

## RESEARCH ARTICLE

# Exploring Emergency Department Workers' Attitudes Towards Individuals with Suicide Attempts: A Cross Sectional Study

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### Abstract

**Introduction:** This study aims to determine the attitudes of emergency service workers toward patients attempting suicide (PAS) and the factors influencing these attitudes.

**Methods:** A total of 122 voluntary emergency service workers employed in a city hospital participated in the research. Data were collected using the "Attitude scale towards attempted suicide cases for evaluating emergency medical teams (ASETSA)." The data were analyzed using ANOVA and Student t-test.

**Results:** The average age of the participants was  $29 \pm 6.7$ , with the majority being male (60%) and in the first five years of their profession (58%). The mean score on the ASETSA was  $98.3 \pm 8.6$ . It was determined that variables such as age, gender, education level, marital status, years of service, and weekly working hours did not affect the participants' attitudes towards PAS. A small percentage of workers (7%) reported receiving training on suicide prevention.

**Conclusion:** The overall attitudes of emergency health workers towards individuals with suicide attempts were positive and not associated with sociodemographic and professional characteristics. It was identified that emergency health workers need more psychiatric training to feel adequately prepared when intervening in cases of suicide attempts.

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## Introduction

Suicide is a significant global health issue observed frequently in both high- and low- to middle-income countries.<sup>1,2</sup> Annually, approximately 700,000 individuals die by suicide, and it is known that 20 times that number presents to healthcare institutions due to suicide attempts. Suicide, especially in the young population, ranks among the leading causes of mortality, being the fourth most common cause of death in the 15-29 age group according to the World Health Organization (WHO) 2019 data.<sup>1</sup>

In Turkey, according to data from the Turkish Statistical Institute (TSI), the number of suicide-related deaths was 3,406 in 2019, with a reported crude suicide rate of 4.12.<sup>3</sup> The risk of repeated self-harm is considerably high, with past suicide attempts being a crucial risk factor for completed suicide. Among the factors influencing the recurrence of suicide attempts and completed suicide, variables related to the patient's specific illness, stress factors, personality traits, and the quality of treatment services are considered.

The majority of patients attempting suicide (PAS) primarily seek assistance in emergency departments, where assessments determine referrals to outpatient clinics or inpatient services based on treatment plans. Therefore, emergency service workers play a crucial role in managing suicide attempts. The knowledge and attitudes of emergency service personnel toward suicide attempts and self-harming behavior impact the patient's care and treatment adherence.<sup>4</sup> Healthcare professionals intervening in self-harm cases have reported insufficient training in this area, leading to feelings of anger and helplessness when dealing with these patients.<sup>5</sup> Negative attitudes of healthcare personnel have been associated with patients feeling rejected or harboring hostility, potentially leading to further self-harm.<sup>6</sup> Additionally, the staff's attitudes toward suicide may influence patients' decisions to seek help at the hospital. Studies have reported that patients who present with suicide attempts may evoke more negative attitudes or receive less attention, especially from nurses, compared to those with physical illnesses.<sup>5-7</sup> An empathetic and supportive approach can reduce the risk of suicide attempts recurring.<sup>8,9</sup>

This study aims to determine the attitudes of emergency service workers towards individuals who have attempted in a city hospital serving a densely populated city like Ankara. Factors influencing these attitudes related to the personnel and

work environment are also investigated to facilitate long-term planning of necessary training programs, prioritizing the determination of the impact of healthcare professionals' attitudes on suicidal behavior.

## Material and Methods

### *Participants:*

The study was conducted in the emergency department of a training and research hospital where approximately 2,000 patients present daily. The hospital, comprising four hospitals, forms a city hospital health complex. The hospital has a psychiatry department, and individuals with PAS are initially evaluated by the emergency team and then referred to a psychiatry department for consultation.

During the study period from November 1, 2019, to November 30, 2019, a total of 267 healthcare personnel were working in the emergency department, including 12 (5%) emergency medicine faculty members, 21 (8%) specialist doctors, 52 (19%) assistant doctors, 174 (65%) nurses, emergency medical technicians, and health officers, and 8 (3%) medical secretaries. The aim was to reach all personnel; therefore, all 267 healthcare personnel were approached, and 120 healthcare professionals (doctors, nurses, emergency medical technicians, and health officers) voluntarily participated in the study (response rate: 44%). Information from participating healthcare workers was collected anonymously.

### *Measurement Tools:*

Participants were administered the "Attitude scale towards attempted suicide cases for evaluating emergency medical teams (ASETSA)" developed by Er et al. (2013), with established validity and reliability. Additionally, a Socio-Demographic and Suicide-Related Information Questionnaire was created by the researchers based on the study's objectives through literature review. This questionnaire included questions about gender, marital status, education level, occupation, years of service, weekly working hours, duty-taking status, past experience working in the psychiatry department, receiving training on suicide, personal history of suicidal thoughts or attempts, seeking psychological support for mental health issues, and questions related to suicide within the immediate environment or family.

The ASETSA consists of six subscales: "prevention and protection" (5 questions), "individual assistance" (3 questions), "institutional assistance"

(2 questions), “triggers and psychopathology” (7 questions), “causal attributions” (6 questions), and “medical assistance” (5 questions). The total score ranges from 28 to 140, with higher scores indicating a positive attitude towards PAS, and lower scores indicating a negative attitude. Ratings were made on a five-point Likert scale (1 - strongly disagree to 5 - strongly agree). Cronbach’s alpha value is 0.84.<sup>10</sup>

### Ethical Compliance

The study was conducted in accordance with the Declaration of Helsinki and was approved by the Ankara City Hospital Ethics Committee No. 1 on October 03, 2019, with approval number E-19-081.

### Statistical Analysis :

Data analysis was performed using SPSS 23.0 software.<sup>11</sup> Descriptive statistics were presented as numbers, percentages, means, and standard deviations. Before conducting univariate and multiple comparisons, normal distribution was assessed using the Kolmogorov-Smirnov test and visual analyses. Student t-test was used for univariate comparisons, and ANOVA was used for comparisons of ASETSA scores based on profession (four categories), years of working in the profession (four categories), and years of working in the emergency department (four categories), as parametric assumptions were met. The correlation between age and ASETSA scores was evaluated using Pearson correlation test. A significance level of  $p \leq 0.05$  was accepted.

### Results

The mean age of the healthcare personnel participating in the study was  $29 \pm 6.7$ . The majority were male (60%), and 58% were in the first 5 years of their professional life. Regarding professional distribution, 9% were emergency medicine faculty members, 16% were specialist doctors, 34% were assistant doctors, 35% were nurses and health officers, and 6% were medical secretaries. In this study, the reliability coefficient (Cronbach’s alpha) of the 28-item scale was found to be  $\alpha = 0.881$ , with a mean score of  $98.3 \pm 8.6$ .

When examining suicide attitudes based on the sociodemographic and professional characteristics of healthcare workers, no significant differences were observed in ASETSA scores concerning gender, marital status, having children, education level, occupation, years in the profession, and years working in the emergency department, as presented in Table-1.

Table-1 Comparison of ASETSA Scores of Emergency Service Workers According to Sociodemographic and Professional Characteristics

	n(%)	Mean $\pm$ ss	t/F (df)	p
<b>Gender</b>				
Female	48 (40%)	97,5 $\pm$ 8,6	-0,844 (118)	0,401
Male	72 (60%)	98,9 $\pm$ 8,6		
<b>Marital status</b>				
Married	62 (58%)	97,9 $\pm$ 7,9	-0,498 (188)	0,620
Single/Divorced	58 (42%)	98,7 $\pm$ 9,4		
<b>Kids</b>				
Yes	43 (36%)	98,8 $\pm$ 7,5	0,496 (118)	0,640
No	77 (64%)	98 $\pm$ 9,3		
<b>Education status</b>				
High School/Associate Degree	10 (8%)	97,3 $\pm$ 9,7	-0,387 (118)	0,700
Undergraduate/Graduate	110 (92%)	98,4 $\pm$ 8,5		
<b>Occupation</b>				
Faculty Member	11 (9%)	98,9 $\pm$ 7,2	1,185 (4)	0,321
Specialist Doctor	19 (16%)	97,4 $\pm$ 8,5		
Researcher Assistant	41 (34%)	97,1 $\pm$ 7,4	Doctor	
Nurse / Health Officer	42 (35%)	98,8 $\pm$ 10,1		
Medical Secretary	7 (6%)	104,4 $\pm$ 7,1		
<b>Duration in the profession (years)</b>				
0-5 years	70 (58%)	98,6 $\pm$ 8,9	1,831 (3)	0,145
6-10 years	24 (20%)	95,3 $\pm$ 7,9		
11-15 years	12 (10%)	102,2 $\pm$ 7,7		
16-20 years	14 (12%)	98,2 $\pm$ 8,6		
<b>Working Time in the Emergency Department (years)</b>				
0 - 4 years	73 (60,8%)	98,3 $\pm$ 8,6	3,01 (2)	0,053
5 - 9 years	26 (21,7%)	96 $\pm$ 8,8		
> 10 years	21 (17,5%)	102 $\pm$ 7,9		
<b>Weekly Working Time (hours)</b>				
$\leq$ 40 hours	36 (30%)	100,4 $\pm$ 9,3	1,804 (118)	0,074
> 40 hours	84 (70%)	97,4 $\pm$ 8,2		

ASETSA:Attitude scale towards attempted suicide cases for evaluating emergency medical teams, ss: standard deviation df: degree of freedom

There was no significant relationship found between the age of healthcare workers and ASETSA scores ( $r: -0.25$ ,  $p: 0.786$ ).

The experience of working in the psychiatry department, receiving suicide training, having a psychiatric illness, a history of suicidal thoughts or attempts, and the presence of a family member with a suicide history were found to have no statistically significant impact on ASETSA scores. The results are presented in Table-2.

Table-2 Comparison of ASETSA scores in terms of features related to suicide knowledge

	n(%)	mean ± ss	t/F (df)	p
<b>Working in a psychiatric ward</b>				
Yes	32 (27%)	98,5 ± 7,8	0,139 (118)	0,889
No	88 (73%)	98,3 ± 8,9		
<b>Getting Suicide Training</b>				
Yes	8 (7%)	100 ± 7,4	-0,953 (118)	0,342
No	112 (93%)	98 ± 8,9		
<b>History of Psychiatric Illness</b>				
Yes	28 (23%)	98,7 ± 6,7	0,252 (118)	0,802
No	92 (77%)	98,2 ± 9,1		
<b>Suicidal ideation/attempt</b>				
Yes	10 (8%)	95,4 ± 9,4	-1,115 (118)	0,267
No	110 (92%)	98,6 ± 8,6		
<b>Suicide Story Nearby</b>				
Yes	15 (12,5%)	94,6 ± 10,9	-1,796 (118)	0,075
No	105 (87,5%)	98,8 ± 8,1		

ASETSA:Attitude scale towards attempted suicide cases for evaluating emergency medical teams, ss: standard deviation df: degree of freedom

When the subscale mean scores of AETHW-SAS were evaluated based on the number of questions, they were similar, and descriptive statistics for the subscales are provided in Table-3. When the item mean scores on the scale were compared using one-sample t-tests:

In the “Prevention and Protection” subscale, the item “Suicide is not a solution.” had the statistically lowest mean score of  $1.6 \pm 1$  compared to other items ( $p < 0.001$ ).

Additionally, one item from the “Triggers and Psychopathology” Subscale (“Many people who attempt suicide are alone and depressed.”), and two items from the “Medical Assistance” Subscale (“I need more psychiatric training to help patients who attempt suicide.” and “There should be separate rooms for PAS in the hospital.”) had statistically significantly lower mean scores than all other items (Means were  $1.99 \pm 0.93$ ,  $1.91 \pm 0.90$ ,  $1.98 \pm 0.97$ , respectively;  $p < 0.001$ ).

Table-3 Descriptive Statistics of ASETSA Subscales

AETHW-SAS Subsize	n	minimum	maximum	mean	Standard deviation
Prevention and Protection	120	13	25	18,8	2,1
Individual Help	120	3	15	11,4	2,4
Corporate Aid	120	3	10	7,1	1,7
Triggers and Psychopathology	120	16	28	22,5	2,4
Causal Attributions	120	15	30	23,4	3,7
Medical Help	120	10	20	15,1	1,8

ASETSA:Attitude scale towards attempted suicide cases for evaluating emergency medical teams

## Discussion

In this study, the attitudes of healthcare professionals working in the emergency department of a city hospital complex towards patients attempting suicide and related factors were investigated. In the study, it was determined that the general attitudes of emergency healthcare professionals towards patients who attempted suicide were positive. There are studies in the literature that evaluate the attitudes of nurses, doctors and emergency medical technicians separately. Research on the attitudes of healthcare professionals towards PAS has yielded different results. As in our study, in three different studies examining the attitudes of healthcare professionals towards patients who attempted suicide, it was reported that nurses had positive attitudes towards patients who attempted suicide.<sup>8,12,13</sup> However, in another study examining nurses' attitudes towards patients who attempted suicide, it was observed that nurses' attitudes towards these patients were negative.<sup>14</sup>

Comparing our results with existing literature, Perboell et al. reported positive attitudes among nurses in Denmark, consistent with our findings.<sup>12</sup> However, it is very important to take into account the inequalities in research methods, measurement tools and samples that may cause conflicting results regarding attitudes towards PAS.<sup>15</sup> Sociodemographic variables such as age, gender, and professional experience have been reported to influence the attitudes of healthcare workers towards patients who have suicide. In our study, there was no relationship found between the sociodemographic characteristics, such as age, gender, marital status, occupation type, and years of experience in the profession and in the emergency department, and attitudes towards patients who attempted suicide. However, although not statistically significant, healthcare workers with 10 or more years of experience in the emergency department had the highest attitude scores. Similarly, Gibb et al.'s study found that the attitudes of healthcare team members providing care to self-harming patients in New Zealand did not differ based on age, gender, or experience.<sup>16</sup> In Perboell et al.'s study, there was no difference in attitudes based on age, but when compared by gender, females had more positive attitudes than males.<sup>12</sup> Additionally, while age did not affect attitudes, long-term experience in the emergency department was reported to increase positive attitude scores due to empathic ap-

proaches. Some studies have also reported that older healthcare workers have more positive attitudes.<sup>8,13,17</sup>

The level of burnout among emergency healthcare workers has been reported to affect their attitudes towards PAS.<sup>16</sup> In this study, we measured workload based on the weekly working hours of employees, indirectly assessing the level of burnout. Although attitude scores towards PAS were higher in individuals working fewer than 40 hours per week, there was no statistically significant relationship between weekly working hours and attitudes towards patients who attempted suicide. The reason why we obtained different results from other studies may be related to the fact that there are many parameters that measure burnout, whereas our study only takes working hours into account.

Another variable that could affect attitudes towards PAS is the knowledge and skills of healthcare workers about suicide. The implementation of practical training for healthcare personnel has been reported to increase their confidence, attitudes, knowledge, and skills in caring for self-harming patients.<sup>5</sup> In Perboell et al.'s study, 19% of participants had received suicide-related training, and having received training was reported to have a positive effect on attitude scores.<sup>12</sup> In our study, only 7% of employees had received training on suicide, and there was no relationship between receiving suicide training and attitudes towards patients who attempted suicide. The discrepancy in our study's results may be due to the small number of healthcare workers who received suicide training. However, it was determined that participants received the lowest attitude scores for the items related to education and care on the scale, such as "I need more psychiatric training to help patients who attempt suicide." and "There should be separate rooms for PAS in the hospital." This indicates that the majority of participants did not feel competent in treating patients who attempted suicide and needed training in this area.

The presence of suicidal thoughts/attempts in healthcare workers themselves or in their close surroundings could affect attitudes towards patients who attempted suicide. In this study, there was no relationship found between having suicidal thoughts or attempts in both the employee and their close surroundings and attitudes towards patients who attempted suicide.

While this study's results do not indicate that emergency service workers have negative attitudes towards patients who attempted suicide,

it does suggest a need for training in this area. The use of the ASETSA for measuring and demonstrating post-training development is possible. Thus, healthcare workers can develop more positive attitudes towards this patient group and feel more competent in intervening with these patients.

### Limitations

When interpreting the results of our study, it is important to consider some limitations. Firstly, since our study was conducted at a single center, the results may not be generalized to all emergency healthcare workers, as they may only reflect the attitudes of those working at this specific center. Additionally, with a participation rate of 44%, the characteristics of non-voluntary or unreachable employees who did not participate in the study are unknown, and it is uncertain whether their attitudes towards patients who attempted suicide are more positive or negative than the sample. The 6-factor structure in the validity study of the PAS scale explained 58% of the total variance in attitudes towards patients who attempted suicide, indicating the presence of unmeasured attitudes.<sup>11</sup> The nature of questions being about attitudes requires accounting for social desirability bias when evaluating relationships, and although participant data were collected anonymously to minimize bias, it is not possible to completely control for bias.

### Conclusion

As a result, it shows that emergency department healthcare professionals have positive attitudes towards patients who attempt suicide. It was determined that age, gender, education level, profession, marital status, working time, weekly working hours and whether or not working in shifts did not affect the attitude towards suicide cases. The results cannot be generalized since they only cover the sample group of the study. Another striking finding is that healthcare professionals often need training on how to approach patients who attempt suicide.

In this study, attitudes towards the characteristics of individuals who attempted suicide or the suicide method were not evaluated. Therefore, in future studies, researchers can evaluate attitudes towards PAS using case examples or qualitative methods.

### Declarations

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**Conflict of interest/Competing interests** The-

re is no conflict of interest between the authors.

**Ethics committee** approval was received from Ankara Bilkent City Hospital Ethics Committee No. 1 on October 03, 2019, with approval number E-19-081.

**Availability of data and materials** data are stored in written forms. If desired, it can be requested by contacting the responsible author within the framework of information security.

**Authors' contributions:** Conceptualization, HSÖ; Data curation, MT; Investigation, MT; Methodology, SC; Project management, HSÖ; Audit, HO; Written – original draft, SC; Writing-review and editing, HSÖ

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