Received: 05 May 2024 | **Accepted:** 05 Aug 2024 **Genel Tıp Derg. Volume** 34/**Issue** 4 (August), 566-573
DOI: 10.54005/geneltip.1478773

ORIGINAL ARTICLE

Evaluation of Adolescent and Adult Cases Presenting with Suicide Attempt: A Five-Year Retrospective Study

İntihar Girişimi İle Başvuran Adölesan ve Erişkin Yaştaki Olguların Değerlendirilmesi: Beş Yıllık Retrospektif Bir Çalışma

[1]İzzet Göker Küçük, [2]Pınar Küçük, [3]Kurtuluş Öngel

[1]Department of Family Medicine, Kemalöz Family Health Center, Uşak, Türkiye.
[2]Uşak Provincial Health Directorate, Non-Communicable Diseases Unit, Uşak, Türkiye.
[3]Izmir Katip Çelebi University Faculty of Medicine, Department of Family Medicine, Izmir, Türkiye

Correspondence

İzzet Göker Küçük, Kemalöz Family Health Center, 3.Yakut Sok No:2 Uşak / Merkez, Türkiye. 64000

E-Mail: izzetgoker@gmail.com

How to cite ?

Küçük İG, Küçük P, Öngel K. Suicide Attempts and Affecting Factors. Genel Tıp Derg. 2024;34(4):566-73.

ABSTRACT

Objective: The objective of this study is to evaluate the applications to the Emergency Departments in Uşak province between 2019 and 2023 due to suicide attempts and to provide guidance for social preventive programmes.
Material and Method: This cross-sectional study was conducted with the approval of the Uşak University Non-Interventional Research Ethics Committee, dated 21 September 2023 and numbered 176-176-09. The study examined The archive of the Uşak Provincial Health Directorate was consulted to obtain records of cases of suicide attempts among individuals aged 13 years and over between the years 2019-2023. These records were examined between 1 November-31 December 2023.
Results: A total of 947 patients participated in the study, 635 of whom were women. The majority of suicide attempts (43.2%) occurred between the ages of 13 and 24 years. The highest number of suicide attempts occurred between 18:00 and 23:59 (40.5%) and in summer (29.8%). The highest number of suicide attempts occurred in August (10.5%). The majority of those who attempted suicide were primary school graduates (47.0%) and unemployed (39.4%). The suicide attempt rate of farmers (42.9%) was significantly higher than other occupational groups (p=0.009). Family problems (31.3%) were the most common reason for suicide attempt. The most common method of suicide attempt was drug-toxic substance use (92.6%). Among the study participants, 21.1% had attempted suicide previously. Among those who attempted suicide, 24.2% had a previous psychiatric diagnosis. Medication (activated charcoal) was administered to 60.4% of the suicide attempters, while psychiatric consultation was requested for 11.5%. A total of 69.5% of the suicide attempts resulted in a single interview.
Conclusion: Most of the suicide attempters were adolescent and young age group, female, illiterate, primary school graduate and unemployed. According to our study, the most common causes and methods of suicide attempts were familial problems and drug-toxic substance use. It is recommended that regulations should be implemented to ensure psychiatric consultation for all suicide attempters and that the follow-up and treatment of suicide attempters should be carried out by a team consisting of family physicians, psychiatrists, psychologists and social workers.

Keywords: Suicide attempt, Drug-toxic substance, Demographic factors, Psychiatric consultation.

ÖZ

Amaç: Bu çalışmada, 2019-2023 yılları arasında Uşak ilindeki Acil Servislere intihar girişimi nedeniyle yapılan başvuruların değerlendirilmesi ve toplumsal koruyucu programlar için yol gösterici olması amaçlanmaktadır.
Gereç ve Yöntem: Bu kesitsel çalışma, Uşak Üniversitesi Girişimsel Olmayan Araştırmalar Etik Kurulu'nun 21.09.2023 tarihli ve 176-176-09 numaralı onayıyla, 1 Kasım-31 Aralık 2023 tarihleri arasında Uşak İl Sağlık Müdürlüğü arşivinde bulunan 2019-2023 yılları arasındaki 13 yaş ve üzeri intihar girişimlerinde bulunan vakaların kayıtlarının incelenmesiyle gerçekleştirilmiştir.
Bulgular: Çalışmaya toplam 947 hasta katıldı, bunların 635'i kadındı. İntihar girişimlerinin çoğunluğu (%43,2) 13-24 yaş arasındaydı. En fazla intihar girişimi, saatlerine göre 18.00-23.59 arasında (%40,5) ve yaz mevsiminde (%29,8) gerçekleşti. En fazla intihar girişimi Ağustos ayında (%10,5) oldu. İntihar girişiminde bulunanların çoğunluğunu ilköğretim mezunları (%47,0) ve işsizler (%39,4) oluşturdu. Çiftçilerin (%42,9) intihar girişim oranı diğer meslek gruplarına göre anlamlı derecede daha yüksekti (p=0,009). Ailesel sorunlar (%31,3), en sık gözlenen intihar girişim nedeniydi. En sık kullanılan intihar girişim yöntemi ilaç-toksik madde kullanımıydı (%92,6). Çalışmaya katılanların %21,1'i daha önce intihar girişiminde bulunmuştu. İntihar girişiminde bulunanların %24,2'sinin daha önce psikiyatrik tanısı konulmuştu. İntihar girişiminde bulunanların %60,4'üne ilaç tedavisi (aktif kömür) uygulanırken, %11,5'ine psikiyatrik konsültasyon istendiği gözlendi. İntihar girişiminde bulunan vakaların %69,5'i tek görüşme ile sonuçlandı.
Sonuç: İntihar girişiminde bulunanların çoğu adölesan ve genç yaş grubundan, kadın, okur yazar olmayan, ilköğretim mezunu ve işsizlerden oluşmaktaydı. Çalışmamıza göre intihar girişimlerinin en sık nedeninin ve yönteminin ailesel sorunlar ve ilaç-toksik madde kullanımı olduğu saptandı. İntihar girişiminde bulunanların tamamına psikiyatrik konsültasyon yapılmasını sağlayacak düzenlemelerin uygulanması, intihar girişiminde bulunanların takibi ve tedavilerinin aile hekimi, psikiyatrist, psikolog ve sosyal hizmet uzmanlarından oluşan bir ekip tarafından yapılması önerilir.

Anahtar Kelimeler: İntihar girişimi, İlaç-toksik madde, Demografik özellikler, Psikiyatrik konsültasyon.

Introduction

The term "suicide" is defined as the death resulting from self-destructive behaviour with the intention of dying. In contrast, a "suicide attempt" is defined as a potentially self-destructive behaviour with the intention of death, but not fatal (1).

The World Health Organization (WHO) reports that 703,000 people die by suicide each year. There are more than 20 suicide attempts for every suicide. Previous suicide attempts are one of the most significant risk

Peer-Review: Double anonymized - Two External
Plagiarism Checks: Yes - intihal.net
Complaints: geneltip@selcuk.edu.tr

factors for suicide. Other risk factors include psychiatric illnesses, alcohol and drug use, separation or divorce, violence, harassment, economic problems, illnesses, chronic pain, losses, conflicts, disasters and social isolation. Suicide is the fourth most common cause of death between the ages of 15 and 29, with 77% of suicides occurring in middle and low-income countries (2). In Turkey, the number of suicides has risen from over 3,000 annually since 2012 to 4,158 per year as of 2021. The most common age groups in which suicide was observed were 25-29 years old (n=523), 20-24 years old (n=508) and 30-34 years old (n=448), respectively (3).

Protective factors related to suicide include self-esteem, self-efficacy, social skills, family and friendship relationships. Individuals with positive levels of self-esteem and self-efficacy tend to exhibit higher problem-solving and coping skills, which in turn result in a lower incidence of suicide attempts. Individuals with high levels of social anxiety are unable to establish effective support networks or have difficulty accessing them, which results in elevated suicide rates (4). In suicide-related deaths, hanging is the most prevalent method, with a higher prevalence among men, whereas drugs are more commonly used by women who attempt suicide (5).

Materials and Methods

Study Design and Data Collection Form

This cross-sectional study was conducted between 1 November and 31 December 2023. The study analysed all files in the archive of the Uşak Provincial Health Directorate between 2019 and 2023, which were admitted due to suicide attempt/crisis. Cases in which the standard suicide attempt/crisis form of the Ministry of Health was completed were included in the study. The form included the reason for presentation, sociodemographic characteristics, time of suicide attempt, time of arrival at the emergency room, method of suicide, reason for suicide, previous suicide attempts, treatment and follow-up status in the last six months, type of medical treatment applied and presence of psychiatric consultation.

Participants

As the standard suicide attempt/crisis form is completed for cases with a minimum age of 13 years, applicants from this age group were included in the study. The data set comprised the records of cases aged 13 years and over admitted to the emergency departments of the hospitals in Uşak province for suicide attempt/crisis between 2019 and 2023. The data were sourced from the archive of the Uşak Provincial Health Directorate.

Ethical Considerations

The requisite permissions and approvals were duly obtained from the Uşak University Non-Interventional Research Ethics Committee (21 September 2023, Decision No. 176-176-09).

Statistical Analysis

The data obtained in this study were analysed using the SPSS 22 package programme. Frequency and percentage distributions of the data were presented. The relationship between variables was examined using the Chi-Square independence test, with a significance level of 0.05. The results were interpreted as follows: $p<0.05$ indicated a significant dependence, while $p>0.05$ indicated no significant dependence.

Results

The distribution of patients according to the reasons for presentation to the emergency department is as follows: 97.7% (n=904) suicide attempts, 1.4% other reasons, 0.5% suicide threats and 0.3% crisis. The study included 904 patients who were admitted due to a suicide attempt. Of the participants, 67.2% (n=607) were female. It was observed that females attempted suicide at a significantly higher rate than males (p=0.0001). The mean age of the women who participated in the study was 28.90 ± 10.9 (min-max 13.0-72.0), while the mean age of the men was 30.88 ± 10.9 (min-max 15.0-71.0).

Table 1. Sociodemographic Characteristics of Suicide Attempters

	Gender	Woman		Man		Total	
	Number / Percentage	n	%	n	%	n	%
Age groups	13-24	283	46.9	105	35.5	388	43.2
	25-34	148	24.5	85	28.7	233	25.9
	35-49	144	23.9	76	25.7	220	24.5
	50-64	22	3.6	24	8.1	46	5.1
	>65	6	1.0	6	2.0	12	1.3
	Total	603	67.1	296	32.9	899	100.0
Marital status	Married	251	41.7	116	39.6	367	41.0
	Single	300	49.8	158	53.9	458	51.2
	Divorced	29	4.8	10	3.4	39	4.35
	Widow	17	2.8	6	2.0	23	2.6
	Engaged	2	0.3	1	0.3	3	0.3
	Living separately	3	0.5	2	0.7	5	0.6
	Total	602	67.3	293	32.7	895	100.0
Education status	Illiterate	15	2.5	7	2.4	22	2.4
	Literate	66	10.9	29	9.8	95	10.6
	Primary education	267	44.2	156	52.9	423	47.0
	High School	161	26.7	70	23.7	231	25.7
	University	68	11.3	24	8.1	92	10.2
	Unknown	27	4.5	9	3.0	36	4.0
	Total	604	67.2	295	32.8	899	100.0
Profession Group	Unemployed	143	43.6	79	36.9	222	41.0
	Other	50	15.2	69	32.2	119	22.0
	Labour	35	10.7	31	14.5	66	12.2
	Housewife	43	13.1	0	0.0	43	7.9
	Not specified	20	6.1	15	7.0	35	6.5
	Student	25	7.6	3	1.4	28	5.2
	Pensioner	7	2.1	8	3.7	15	2.8
	Farmer	5	1.5	9	4.2	14	2.6
	Total	328	100.0	214	100.0	542	100.0

A statistically significant relationship between marital status and past suicide attempts was not observed (p=0.161). However, a non-statistically significant trend was identified, whereby those who were separated, widowed or divorced had a higher rate of suicide attempts in the past.

Table 2. Basic Characteristics of Suicide Attempt - 1

	Gender	Woman		Man		Total	
	Number / Percentage	n	%	n	%	n	%
Suicide attempt time interval	06.00-11.59	69	11.7	32	11.3	101	11.6
	12.00-17.59	134	22.8	58	20.4	192	22.0
	18.00-23.59	236	40.1	118	41.5	354	40.5
	24.00-05.59	150	52.5	76	26.8	226	25.9
	Total	589	100.0	192	22.0	873	100.0
The season of the suicide attempt	Winter	144	23.8	78	26.3	222	24.6
	Spring	156	25.8	78	26.3	234	25.9
	Summer	186	30.7	83	27.9	269	29.8
	Autumn	119	19.7	58	19.5	177	19.6
	Total	605	100.0	297	100.0	902	100.0
Month of Suicide Attempt	January	66	10.9	25	8.4	91	10.09
	February	39	6.5	21	7.1	60	6.7
	March	60	9.9	21	7.1	81	9.0
	April	43	7.1	20	6.7	63	7.0
	May	53	8.7	37	12.5	90	10.0
	June	53	8.7	31	10.4	84	9.3
	July	67	11.1	23	7.7	90	10.0
	August	66	10.9	29	9.8	95	10.5
	September	49	8.1	22	7.4	71	7.9
	October	44	7.3	25	8.4	69	7.7
	November	39	6.5	27	9.1	66	7.3
	December	26	4.3	16	5.4	42	4.7
	Total	605	100.0	297	100.0	902	100.0
Year of Suicide Attempt	2019	178	29.4	83	27.9	261	28.9
	2020	88	14.5	42	14.1	130	14.4
	2021	65	10.7	38	12.8	103	11.4
	2022	143	23.6	68	22.9	211	23.4
	2023	131	21.7	66	22.2	197	21.8
	Total	605	100.0	297	100.0	902	100.0
Suicide Attempt Location	City centre	486	80.5	239	80.5	725	80.5
	Rural	118	19.5	58	19.5	176	19.5
	Total	604	100.0	297	100.0	901	100.0

attempted suicide before (30.4%) was significantly higher than in other years.

Among those who attempted suicide, 24.2% (n=206) (F: 22.9%, M: 26.8%) had a previous psychiatric diagnosis. A significant correlation was observed between those with a previous psychiatric diagnosis and suicide attempts (p=0.0001). The prevalence of previous suicide attempts was found to be significantly higher among individuals with a psychiatric diagnosis (50.2%) than among those without a diagnosis (11.7%).

The rate of previous suicide attempts in the families of the participants was 4.9% (n=42). This rate was 5% (n=29) in women and 4.6% (n=13) in men. There was a statistically significant correlation between the rate of previous suicide attempts in the family and the rate of previous suicide attempts in the participants (p=0.0001). The rate of previous suicide attempts was found to be significantly higher in those with a family history of suicide attempts (47.5%) than in those without a family history of suicide attempts (18.8%).

In 6.0% (n=51) (F: 6.3%, M: 5.5%) of the families of suicide attempters, a psychiatric diagnosis had been made previously. The most common psychiatric diagnoses were as follows: 41.7% unspecified (F: 40.0%, M: 44.4%), 16.7% depression (F: 20.0%, M: 11.1%), 12.5% anxiety disorder (F: 13.3%, M: 11.1%) and 12.5% bipolar disorder (F: 13.3%, M: 11.1%). A significant correlation was observed between the participants who had a previous psychiatric diagnosis in their family and the participants' previous suicide attempts (p=0.0001). The rate of previous suicide attempts in those with a family history of psychiatric diagnosis (54.9%) was significantly higher than those without a family history of psychiatric diagnosis (18.0%). No significant relationship was observed between family psychiatric diagnoses and suicide attempts (p>0.05).

The rate of psychiatric follow-up or treatment in the last six months among those who attempted suicide was 23.4% (n=199) (F: 24.0%, M: 21.9%). The proportion of those who received drug treatment was 73.7% (F: 75.4%, M: 70.3%), psychotherapy was 7.0% and other treatments was 19.4%. There was a significant relationship between receiving psychiatric follow-up or treatment in the last six months and suicide attempts (p=0.0001). Among those who had received psychiatric follow-up or treatment in the last six months, the proportion of those who had attempted suicide before (44.4%) was significantly higher than those who had not received follow-up or treatment (13.5%). No significant correlation was observed between the treatment modality (e.g. medication, psychotherapy, psychotherapy and other) and previous suicide attempts among those who received psychiatric follow-up or treatment in the last six months (p>0.05).

Table 3. Years of Suicide Attempt and Previous Suicide Attempt

		2019		2020		2021		2022		2023		Total		Chi-Square Analysis	
Number / Percentage		n	%	n	%	n	%	n	%	n	%	n	%	Chi-Square	p
Has he/she attempted suicide before?	Yes	41	16.8	31	24.0	31	30.4	37	18.4	43	22.5	183	21.1	9.76	0.045

A statistically significant correlation was not found between educational status and past suicide attempts (p=0.053). The rates of suicide attempts in the past of those with primary and high school education were found to be 24.0% and 22.1%, respectively, higher than the other groups.

The highest rate of suicide attempts was observed among the unemployed. A significant difference was found between the rate of previous suicide attempts in farmers (42.9%) and in other occupational groups (p=0.009).

A statistically significant relationship was not observed between gender and the year of suicide attempt (p=0.912). Although not statistically significant, it was found that the rate of previous suicide attempts was higher in rural areas.

There was a significant correlation between previous suicide attempts and the year of suicide attempt (p=0.045). In 2021, the proportion of those who had

Table 4. Basic Characteristics of Suicide Attempt - 2

	Gender	Woman		Man		Total	
	Number / Percentage	n	%	n	%	n	%
Reasons for Suicide Attempts	Family problems	195	33.3	80	27.3	275	31.3
	No reason given	141	24.1	82	28.0	223	25.4
	Mental illness	44	7.5	26	8.9	70	7.9
	Communication problems	30	5.1	13	4.4	43	4.9
	Problems with the opposite sex	30	5.1	10	3.4	40	4.5
	Domestic violence	28	4.8	9	3.0	37	4.2
	Loneliness	15	2.6	11	3.8	26	2.9
	Economic	4	0.7	19	6.5	23	2.6
	Alcohol and substance addiction	6	1.0	12	4.1	18	2.0
	Parental conflicts	13	2.2	2	0.7	15	1.7
	Job	6	1.0	7	2.4	13	1.5
	Developmental problems	11	1.9	1	0.3	12	1.4
	Marriage	8	1.4	4	1.4	12	1.4
	Children	11	1.9	1	0.3	12	1.4
	Disease	6	1.0	5	1.7	11	1.2
	Test anxiety	8	1.4	3	1.0	11	1.2
	School	8	1.4	2	0.7	10	1.1
	Homeless	5	0.5	2	0.7	7	0.8
	Chronic illness	4	0.7	1	0.3	5	0.6
	Harassment	5	0.9	0	0.0	5	0.6
	Death and Loss	1	0.2	3	1.0	4	0.4
	Rape	3	0.5	0	0.0	3	0.3
	Sexual problems	3	0.5	0	0.0	3	0.3
	Total	585	66.6	293	33.4	878	100.0
Suicide Attempt Method	*Drug-toxic substance*	572	94.9	261	87.9	833	92.6
	With a cutting instrument	19	3.2	15	5.1	34	3.8
	Hanging	4	0.7	12	4.0	16	1.8
	Jumping from a height	5	0.8	2	0.7	7	0.8
	Unknown	1	0.2	3	1.0	4	0.4
	Firearm	0	0.0	2	0.7	2	0.2
	Other	2	0.3	0	0.0	2	0.2
	Bottled gas, natural gas	0	0.0	1	0.3	1	0.1
	Jumping under the vehicle	0	0.0	1	0.3	1	0.1
	Total	603	100.0	297	100.0	900	100.0
Previous psychiatric diagnosis	*Not stated**	25	23.4	22	37.9	47	28.5
	Depression	31	29.0	11	19.0	42	25.5
	Anxiety disorder	24	22.4	12	20.7	36	21.8
	Bipolar disorder	11	10.3	5	8.6	16	9.7
	Other	8	7.5	3	5.2	11	6.7
	Panic Attack	5	4.7	2	3.4	7	4.2
	Alcohol and substance abuse	3	2.7	3	5.2	6	3.6
	Total	107	100.0	58	100	165	100.0
Has he/she attempted suicide before?	Yes	120	20.6	63	22.0	183	21.1
	No	463	79.4	223	78.0	686	78.9
	Total	583	100.0	286	100.0	869	100.0
Psychiatric consultation requested?	Yes	54	10.1	39	14.3	93	11.5
	No	480	89.9	233	85.7	713	88.5
	Total	534	100.0	272	100.0	806	100.0
Case Outcome	Single visit	431	70.7	199	67.0	630	69.5
	Psychiatry outpatient clinic referral	135	22.2	79	26.6	214	23.6
	Referral to another institution	20	3.3	12	4.0	32	3.5

*** Not stated:** It defines the cases who answered "yes" to the question of whether they had a previous psychiatric diagnosis in the questionnaire form, but did not know or did not want to tell their psychiatric diagnosis.

Medication (activated charcoal) was administered to 60.4% (n=498) (F: 61.0%, M: 59.3%) of those who attempted suicide. The number of people to whom other treatments were applied was 36 in total.

Discussion

The findings of this study indicate that individuals who have attempted suicide exhibit a number of characteristics. These include a history of suicide attempts, a female gender, familial issues, a low socio-economic status, a lack of education, psychiatric disorders and an easy access to drugs and poisons. The identification and analysis of the characteristics of suicide attempters may prove instrumental in the prevention of future suicides.

A systematic review and meta-analysis study conducted by Miranda-Mendizabal et al. revealed that female gender was 1.96 times more likely to attempt suicide than males (6). Another study conducted on adolescents indicated that girls were significantly more likely to attempt suicide due to conflicts with their parents and peers, guilt, helplessness and loneliness. Male adolescents are more likely to attempt suicide as a result of pressure (e.g. from peers or cyber environments) (7). A study on soldiers showed that workplace difficulties increased the suicide risk of female soldiers more than their male counterparts (8). Tsirigotis K. et al. found that although women attempted suicide more frequently, they were more likely to survive compared to men, while men were more likely to complete suicide and choose more violent suicide methods (9). In this study, it was observed a similar pattern to that observed in the literature, namely that females were more likely to attempt suicide. We hypothesise that this is due to the fact that women are more likely to use suicide attempts as a method of seeking help.

In two different studies conducted in our country, it was observed that approximately half of the suicide attempts (49.8%-48.1%) occurred in the evening (18.00-23.59) hours (10,11). In this study, similar to the literature, 40.5% of suicide attempts occurred between 18.00-23.59 pm. Considering that the most common reason for suicide attempts is familial problems, we think that suicide attempts increase in the evening hours when the family gathers together due to an increase in family conflicts.

A review of the literature reveals that suicide attempts are most prevalent in the summer and spring seasons (11-13). This study found that the majority of suicide attempts occurred in the summer (29.8%) and spring (25.9%) seasons, in accordance with the literature. It is postulated that the exacerbation of underlying psychiatric disorders, the announcement of university examinations and their results, and the return to family life following the closure of educational institutions may be among the potential reasons for the observed increase in suicide attempts during these seasons.

A gradual decline in the incidence of suicide and suicide attempts was observed in France between 2009 and 2018. The average annual decrease was 14.5% for suicide and 11.7% for suicide attempts (13). According to the Turkish Statistical Institute (TÜİK), the crude suicide rate of Uşak province was lower than the national average (4.21) in 2019 (2.44), but higher than the national average in In 2020, the suicide rate was 5.95 per 100,000 inhabitants, while in 2021 it was 6.46 per 100,000 inhabitants. In 2022, the rate increased to 10.15 per 100,000 inhabitants (3). In this study, the rate of suicide attempts in 2022-2023 was found to be significantly higher than in other years. It is hypothesised that this is due to a number of factors, including the impact of the COVID-19 pandemic on the emergence of new mental health issues and the exacerbation of existing ones, as well as the socioeconomic challenges experienced in the post-pandemic period. Furthermore, the postponement of routine health screenings due to the pandemic has made it more difficult for individuals to access health services during this period.

A study conducted in Sweden observed that the rates of completed suicide and suicide attempts were higher in rural and semi-rural areas than in cities (14). Another study conducted in Erzurum found that 75.6% of suicide attempts took place in the city centre, while the rest occurred in villages and districts (15). In the present study, 4/5 of the suicide attempts took place in the city centre, while the remaining attempts occurred in the districts. It is postulated that the fact that the majority of the Uşak population (69.3%) resides in the city centre may contribute to this elevated rate (16). While not statistically significant, the rate of previous suicide attempts was higher in those residing in rural areas. Potential factors contributing to this result include difficulties in accessing psychiatric care following a suicide attempt in rural areas, a lack of adequate follow-up and treatment, and the ease of access to drugs and toxic substances.

In Türkiye, 75% (n=3111) of those who committed suicide in 2022 were male. While the number of men and women who committed suicide was equal in Uşak province in 2017 (F:6, M:6), the majority of those who committed suicide in the following years were men (17). In a study by San Sebastián et al, suicide attempts were generally observed in young people and women (M/F: 106.2-252.3/100,000) (14). In another study conducted in France, 62% of suicide attempts were made by women in the 15-19 and 40-49 age groups (13). In this study, similar to the literature, 2/3 of the attempted suicides were female and 43.2% were in the 13-24 age group.

A study by Yağcı et al. found no significant association between marital status and suicide attempts (18). However, another study found that the risk of a repeat suicide attempt increased in unmarried individuals (19). In this study, although it was not statistically significant, it was found that the rate of suicide attempts was higher in separated, widowed and divorced individuals, similar to the literature. While marriage may reduce the risk of suicide due to factors such as the presence of social support systems and finding

meaning in life, marital status other than marriage has been associated with factors such as social isolation and lack of support.

Several studies have found that low levels of education are associated with increased rates of suicide attempts (20, 21). For example, a study conducted in Denmark found that more than a third of people in the 16-20 age group who attempted suicide had not completed upper secondary school (21). In this study, almost half of the people who attempted suicide were illiterate (2.4%) and had completed primary school (47.0%). Reasons for the association of low educational attainment with increased suicide attempts include socioeconomic vulnerability, limited access to help and inability to cope with stressors that lead to suicide attempts.

A meta-analysis and systematic review study found that unemployment was associated with repeated suicide attempts (19). Another study conducted in Greece during the economic crisis found a negative association between regional unemployment and suicide attempt rates in men and women (22). The recent global COVID-19 pandemic has led to an increase in the frequency of suicide and suicide attempts, which can be attributed to a number of factors, including unemployment, economic difficulties, social isolation, loneliness, and mental and physical burnout (23, 24). In this study, more than half of those who attempted suicide were unemployed or housewives. We believe that being employed has a protective effect against suicide attempts through self-esteem, self-efficacy, socioeconomic status and social relationships. The rate of previous suicide attempts among farmers was 42.9%, which was significantly higher than in the other occupational groups.

The lethality of suicide methods is determined by the time between the initiation of the suicidal act and the probable expected death. A long duration of this period may reduce lethality by increasing the likelihood that the person will change their mind and seek medical help (5). In various studies carried out in our country, the most common method of attempted suicide (82.5%-83.6%) is drug overdose (25, 26). In studies conducted abroad, 80.0%-95.9% of suicide attempts were due to drug intoxication (13, 22). In this study, the most common methods of suicide were drug intoxication (92.6%), cutting and hanging. We believe that easy access to drugs and poisonous substances and the fact that most of the attempted suicides were female led to a preference for this method, which is less likely to be fatal than other methods.

In several studies conducted in Türkiye, the most common reasons for suicide attempts were domestic discord and problems with the opposite sex (25, 26). In a study conducted by Polat et al, 57.5% were accompanied by psychiatric disorders (25). It was found that about two thirds of suicide attempts were accompanied by psychiatric disorders, the most common of which were mood changes (54%) (13). In the present study, family problems (31.3%), no reason given and mental illness were in the first three ranks of the distribution of reasons for attempted suicide. In addition, the fact that the fourth most common reason among men was economic reasons (6.5%) is striking in terms of the impact of the pandemic on society. The fact that family problems are so high compared to other reasons shows that there are serious problems in family communication. In addition, the fact that family problems are considered taboo in Turkish society means that outside intervention is not welcomed and is a serious obstacle to seeking professional help.

The fact that a person has attempted suicide before is an important risk factor for attempting suicide again. This is particularly important in the first year after the suicide attempt (15, 22). In a study by Fountoulakis et al, approximately half of the suicide attempters attempted suicide within the same year and 75% attempted suicide again within two years (22). In a study conducted in Türkiye, the rate of previous suicide attempts was 12.5% (25). In this study, about a fifth of the participants (21.1%) had previously attempted suicide. We believe that failure to address the conditions that led to a previous suicide attempt, failure to provide appropriate follow-up and treatment, and crossing an important psychological threshold in this regard facilitate a reattempt.

A family history of suicide attempts is an important risk factor (18). The rate of suicidal ideation was 2.09 times higher in patients with a family history of suicide attempts (27). In the study by Deveci et al, this rate was 8.8% (28). The rate of previous suicide attempts in the families of the study participants was 4.9%. In this study, a statistically significant correlation was observed between the presence of previous suicide attempts in the family and previous suicide attempts in the individual. We believe that the presence of suicide attempts in the family history sets a bad example for family members.

In the literature, several studies have reported that the presence of psychiatric disorders (such as major depressive disorder, conduct disorder, attention-deficit/hyperactivity disorder) is an important risk factor for suicide attempt (25). The most common psychiatric disorder associated with suicide attempts is depression (18). In the study by Ünlü et al, 65.6% of suicide attempters were found to have a psychiatric disorder, whereas in our study this rate was 24.2% (26). The most common psychiatric diagnoses were depression, anxiety and bipolar disorder. It is thought that psychiatric disorders negatively affect self-perception and self-efficacy, increase social anxiety and promote suicide attempts by increasing impulsivity.

In a study conducted in Norway, it was observed that those who had completed suicidal behaviour had inadequate risk assessment compared with those who had attempted suicide. Patients who had attempted suicide were found to have received only medication, whereas completed suicides were found to have received both medication and psychotherapy (29). In this study, similar to the literature, about one third of the

patients who attempted suicide had received drug treatment only. It is emphasised that those receiving psychiatric drug treatment should be subjected to a risk assessment for suicide attempt.

Requesting a psychiatric consultation may reduce the risk of recurrent suicide attempts (30). In different studies conducted in Türkiye, the rates of patients who attempted suicide in the emergency department without requesting psychiatric consultation ranged from 46.5% to 80.0% (25, 31). Considering that suicide attempts are usually not aimed at death, but rather a call for help, it is unfortunate that psychiatric consultation was requested in only 11.5% of the patients who attempted suicide in this study. Patients admitted to the emergency departments of hospitals following a suicide attempt are typically directed towards medical or surgical treatments, depending on the type of suicide attempt. Psychiatric consultations that should have been carried out after these treatments could not be carried out sufficiently due to a lack of sufficient consultant physicians (there are no psychiatrists in district hospitals), organisational failures, and patients' unwillingness to undergo psychiatric examination after acute medical and/or surgical treatment.

In this study, 69.5% of patients had a single visit, 23.6% were referred to psychiatry and only 1.6% were referred for follow-up. It has been shown in the literature that recurrent suicide attempts decreased in patients who were followed up, but it was noted that there was a serious lack of follow-up (32). Increasing the rate of referral to outpatient psychiatric services at case closure will increase the number of people who are included in follow-up.

Among the topics taught in the 6th year family medicine clerkship at various medical schools in our country are the definition of suicide risk and referral indications in depressed patients, family dynamics and domestic violence. (33). The psychiatry rotation of the Family Medicine Residency training programme encompasses a range of key areas, including the application of a biopsychosocial approach, the screening and treatment of individuals at risk, psychiatric interviewing, mental status assessment, the management of psychiatric emergencies and diseases, the referral and consultation process, and the approach to psychiatric patients and their families. Additionally, the training provides an in-depth understanding of the medical and psychological support skills required in this field. (34). It is our contention that family physicians who have undergone these training programmes will be better placed to respond effectively to instances of attempted suicide.

Limitations of the study include the presence of various deficiencies in the forms completed in emergency departments and the lack of follow-up information after the suicide attempt.

Conclusion

In conclusion, the majority of those who attempted suicide were adolescents and young people, unemployed, female, illiterate and primary school graduates. The most common reasons and methods were family problems and drug and toxic substance use.

Based on this picture, it is important to inform and offer solutions to people who attempt suicide, their families and society. In addition, it is necessary to ensure that all attempted suicides have access to psychiatric services. In regions where access to psychiatric services is difficult, appropriate coordination should be ensured. To this end, it is important to plan the necessary arrangements, starting with the emergency services.

In addition, as family physicians work in primary care, they have a critical role to play in the identification and appropriate management of patients who are or may be at risk of attempting suicide. Therefore, it is important for family physicians to implement practices that ensure continuity of care and treatment of the patient by a team consisting of a psychiatrist, psychologist and/or social worker following a suicide attempt.

Ethical Approval

In order to conduct the research, permission was obtained from the ethics committee of a Uşak university, dated 21 September 2023 and numbered 176-176-09. All principles of the Declaration of Helsinki were complied with throughout the study.

Conflict of Interest:

The authors declare that there is no conflict of interest.

Financial Disclosure:

The authors do not declare any financial support.

References

1.Klonsky ED, May AM, Saffer BY. Suicide, Suicide Attempts, and Suicidal Ideation. Annu Rev Clin Psychol. 2016;12:307-330.

2.World Health Organization. Suicide [Internet]. https://www.who.int/news-room/fact-sheets/detail/suicide (Accessed: 23/01/2024).

3.TÜİK. Türkiye İstatistik Kurumu Ölüm ve Ölüm Nedeni İstatistikleri, 2021 [Internet]. https://data.tuik. gov.tr/Bulten/Index?p=Olum-ve-Olum-Nedeni-Istatistikleri-2021-45715. (Accessed: 28/05/2023).

4.Pereira AS, Willhelm AR, Koller SH, Almeida RMM. Risk and protective factors for suicide attempt in emerging adulthood. Cien Saude Colet. 2018 Nov;23(11):3767-3777.

5.Zalar B, Kores Plesničar B, Zalar I, Mertik M. Suicide and Suicide Attempt Descriptors by Multimethod Approach. Psychiatr Danub. 2018 Sep;30(3):317-322.

6.Miranda-Mendizabal A, Castellví P, Parés-Badell O, Alayo I, Almenara J, Alonso I, at all. Gender differences in suicidal behavior in adolescents and young adults: systematic review and meta-analysis of longitudinal studies. Int J Public Health. 2019 Mar;64(2):265-283.

7.Zygo M, Pawłowska B, Potembska E, Dreher P, Kapka-Skrzypczak L. Prevalence and selected risk factors of suicidal ideation, suicidal tendencies and suicide attempts in young people aged 13-19 years. Ann Agric Environ Med. 2019 Jun 17;26(2):329-336.

8. Maguen S, Skopp NA, Zhang Y, Smolenski DJ. Gender differences in suicide and suicide attempts among US Army soldiers. Psychiatry Res. 2015 Feb 28;225(3):545-9.

9. Tsirigotis K, Gruszczynski W, Tsirigotis M. Gender differentiation in methods of suicide attempts. Med Sci Monit. 2011 Aug;17(8):PH65-70. doi: 10.12659/msm.881887. PMID: 21804473; PMCID: PMC3539603.

10.Atli A, Uysal C, Kaya MC, Bulut M, Güneş M, Karababa İF, et all. Acil ünitesine intihar girişimi nedeniyle başvuran olguların değerlendirilmesi: Şanlıurfa örneklemi. Journal of Mood Disorders. March 2014;4(3):110-114.

11.Tatlı SZ, Kabadayı ŞE, Şan İ, Şahin S, Bekgöz B. Ankara ilinde gerçekleşen intihar girişimi vakalarının değerlendirilmesi. Kriz Dergisi, 2020;28(1):33-44.

12.Su MK, Chan PY, Hoffman RS. The seasonality of suicide attempts: a single poison control center perspective. Clin Toxicol (Phila). 2020 Nov;58(11):1034-1041.

13.Ambar Akkaoui M, Chan-Chee C, Laaidi K, Fifre G, Lejoyeux M, Vaiva G, et all. Seasonal changes and decrease of suicides and suicide attempts in France over the last 10 years. Sci Rep. 2022 May 17;12(1):8231.

14.San Sebastián M, Edin-Liljegren A, Jonsson F. Rural-urban differences in suicide attempts and mortality among young people in northern Sweden, 1998-2017: A register-based study. Scand J Public Health. 2020 Dec;48(8):794-800.

15. Akgöl Gür ST. Acil Servise İntihar Girişimi Nedeni İle Yapılan Başvuruların Demografik Ve Klinik Özellikleri. Uzmanlık Tezi, Erzurum, 2012:47.

16.T.C Uşak İl Özel İdaresi. Uşak 2020 Yılı İl Nüfus Bilgileri [Internet]. http://www.usakozelidaresi.gov.tr/2020-yili-nufus-bilgileri. (Accessed:04/03/2024).

17.TÜİK. TÜİK 2018 Yılı Ölüm İstatistikleri [Internet]. https://data.tuik.gov.tr/Bulten/Index?p=Olum-Istatistikleri-20183070 1#:~:text=%C4%B0ntihar%20edenlerin%20%75%2C6',4'%C3%BCn%C3 %BC%20ise %20kad%C4%B1nlar%20olu%C5%9Fturdu. (Accessed: 10/03/2024).

18.Yağcı İ, Avcı S, Taşdelen Y, Kıvrak Y. İntihar girişiminde bulunanlarda D tipi kişilik, çocukluk çağı travmaları, depresyon, anksiyete, dürtüsellik. Anadolu Psikiyatri Derg 2018; 19(6):551-558.

19.Mendez-Bustos P, de Leon-Martinez V, Miret M, Baca-Garcia E, Lopez-Castroman J. Suicide reattempters: a systematic review. Harv Rev Psychiatry. 2013 Nov-Dec;21(6):281-295.

20.Lannoy S, Ohlsson H, Kendler KS, Sundquist J, Sundquist K, Edwards AC. The causal effect of education and cognitive performance on risk for suicide attempt: A combined instrumental variable and co-relative approach in a Swedish national cohort. J Affect Disord. 2022 May 15;305:115-121.

21.Christiansen E, Agerbo E, Larsen KJ, Bilenberg N, Stenager E. Youth, suicide attempts and low level of education: A Danish historical register-based cohort study of the outcome of suicide attempt. Int J Soc Psychiatry. 2015 Dec;61(8):802-810.

22.Fountoulakis KN, Savopoulos C, Apostolopoulou M, Dampali R, Zaggelidou E, Karlafti E et al. Rate of suicide and suicide attempts and their relationship to unemployment in Thessaloniki Greece (2000-2012). J Affect Disord. 2015 Mar 15;174:131-136.

23.Farooq S, Tunmore J, Wajid Ali M, Ayub M. Suicide, self-harm and suicidal ideation during COVID-19: A systematic review. Psychiatry Res. 2021 Dec;306:114228. doi: 10.1016/j.psychres.2021.114228. Epub 2021 Oct 7. PMID: 34670162; PMCID: PMC8495045.

24.Prabhakar K, Aswathanarayana A, Kumar Reddy KH. Reasons for Suicide Attempts in South India during the COVID-19 Pandemic. Clin Med Res. 2022 Mar;20(1):34-39. doi: 10.3121/cmr.2022.1704. Epub 2022 Feb 7. PMID: 35131843; PMCID: PMC9390856.

25.Polat S, Helvacı Çelik F, Köroğlu A, Aslan M, Hocaoğlu Ç. Bir Eğitim Hastanesine İntihar Girişimi ile Başvuran Olguların Değerlendirilmesi. KTD. 2016;17:18–23.

26.Ünlü G, Aksoy Z, Ersan EE. İntihar girişiminde bulunan çocuk ve ergenlerin değerlendirilmesi. Pamukkale Tıp Derg 2014;7(3):176-183.

27.Jang SI, Bae HC, Shin J, Jang SY, Hong S, Han KT et all. The effect of suicide attempts on suicide ideation by family members in fast developed country, Korea. Compr Psychiatry. 2016 Apr;66:132-138.

28.Deveci A, Aydemir O, Mızrak S. İntihar girişiminde bulunanlarda sosyodemografik ozellikler, stres etmenleri ve ruhsal bozukluklar. Kriz Dergisi 2005;13(1):1-9.

29.Krvavac S, Bystad M, Wynn R, Bukholm IRK, Jansson B. Characteristics of Patients Who Complete Suicide and Suicide Attempts While Undergoing Treatment in Norway: Findings from Compensation Claims Records. Int J Environ Res Public Health. 2023 Feb 24;20(5):4083.

30.Chung CH, Chien WC, Yeh HW, Tzeng NS. Psychiatric consultations as a modifiable factor for repeated suicide attempt-related hospitalizations: A nationwide, population-based study. J Affect Disord. 2021 Jan 1;278:157-164.

31.Ata EE, Bayrak NG, Yılmaz EB. İntihar girişimi nedeniyle acil servise başvuran olguların incelenmesi: bir yıllık retrospektif bir çalışma. Cukurova Medical Journal. 2021;46(4):1675-1686.

32.Şevik AE, Özcan H, Uysal E. İntihar Girişimlerinin İncelenmesi: Risk Faktörleri ve Takip. Klinik Psikiyatri 2012;15:218-225.

33.Aydın Adnan Menderes Üniversitesi Aile Hekimliği Anabilim Dalı 2022-2023 Eğitim Programı Tanıtımı [Internet]. https://akademik.adu.edu.tr/fakulte/med/webfolders/files /20211102111750-K2MAW4L3F0QH9Q6OCSE4-AYHAN.KAYNAR-1003095323.pdf (Accessed: 10/07/2024).

34.TAHUD. TAHUD Aile Hekimliği Uzmanlık Eğitim Programı [Internet]. https://www.tahud.org.tr/file/6c6ee414-06b1-457a-979b-45ab54cfbf6f/Aile%20Hekimlig% CC%86i%20Uzmanl%C4%B1k%20Eg%CC%86itim%20Program%C4%B1%202010.pdf (Accessed: 10/07/2024).