



## Evaluation of attempted older adults suicides admitted to a University Hospital Emergency Department: Izmir study



Duygu Keskin Gokcelli<sup>a</sup>, Pınar Tosun Tasar<sup>b,f,\*</sup>, Nur Ozge Akcam<sup>a</sup>, Sevnaz Sahin<sup>b</sup>, Funda Karbek Akarca<sup>c</sup>, Ekin Ozgur Aktas<sup>d</sup>, Soner Duman<sup>e</sup>, Fehmi Akcicek<sup>b</sup>, Aysin Noyan<sup>a</sup>

<sup>a</sup> Ege University Hospital, Department of Psychiatry, Izmir, Turkey

<sup>b</sup> Ege University Hospital, Department of Internal Medicine, Division of Geriatrics, Izmir, Turkey

<sup>c</sup> Ege University Hospital, Department of Emergency Medicine, Izmir, Turkey

<sup>d</sup> Ege University Hospital, Department of Forensic Medicine, Izmir, Turkey

<sup>e</sup> Ege University Hospital, Department of Internal Medicine, Izmir, Turkey

<sup>f</sup> Erzurum Regional Training and Research Hospital, Division of Geriatrics, Erzurum, Turkey

### ARTICLE INFO

#### Keywords:

Elderly  
Suicide  
Suicide attempt  
Risk factors

### ABSTRACT

**Introduction:** Advanced age is one of the risk factors for attempting suicide. Suicide attempts are one of the reasons for elderly patients to admit emergency services. The aim of this study was to investigate the relationship between suicidal behavior and sociodemographic factors and concurrent somatic diseases.

**Methods:** The medical records of patients aged 60 years and over who presented to the emergency department of our university hospital for attempted suicide between the dates of January 1, 2007 and December 31, 2015 were screened retrospectively. Individuals recorded as cases of suicide on the forensic case report form were identified, the data recorded at our hospital were obtained, and telephone interviews were conducted to acquire any missing data.

**Results:** A total of 63 patients with a mean age of 65.88 years were included in the study. A large proportion of the suicide attempts occurred in the years 2014 and 2015. Overall, 23.8% of the patients had a previous history of suicide attempt. Overdose was the method in 74.6% of the suicide attempts, and 70.2% were impulsive; 63.5% of the patients had a history of psychiatric disease. The most common psychopathology was major depressive disorder.

**Conclusion:** We found that suicide attempts were more common among older adults with a history of depression, that approximately one in four had previously attempted suicide, and that the majority of individuals attempting suicide chose to use their own medication.

### 1. Introduction

Attempted suicide involves self-destructive behavior performed with the intention of dying, while in completed suicides, the individual takes their life in one of various ways. Each year, one million people die of suicide worldwide (WHO, 2014). According to data from the Turkish Statistical Institute, the number of suicide attempts and crude suicide rate in Turkey were 2301 suicide attempts and 3.49 per 100,000 in 2002, versus 3246 suicide attempts and 4.15 per 100,000 in 2015, respectively (Türkiye İstatistik Kurumu, 2001). Whatever the cause, every initiative should be carefully considered and carefully assessed. In the majority of completed suicides, there are initiatives that are unsuccessful and have a message quality. People may resort to make a suicide attempt to get rid of the unbearable emotional anguish

associated with various problems. Emergency departments are places where people are most in need of medical and surgical as well as psychosocial help. The first encounter with suicide attempts is the emergency services. Therefore, evaluation of cases showing any suicidal behavior evaluated in the emergency care is important in prognosis and treatment planning.

Suicidal behavior in younger ages has been linked to type-B personality pathologies classified as antisocial, narcissistic, histrionic and borderline personality disorders (McGirr et al., 2008; Kim et al., 2003), while middle-aged suicidal behavior have been associated with alcohol/substance abuse, high anxiety, and comorbid depression (Akechi et al., 2006; Park et al., 2014). A strong association was found between suicidal behavior and psychopathology, especially major depressive disorder, in elderly individuals (Conwell et al., 1996). Although elderly

\* Corresponding author.

E-mail address: [pinar.tosun@gmail.com](mailto:pinar.tosun@gmail.com) (P. Tosun Tasar).

individuals with depression are less expressive of suicidal thoughts, the rate of completed suicide is higher among the elderly. As the average lifespan increases and the birth rate falls, the elderly population grows in number and in proportion to the general population. In Turkey, life expectancy at birth is 78 years overall, 75.3 years for males and 80.7 years for females (Türkiye İstatistik Kurumu Haber Bülteni, 2017). Advanced age is one of the risk factors for attempting suicide, and suicide attempt is among the reasons elderly patients are admitted to emergency departments. The main risk factors for attempted suicide among the elderly include male gender, loss of spouse or other loved ones, living alone, weak religious and family ties, being in a minority, loss of economic and social status as a result of aging, and the presence of physical and mental illnesses (Jeste, 2009; Apfeldorf and Alexopoulos, 2003). Evaluation of mental disorders in the elderly reveals that depressive symptoms are one of the main causes of suicidal behavior. Furthermore, persistent feelings of despair despite treatment for depressive symptoms, and an individual's perception of having few reasons to continue living are independent risk factors that increase the risk of suicidal behavior.

Studies investigating the frequency of attempted suicide in the elderly population of Turkey are limited; there are only a few studies with limited patient numbers. Because it serves a large region and a wide range of patients, the Ege University School of Medicine Hospital has a vast accumulation of data. Our aim in this study was to reveal the sociodemographic and certain clinical characteristics of elderly patients in the Izmir region presenting to the emergency department for attempted suicide.

## 2. Materials and methods

The medical records of patients aged 60 years and over who presented to the emergency department of the Ege University School of Medicine Hospital for attempted suicide between the dates of January 1, 2007 and December 31, 2015 were screened retrospectively. Demographic data (age, gender, education level, marital status) and data regarding chronic diseases were obtained from the patients' files. The subjects were divided by age into three groups: young-old (60–74 years), middle-old (75–84 years) and old-old (85 years and over). Data regarding methods of suicide attempt (chemical agent, cutting implement, jumping, firearm), premeditation, outcome (completed or attempted suicide), neuropsychiatric diagnosis (major depression, alcoholism, dementia, psychotic disorder, etc.), and history of previous suicide attempts were recorded.

Whether the suicidal behavior was associated with chronic disease was determined based on the evaluation forms of the psychiatrist who assessed the patients in the emergency department.

Data were analyzed using SPSS version 16.0. Numerical data were expressed as mean  $\pm$  standard deviation. The Pearson chi-square test was used in comparisons of categorical values. Categorical data were expressed as number and percentage. Data were analyzed with a 95% confidence interval, and statistical outcomes with  $p \leq 0.05$  were considered significant. The study was approved by the Ege University Ethics Committee (decision dated 05/16/2016, ethics committee number: 15–81/2).

## 3. Results

There were 73 individuals who presented to the emergency department of our university hospital for attempted suicide between the dates of January 1, 2007 and December 31, 2015. However, the data were incomplete for 10 of those patients, resulting in a total of 63 patients (33 women and 30 men) included in the study. The mean age was 65.88 years (range 60–91 years); 82.5% were young-old, 52.4% were female, 79.5% were married, and 41.9% were elementary school graduates. The majority of the patients lived at home; only one patient came from a nursing home. Only 20.9% of those who lived at home

**Table 1**  
Demographic data of the elderly.

Variable	n (%)
Mean age (years)	65.88
Age Group	
Young-old	52 (82.5)
Middle-old	8 (12.7)
Old-old	3 (4.8)
Gender	
Female	33 (52.4)
Male	30 (47.6)
Marital status	
Married	35 (79.5)
Widowed	4 (9.1)
Divorced	3 (6.8)
Single	1 (2.3)
Unknown	19
Children	
(+)	44 (97.8)
(-)	1 (2.2)
Unknown	18
Residence	
Home	62 (98.4)
Nursing home	1 (1.6)
Education status	
Illiterate	3 (9.7)
Literate	2 (6.5)
Elementary school	13 (41.9)
Middle school	2 (6.5)
High school	4 (12.9)
University/Graduate school	7 (22.6)
Unknown	32
Mean number of chronic diseases	2.104 $\pm$ 1.604
Chronic diseases	
Hypertension	23 (50.0)
Diabetes	19 (40.4)
CAD*	10 (21.3)
CVD**	7 (15.2)
COPD***	6 (12.8)
Arrhythmia	4 (8.5)
Malignancy	3 (6.4)
Chronic kidney disease	4 (8.7)
Hyperlipidemia	4 (8.9)
Osteoporosis	2 (4.4)
Gonarthrosis	1 (2.1)
Other	14 (31.8)
Mean number of drugs used	3.35 $\pm$ 2.83

\*CAD, Coronary artery disease; CVD\*\*, Cerebrovascular Disease; COPD\*\*\*, Chronic Obstructive Pulmonary Disease.

were living alone. The mean number of chronic diseases was  $2.10 \pm 1.60$ ; the most common chronic disease was hypertension (50.0%). The demographic data of the elderly patients is shown in Table 1. A large proportion (22.2%) of the suicide attempts occurred in 2014 and 2015 (Fig. 1).

A history of psychiatric disease was noted in 63.5% of the cases. The most common psychiatric diseases were major depression ( $n = 25$ , 40.3%), alcoholism ( $n = 9$ , 14.5%), and psychotic disorders ( $n = 4$ , 6.5%) (Fig. 2). We found that 23.8% of the patients (30.3% of women and 16.7% of men) had previously attempted suicide. Of these, 2 patients had attempted suicide 4 times, 11 had attempted twice, 1 had attempted 3 times, and 1 patient had attempted suicide 13 times.

The suicide attempts were performed using drugs in 74.6% of cases ( $n = 47$ ), with a chemical agent in 14.3% ( $n = 9$ ), with a sharp object in 4.8% ( $n = 3$ ), by jumping from a height in 4.8% ( $n = 3$ ), and with firearm in just 1.6% ( $n = 1$ ).

There were no significant differences between methods of suicidal behavior based on gender ( $p > 0.612$ ) (Table 2).

Suicidal behavior was impulsive in 70.2% of the elderly patients. Only 2% informed their relatives prior to the suicide attempt, and a large proportion (59.4%) did not inform their relatives after the suicide attempt.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات