



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

# Research of Psychological Characteristics in the Case of Suicide

## İntihar Olgusunda Psikolojik Özelliklerin İncelenmesi

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### Abstract:

Suicidal behavior is a lifelong global condition. The study was conducted to investigate the psychological characteristics of individuals who attempted suicide, had suicidal ideation and did not have suicidal ideation or attempt. 482 people between the ages of 18-55 participated in the study; 108 of whom were suicide attempter, 197 were suicidal ideation and 177 were non-ideator. Data was collected through Demographic-Information Form, Interpersonal Needs Questionnaire, Suicide Probability Scale, The Psychache Scale, State and Trait Anxiety Inventory, Beck Depression Inventory, Acquired Capability for Suicide Scale-Fearlessness about Death and General Attitudes and Beliefs Scale Short Form. ANOVA was used to compare the means of three groups. Pearson Chi-Square and Pearson Correlation Analysis was used to examine the relationship between categorical variables and continuous variables. As a result of the analysis, it was found that the anger/impulsivity, interpersonal needs, perceived burden on others, acquired suicidal efficacy, depression and psychological pain scores of those who attempted suicide were higher than those who had suicidal ideation ( $p < .001$ ). Participants with suicidal ideation had higher hopelessness, inhibited belonging, state and trait anxiety scores than participants without suicidal ideation ( $p < .05$ ). In addition, more suicide attempts are observed in women and more suicidal ideation in men. The rate of those who do not receive psychological support and do not use psychiatric drugs in suicide attempts or thoughts is higher.

**Keywords:** Suicide, suicidal ideation, suicide attempt

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**Öz:**

İntihar davranışı yaşam boyu meydana gelen küresel bir durumdur. Bu araştırma, intihar girişiminde bulunan, intihar düşüncesi olan ve intihar düşüncesi veya girişimi olmayan bireylerin psikolojik özelliklerini incelemek amacıyla yürütülmüştür. Araştırmanın örnekleminde yaşları 18-55 arasında değişen 482 kişi yer almıştır. Örneklemin 108'inin intihar girişimi, 197'sinin yalnızca intihar düşüncesi vardır ve 177'si intihar düşüncesi ve girişimi yoktur. Araştırmanın veri toplama araçları Demografik Bilgi Formu, Edinilmiş İntihar Yeterliliği-Ölüm Korkusuzluğu Ölçeği, Kişilerarası İhtiyaçlar Anketi İntihar Olasılığı Ölçeği, Durumluk ve Sürekli Kaygı Ölçeği, Beck Depresyon Envanteri, Psikolojik Acı Ölçeği, Genel Tutumlar ve İnanışlar Ölçeği-Kısa Formu'dur. Üç bağımsız grubun ortalamalarının karşılaştırılmasında Tek Yönlü Varyans Analizi (ANOVA), kategorik değişkenler arasındaki ilişkiyi incelemek için Pearson Ki-Kare, sürekli değişkenler arasındaki ilişkileri incelemek için Pearson Korelasyon Analizi kullanılmıştır. Analiz sonuçlarında intihar girişiminde bulunanların öfke/dürtüsellik, kişilerarası ihtiyaçlar, algılanan başkalarına yük olma, edinilmiş intihar yeterliliği, depresyon ve psikolojik acı puanlarının, intihar düşüncesi olanlara göre daha yüksek olduğu bulunmuştur ( $p < .001$ ). İntihar düşüncesi olan katılımcılar da ise umutsuzluk, engellenmiş aidiyat, durumluk ve sürekli kaygı puanları intihar düşüncesi olmayan katılımcılardan daha yüksektir ( $p < .05$ ). Ek olarak kadınlara daha fazla intihar girişimi, erkeklerde ise daha fazla intihar düşüncesi izlenmektedir. İntihar girişiminde veya düşüncesinde psikolojik destek almayanların ve psikiyatrik ilaç kullanmayanların oranı daha yüksektir.

**Anahtar Kelimeler:** İntihar, İntihar Düşüncesi, İntihar Girişimi

**Introduction**

Suicidal behavior is a lifelong global condition. It is important to clarify these definitions because there are various definitions of suicide. Generally concepts expressed by suicidal behavior are completed suicide, suicide attempts and suicidal ideation. Completed suicide/suicide is defined as self-harming behavior that results in death in relation to the intention to die. Suicide attempt is a self-initiated action and potentially self-harming behavior associated with a certain degree of intent to die. A non-fatal situation occurs as a result of the action and does not necessarily have to be an actual injury. Intention can be seen explicitly or implicitly inferred from the situation or behavior, but there is an intention to die. Non-lethal suicide attempts do not result in death as a result of suicide attempts and are used synonymously with suicide attempts. Near-lethal suicide attempts are non-fatal suicide attempts in which the person is most likely to survive by chance. For example, someone can survive by jumping from the Golden Gate bridge. Lethal suicide attempts; refers to suicide attempts with fatal consequences. Suicidal ideation is an active thought that is seen as passive thoughts about wanting to die, not accompanied by suicidal preparatory behavior, or includes making plans or taking action about killing oneself (Posner et al., 2007).

According to WHO 2021 data, one person dies by suicide every 40 seconds, and more than 700,000 people each year. Considering the death rates due to suicide, it is seen that this rate in men is about twice that of women, and it has been reported that the late adult group is most at risk for suicide deaths. Of the 3406 people who died by suicide in Turkey in 2019, approximately 2626 (77%) were male and 780 (23%) were female. 1627 (48%) of these deaths occurred by hanging method, followed by 937 (27.5%) firearms and 425 (12.5%) by jumping of a high place. According to the latest ranking made in terms of crude suicide rate, Turkey ranks 176th out of 183 countries.

Eskin (2014) states that although the number of deaths due to suicide is relatively low in Turkey, our country is similar to countries where suicide is common in terms of suicidal ideation and suicide attempt.

Studies have mentioned many factors that may be risk factors for suicidal behavior. Many research findings show a relationship between hopelessness, loneliness, and suicidal behavior. Bagge et al. (2013), investigating the relationship between suicidal tendency, hopelessness and depression, stated that depression symptoms and hopelessness were positively related to suicidal ideation and suicidal behaviors. Chang et al. (2017) examined the risk of loneliness and ethnic identity among Latin university students and found that loneliness had a significant effect on predicting suicide risk, regardless of the ethnicity variable. It is also known that depression is one of the risk factors for suicidal behavior. In another study, Pervin and Ferdowshi (2016) found a strong relationship between suicidal ideation and depression, loneliness, and hopelessness. In a meta-analysis study involving major depressive patients in China, it was stated that the prevalence of suicidal behavior was high among major depressive patients, especially in women.

'Psychological pain' (psychache), which was first used by Shneidman, was defined as 'injury, suffering, pain, spiritual pain in the soul, in the mind'. According to Shneidman, all emotional states such as depression and hopelessness cause suicide only with psychological pain. Campos et al. (2017) measured psychological pain by total psychological symptoms and it was found that psychological symptoms and psychological pain were directly related. In addition, it was determined that psychological pain and suicidal ideation were directly related, and thus it was stated that psychological pain had an effect on the indirect relationship between psychological symptoms and suicidal ideation. In addition, Demirkol et al. (2020) stated that psychological pain had a mediating role in relationship between suicide attempt and childhood trauma. In another study, only psychological

pain among the variables of psychological pain, depression and hopelessness was found to have a unique predictive power in suicidal behavior.

Anxiety is another important factor evaluated in suicidal behavior. In a study conducted with adolescents with and without suicide attempts, both state and trait anxiety were found to be risk factors for suicidal behavior in adolescents. However, only trait anxiety was a risk factor independent of depression. In addition, Demirbaş et al. (2003) found that self-esteem, depression, and only trait anxiety effectively predicted suicide probability. The same study stated that trait anxiety was more strongly associated with suicide probability than state anxiety.

Impulsivity is another factor that is emphasized when evaluating suicidal behavior. Duica, Dragulescu, and Pîrlog (2020) emphasized that the emphasis on the biological aspects of suicide has great importance in predicting suicide, and they stated that serotonin contributes to depression and impulsivity. They also explained that impulsivity may be a part of psychiatric disorders and hopelessness and impulsivity are two indispensable components of suicidal behavior.

Consistent results were found in the study conducted by Christensen et al. (2013) with 6133 participants, with the Interpersonal Psychological Theory of Suicide, which was tested by different studies. While the interaction of perceived burdensomeness and thwarted belongingness reveals suicidal ideation, the interaction of suicidal ideation and acquired suicidal efficacy reveals a suicide attempt/plan. In another study, two main hypotheses of the Interpersonal Psychological Theory of Suicide were tested with 239 cross-sectional and outpatient mental health patients. Consistent with the theory's predictions, suicidal ideation levels were significantly predicted by the interactive effects of perceived burdensomeness and thwarted belongingness in the presence of high levels of hopelessness. The risk of suicide was mostly predicted by the interactive effects of suicidal ideation and acquired suicidal efficacy.

When the literature is examined, there are studies in which the variables used in our research such as depression, anger, and hopelessness in suicide are together, but all the variables used in our research (anger/impulsivity, interpersonal needs, perceived burden to others, acquired suicidal efficacy, depression, state and trait anxiety, psychological pain), hopelessness/loneliness, general attitudes and beliefs) were not found together. In this study, it is important to reveal a comprehensive understanding of the phenomenon of suicide by evaluating all the variables together, and to examine the role of the variables in suicidal ideation and suicide attempt, as a contribution to the literature and the belief that it will provide a comprehensive perspective to the clinicians. In this context, the main purpose of this study is to investigate the psychological pain, depression, anger/impulsivity, hopelessness/loneliness, state and trait anxiety, irrational beliefs, interpersonal needs, perceived burdensomeness, thwarted belongingness and acquired capability for suicide among people with suicidal attempt, only suicidal ideation and no suicidal ideation in the general population. The secondary aim is to examine whether there are differences between the three groups in terms of demographic variables.

## Methods

In this study, which was designed as a quantitative research, the relational survey model, one of the general survey models, was used since it was aimed to determine the existence of co-variance between two or more variables. Relational screening model is a research model that aims to determine whether two or more variables change together and to determine the degree and direction of the change (Karasar, 2000). Ethics committee approval of the study was obtained from Marmara University Social Sciences Research Ethics Committee with the decision number 57 on 02.18.2021. Informed consent was taken from the participants and no identity information was requested. Data was conducted The Suicide Probability Scale (PSS), The Psychache Scale (TPS), The State-Trait Anxiety Inventory (STAI), Beck Depression Inventory (BDI), Interpersonal Needs Questionnaire (INQ), Acquired Capability for Suicide-Fearlessness about Death Scale, Shortened General Attitude And Belief Scale (SGABS). A large literature review was conducted to determine the scales used in the study. In this survey, the scales for the purpose of the research were brought together and evaluated and scales with high validity and reliability scores were preferred.

## Participants

The sample of study consists of 482 people between the ages of 18-55. 108 of the participants had attempted suicide before, 197 had only suicidal ideation, and 177 had no suicidal ideation or attempt. The age range of the participants ranged from 18 to 55, with a mean age of 26.37 (SD= 7.4). The age range of the participants who attempted suicide was 18-50 and the mean age was 27.42 (SD=7.5). The age range of the participants who only had suicidal ideation was 18-55 and the mean age was 26.07 (SD=7.5). The age range of the participants who did not have suicidal ideation or attempt was 18-54, and the mean age was 25.20 (SD=6.9). The group with suicidal attempts and thoughts was reached by snowball sampling method. Data were collected between 02.19.2021 and 08.01.2021. Data collection was carried out online via Google Forms and was communicated to the participants via social media (Facebook, Instagram, Twitter, etc.). At the end of the form, the contact information of the researcher was shared again for the participants who wanted to receive psychological support for ethical reasons because the study was conducted on suicide. 2 participants who contacted for support were directed to the Call Centers of The Ministry of Family and Social Services, Labour and Social Services (Alo 183).

## Measures

Demographic information form is a form prepared by the researcher to evaluate the participants' demographic data in line with the purpose of the study. The form includes personal information such as age, gender, marital status, education level, monthly income, previous suicide attempt, and psychiatric diagnosis.

The Suicide Probability Scale (PSS) was developed by Cull and Gill in 1988 to assess the suicide risk of adolescents and adults. It consists of 36 items in total and the rating is made as a 4-point Likert scale (1-4). The highest and lowest score that can be obtained from the scale is between 36 and 144. The validity and reliability study of the scale was carried out by Batgün and Hisli (2018). 4 factors in the scale; "Social Support/Self Perception", "Anger/Impulsivity",

"Hopelessness/Loneliness" and "Suicidal Ideation" were defined and anger/impulsivity and hopelessness/loneliness subscales were included in the analysis in this study. The Cronbach's alpha internal consistency coefficient of the original form of the scale was calculated as .93, and the test-retest reliability coefficient as .92.

In this study, the Cronbach's alpha for all scale items was found .93. It was found .88 for the social support/self-perception subscale, .77 for the anger/impulsivity subscale, .77 for the hopelessness/loneliness subscale, and .76 for the suicidal ideation subscale.

The Psychache Scale (TPS), based on Shneidman's (1993) psychache theory, is a 5-point Likert-type self-report scale developed to examine the relationship between suicidal tendency and psychological pain. It consists of 13 items. Turkish validity and reliability studies were conducted by Demirkol et al. (2018), and it was found to be valid and reliable. In this study, the Cronbach's alpha value was found .97.

The State-Trait Anxiety Inventory (STAI) is a self-report scale consisting of 40 short-expressed items developed by Spielberger et al. (1971). There are two separate scales of 20 items each measuring state and trait anxiety in STAI. While the State Anxiety Scale explains how the person feels in certain situations, the trait anxiety scale defines the general feeling of the individual. Turkish validity and reliability studies were conducted by Öner and Le Compte (1985) and it was found valid and reliable.

The Cronbach's alpha value calculated in this study was .93 for the State Anxiety Inventory, .91 for the Trait Anxiety Inventory, and .95 for the whole scale.

Beck Depression Inventory (BDI) is a self-report scale developed by Beck et al. (1961) to determine the depression levels of individuals. The scale aims to determine the degree of depression stated by individuals rather than diagnosing depression. Items in the scale can score between 0 and 3. The scale consists of 21 questions and there is no reverse coded item. Turkish validity and reliability studies were carried out by Hisli (1989), and the scale was reported to be valid and reliable. The Cronbach alpha value found in this study is 0.93.

Interpersonal Needs Questionnaire (INQ) aims to measure perceived burdensomeness and thwarted belongingness as stated in Interpersonal Needs Theory. Eskin et al. (2020) carried out the validity and reliability study of the 10-item form. Five of the items measure perceived burdensomeness, and the other five measure and thwarted belongingness. Higher scores on the scale indicate increased interpersonal needs.

The Cronbach alpha value for the perceived burdensomeness in this study was .93; Cronbach's alpha value for the and thwarted belongingness was found .88. The Cronbach alpha value calculated for all scale items was .91.

Acquired Capability for Suicide-Fearlessness about Death Scale; Ribeiro et al. (2014) shortened the Acquired Capability for Suicide Scale, which consists of 20 items in total, and prepared a 7-item form and named the new scale as the 'Acquired Capability for Suicide-Fearlessness about Death Scale'. It is a 7-point Likert-type scale. Higher

scores indicate greater fearlessness of death. The validity and reliability study of the scale was carried out by Eskin et al. (2019) and it was shown that the scale has a single factor structure in its original form and in its Turkish validity and reliability study. In this study, the Cronbach's alpha value was found .86.

Shortened General Attitude And Belief Scale (SGABS); developed by Lindler, Kirkby, Wertheim, and Birch (1999) was created to measure irrational beliefs for adults and adolescents. The items of the scale, which consists of 26 items in total, are answered as a 5-point Likert scale. The Turkish adaptation, validity and reliability studies were carried out by Artıran (2019), and the 7-factor structure in the original form was preserved in the Turkish version as well. Since all subscales except rationality express irrational beliefs, this subscale was reverse coded in analysis. The reliability value of the SGABS for this study; .92 for the whole scale.

### Statistical analysis

The data of 4 people younger than 18 years old and 2 participants who filled most of the scales incompletely were not evaluated. The data of the 22 participants in the 'suicide attempt' group were not included in the analysis due to the absence of active suicidal thoughts. Outlier control was performed with one-way and multivariate outlier analysis, and the data of 8 participants whose Mahalanobis critical chi-square value was greater than 27,614 ( $df = 10, p = .001$ ) were excluded from the analysis. After the data of 36 participants were removed from the analysis, the data of the remaining 482 people were evaluated.

One-Way Analysis of Variance (ANOVA) was used to compare the means of independent three groups, as the groups showed a normal distribution. The normality distribution was tested by comparing the skewness and kurtosis values and histogram graphs. Considering that the skewness and kurtosis values should be between +2 and -2 limits as a requirement of the normal distribution (Mallery, 2019), it was determined that all scales and subscales used in the study showed normal distribution. Homogeneity of variances of more than two groups was evaluated and Scheffe test was used when variances were homogeneous and Games-Howell Post-Hoc test was used to determine different groups. Pearson Chi-Square was used to examine the relationship between categorical variables, and Pearson Correlation Analysis was used for the relationships between continuous variables.

### Results

Sociodemographic characteristics of suicide attempters, suicidal ideators and non ideators group analyzes are shown in Table 1. A total of 482 (108 suicide attempters, 197 ideators, 177 non ideators) subjects were included. Characteristics of the participants are presented in Table 1. There were no statistically significant differences in terms of working status and suicide attempt in the family between three groups ( $p = .954$  and  $p = .274$  respectively). Statistically significant differences in sex, psychological support, death due to suicide in the family, diagnosed psychiatric illness, psychiatric drug usage, psychiatric diagnosis in the family was found between three groups ( $p < .05$ ) (see Table 1).

**Table 1.** Sociodemographic data of the participants

	Suicide attempters	Suicidal ideators	Non-ideators	p*
<b>Sex:</b>				
Female	55 <sub>c</sub> (%50.9)	71 <sub>b</sub> (%36.0)	123 <sub>a</sub> (%69.5)	0.000**
Male	53 <sub>c</sub> (%49.1)	126 <sub>b</sub> (%64.0)	54 <sub>a</sub> (%30.5)	
<b>Working Status:</b>				
Not working	60 <sub>a</sub> (%55.6)	113 <sub>a</sub> (%57.4)	100 <sub>a</sub> (%56.5)	0.954
Working/working irregularly	48 <sub>a</sub> (%44.4)	84 <sub>a</sub> (%42.6)	77 <sub>a</sub> (%43.5)	
<b>Psychological Support:</b>				
Yes	24 <sub>b</sub> (%22.2)	24 <sub>a</sub> (%12.2)	14 <sub>a</sub> (%7.9)	0.002*
No	84 <sub>b</sub> (%77.8)	173 <sub>a</sub> (%87.8)	163 <sub>a</sub> (%92.1)	
<b>Suicide Attempt in the Family:</b>				
Yes	20 <sub>a</sub> (%18.5)	44 <sub>a</sub> (%22.3)	28 <sub>a</sub> (%15.8)	0.274
No	88 <sub>a</sub> (%81.5)	153 <sub>a</sub> (%77.7)	149 <sub>a</sub> (%84.2)	
<b>Death due to Suicide in the Family:</b>				
Yes	13 <sub>b</sub> (%12.0)	18 <sub>b</sub> (%9.1)	4 <sub>a</sub> (%2.3)	0.004*
No	95 <sub>b</sub> (%88.0)	179 <sub>b</sub> (%90.9)	173 <sub>a</sub> (%97.7)	
<b>Diagnosed Psychiatric Illness:</b>				
Yes	52 <sub>c</sub> (%48.1)	62 <sub>b</sub> (%31.5)	15 <sub>a</sub> (%8.5)	.000**
No	56 <sub>c</sub> (%51.9)	135 <sub>b</sub> (%68.5)	162 <sub>a</sub> (%91.5)	
<b>Psychiatric Drug Usage:</b>				
Yes	33 <sub>c</sub> (%30.6)	36 <sub>b</sub> (%18.3)	9 <sub>a</sub> (%5.1)	.000**
No	75 <sub>c</sub> (%69.4)	161 <sub>b</sub> (%81.7)	168 <sub>a</sub> (%94.9)	
<b>Psychiatric Diagnosis in the Family:</b>				
Yes	51 <sub>c</sub> (%47.2)	62 <sub>b</sub> (%31.5)	31 <sub>a</sub> (%17.5)	.000**
No	57 <sub>c</sub> (%52.8)	135 <sub>b</sub> (%68.5)	146 <sub>a</sub> (%82.5)	

\*\*:.p&lt;.05

\*\*:.p&lt;.001

The demographic characteristics of the suicide attempters are given in Table 2. 30 (27.8%) of them attempted suicide within 6 years or more, 29 (26.9%) of them attempted suicide within 1-3 years, 22 (20.4%) of them attempted suicide within 0-6 months, 14 (13%) of them attempted suicide 7-12 months, 13 (12%) of them attempted suicide within 3-5 years. 52 (48.1%) of the participants were once, 29 (26.9%) of them were twice, 14 (13%) of them were 3

times, and 13 (12.1%) of them were 4 or more times attempted suicide in their lifetime. 42 of the attempters (38.9%) used drugs/chemicals, 25 of them (23.1%) used cutting tools, 10 of them (9.3%) jumped from a high place, 6 of them (5.6%) were hanged, and 1 (0.9%) used firearms. 6 (5.6%) people did not specify the method of suicide attempt.

**Table 2.** Demographic characteristics of suicide attempters

Variables	Sub-variables	Frequency (n)	Percent (%)
Time	0-6 month	22	20.4
	7-12 month	14	13.0
	1-3 year	29	26.9
	3-5 year	13	12.0
	6 year or more	30	27.8
Number of attempts	1	52	48.1
	2	29	26.9
	3	14	13.0
	4 and more	13	12.1
Method of attempt	Did not specify	18	16.7
	Hanging	6	5.6
	Drugs/Chemical substance	42	38.9
	Jumping off a high place	10	9.3
	Firearm	1	0.9
	Cutting tools	25	23.1
	Other	6	5.6

Analyzes of scale and subscale scores of the suicide attempters, suicidal ideators and non ideators are shown in Table 3. According to the results of the One-way ANOVA test, a significant difference was found between the three groups in terms of Anger/Impulsivity Subscale, Interpersonal Needs, Perceived Burdensomeness Subscale, Acquired Capability for Suicide Scale-Fearlessness about Death Scale, Beck Depression

Inventory and The Psychache Scale ( $F=70.917$ ,  $p<.001$ ;  $F=113.057$ ,  $p<.001$ ;  $F=57.628$ ,  $p<.001$ ,  $F=17.667$ ,  $p<.001$ ;  $F=166.403$ ,  $p<.001$ ;  $F=146.711$ ,  $p<.001$  respectively). The suicide attempters mean score was higher than the suicide ideators and control groups, and the suicide ideators mean scores were higher than the control group (see Table 3).

**Table 3.** Scale and subscale scores of the suicide attempters, ideators and controls

	Suicide attempt	Suicidal ideation	Non-ideators	p*
Hopelessness/Loneliness Subscale	20.898 ± 3.843	20.315 ± 4.141	14.006 ± 3.959	.000
Anger/Impulsivity Subscale	14.750 ± 4.326	12.787 ± 3.748	9.593 ± 3.262	.000
Interpersonal Needs	43.676 ± 13.853	38.741 ± 12.038	23.944 ± 10.556	.000
Perceived Burdensomeness	17.444 ± 8.999	13.208 ± 7.653	8.271 ± 4.967	.000
Thwarted Belongingness	26.231 ± 6.917	25.533 ± 7.090	15.672 ± 7.406	.000
Acquired Capability for Suicide Scale-Fearlessness about Death	37.907 ± 10.131	33.731 ± 11.058	30.254 ± 10.345	.000
Beck Depression Inventory	31.444 ± 12.490	26.756 ± 11.095	10.701 ± 8.250	.000
The Psychache Scale	49.991 ± 13.736	45.020 ± 14.581	24.446 ± 13.516	.000
State Anxiety Scale	53.065 ± 11.264	51.178 ± 10.492	38.271 ± 10.382	.000
Trait Anxiety Scale	57.529 ± 10.744	55.563 ± 9.480	42.644 ± 9.870	.000
General Attitudes and Beliefs Scale	89.000 ± 20.192	84.909 ± 17.216	67.853 ± 16.184	.000

The mean scores of hopelessness/loneliness, thwarted belongingness, state anxiety, trait anxiety, and irrational beliefs were found to be statistically significantly higher in the suicide attempters and suicide ideators than in the non ideators group (F=148.647, p<.001; F=111.628, p<.001;

F=92.430, p<.001; F=106.917, p<.001, F=64.028, p<.001 respectively). It was determined that the scores of the 'only suicidal ideation' group and the 'suicide attempt' group did not differ at a level that could be considered statistically significant (p>.05) (see Table 4).

**Table 4.** One-Way Analysis of Variance (ANOVA) Results of the Scale and Subscale Scores of the Suicide Attempters, Ideators and Controls

Scale/Subscale	Source of Variation	Sum of Squares	df	Mean Squares	F	p	η <sub>2</sub>	Post Hoc
Hopelessness/Loneliness Subscale	Between groups	4778.664	2	2389.332	148.647	.000	0.355	C>A
	Within groups	7699.361	479	16.074				B>A
	Total	12478.025	481					
Anger/Impulsivity Subscale	Between groups	1962.590	2	981.295	70.917	.000	0.265	C>B
	Within groups	6628.008	479	13.837				C>A
	Total	8590.598	481					B>A
Interpersonal Needs	Between groups	32357.951	2	16178.975	113.057	.000	0.362	C>B
	Within groups	68546.889	479	143.104				C>A
	Total	100904.840	481					B>A
Perceived Burdensomeness Subscale	Between groups	5892.713	2	2946.357	57.628	.000	0.286	C>B
	Within groups	24490.117	479	51.128				C>A
	Total	30382.830	481					B>A
Thwarted Belongingness Subscale	Between groups	11477.498	2	5738.749	111.628	.000	0.295	C>A
	Within groups	24625.243	479	51.410				B>A
	Total	36102.741	481					
Acquired Capability for Suicide Scale-Fearlessness about Death	Between groups	3967.298	2	1983.649	17.667	.000	0.160	C>B
	Within groups	53783.375	479	112.283				C>A
	Total	57750.672	481					B>A
Beck Depression Inventory	Between groups	36685.063	2	18342.531	166.403	.000	0.454	C>B
	Within groups	52800.101	479	110.230				C>A
	Total	89485.164	481					B>A
The Psychache Scale	Between groups	57590.855	2	28795.427	146.711	.000	0.427	C>B
	Within groups	94014.650	479	196.273				C>A
	Total	151605.504	481					B>A

State Anxiety Scale	Between groups	20887.376	2	10443.688	92.430	.000	0.314	C>A
	Within groups	54122.311	479	112.990				B>A
	Total	75009.687	481					
Trait Anxiety Scale	Between groups	21030.633	2	10515.317	106.917	.000	0.377	C>A
	Within groups	47109.950	479	98.351				B>A
	Total	68140.583	481					
General Attitudes and Beliefs Scale	Between groups	39518.097	2	19759.048	64.028	.000	0.363	C>A
	Within groups	147818.536	479	308.598				B>A
	Total	187336.633	481					

A: Non suicidal attempters or ideators

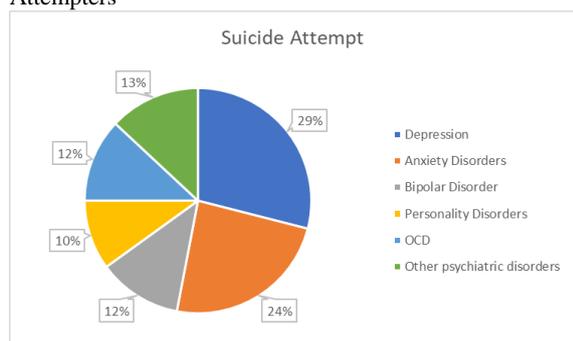
B: Suicidal ideators

A: Suicide attempters

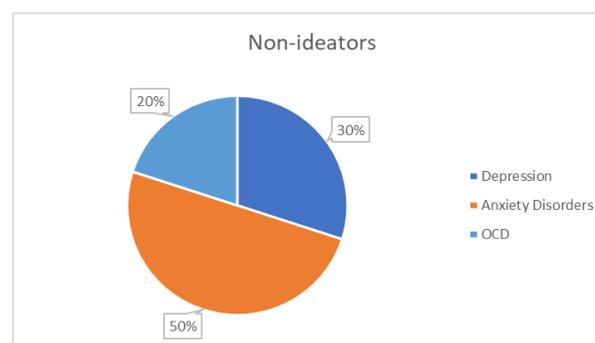
Psychiatric diagnoses of the participants and their families results are as shown in the figures. According to Figure 1, 2 and 3 present suicide attempters, suicidal ideators and the control group, classified according to the psychiatric

disorders they have been diagnosed with. In Figure 4, 5 and 6, there are information about the psychiatric diseases diagnosed by the members of the families of the participants.

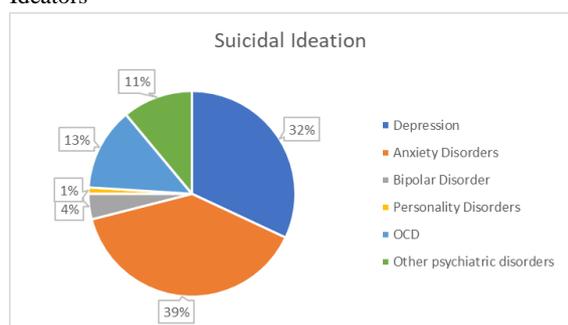
**Figure 1.** Psychiatric Diagnoses of Participants: Suicide Attempters



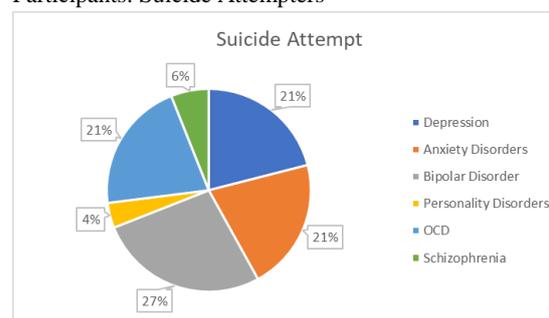
**Figure 3.** Psychiatric Diagnoses of Participants: Non suicidal attempters or ideators

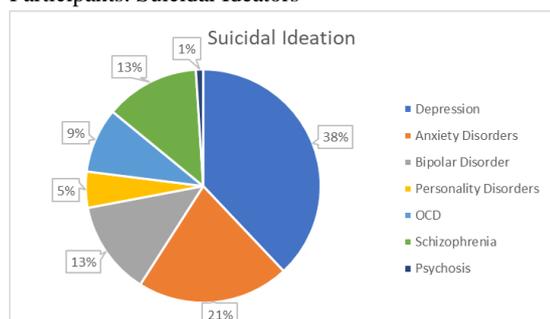


**Figure 2.** Psychiatric Diagnoses of Participants: Suicidal Ideators



**Figure 4.** Psychiatric Diagnoses in the Families of the Participants: Suicide Attempters



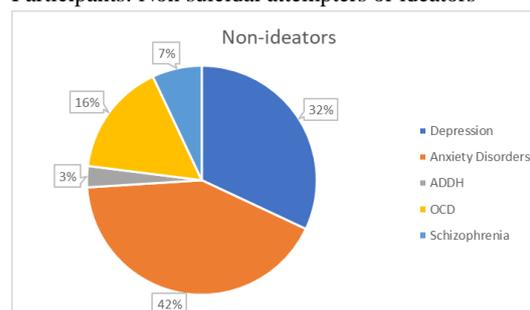
**Figure 5.** Psychiatric Diagnoses in the Families of the Participants: Suicidal Ideators

## Discussion

Suicide attempters, suicidal ideators, and non-ideators did not differ significantly from demographic variables regarding employment status and family history of suicide attempt. However, it was observed that there were significantly more psychiatric disease diagnoses, psychiatric drug use, and psychiatric diagnoses in the family in those suicide attempters than suicidal ideators and non-ideators. While more women and psychological support were seen in those who attempted suicide than suicidal ideators, it was observed that more people died by suicide in the family in suicidal ideators and suicide attempt than non-ideators. Previous studies have reported that suicide attempts are more common in women, while completed suicide is more common in men. Considering these findings together with the fact that the participants in our study were people who attempted suicide, the higher incidence of suicide attempts in women is consistent with the information in the literature. When the diagnosis of psychiatric illness, use of psychiatric medication, and psychiatric diagnosis in the family are evaluated, it is seen that these factors increase the risk of suicide attempt.

There are findings indicating that the risk of suicide is increased in those with a history of mental illness and psychiatric hospitalization. In the study of Hjorthøj et al. (2014), when the data of people who died by suicide were investigated, it was reported that the suicide rate was quite high in people who received psychiatric treatment within a year but were not hospitalized. When the findings of this study are evaluated with this information, a possible reason for the fact that receiving current psychological support is an important risk factor in the transition from suicidal ideation to suicide attempt may be that individuals who attempt suicide receive psychological support because they have more psychiatric diagnoses. Another possible reason why receiving psychological support is a significant predictor of suicide attempt is that therapists and clinical psychologists avoid directly questioning/talking about suicidal thoughts of clients, as stated by Meerwijk et al. (2016). The fact that the boundaries of confidentiality have not been clarified and the relationship of trust in therapy has not been established may be related to the client's inability to open up easily and not to share suicidal thoughts.

In this study, we showed that hopelessness/loneliness, thwarted belongingness, state anxiety, trait anxiety, and irrational beliefs scores were higher in suicide attempters than those with and without suicidal ideation. At the same time, suicidal ideators scored higher than those non-

**Figure 6.** Psychiatric Diagnoses in the Families of the Participants: Non suicidal attempters or ideators

ideators, but there was no significant difference between suicide attempters and suicidal ideators. Previous studies show findings that hopelessness/loneliness, thwarted belongingness, state anxiety, trait anxiety, and irrational beliefs were related with suicidal ideation and attempt. These findings are consistent with the findings in our study. Based on our findings, it is thought that hopelessness/loneliness, thwarted belongingness, state anxiety, trait anxiety, and irrational beliefs fail to distinguish suicide attempters from suicidal ideators.

We found that anger/impulsivity, interpersonal needs, perceived burdensomeness, acquired capability for suicide, depression, psychache were higher in suicide attempters than in non-ideators, and suicidal ideators were higher than those non-ideators. Based on these findings, we suggested that anger/impulsivity, interpersonal needs, perceived burdensomeness, acquired capability for suicide, depression, psychache in may be important variables in differentiating suicidal ideation and suicide attempt. When the relevant literature is considered, it is seen that depression and high psychache are related with suicidal behavior in many studies. In a study, Kirkcaldy et al. (2006) reported a relationship between anger and suicide attempt, while Mann (2009) showed that suicidal behavior was associated with impulsivity. Ma et al. (2016) evaluated the Theory of Interpersonal Psychological Needs by examining the effects of inhibited belonging, perceived burden on others, and acquired suicidal efficacy on suicidal ideation and attempt, in their systematic review study of 58 articles consisting of 66 different studies. As a result of this review, they reported perceived burdensomeness was more strongly related with suicidal ideation compared to thwarted belongingness. In a different study, in which acquired capability for suicide was investigated with suicide attempters, had a recent suicide attempt, and had a long-term suicide attempt, it was found that acquired capability for suicide predicted those who had attempted suicide recently or long ago. These findings are consistent with the findings in our study. However, more research is needed to examine the role of anger/impulsivity, interpersonal needs, perceived burdensomeness, acquired capability for suicide, depression, psychache in suicidal ideation and suicide attempt.

## Conclusion

In this study, anger/impulsivity, interpersonal needs, perceived burdensomeness, acquired capability for suicide-fearlessness of death, depression, psychache, hopelessness/loneliness, thwarted belongingness, state anxiety, trait anxiety, irrational beliefs, psychiatric illness,

use of psychiatric medication, psychiatric diagnosis in the family, gender, and receiving psychological support were differentiated significantly in terms of suicide attempters, suicidal ideators and non-ideators. It is recommended that clinicians evaluate people's anger/impulsivity level, interpersonal needs, level of feeling of burden, approach towards death, hopelessness, loneliness, depression, and psychological pain levels when assessing suicide risk. In addition, it should be taken into consideration that gender, diagnosis of psychiatric disease, use of psychiatric medication, and suicide history of family should be evaluated. Future studies are needed to investigate how these variables affect suicidal ideation and suicide attempt.

#### Limitation of the study

This study has several limitations. First, the findings obtained from the study are limited to the data collected from 108 people with suicidal ideation and thoughts, 197 people with only suicidal ideation and 177 people without suicidal ideation. A second limitation may be the inability to draw strong causal inferences from the results due to the cross-sectional design of the study. Since it is difficult to reach individuals who have attempted suicide in the general population, the inclusion of people who have

attempted suicide for more than 1 month in this group is another limitation.

#### Declarations

##### Ethics Approval and Consent to Participate

The ethics committee permission required to start this study was obtained from the ethics committee of Marmara University Social Sciences Research Ethics Committee with the decision number 57 dated 02.18.2021. Ethical rules reported during the study were taken into consideration and consent forms were obtained from the participants.

##### Consent for Publication

Not applicable

##### Availability of Data and Materials

Not applicable.

##### Competing Interests

The author declares that no competing interests in this manuscript.

##### Funding

Not applicable.

##### Authors' Contributions

MK carried out the proposal of the main idea of the research, the collection of data, analysis and article writing. EY and FB contributed to the creation of the research design, analysis of the data, and revision of the article content. All authors have read and approved the final article.

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