



# The Bulletin of Legal Medicine

## Adli Tıp Bülteni

Research Article

### Assessment of Suicide Attempt in The Forensic Medicine Outpatient Clinic in Muğla

Muazzez Elçin Kıymet\*, Ümit Ünüvar Göçeoğlu, Betül Yürürdurmaz, Yasemin Balcı

**Abstract:** **Objective:** Suicides and suicide attempts are an important public health problem. In the study, by evaluation of the forensic reports of the suicide attempts patients in the Forensic Medicine outpatient clinic; it was aimed to present sociodemographic/regional characteristics, methods and develop recommendations for protective measures.

**Materials and Methods:** The reports between 01.06.2014 and 31.12.2018 were evaluated retrospectively and statistically.

**Results:** 405 (5.3%) of cases attempted suicide, 263 (64.9%) were women, 142 (35.1%) were men, mean age was 27.7 years. 11.8% of them were under 18years-old, 66.9% (n:271) of them was in the 15-29-age group, 27.8% (n:111) was in the 30-49-age group. There is a significant difference was found between age-group and sex ( $p < 0.001$ ). No significant difference was found between months and seasons. The most commonly used method was drugging (86.2%, n:349). In terms of severity of the injury, it was found that 3.2% of the cases had a life-threatening injury, 88.4% of them were mild with simple medical intervention and 8.4% were mild/moderate.

**Discussion and Conclusion:** The most common method was taking drugs. One of the striking results that, the rate of attempting suicide of women under 19 years of age is higher than men, and men in the 30-39 age group are higher. In this result for women; gender roles, identity problems and freedom restrictions are playing a role, and for men; gender roles, identity problems, economic problems are playing a role. The findings are important to shed light on protective measures. It would be useful to refer the patients who applied to social support units.

**Keywords:** Suicide Attempt, Suicide Method, Forensic Medicine, Forensic Report.

**Öz:** **Amaç:** İntiharlar ve intihar girişimleri önemli halk sağlığı sorunlarından biridir. Çalışmada Muğla Sıtkı Koçman Üniversitesi Eğitim/Araştırma Hastanesi Adli Tıp Polikliniğinde intihar girişimi nedeniyle adli rapor düzenlenen olguların değerlendirilmesiyle; bölgesel ve sosyodemografik özellikler ve kullanılan yöntemler ortaya konularak, koruyucu önlemler açısından öneriler geliştirmek amaçlanmıştır.

**Gereç ve Yöntem:** 01.06.2014-31.12.2018 tarihleri arasında Adli Tıp Polikliniğinde intihar girişimi nedeni başvuruların raporları retrospektif değerlendirilerek verilerin istatistik analizleri yapılmıştır.

**Bulgular:** Olguların 405'inin (%5.3) intihar girişiminde bulunduğu görülmüştür. 263'ü (%64.9) kadın, 142'si (%35.1) erkektir, yaş ortalaması 27.7 yıl (SD:11.1), aralık 12-76 yıldır. Olguların %11.8'i (n:48) 18 yaş altında, %66.9'u (n:271) 15-29 yaş aralığında ve kadınlar çoğunlukta, %27.8'i (n:111) 30-49 yaş aralığındadır. Yaş gruplarına göre cinsiyette anlamlı bir fark bulunmaktadır ( $p < 0.001$ ). Ay ve mevsimlere göre anlamlı bir farklılık saptanmamıştır. Yöntemler içinde en sık ilaç alma (%86.2, n:349) kullanılmıştır. Bunu kesici alet kullanma (%8.9, n:36) ve asi (%2.2, n:9) yöntemleri izlemiştir. Yaralanma ağırlığı; olguların %3.2'sinde yaşamsal tehlike, %88.4'ünün basit tıbbi müdahale ile giderilebilecek nitelikte hafif, %8.4'ünde ise hafif olmadığı şeklindedir.

**Tartışma ve Sonuç:** İntihar girişiminde bulunan olguların çoğunluğu yöntem olarak ilaç kullanımını seçmiştir. 19 yaş ve altında kadınların intihar girişiminde bulunma oranı erkeklere göre fazla, 30-39 yaş grubunda ise erkeklerin oranı daha fazla bulunmuştur. Bunda; kadınlar için toplumsal cinsiyet rolleri, ergenlerin kimlik arayışı, özgürlük kısıtlamaları; erkeklerde ise yine toplumsal cinsiyet rolleri, ekonomik nedenlerin rol oynadığı düşünülmüştür. Elde edilen bulgular koruyucu önlemlere ışık tutması açısından önemlidir. İntihar girişimi nedeniyle başvuran olguların sosyal destek birimlerine yönlendirilmesi faydalı olacaktır.

**Anahtar Kelimeler:** İntihar Girişimi, İntihar Yöntemi, Adli Tıp, Adli Rapor.

DOI: 10.17986/blm.1307

Muazzez Elçin Kıymet: Res. Asst. Dr., Muğla Sıtkı Koçman University Faculty of Medicine Forensic Medicine Department, Muğla  
Email: elcinkiymet@gmail.com  
ORCID: <https://orcid.org/0000-0003-0946-3653>

Ümit Ünüvar Göçeoğlu: Assoc. Prof. Dr., Muğla Sıtkı Koçman University Faculty of Medicine Forensic Medicine Department, Muğla  
Email: uunuvar@gmail.com,  
ORCIDiD: <https://orcid.org/0000-0003-1646-7492>

Betül Yürürdurmaz: Res. Asst. Dr. Muğla Sıtkı Koçman University Faculty of Medicine Forensic Medicine Department, Muğla  
Email: betulyururdurmaz1991@gmail.com  
ORCIDiD: <https://orcid.org/0000-0003-1549-2207>

Yasemin Balcı: Prof. Dr. Muğla Sıtkı Koçman University Faculty of Medicine Forensic Medicine Department, Muğla  
Email: yaseminbalci@mu.edu.tr  
ORCIDiD: <https://orcid.org/0000-0002-5995-9924>

#### Acknowledgement

\* Corresponding Author

#### Conflict of Interest

The authors declare that they have no conflict of interests regarding content of this article.

#### Support Resources

The Authors report no financial support regarding content of this article.

#### Ethical Declaration

Ethical approval was obtained from Muğla Sıtkı Koçman University Human Research Ethical Committee with date 05.02.2019 and number 180200, and Helsinki Declaration rules were followed to conduct this study.

This article is English version of the manuscript entitled as "Muğla İlinde Adli Tıp Polikliniğine Başvuran İntihar Girişimi Olgularının Değerlendirilmesi"

Received: 29.04.2019

Revised: 18.06.2019

Accepted: 12.12.2019

p-ISSN: 1300-865X

e-ISSN: 2149-4533

[www.adlitipbulteni.com](http://www.adlitipbulteni.com)

## 1. Introduction

Suicides and suicide attempts are among the major public health problems. Suicide-related deaths and suicide attempts are increasing in the world and in our country (1).

World Health Organization (WHO) reported that suicides have constantly increased in recent years and are among the top ten causes of death, and that one person attempts suicide every 40 seconds (2). More than one million people attempt suicide every year, and suicide attempts to account for 1.8% of the burden of disease in the world (1-3). It is reported that attempted suicides are 10-20 times higher than completed suicides and thus it creates a much more important public health problem (1,4).

Suicide attempts are all willful attempts towards the self-annihilation individuals, which does not result in the death he / she has carried out in order to kill himself. It is reported that the rate of suicide increases with age and completed suicides are higher in males, whereas suicide attempts are more common in adults and women (5-8).

It is of great importance to identify the people at risk in terms of suicidal behavior in advance, and make the necessary examinations and interventions without delay. It has been reported that many suicide attempts are of repetitive nature and that raising the awareness of health-care professionals are in this regard is highly critical (7). In one study, it was reported that 50-75% of suicide cases met with a doctor little earlier before the suicide attempt, while a few of them received psychiatric treatment, whereas proper assessment and treatment of the psychiatric conditions of the cases could be effective in terms of preventive measures (6).

According to the criminal law in our country, the action taken by the person who attempted suicide does not constitute crime, but those who persuade, encourage, strengthen someone else's suicide decision, and help in any way are punished (9).

Suicide attempts are examined in forensic medicine outpatient clinics within the scope of forensic cases, and the severity of the action of the person performed on himself is reported with the forensic report. For this reason, the vast majority of cases attempting suicide are directed to forensic medicine outpatient clinics.

In cases of suicide attempts that do not result in death, it is the physician's responsibility to determine the methods and causes of suicide attempts and to take prudential preventive measures and ensure the participation of individuals in psychiatric rehabilitation processes. Forensic examinations should also be considered as an opportunity to recognize the suicide attempts reported to the forensic outpatient clinics, to initiate the treatment processes by guiding the patients correctly and to reduce the risk of recurrence

In this study, the reports of suicide attempts that were referred to Muğla Sıtkı Koçman University Training and Research Hospital Forensic Medicine Outpatient Clinic with forensic report request were analyzed backwards, sociodemographic characteristics, suicide attempt methods and level of severity of the damage caused by the person were examined. By determining the socio-demographic characteristics and regional dynamics of suicide attempts in our region, it is aimed either to raise awareness for guiding people to psychiatry and related units and to shed light on regional preventive measures.

## 2. Materials and Methods

Sample; 405 cases who applied to the Forensic Medicine Outpatient Clinic of Muğla Sıtkı Koçman University Training and Research Hospital between 01 June 2014-31 December 2018, with the request for a forensic report on suicide attempt were included in the study.

Criteria for inclusion in the study; Forensic reports of all age group male and female cases who were admitted to the hospital with a history of suicide attempts within the reported date range and about whom forensic reports were issued, and the reports were evaluated retrospectively.

By creating a data collection form; the distribution of the cases according to gender, age, suicide attempt method, month and season, degree of health damage and report results were recorded in the form. Statistical analysis; for descriptive statistics data were evaluated using SPSS version 22 program, percentage, rate, mean and standard deviation were used, chi-square test was used in comparative analysis and  $p < 0.05$  was considered as an indicator of significant difference.

## Ethical Declaration

Ethical approval was obtained from Muğla Sıtkı Koçman University Human Research Ethical Committee with date 05.02.2019 and number 180200, and Helsinki Declaration rules were followed to conduct this study.

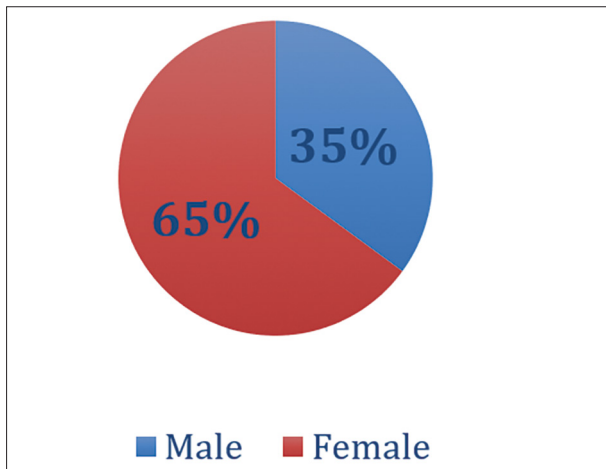
## 3. Results

Between the June 01, 2014 and December 31, 2018, a total amount of 7556 forensic reports were issued in the Forensic Medicine Outpatient Clinic, of which 405 (5.3%) are reports of attempted suicides.

263 (64.9%) of the cases, for which a forensic report was issued on attempted suicide, were female and 142 (35.1%) were male (Chart 1). The female / male ratio was found to be 1.8.

**Table 1. Distribution of age groups by gender**

Age Groups	Male		Female		Total	
	n	%	n	%	n	%
Under 15 and 15-29	77	54.3	194	73.8	271	66.9
30-49	55	38.7	56	21.3	111	27.4
50 and over	10	7.0	13	4.9	23	5.7
Total	142	100.0	263	100.0	405	100.0



**Figure 1.** The gender distribution of suicide attempts.

The average age of the cases is 27.7 years (SD: 11.1), the age range is 12-76 years, 48 cases (11.8%) are under the age of 18. The distribution of age groups according to the gender of the cases where reports were issued on suicide attempts are given in Table 1. Age groups; In accordance with the age groups reported by WHO; they are grouped as under 15 years old, 15-29 years old youth group, 30-49 and 50 years old and above. According to WHO, since the number of cases aged 65 and over, the elderly group, was very low in our study, this group was included in the group of over the age of 50.

In the distribution of cases for which a report was issued on suicide attempts by age groups; a group of under 15 and 15-29 constitute the largest group (66.9%). Under the age of 19 (in the children group), the rate is 24.2% (n: 48), and in the age range of 20-29, the rate is 42.7%. There was a statistically significant difference between the genders in terms of age groups of the patients who attempted suicide which is ( $p < 0.01$ ). 73.8% of female cases are in the adolescent and youth age group (age 15 and 15-29). In this age group, the rate of women attempting suicide is higher than men, while in other age groups, the rate of men is higher than women. Nine of the female cases were found to be pregnant during a suicide attempt.

It was observed that 361 (89.1%) of the cases referred to the outpatient clinic for forensic reports were sent from the provinces, the rest were directed from the counties, 90.4% of the cases were requested by law enforcement units and 8.4% (n: 34) of the prison administration.

In the distribution of the cases according to the months and seasons in which the suicide attempt was made, it was determined that 100 people (24.7%) in the winter months, 109 people in the spring (26.9%), 95 people in the summer (23.4%), 101 people in the autumn (25%) attempted suicide. No significant difference was detected according to the months and seasons.

The distribution of the methods used in the suicide attempt is given in Table 2. The most used method is drug intake with a rate of 86.2%. The most commonly used drugs were an antidepressant group and nonsteroidal anti-inflammatory/pain killer medication groups. Addictive substances such as amphetamine, methamphetamine, opiate, benzodiazepine, tetrahydrocannabinol (THC) were also detected in the examinations performed in 11 of the patients who attempted suicide by taking medication. 49 (12.0%) of the cases were brought to the hospital for a suicide attempt, it was found that they also had alcohol when brought to hospital. 23 of the patients who had alcohol were women and 26 of them were men.

Drug taking method was followed by making an incision in the body with a cutting tool with a rate of 8.6% and the hanging method with a rate of 2.2%.

**Table 2. Distribution of methods used in a suicide attempt**

Suicide attempt method	n	%
Drug taking	349	86.2
Drug + addictive substance association (n: 11)		
Creating an incision in the body	36	8.9
Hanging	9	2.2
Gunshot wound	2	0.5
Jump from high place	4	1.0
Multiple method	5	1.2
Total	405	100.0

The distribution of the severity of the damage caused by the cases after the suicide attempt within the framework of Articles 86 and 87 of the Turkish Criminal Code (TCK) is given in Table 3. The severity of injury of 88.4% of the cases was found to be 'mild enough to be resolved by a simple medical intervention'. The severe injury was detected in only 13 cases (3.2%), to the extent that it could be life-threatening.

**Table 3. Distribution of severity of injuries**

Severity of injury	n	%
Mild enough to be resolved by simple medical intervention	358	88.4
Not mild enough to be removed by simple medical intervention	34	8.4
Life-threatening	13	3.2
Total	405	100.0

#### 4. Discussion

It has been reported that suicide attempts constitute 1.8% of the burden of disease in the world and create a much more important public health problem as it is seen much more than completed suicides (1-4). In this study, the forensic reports of forensic cases who attempted suicide applied to a forensic medicine clinic of an education and research hospital were evaluated.

It was found in our study that 65% of the cases who attempted suicide were women. In line with our work, in various studies conducted in different parts of Turkey in patients with suicide attempts the majority of women are emphasized (3,5,8,10-16). In studies conducted worldwide, it has been reported that the rate of women in suicide attempts is high (17-21). Studies emphasize that the number of women in suicide attempts (incomplete suicide) is high, and the number of men is high in suicide events resulted in death (completed) (13,22). In a study conducted for 14 years, covering the years between 2002-2015, in Turkey, the average of men who committed suicide has been reported that approximately 2 times greater than the average number of women. Of those who committed suicide in 2018, 75.6 percent were men while 24.4 percent were women (<https://www.bik.gov.tr/turkiyenin-2018-olum-istatistikleri-aciklandi/>).

In studies in Turkey (22-26) and in studies that evaluated the sociodemographic characteristics in the world (15.27 to 35), it is stated that the attempted suicide rate of women is higher than men. As in our study on suicide attempts, the high number of female cases around the world suggests that women use less lethal methods and the suicide attempt is actually a cry for help.

In our study, the mean age of the patients who attempted suicide was 27.7 years. There are 48 cases under the age of 18. In the study conducted by Arslan et al. (10) ; It was reported that 81.48% of the cases were female and the youngest case was 13 years old. In a study conducted in Urfa, 76.54% of the cases were reported to be in the 13-24 age group, 78 % were female while 22% thereof were male (3). In our study, the rate of suicide attempts in the adolescent and youth age group was found as 66.9%. 73.8% of female cases are in the adolescent and youth age group (under the age of 15 and between the age of 15-29). In this age group, the rate of women attempting suicide is much higher than that of men, while in other age groups, the rate of men is higher than that of women and a significant difference was determined. In this, gender roles for women, adolescent's search for identity pressures, and gender roles in men as well, economic reasons and pressures are thought to play a role. The conducted studies have stated that suicide rates increase in the young population, and it was emphasized that the main reasons for this are stress and indifference (13,19).

When we look at the distribution of the units requesting reports, it was seen that the highest number of report requests was made from the police centers with the ratio of 78.8% and a from gendarmerie centers with a ratio of 11.6%. While the Forensic Medicine Branch Directorate, which is available in our city, as it works with the UYAP system, it can only serve the cases sent by the courts and public prosecution offices. In the Forensic Medicine Outpatient Clinics, it can additionally be served to the requests coming from authorities such as Police Departments, Police and Gendarmerie Patrol Commands working on behalf of the prosecution

Although the seasonal fluctuation at neurochemical levels was associated with completed suicide and suicidal behavior (17,18), no significant difference was detected between suicide attempts and month and seasonal distribution in our study.

According to the suicide statistics of Turkey Statistical Institute's concerning 2011 data (26) the most commonly used methods of suicide were reported to be hanging (52.0%), firearms (26.1%), high jump (10.1%), use of chemicals (5.3%) The first method in suicide attempts was given as high dose drug intake.

In our study, the most common method used in 'suicide attempt' was the high dose of drug intake with a rate of 86.2% (Table 2). In many studies, it has been reported that the most frequently used method is chemical intake and these chemicals are drugs that are frequently prescribed (3,8,11,21,22). In our study, it was observed, in accordance with other studies that, drugs the most

frequently used in suicide attempts were antidepressant, anti-inflammatory and analgesic group drugs that were prescribed. Similarly, the use of drugs or toxic substances ranks first in the literature (36-38). It is reported that men use more traumatic methods such as hanging, using cutting tools, and firearms in completed or incomplete suicides (38-40). In our study, the use of cutting-piercing tools as a suicide method in male cases varies significantly compared to women. This supports the fact that men use more traumatic methods in attempting suicide.

Addictive substances such as amphetamine, methamphetamine, opiate, benzodiazepine and THC were detected in 11 of the cases who attempted suicide by taking medication, and alcohol was detected in 49 cases. In studies investigating risk factors leading to suicide in young people (31) and (41-43) in studies related to recurrent suicide attempts alcohol and substance abuse are said to be risk factors for suicide

The distribution of the severity of the damage caused by the cases after the suicide attempt within the framework of Articles 86 and 87 of the Turkish Penal Code (TCK) is given in Table 3. It was observed that 88.4% of the cases were 'mild enough to be relieved with a simple medical intervention'. In only 13 cases (3.2%) severe injury was detected, which could be life-threatening. It has been observed that a large part of the drug intakes used as a method is not at the level being life-threatening.

Risk factors in suicide cases resulting in death are as follows; being young, male gender, unemployment, living in the urban area, having family problems, having a mental illness (10,13,14,24,25).

As for the risk factors for suicide attempts are young age, female gender, living alone or separated, low education level and unemployment, as well as past suicide attempts or a history of severe mental disorder. It has also been reported to be associated with some socio-demographic variables (16,44). Among the risk factors reported in our study in accordance with the literature; it was found that the majority of the cases were in the youth age group and the excess of the female gender. As our study is retrospective, it is its shortage that other risk factors other than age and gender could not be evaluated. Within the borders of our city and in all Turkey comprehensive studies evaluating every aspect of suicides and suicide attempts should be conducted and preventive measures for risk factors should be developed.

## 5. Conclusion

In this study, the forensic reports of the patients who attempted suicide and applied with a request of forensic report to the Forensic Medicine Outpatient Clinic in

Muğla province within a 4.5-year interval were evaluated. With this study, which evaluates the sociodemographic characteristics of suicide attempt cases, suicide attempt methods and results of forensic reports, an evaluation that has not been done in our province has not been made before and regional characteristics have been revealed.

Suicide attempts are more common in young adults and women. Suicide attempts are too complex to be considered a social scream or a simple incident. It is very important to identify the people at risk for suicidal behavior in advance, and make the necessary evaluations and interventions without delay. Regional predisposing factors and risk factors will be guiding in terms of solutions. We think that this study will create a database for both comprehensive and preventive studies.

Our country needs national suicide prevention programs, having measurable targets, the effectiveness of which can be evaluated, and covers the whole society and permanent. These programs should be carried out as part of public health implementations. Considering that suicidal behavior has many genetic, psychological, social and cultural risk factors; prevention programs should be multidisciplinary and governments, mental health workers, educators, media, and family should work together to prevent suicide.

## References

1. Polat S, Çelik FH, Köroğlu A, Aslan M, Hocaoglu Ç. Bir Eğitim Hastanesine İntihar Girişimi ile Başvuran Olguların Değerlendirilmesi. Kocatepe Tıp Derg. 2016;17 (1) :18-23.
2. World Health Organization. Programmes: mental health. World Mental Health Day 2019: focus on suicide prevention [Internet]. Available from: <https://www.who.int/news-room/events/detail/2019/10/10/default-calendar/world-mental-health-day-2019-focus-on-suicide-prevention>. Accessed 11.12.2019.
3. Atlı A, Uysal C, Kaya MC ve ark. Acil Ünitesine İntihar Girişimi Nedeniyle Başvuran Olguların Değerlendirilmesi: Şanlıurfa Örnekleme. J Mood Disorders. 2014;4 (3) :110-114. <https://doi.org/10.5455/jmood.20131230123128>
4. Teti GL, Rebok F, Rojas SM, et al. Systematic review of risk factors for suicide and suicide attempt among psychiatric patients in Latin America and Caribbean. Rev Panam Salud Publica 2014;36 (2) :124-33.
5. Yavuz Y, Yürümez Y, Küçük H, Demirel R, Küçük E. İntihar sonucu meydana gelen ölümlerin incelenmesi. Genel Tıp Derg. 2006;16 (4) :181-85.
6. Özgüven HD. İntihar davranışının epidemiyolojisi. Türkiye Klinikleri Psychiatry-Special Topics. 2008;1 (3) :1-7.
7. Sayıl I, Can S. Yineleyici İntihar Girişimleri. Kriz Dergisi. 2004;12 (3) :53-62.

8. Küçüker H, Aksu A. Elazığ'da Görülen İntihar Olgularının Adli Tıp Açısından İncelenmesi. *Düşünen Adam Derg.* 2002;15 (1) :16-20.
9. Gümüş B, Özer E, Yıldırım A, Çetin İ. TÜİK verilerine göre Türkiye'de intihar olgularının değerlendirilmesi. *Adli Tıp Bülteni.* 2010 1;15 (3) :104-9. <https://doi.org/10.17986/blm.2010153715>.
10. Arslan MM, Duru M, Kuvandık G, Bozkurt S, Kaya E. Hatay'da İntihar Girişiminde Bulunan Olguların Analizi. *Adli Tıp Derg.* 2008;22 (3) :9-14.
11. Şenol V, Ünalın D, Avşaroğulları L, İkizceli İ. İntihar girişimi nedeniyle Erciyes Üniversitesi Tıp Fakültesi Acil Anabilim Dalı'na Başvuran olguların incelenmesi. *Anadolu Psikiyatri Derg.* 2005;6:19-29.
12. Alptekin K, Duyan V, Demirel S. Adıyaman'da intihar girişimleri. *Anadolu Psikiyatri Derg.* 2006;7 (3) :150.
13. Özcan B, Şenkaya S, Özdin Y, Dinç A. Türkiye'deki İntihar Vakalarının Çeşitli Kriterlere Göre İstatistiksel Olarak İncelenmesi. *Sosyal Politika Çalışmaları Derg.* 2018;40: 11-34.
14. Günderci A, Karatay G, Gökçe S, Güler B. Tunceli' de 2005-2015 yılları arasında gerçekleşen intiharlara ilişkin epidemiyolojik bir inceleme. *Klinik Psikiyatri* 2017;20:121-128. <https://doi.org/10.5505/kpd.2017.86580>.
15. Boz B, Demirkan O, Boz A, Kugu N. Cumhuriyet Üniversitesi Tıp Fakültesi Hastanesi'nde 2000-2001 Yıllarında İntihar Girişimi Nedeniyle Adli Raporları Verilen Olguların İncelenmesi. *Adli Tıp Derg.* 2003;17 (2) :35-40.
16. Karacaoğlu E, Keten A, Akçan R, İçme F, Karagöl A, Avcı E. Bir Eğitim ve Araştırma Hastanesi Acil Servisine İntihar Girişimi Nedeniyle Başvuran Olguların İncelenmesi. *Adli Tıp Derg.* 2013; 27 (1) : 29-35 | <https://doi.org/10.5505/adlitip.2013.38039>.
17. Harmanlı P. Dünya'daki ve Türkiye'deki intihar vakalarının sosyodemografik özellikler açısından incelenmesi. *Hacettepe Üniversitesi Sağlık Bilimleri Fak Derg.* 2015. <https://dergipark.org.tr/en/download/article-file/88833>.
18. Soloff PH, Lynch KG, Kelly TM, Malone KM, Mann JJ. Characteristics of suicide attempts of patients with major depressive episode and borderline personality disorder: a comparative study. *Am J Psychiatry.* 2000;1;157 (4) :601-8. <https://doi.org/10.1176/appi.ajp.157.4.601>
19. Vaiva G, Ducrocq F, Meyer P, Mathieu D, Philippe A, Libersa C, Goudemand M. Effect of telephone contact on further suicide attempts in patients discharged from an emergency department: randomised controlled study. *BMJ.* 2006; 25;332 (7552) :1241-5. <https://doi.org/10.1176/appi.ajp.157.4.601>
20. Hall RC, Platt DE, Hall RC. Suicide risk assessment: a review of risk factors for suicide in 100 patients who made severe suicide attempts: evaluation of suicide risk in a time of managed care. *Psychosomatics.* 1999;1;40 (1) :18-27. [https://doi.org/10.1016/S0033-3182\(99\)71267-3](https://doi.org/10.1016/S0033-3182(99)71267-3)
21. Sayıl I, Devrimci-Ozguven H. WHO/EURO Multicentre Study of Suicidal Behaviour. Suicide and suicide attempts in Ankara in 1998: results of the WHO/EURO Multicentre Study of Suicidal Behaviour. *Crisis.* 2002;23:11-6. <https://doi.org/10.1027//0227-5910.23.1.11>
22. Eskin M, Kaynak-Demir H, Demir S. Same-sex sexual orientation, childhood sexual abuse, and suicidal behavior in university students in Turkey. *Arch Sex Behav.* 2005;34:185-95. <https://doi.org/10.1007/s10508-005-1796-8>.
23. Kocabaş Ö, Kavaklı T, Ecevit Ç, ve ark. Çocukluk çağı intihar girişimleri. *Ege Pediatri Bülteni* 2004;11: 119-124.
24. Aktepe E, Kandil S, Göker Z, Sarp K, Topbaş M, Özkorumak E. İntihar Girişiminde Bulunan Çocuk ve Ergenlerde Sosyodemografik ve Psikiyatrik Özelliklerin Değerlendirilmesi. *TSK Koruyucu Hekimlik Bülteni* 2006;5 (6) :444-454.
25. Çuhadaroğlu F, Sonuvar B. Adölesan intiharları risk faktörleri üzerine bir inceleme. *Türk Psikiyatri Derg.* 1992;3:222-6.
26. TÜİK intihar istatistikleri, 2011. TÜİK yayınları, Yayın no: 3695. Ankara, <https://biruni.tuik.gov.tr/yayin/views/visitor-pages/index.zul>
27. Pavia M, Nicotera G, Scaramuzza G, Angelillo IF and The Collaborative Group. Suicide mortality in Southern Italy: 1998–2002. *Psychiatry Resh* 2005;134:275-9. <https://doi.org/10.1016/j.psychres.2005.02.004>
28. Kraitman N. Suicide, age and marital status. *Psychol Med* 1988;6:113-21. <https://doi.org/10.1017/S0033291700001951>
29. Diekstra RFW. Suicidal Behavior and depressive disorders in adolescents and young adults. *Neuropsychobiol* 1989;22:194207. <https://doi.org/10.1159/000118617>
30. Lester D. Suicide in mainland China by sex, urban/rural location and age. *Per Mot Skills* 1990;71:1105. <https://doi.org/10.2466/pms.1990.71.3f.1090>
31. Mc Quillan CT, Rodriguez J. Adolescent suicide: A review of the literature. *Bol Asoc Med PR.* 2000;92 (1-3) :30-38.
32. Balcı YG. Eskişehir'de 1997-2001 yılları arasındaki intiharlar. *Adli Tıp Derg* 2003;17:33-9.
33. Rothschild MA, Raatschen HJ, Schneider V. Suicide by selfimmolation in Berlin from 1990 to 2000. *Forensic Sci Int* 2001;124;163-6. [https://doi.org/10.1016/S0379-0738\(01\)00590-4](https://doi.org/10.1016/S0379-0738(01)00590-4)
34. Turker M, Beyaztaş FY, Boz B. 1994-1996 yılları arasında Sivas'ta görülen intihar olgularının Adli Tıp açısından İncelenmesi. *Ege Tıp Derg* 2000;39:79-83.
35. Charlton J, Dunnel K, Evans B. Suicide deaths in England and Wales: Trend in factors associated with suicide death. *Popul Trend* 1993;71:34-42.
36. Birkhead GS, Galvin VG, Meehan PJ, O'Carroll PW, Mercy JA. The emergency department in surveillance of attempted suicide: findings and methodologic considerations. *Public Health Rep.* 1993;108:323-31.
37. Serinken M, Yanturalı S. Acil serviste intihar amaçlı zehirlenmelerin geriye dönük analizi. *Turkish J Toxicol* 2003;1:15-9.
38. Stack S, Wasserman I. Race and method of suicide: culture and opportunity. *Arch Suicide Res* 2005;9:57-68. <https://doi.org/10.1080/1381110590512949>

39. Şengül CB, Serinken M, Şengül C, Bozkurt S, Korkmaz A. Acil Servise İntihar Girişimi Nedeniyle Başvurusu Ardından Psikiyatri Polikliniğinde Değerlendirilen Olguların Sosyodemografik Verileri. *Türkiye Acil Derg* 2008;8:127-31.
40. Kreitman N, Casey P. Repetition of parasuicide: An epidemiological and clinical study. *Br J Psychiatry*. 1988;157:792-800.
41. Bridge AJ, Goldstein TR, Brent AD. Adolescent Suicide And Suicidal Behavior. *J Child Psychol Psychiatry*. 2006; 47: 372-94. <https://doi.org/10.1111/j.1469-7610.2006.01615.x>
42. Oyefeso A, Ghodse H, Clancy C ve ark. Suicide among drug addicts in the UK. *Br J Psychiatry*, 1999;175:277-282. <https://doi.org/10.1192/bjp.175.3.277>
43. Kokkevi A, Politikou K, Stefanis C. The relationship of suicide attempts to licit and illicit drug use. *AJ Botsis, CR Soldatos, CN Stefanis (Ed), Suicide: Biopsychosocial approaches Amsterdam, Elsevier, s.55-63.1997.*
44. Renberg ES. Self-reported life -weariness, death - wishes, suicidal ideation, suicidal plans and suicide attempts in general population surveys in the north of Sweden 1986 and 1996. *Soc Psychiatry Psychiatr Epidemiol* 2001;36:429-36.