The  $\chi^2$  test was used to analyze categorical variables. Statistical analysis of the data was performed by the IBM SPSS 22 program. Statistical significance was defined as results with  $P < 0.05$ .

## RESULTS

Individuals participating in the study were divided into two groups, as those who have suicide attempts with drugs and a healthy control group. There was no statistically significant difference between the two groups in terms of age, sex and marital status. In the healthy control group, educational attainment and working status was significantly higher than that of the group who attempted suicide (relatively  $p=0.001$  and  $p<0.001$ ).

Fearful attachment styles in suicide-attempter group was significantly higher than the healthy control group ( $p<0.001$ ; see Table 1.). Besides, a statistically significant relationship was not found between secure, dismissing and preoccupied attachment styles ( $p=0.490$ ,  $p=0.981$ ,  $p=0.076$ , respectively).

The childhood traumas questionnaire is compared between the two groups in Table 2. In the suicide-attempter group, emotional abuse ( $p<0.001$ ), physical abuse ( $p=0.001$ ), emotional neglect ( $p<0.001$ ), physical neglect ( $p<0.001$ ) and sexual abuse ( $p=0.001$ ) subscale scores were significantly higher than in the healthy control group.

**Table 1:** Sociodemographic features of the individuals participating in the study

	Group with suicide attempt	Healthy control group	$\chi^2$	P
Age (year) $\pm$ sd	28.71 $\pm$ 10.6	31.35 $\pm$ 9.8	0.057	0.379
Sex; n (%)				
Female	59 (77.6%)	64 (76.2%)	0.047	0.829
Male	17 (22.4%)	20 (23.8%)		
Marital status; n (%)				
Single	41 (53.9%)	34 (40.5%)	3.687	0.158
Married	31 (40.8%)	47 (56.0%)		
Separate	4 (5.3%)	3 (3.6%)		
Education status; n (%)				
Primary school	14 (18.4%)	9 (10.7%)	16.072	0.001
Secondary school	21 (27.6%)	10 (11.9%)		
High school	32 (42.1%)	35 (41.7%)		
University	9 (11.8%)	30 (35.7%)		
Working status; n (%)				
Working	28 (36.8%)	60 (71.4%)	19.285	<0.001
Unemployed	48 (63.2%)	24 (28.6%)		
Suicide attempt in the family				
Yes	69 (86.8%)	82 (97.6%)	6.801	0.033
No	7 (13.2%)	2 (2.4%)		
Psychiatric disease in the family				
No	44 (57.9%)	75 (89.3%)	20.828	<0.001
Yes	33 (42.1%)	9 (10.7%)		

BDI and BAI were significantly higher in suicide attempters compared to healthy controls ( $p < 0.001$  and  $p < 0.001$ ).

Previous suicide attempts of the 76 suicide attempters were also evaluated. Patients who attempted suicide in

the past were classified as 'multiple suicide attempters'. Patients who did not have previous suicide attempts were classified as 'single suicide attempters'. None of the subscales of the attachment styles scale showed a significant difference between single and multiple suicide attempters.

**Table 2:** Comparison of results of the relationship RSQ, CTQ-28, BDI and BAI between the suicide group and the control group.

	Suicide attempters	Healthy control	F	P
RSQ				
Secure	19.63 $\pm$ 6.0	18.98 $\pm$ 5.7	0.102	0.490
Fearful	18.68 $\pm$ 5.3	15.64 $\pm$ 5.0	0.678	<0.001
Dismissing	21.80 $\pm$ 5.2	21.78 $\pm$ 5.1	0.010	0.981
Preoccupied	16.06 $\pm$ 4.4	14.79 $\pm$ 4.5	0.006	0.076
CTQ-28				
Emotional abuse	9.90 $\pm$ 4.2	6.20 $\pm$ 1.7	43.231	<0.001
Physical abuse	7.20 $\pm$ 4.3	5.42 $\pm$ 1.1	30.984	0.001
Emotional neglect	13.61 $\pm$ 5.0	9.32 $\pm$ 3.7	8.106	<0.001
Physical neglect	8.56 $\pm$ 3.2	6.46 $\pm$ 2.1	13.535	<0.001
Sexual abuse	7.23 $\pm$ 4.7	5.44 $\pm$ 1.1	33.138	0.001
BDI	26.52 $\pm$ 12.4	9.45 $\pm$ 6.1	40.712	<0.001
BAI	26.21 $\pm$ 14.4	8.78 $\pm$ 8.4	25.443	<0.001

Relationship Survey Questionnaire (RSQ), Childhood Traumas Questionnaire (CTQ-28), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI)

**Table 3:** Comparison of the CTQ-28 and the RSQ scores of the groups with or without past suicide attempts.

	<i>Without previous suicide attempt</i> N (27)	<i>With previous suicide attempt</i> N (49)	$\chi^2$	<i>P</i>
RSQ				
Secure	18.96±6.5	20.02±5.8	1.307	0.253
Fearful	18.74±4.9	18.42±5.6	0.076	0.783
Dismissing	22.44±5.1	21.29±5.1	0.528	0.467
Preoccupied	14.81±4.2	16.73±4.4	2.708	0.100
CTQ-28				
Emotional abuse	8.62±3.8	10.54±4.2	4.202	0.040
Physical abuse	6.48±3.6	7.65±4.7	2.003	0.157
Emotional neglect	12.85±5.1	13.89±4.9	0.594	0.441
Physical neglect	7.88±3.0	8.82±3.3	1.608	0.205
Sexual abuse	6.55±4.1	7.36±4.7	1.470	0.225
BDI	20.03±12.0	29.91±11.3	10.212	<0.001
BAI	19.00±12.1	29.78±14.0	10.353	<0.001

Relationship Survey Questionnaire (RSQ), Childhood Traumas Questionnaire (CTQ-28), Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI).

Only the emotional abuse subscale of the childhood traumas questionnaire was significantly higher in multiple suicide attempters than, single suicide attempters ( $p=0.040$ ). The BDI ( $p=0.001$ ) and BAI ( $p=0.001$ ) scores were significantly higher for multiple suicide attempters than single suicide attempters.

## DISCUSSION

Negative attachment experiences in childhood are associated with suicidal behavior at advanced ages (Freudenstein et. al., 2011; Adam, Lohrenz, Harper, & Streiner, 1982). When the previous studies in the literature are analyzed, it is seen that individuals who have suicidal behavior have mainly avoidant attachment styles (Blatt & Homann, 1992; Zeyrek et. al., 2009). It was also reported that individuals who had attempted suicide had salient childhood traumatic experiences (Sarchiapone et. al., 2009; Roy, 2005). Attachment styles are described as important risk factors for general psychopathology. This psychopathology presents itself evidently in interpersonal problems. The relationship scales questionnaire was developed following this close relationship between different interpersonal problems and different attachment styles (Horowitz, Rosenberg, & Bartholomew 1993). In our study, we aimed to analyze the attachment styles of those who have

attempted suicide by using the relationship scales questionnaire, since there is a strong relationship between attempted suicide and interpersonal problems (Zonda, 2006). It has been shown that the attachment styles of the individuals with interpersonal problems are especially the dismissing/avoidant and anxious attachment styles (Haggerty, Hilsenroth, & Vala-Stewart, 2009) Another aim of our study was to determine which of the early traumatic experiences of suicide attempters present themselves more evidently in the attachment style that they establish with others. While previous studies investigated traumatic experiences and attachment styles of suicide attempters separately, we aimed to examine both features in a homogeneous sample.

In our study we determined that the fearful attachment style, among all attachment styles, statistically distinguish individuals who have attempted suicide from the healthy controls. When a recent and similar study in the literature was analyzed, it was seen that women who had attempted suicide presented an avoidant attachment style and had intensive traumatic experiences in childhood. The factors that trigger the recent suicide attempt were suggested to be social non-acceptance and exposure to violence, and suicide attempts were mostly in the form of drug overdose (Mandal & Zalewska, 2011). In our study, all of the suicide attempts were performed by drug overdose. And

also, fearful attachment features were significantly higher in suicide attempters compared to healthy controls. In another large scale study in a group of 524 patients with depressive disorder, it was determined that previous suicide attempts are significantly associated with an anxious attachment style (Lizardi et. al., 2011). In another study that examined 506 patients who had evident psychiatric disease, attachment styles were seen as a mediator in the occurrence of suicidal behavior and interpersonal problems (Stepp et. al., 2008). According to this study, while especially the anxious attachment style was associated with suicidal behavior and interpersonal problems, the avoidant attachment style had a lower level of association. In a population based study examining adult attachment styles, it was shown that insecure attachment style was correlated with an increase in suicidal thoughts, suicide attempts and mental disorder rates (Palitsky, Mota, Afifi, Downs & Sareen, 2013).

According to the interpersonal relationship in suicide attempt theory, suicidal thoughts may occur with responsibility and perceived burdensomeness, deterioration in the perception of loneliness and belongingness, and these suicidal thoughts may lead to attempted suicide with hopelessness and stress factors (Van Orden et. al., 2010). In this regard, fearful attachment styles may corrupt the distance in interpersonal relationships and the perception of belongingness and in this case, they can trigger a suicide attempt in an individual.

In our study, 33 of the people who had attempted suicide (42.1%) declared a family history of psychiatric disease (among mother, father, brothers and sisters) and 7 of them had a family history of suicide attempt. There is an increasing risk of behavior problems associated with suicide at advanced ages, especially in the children of depressive mothers (Bridge, Goldstein, & Brent, 2006; Hammertoni et. al., 2015; MacGregor et. al., 2014). Depression of the mother or psychiatric disorders of the care-giver is important risk factors for the development of insecure attachment of the child. An insecure attachment style in childhood may present as an attachment problem in interpersonal relationships at advanced ages.

In our study we found that all of the subscales of the childhood traumas questionnaire, such as emotional abuse, physical abuse, emotional neglect, physical neglect and sexual abuse were significantly higher for the individuals who attempted suicide compared to the healthy controls. This evaluation resembles other studies examining the

relationship between attempted suicide and childhood trauma (Sarchiapone et. al., 2009; Roy, 2005; Afifi et. al., 2008). Also we found that previous suicide attempts or repetitive suicide attempts were much more common in patients who reported emotional abuse. Previous studies in this field also showed that there is an increase in psychiatric disorders, suicidal thoughts and suicide attempts with the severity of the traumatic event (Afifi et. al., 2008).

In our study we found that only the preoccupied attachment style was high in individuals who had attempted suicide and who also had previous suicide attempts compared to those without previous suicide attempts, but there was no statistically significant relationship between them. Wright, Briggs and Behringer (2005) applied psychotherapy to individuals who had attempted suicide, and as a result of this psychotherapy observation, they found that patients with preoccupied attachment styles had stronger desire for close relationships and felt extreme fear of abandonment. Abandonment or being rejected in relationships may lead to an evident corruption in the perception of belonging in these patients. This perception can leave the person alone in a hard-to-cope situation and they may attempt suicide to get rid of this emotion.

There are some important limitations of this study. While the patients participating in the study were a homogeneous group composed of individuals who had attempted suicide with drugs, their age range varied. Although previous traumatic experiences were evaluated with the childhood traumas questionnaire, the style and severity of the traumatic experience was not determined. Besides, recent stress factors were not evaluated in detail and their severity was not determined. We have not used a measurement or scale related to the severity of suicide attempt in the individuals who have attempted suicide with drugs. According to our study, depression and anxiety levels were significantly higher in patients with multiple suicide attempts compared to those with a single suicide attempt. It can be speculated that the psychopathologies of patients with multiple suicide attempts were severe and thus, their search for help were higher.

## CONCLUSION

Negative early life experiences and attachment style constitute the main beliefs of a person, and these beliefs can present themselves in how somebody builds relationships and in interpersonal problems. Early traumatic experiences

and attachment styles developed on this axis have an important role in the formation of psychopathologies.

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#### Conflict of interest

The authors declare that they have no conflict of interest.

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## REFERENCES

- Adam, K. S., Lohrenz, J. G., Harper, D., & Streiner, D. (1982). Early parental loss and suicidal ideation in university students. *The Canadian Journal of Psychiatry/La Revue canadienne de psychiatrie*, 27(4), 275–81.
- Afifi, T. O., Enns, M. W., Cox, B. J., Asmundson, G. J., Stein, M. B., & Sareen, J. (2008). Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences. *American journal of public health*, 98(5), 946–52. doi:10.2105/AJPH.2007.120253
- Baca-Garcia, E., Parra, C. P., Perez-Rodriguez, M. M., Sastre, C. D., Torres, R. R., Saiz-Ruiz, J., & de Leon, J. (2007). Psychosocial stressors may be strongly associated with suicide attempts. *Stress and Health*, 23(3), 191–8. doi:10.1002/smi.1137
- Blatt, S. J., & Homann, E. (1992). Parent-child interaction in the etiology of dependent and self-critical depression. *Clinical psychology review*, 12(1), 47–91. doi:10.1016/0272-7358(92)90091-L
- Beck, A.T. (1961). An inventory for measuring depression. *Archives of General Psychiatry*, 4, 561–71.
- Beck, A. T., Epstein, N., Brown, G., & Steer, R. A. (1988). An inventory for measuring clinical anxiety: psychometric properties. *Journal of consulting and clinical psychology*, 56(6), 893–7. doi:10.1037/0022-006X.56.6.893
- Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., ... & Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, 27(2), 169–90.
- Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory*. London: Routledge, pp.6.
- Bridge, J. A., Goldstein, T. R., & Brent, D. A. (2006). Adolescent suicide and suicidal behavior. *Journal of Child Psychology and Psychiatry*, 47(3–4), 372–94. doi:10.1111/j.1469-7610.2006.01615.x
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., ... & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245–58. doi:10.1016/S0749-3797(98)00017-8
- Freudenstein, O., Zohar, A., Apter, A., Shoval, G., Weizman, A., & Zalsman, G. (2011). Parental bonding in severely suicidal adolescent inpatients. *European Psychiatry*, 26(8), 504–7. doi:10.1016/j.eurpsy.2011.01.006
- Griffin, D., & Bartholomew, K. (1994). The meta physics of measurement: The case of adult attachment. In K. Bartholomew and D. Perlman (Eds.), *Attachment Process in Adulthood: Advances in Personal Relationships*. London: Jessica Kingsley Publishers, pp. 17–52.
- Grunebaum, M. F., Galfalvy, H. C., Mortenson, L. Y., Burke, A. K., Oquendo, M. A., & Mann, J. J. (2010). Attachment and social adjustment: relationships to suicide attempt and major depressive episode in a prospective study. *Journal of Affective Disorders*, 123(1), 123–30. doi:10.1016/j.jad.2009.09.010
- Haggerty, G., Hilsenroth, M. J., & Vala-Stewart, R. (2009). Attachment and interpersonal distress: examining the relationship between attachment styles and interpersonal problems in a clinical population. *Clinical Psychology & Psychotherapy*, 16(1), 1–9. doi:10.1002/cpp.596
- Hammerton, G., Zammit, S., Mahedy, L., Pearson, R. M., Sellers, R., Thapar, A., & Collishaw, S. (2015). Pathways to suicide-related behavior in offspring of mothers with depression: the role of offspring psychopathology. *Journal of the American Academy of Child & Adolescent Psychiatry*, 54(5), 385–93. doi:10.1016/j.jaac.2015.02.006
- Hisli, N. (1989). Beck Depresyon Envanterinin üniversite öğrencileri için geçerliği, güvenirliği. *Psikoloji dergisi*, 7(23), 3–13.
- Horowitz, L. M., Rosenberg, S. E., & Bartholomew, K. (1993). Interpersonal problems, attachment styles, and outcome in brief dynamic psychotherapy. *Journal of Consulting and Clinical Psychology*, 61(4), 549–60. doi:10.1037/0022-006X.61.4.549
- Jinyao, Y., Xiongzhaoh, Z., Auerbach, R. P., Gardiner, C. K., Lin, C., Yuping, W., & Shuqiao, Y. (2012). Insecure attachment as a predictor of depressive and anxious symptomology. *Depression and Anxiety*, 29(9), 789–96. doi:10.1002/da.21953
- Kessler, R. C., Borges, G., & Walters, E. E. (1999). Prevalence of and risk factors for lifetime suicide attempts in the National Comorbidity Survey. *Archives of General Psychiatry*, 56(7), 617–26. doi:10.1001/archpsyc.56.7.617.
- Lee, V., & Hoaken, P. N. (2007). Cognition, emotion, and neurobiological development: Mediating the relation between maltreatment and aggression. *Child Maltreatment*, 12(3), 281–98. doi:10.1177/1077559507303778
- Lizardi, D., Grunebaum, M. F., Burke, A., Stanley, B., Mann, J. J., Harkavy-Friedman, J., & Oquendo, M. (2011). The effect of social adjustment and attachment style on suicidal behaviour. *Acta Psychiatrica Scandinavica*, 124(4), 295–300. doi:10.1111/j.1600-0447.2011.01724.x
- Lyons-Ruth, K., Bureau, J. F., Holmes, B., Easterbrooks, A., & Brooks, N. H. (2013). Borderline symptoms and suicidality/self injury in late adolescence: prospectively observed relationship correlates in infancy and childhood. *Psychiatry Research*, 206(2), 273–81. doi:10.1016/j.psychres.2012.09.030
- MacGregor, E. K., Grunebaum, M. F., Galfalvy, H. C., Melhem, N., Burke, A. K., Brent, D. A., ... & Mann, J. J. (2014). Depressed parents' attachment: effects on offspring suicidal behavior in a longitudinal family study. *The Journal of Clinical Psychiatry*, 75(8), 879–85. doi:10.4088/JCP.13m08794
- Mandal, E., & Zalewska, K. (2011). Attachment styles, childhood and adult traumatic experiences, mental states and methods of suicide attempts among psychiatrically treated women. *Psychiatria Polska*, 46(1), 75–84.

- Mikulincer, M., Gillath, O., Sapir-Lavid, Y., Yaakobi, E., Arias, K., Tal-Aloni, L., & Bor, G. (2003). Attachment theory and concern for others' welfare: Evidence that activation of the sense of secure base promotes endorsement of self-transcendence values. *Basic and Applied Social Psychology*, 25(4), 299-312. doi:10.1207/S15324834BASP2504\_4
- Mikulincer, M., & Shaver, P. R. (2012). An attachment perspective on psychopathology. *World Psychiatry*, 11(1), 11-5. doi:10.1016/j.wpsyc.2012.01.003
- Mościcki, E. K. (1997). Identification of suicide risk factors using epidemiologic studies. *Psychiatric Clinics of North America*, 20(3), 499-517. doi:10.1016/S0193-953X(05)70327-0
- Palitsky, D., Mota, N., Afifi, T. O., Downs, A. C., & Sareen, J. (2013). The association between adult attachment style, mental disorders, and suicidality: Findings from a population-based study. *The Journal of Nervous and Mental Disease*, 201(7), 579-86. doi:10.1097/NMD.0b013e31829829ab
- Roy, A. (2005). Reported childhood trauma and suicide attempts in schizophrenic patients. *Suicide and Life-Threatening Behavior*, 35(6), 690-3. doi:10.1521/suli.2005.35.6.690
- Santa Mina, E. E., & Gallop, R. M. (1998). Childhood sexual and physical abuse and adult self-harm and suicidal behaviour: a literature review. *The Canadian Journal of Psychiatry*, 43(8), 793-800. doi:10.1177/070674379804300803
- Sarchiapone, M., Jausent, I., Roy, A., Carli, V., Guillaume, S., Jollant, F., ... & Courtet, P. (2009). Childhood trauma as a correlative factor of suicidal behavior—via aggression traits. Similar results in an Italian and in a French sample. *European Psychiatry*, 24(1), 57-62. doi:10.1016/j.eurpsy.2008.07.005
- Şar, V., Öztürk, P. E., & İkikardeş, E. (2012). Çocukluk çağı ruhsal travma ölçeğinin türkçe uyarlamasının geçerlilik ve güvenilirliği. *Türkiye Klinikleri- Journal of Medical Sciences*, 32(4), 1054-1063. doi:10.5336/medsci.2011-26947
- Smith, P. N., Gamble, S. A., Cort, N. A., Ward, E. A., Conwell, Y., & Talbot, N. L. (2012). The relationships of attachment style and social maladjustment to death ideation in depressed women with a history of childhood sexual abuse. *Journal of Clinical Psychology*, 68(1), 78-87. doi:10.1002/jclp.20852
- Stepp, S. D., Morse, J. Q., Yaggi, K. E., Reynolds, S. K., Reed, L. I., & Pilkonis, P. A. (2008). The Role of Attachment Styles and Interpersonal Problems in Suicide-Related Behaviors. *Suicide and Life-Threatening Behavior*, 38(5), 592-607. doi:10.1521/suli.2008.38.5.592
- Sümer, N., & Güngör, D. (1999). Yetişkin bağlanma stilleri ölçeklerinin Türk örnekleme üzerinde psikometrik değerlendirmesi ve kültürlerarası bir karşılaştırma. *Türk Psikoloji Dergisi*, 14(43), 71-106.
- Tarquis, N., (2005). Neurobiological hypothesis relating to connections between psychopathy and childhood maltreatment. *L'Encephale*, 32(3), 377-384. doi:10.1016/S0013-7006(06)76166-8
- Ulusoy, M., Sahin, N. H., & Erkmen, H. (1998). Turkish version of the Beck Anxiety Inventory: psychometric properties. *Journal of Cognitive Psychotherapy*, 12(2), 163-172.
- Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner Jr, T. E. (2010). The interpersonal theory of suicide. *Psychological Review*, 117(2), 575. doi:10.1037/a0018697
- Wei, M., Heppner, P. P., & Mallinckrodt, B. (2003). Perceived coping as a mediator between attachment and psychological distress: A structural equation modeling approach. *Journal of Counseling Psychology*, 50(4), 438. doi:10.1037/0022-0167.50.4.438
- Wright, J., Briggs, S., & Behringer, J. (2005). Attachment and the body in suicidal adolescents: A pilot study. *Clinical Child Psychology and Psychiatry*, 10(4), 477-491. doi:10.1177/1359104505056310
- World Health Organization (2014). Suicide prevention (SUPRE). [http://apps.who.int/iris/bitstream/10665/131056/1/9789241564779\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/131056/1/9789241564779_eng.pdf)
- Zeyrek, E. Y., Gençöz, F., Bergman, Y., & Lester, D. (2009). Suicidality, problem-solving skills, attachment style, and hopelessness in Turkish students. *Death Studies*, 33(9), 815-827. doi:10.1080/07481180903142407
- Zonda, T. (2006). One-hundred cases of suicide in Budapest. *Crisis*, 27(3), 125-129. doi:10.1027/0227-5910.27.3.125