









1 ORIGINAL ARTICLE

2 Empathy and willingness to provide
3 care for suicide patients in emergency
4 departments: a cross-sectional study

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8 ABSTRACT

9 **Background:** Suicidal ideation and self-harm are significant and growing worldwide health concerns.
10 Emergency department (ED) physicians are usually the first line of care for patients presenting with those
11 concerns, and their attitude toward these patients plays a crucial role in their outcome. Therefore, this study
12 aimed to assess the ED physicians' perception, empathy, and willingness toward these patients.

13 **Methods:** An anonymous survey was distributed to ED physicians (residents, fellows, and consultants) to
14 assess their attitude toward suicidal patients using the Understanding of Suicidal Patients (USP) Scale, a scale
15 designed to assess healthcare professionals' understanding, willingness, and empathy to provide care for
16 suicide attempters, with 11 items rated on a four-point Likert scale, in which a lower score indicates a more
17 positive attitude.

18 **Results:** Overall, physicians demonstrated a positive attitude toward patients with suicidal ideation with a
19 USP mean score of 20.67 ± 3.76 . Even though it was not statistically significant, male participants had lower
20 scores than their female counterparts, which might suggest a trend toward higher empathy among male par-
21 ticipants. Age and years of experience showed no statistically significant difference between the participants.
22 The majority of the participants found that evaluating a patient with a suicide attempt is troublesome for
23 them, and a third of them reported that it is irritating to evaluate such patients. Overall, the results indicate
24 a predominantly empathic and supportive approach toward suicide attempters, with only some aspects of
25 patient assessment demonstrated as problematic.

26 **Conclusion:** Emergency physicians in Saudi Arabia showed generally positive and empathic attitudes toward sui-
27 cidal patients, with no significant differences by age or experience. Male physicians showed a non-statistically
28 significant trend toward higher empathy. Despite this, many reported difficulty assessing suicide attempters,
29 and about one-third reported irritation, indicating overall positive attitudes alongside persistent challenges
30 in patient assessment.

31 **Keywords:** Suicidal ideation, emergency department, empathy, Saudi Arabia, suicide prevention.

32 Introduction

33 Suicidality and intentional self-harm presentations to the
34 emergency department (ED) are a growing problem in
35 the United States. It is the second most significant cause
36 of death globally for people aged 15 to 29 and a serious
37 health issue [1,2]. A significant proportion of ED patients
38 have suicidal ideations, with up to 5.7%-10% of ED
39 visitors screening positive for suicidal thoughts [3-6]. In
40 Saudi Arabia, a recent study conducted in 2024 reported
41 that the lifetime prevalence of suicidal ideation, planning,
42 and attempts was 4.90%, 1.78%, and 1.46%, respectively

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47 [7]. This underscores the importance of recognizing and
48 addressing mental health issues in emergency settings,
49 as a notable percentage of patients presenting to the ED
50 could be at risk of suicide [3]. Approximately one-third
51 of those who go on to commit suicide had visited an ED
52 at least once in the year before they passed away [5,6].
53 Clinical practice, patient experience, and outcomes are
54 all influenced by competence and attitudes [6-8].

55 Negative attitudes, including rejection and a lack of
56 empathy towards individuals who have attempted suicide,
57 can have profound consequences, hindering healthcare
58 professionals' ability to address the underlying problems
59 these patients are struggling with. This, in turn, may
60 contribute to an increased risk of suicide [9], especially in
61 smaller communities where there is a lack of knowledge
62 and appropriate skills for assessing suicide risk [10]. A
63 recent scoping review demonstrated that individuals
64 who attempt suicide are frequently labeled as "attention-
65 seeking" or personally responsible, which reflects
66 enduring public stigma and attributional bias. This stigma
67 encompasses negative stereotypes, judgment, and blame,
68 as well as internalized stigma that fosters shame and
69 diminishes help-seeking behaviors. These perceptions
70 may also be present among healthcare providers, leading
71 to less empathetic communication and underestimation
72 of suicide risk. As a result, such biases can compromise
73 psychosocial assessment and contribute to suboptimal
74 or delayed care [11], highlighting the critical need for
75 unbiased and compassionate care, particularly in the ED
76 [12]. Self-harming behavior necessitating treatment is
77 often the reason suicidal patients present to the ED. Of
78 those patients with self-harm, 6% will go on to commit
79 suicide [13]. Furthermore, some patients will not be
80 forthcoming regarding thoughts or attempts [14]. Busy
81 EDs affect the time provided by ED physicians towards
82 patients, specifically suicidal patients, which likely
83 affects the treatment provided to them. When examining
84 documentation practices for patients presenting with
85 self-harm in EDs, previous studies have highlighted
86 significant gaps. Essential details such as past self-harm
87 attempts, suicidal ideation, risk factors, and mental state
88 assessments were often inadequately recorded [15].
89 These findings may reflect ED physicians' time pressures
90 and perhaps a lack of adequate training in psychosocial
91 risk assessment [16]. Research suggests that patients
92 who self-harm or who are suicidal are less than satisfied
93 with ED care and feel inferior to 'medical' patients due
94 to healthcare providers' negative attitudes towards them
95 [8,17,18]. To improve patient outcomes and ensure
96 proper management strategies are in place, it is crucial
97 to comprehend emergency physicians' knowledge,
98 attitudes, and willingness to provide care for this patient
99 population.

100 This study aims to assess ED physicians' perceptions,
101 empathy, and willingness to provide care for patients
102 presenting with suicidal ideation or suicide attempts.
103 Specifically, it seeks to evaluate these attitudes using
104 the understanding of suicidal patients (USPs) scale and
105 to examine whether demographic factors such as age,
106 gender, and years of experience influence physicians'
107 empathy and approach to care.

Methodology 108

Measures/survey 109

We developed an online survey composed of two 110
sections: the first included three questions to collect 111
participants' demographic data, while the second 112
consisted of the USP scale, a validated scale adapted by 113
Suokas and Lönnqvist and Suokas-Muje [19] and further 114
modified by Samuelsson et al. [20]. This scale was 115
designed to assess healthcare professionals' willingness 116
to provide care for suicide attempters, as well as their 117
understanding and empathy toward these patients. The 118
scale includes 11 items rated on a four-point Likert scale, 119
with responses ranging from 1 (completely agree) to 4 120
(completely disagree), where lower scores indicate more 121
understanding and empathy. Earlier studies used a five- 122
point scale, and scores below 23 were considered positive 123
attitudes [19,21]. In the original study, the reliability of 124
the USP scale was indicated by a Cronbach's alpha of 125
0.74 [20], while in this study, it was measured at 0.73. 126
The questionnaire was pilot-tested for content and clarity 127
by five emergency consultants. The final questionnaire is 128
provided in Supplementary File 1. 129

Study design and population 130

The survey was conducted in English and distributed 131
between December 2023 and February 2024 through 132
a Google Forms link to emergency physicians to be 133
answered anonymously. The study population consisted 134
of emergency physicians working at King Saud 135
University Medical City (KSUMC), a large academic 136
tertiary care center in Riyadh, Saudi Arabia. To be 137
included in the study, participants had to be employed 138
as ED physicians (i.e., residents, fellows, or consultants) 139
working in KSUMC. Physicians who were not working 140
in the ED (i.e., non-ED physicians), those working 141
in hospitals other than KSUMC, and nurses or other 142
healthcare providers were excluded from the study. 143

Statistical analysis 144

Data were tabulated using Microsoft Excel and analyzed 145
using SPSS (version 28.0; IBM Corp., Armonk, NY). 146
We first performed descriptive statistics, calculating 147
frequencies and percentages for categorical demographic 148
variables (gender, age group, and years of experience), 149
while the USP Scale results were expressed as mean \pm 150
standard deviation. To ensure the reliability of the 11- 151
item USP scale within our sample, Cronbach's alpha [22] 152
was calculated. For the correlation analysis, Pearson's 153
correlation was used to assess item-total consistency 154
within the scale, while Spearman's rank correlation was 155
applied to evaluate the relationship between categorical 156
demographic groups and empathy scores. For the 157
comparative analysis, inferential statistics were utilized 158
to assess differences across subgroups. Furthermore, a 159
logistic regression analysis was conducted to evaluate 160
the association between gender and empathy levels, 161
providing Odds Ratios (OR) and 95% Confidence 162
Intervals (CI). All significance testing was two-tailed, 163
with a p -value <0.05 considered the threshold for 164
statistical significance. 165

166 Results

167 The study population ($n = 63$) was predominantly male
168 (69.84%) and largely composed of young physicians, with
169 the majority (55.56%) aged 30 years or below and 29.68%
170 aged between 31 and 40 years. Most respondents (53.97%)
171 had less than 4 years of experience in emergency medicine,
172 while 31.74% had more than 10 years of experience.
173 Population characteristics are summarized in Table 1.

174 The response category for each statement on the USP
175 scale was assessed using a four-point Likert scale,
176 where “Strongly Agree” was scored as 1 and “Strongly
177 Disagree” as 4. Scoring results are presented in Table 2
178 and illustrated in Figure 1 for enhanced clarity. Lower
179 scores on this scale indicate higher levels of empathy.
180 Items 2, 6, and 9 were reverse-coded to align with the
181 scale’s directionality, where a lower score reflects higher
182 empathy. “Item-total correlation” reports the Pearson’s
183 correlation coefficient used to assess the internal
184 consistency of each item within the scale.

185 No statistically significant differences in empathy scores
186 across age groups or levels of experience in emergency
187 medicine were found. While male participants had slightly
188 lower empathy scores than their female counterparts,
189 which might suggest a trend toward higher empathy
190 among male participants, this result was not statistically
191 significant. Logistic regression analysis results, as shown
192 in Table 3, revealed that gender explained 26.7% of the
193 variance in levels of empathy and that male respondents
194 were approximately 2.7 times more likely to exhibit high
195 empathy; however, this relationship was not statistically
196 significant at the conventional 0.05 level. Overall,
197 the results painted a predominantly empathic and
198 supportive approach towards suicide attempters, with
199 only some aspects of patient assessment demonstrated as
200 problematic. The model’s R^2 value was 0.267, indicating
201 that gender accounts for approximately 26.7% of the
202 variance in empathy levels.

203 Discussion

204 The primary objective of this cross-sectional study was
205 to evaluate the attitudes, empathy, and willingness of ED
206 physicians to provide care for patients presenting with
207 suicidal ideation or attempts. Our key findings indicate

that emergency physicians generally exhibit high levels
of empathy and a predominantly positive attitude
toward these patients, as evidenced by a mean score of
 20.67 ± 3.76 on the 11-item USP Scale. Demographic
factors, including age and years of experience, did not
significantly influence these attitudes. Although male
physicians showed a trend toward higher empathy,
this association was not statistically significant and
should therefore be interpreted with caution. Despite
this empathic baseline, most respondents found clinical
evaluations “troublesome,” with one-third reporting
irritation. This may reflect internalized societal stigma,
leading to frustration or subtle misunderstandings during
patient interactions [23-25].

When comparing these results with relevant regional
and international literature, our cohort’s USP mean score
was closely aligned with the findings of Samuelsson et
al. [20], suggesting a consistent level of empathy among
medical professionals across different cultural contexts.
Notably, our participants demonstrated more favorable
responses than those reported by Kishi et al. [26]
involving Japanese nursing personnel.

Regionally, our findings regarding the lack of correlation
between empathy and demographic variables like age or
gender mirror a Tunisian study by Amamou et al. [27].
This suggests that empathy in the ED may be more closely
tied to the specific clinical environment or individual
personality traits rather than fixed career milestones.
This perspective is further supported by the large
mixed-methods study of Urizaki [28] in Japan, which
demonstrated that attitudes were more strongly influenced
by factors such as cognitive-emotional engagement
during patient interactions, training background, anxiety
related to patient care, perceived patient behaviors,
interprofessional dynamics, and social comparison—
variables not captured in our demographics-based model.
Together, these findings suggest that organizational and
educational factors may account for more variation in
empathy than age or years of experience alone.

Conversely, our findings contrast with studies from the
UK [29] and Germany [30], which revealed that junior
doctors often felt under-qualified or lacked the confidence
to manage psychiatric emergencies. This discrepancy
may suggest that while Saudi ED physicians feel
empathetic and possess a satisfactory understanding of
suicide risk, they still face operational hurdles similar to
those identified by İnan et al. in Turkey [31]. Their work
indicates that high difficulty ratings in assessment often
stem from a heavy biomedical focus, time constraints,
and inadequate clinical settings. These systemic barriers
explain why physicians may feel significant friction at the
point of care despite maintaining high levels of empathy.

The facility-based cross-sectional study by Wordefo et
al. [32] in Ethiopia also quantified the clinical burden
of suicidal behavior at 8% and attempts at 6.3%, mainly
among young adults, with social reasons and hanging
commonly cited as methods, putting our predominantly
young, early-career emergency medicine workforce
in perspective and underscoring the need for high
empathy alongside effective assessment processes; their
recognition of the lack of a single preponderant risk

269 **Table 1.** Socio-demographic characteristics of the subjects.

Demographics	N (%)
Gender	
Male	44 (69.84)
Female	19 (30.16)
Age	
≤ 30	35 (55.56)
31-40	17 (29.68)
> 41 years	11 (17.46)
Years of experience in EM	
0-4 years	34 (53.97)
5-9 years	9 (14.29)
> 10 years	20 (31.74)

Table 2. The 11 items comprising the USP scale and their corrected-item total for reference.

Item	Mean ± SD	Median	Item total correlation	Completely agree	Agree	Disagree	Completely disagree
Patients who have tried to commit suicide are usually managed well in my department.	2.238 ± 0.836	2	0.122	11 (17.46%)	31 (49.21%)	16 (25.40%)	05 (7.94%)
I sometimes get irritated while managing patients who have attempted suicide.*	2.222 ± 0.850	2	0.322	04 (6.35%)	19 (30.16%)	27 (42.86%)	13 (20.63%)
A person who has made several suicide attempts is at significant risk of committing suicide.	1.571 ± 0.640	1	0.186	32 (50.79%)	26 (41.27%)	5 (7.94%)	0
I treat patients who have tried to commit suicide as willingly and sympathetically as I treat other patients.	1.492 ± 0.564	1	0.556	34 (53.97%)	27 (42.86%)	2 (3.17%)	0
Because the patients who have tried to commit suicide have emotional problems, they need the best possible treatment.	1.683 ± 0.643	2	0.491	26 (41.27%)	31 (49.21%)	06 (9.52%)	0
I often find it difficult to understand a person who has tried to commit suicide.*	2.142 ± 0.779	2	0.147	03 (4.76%)	15 (23.81%)	33 (52.38%)	12 (19.05%)
I want to help a person who has tried to commit suicide.	1.381 ± 0.551	1	0.410	41 (65.08%)	20 (31.75%)	02(3.17%)	0
I try to do my best to speak with a patient who has attempted suicide about their problems.	2.015 ± 0.813	2	0.327	18 (28.57)	28 (44.44)	15 (23.81%)	02 (3.17%)
It is usually troublesome to evaluate a patient who has tried to commit suicide.*	2.730 ± 0.627	3	0.423	4 (6.35%)	40 (63.49%)	17 (26.98%)	02 (03.17%)
I am usually sympathetic and understanding towards a patient who has tried to commit suicide.	1.683 ± 0.590	2	0.515	24 (38.10%)	35 (55.56%)	4(6.35%)	0
I try to do my best to make a patient who has tried to commit suicide feel comfortable and secure.	1.508 ± 0.535	1	0.570	32 (50.79%)	30 (47.62%)	01 (1.59%)	0

*Reverse coded.

274 factor also concurred with our recognition that basic
 275 demographic variables provided little explanatory hint
 276 [31].

277 Overall, our results concur with the broader literature
 278 in demonstrating a high baseline of empathy but
 279 underscoring that attitudinal and performance gaps are
 280 concentrated around workflow, training, and contextual
 281 factors—areas emphasized by multifactorial models and
 282 qualitative work rather than around fixed demographics
 283 [29-32].

284 When considered within the context of ED practice,
 285 the high empathy scores are encouraging; however,
 286 the “troublesome” nature of assessments points to
 287 underlying systemic stressors. The high-pressure,
 288 biomedical orientation of the ED often clashes with the
 289 time-intensive psychosocial needs of suicidal patients.
 290 The reported irritation and difficulty in evaluation likely
 291 stem from a combination of high patient volumes,
 292 inadequate private spaces for psychiatric assessment, and
 293 the inherent complexity of mental health triage. These
 294 practical frictions can inadvertently lead to “secondary
 295 victimization” where patients may feel inferior to those
 296 with other medical conditions, potentially discouraging
 297 future help-seeking behavior.

Table 3. Logistic regression analysis of the association between gender and empathy levels in managing suicide patients.

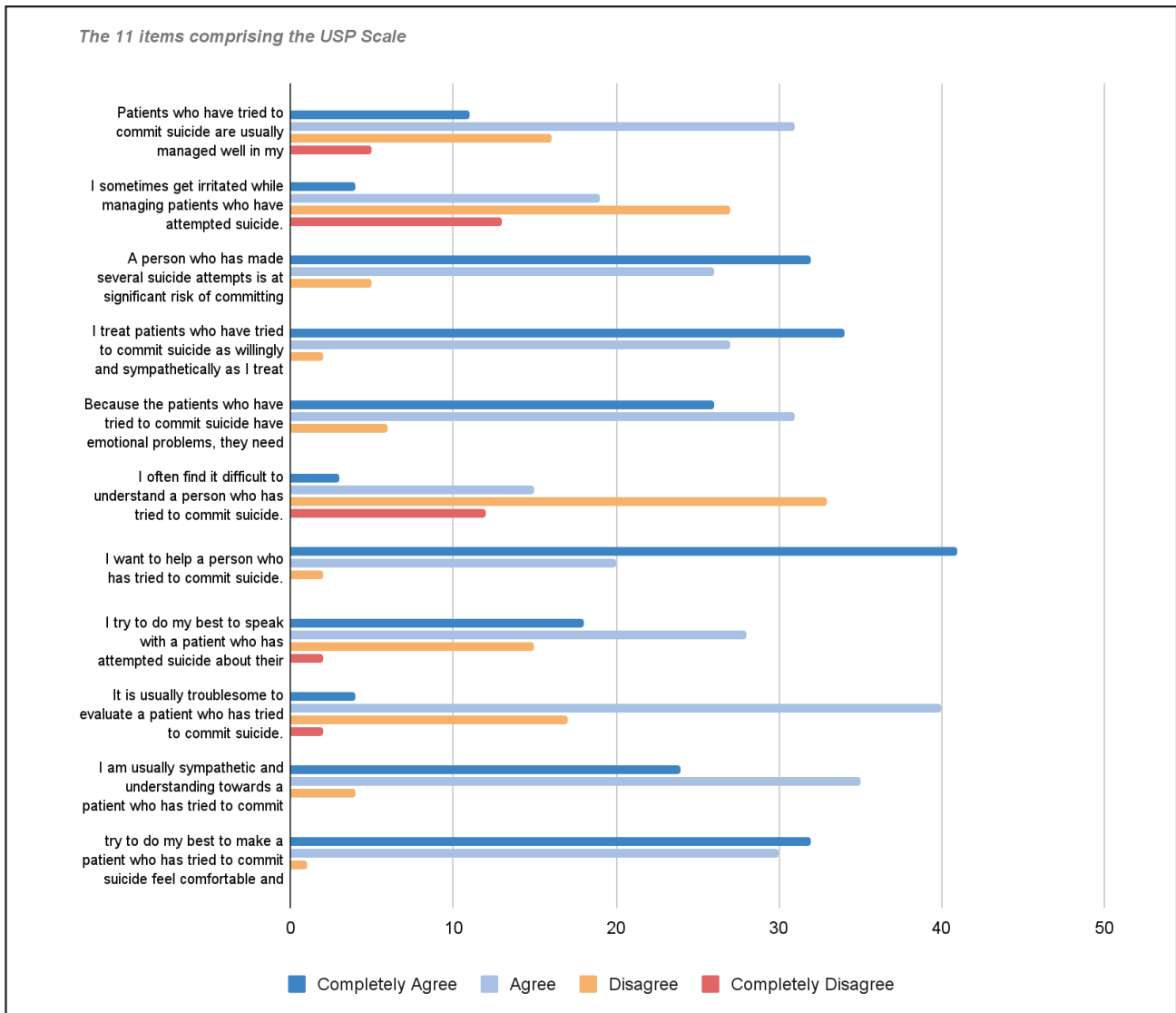
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Variable	OR	p-value	95% CI
Intercept	0.51	0.0754	0.249-1.069
Gender (Reference: Female)	2.70	0.0848	0.872-8.357

OR, odds ratio; CI, confidence interval.

298 Using the validated USP scale is a notable strength of this
 299 study, which enables direct comparison with international
 300 datasets, along with its focus on a specific, high-stakes
 301 population of ED physicians in a major academic center.
 302 Nevertheless, certain limitations should be acknowledged.
 303 The single-center design may restrict the generalizability
 304 of the results to other regions of Saudi Arabia, and the
 305 reliance on self-reported, subjective data introduces the
 306 potential for social desirability bias, whereby participants
 307 may overestimate their empathic attitudes.

308 Future research should utilize objective measures
 309 of clinical behavior and incorporate a multi-center
 310 approach involving various medical specialties, such
 311 as family medicine and psychiatry, to provide a more
 312 comprehensive view of the national landscape of suicide
 313 care.



314 **Figure 1.** The 11 items comprising the USP scale and their corrected results on the four-point Likert scale.

315 **Conclusion**

316 Emergency physicians in Saudi Arabia demonstrated an
 317 overall positive and empathic attitude toward patients
 318 with suicidal ideation, as reflected by a mean USP score
 319 of 20.67 ± 3.76 . No statistically significant differences in
 320 attitudes, skills, or empathy were observed across age or
 321 years of experience. Although male physicians showed
 322 a trend toward higher empathy ($OR \approx 2.7$), this was not
 323 statistically significant. Despite the generally positive
 324 attitudes, a substantial proportion of physicians reported
 325 challenges in assessment, with the majority finding
 326 evaluation of suicide attempters troublesome and about
 327 one-third reporting irritation. These findings indicate
 328 a predominantly supportive approach with specific
 329 difficulties related to patient evaluation.

330 **List of Abbreviations**

- 331 CI Confidence interval
- 332 ED Emergency Department
- 333 KSUMC King Saud University Medical City
- 334 OR Odds ratio
- 335 SD Standard deviation

USP Understanding of suicidal patients 336

Conflict of interests 337

The authors declare that there is no conflict of interest 338
 regarding the publication of this article. 339

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None. 341

Consent to participate 342

Informed consent was obtained from all participants before 343
 participation. Participation was voluntary, and confidentiality 344
 was ensured. 345

Ethical approval 346

This study was approved by the Institutional Review Board at 347
 King Saud University, College of Medicine (Ref. No. 23/0283/
 IRB), and approved on the 3rd of May 2023. 349

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