

## Original Article



# Attitudes of Iranian Emergency Department Staff Toward Family Presence During Resuscitation

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**Abstract**

**Introduction:** Family presence during resuscitation (FPDR) has become a globally debated practice, offering both potential benefits and challenges. In Iran, however, family members are generally excluded from the resuscitation area. This study aimed to explore the attitudes of Iranian emergency department (ED) staff toward FPDR.

**Methods:** This cross-sectional study was conducted among 124 nurses and 24 physicians in the EDs of four hospitals in Northwest Iran. Participants were selected using a census sampling method. Data were collected through a 27-item questionnaire and analyzed using descriptive and inferential statistical methods.

**Results:** Over half of the ED nurses and physicians (52.4% nurses and 54.2% physicians) supported FPDR when the patient was the ED nurse's or physician's immediate family member. However, this support significantly declined and shifted toward opposition when the patients were neither ED nurses or physicians themselves nor their immediate family members (78.2% of nurses and 91.7% of physicians). Similarly, opposition remained high when the ED nurses or physicians imagined themselves as the patient undergoing resuscitation (91.1% of nurses and 83.3% of physicians opposed FPDR).

**Conclusion:** The study findings suggest that attitudes toward FPDR among Iranian ED nurses and physicians are influenced by their connections with the patient. While the majority initially opposed FPDR when treating unrelated patients or considering themselves as patients undergoing resuscitation, their opposition decreased significantly, and their attitudes shifted towards support when considering themselves as immediate family members of patients undergoing resuscitation.

**Introduction**

The philosophy of care and caring science emphasizes the importance of compassion, empathy, and respect for patients and their families throughout the healthcare journey.<sup>1,2</sup> In line with this philosophy, patient- and family-centered care models have emerged, acknowledging the family as essential participants in the patient's experience, particularly during critical situations.<sup>3</sup> Among these critical situations, cardiopulmonary resuscitation (CPR) in the emergency department (ED) is a notable example.<sup>4</sup>

Resuscitation is a high-stakes medical event that affects both patients and their families emotionally and psychologically. While the patient battles for survival, the family struggles with the agonizing uncertainty of the outcome and potential loss of a loved one.<sup>5</sup> Studies suggested that excluding families from the resuscitation room during a loved one's death led to feelings of guilt and loneliness, which potentially hindered the grieving process.<sup>6-8</sup> This concern highlights the growing interest in family presence during resuscitation (FPDR), a practice

that allows families to be present with their loved ones for visual or physical contact during resuscitation attempts.<sup>9-11</sup> The American Heart Association emphasizes this practice in its guidelines, stating that "family presence during resuscitation should be offered whenever possible to support family-centered care and to improve the overall experience for both the patient and family."<sup>12</sup> Similarly, the Emergency Nurses Association supports FPDR as a crucial component in providing compassionate, patient-and-family-centered emergency care.<sup>13</sup> The FPDR program, initiated in the early 1980s at Foote Hospital in the United States,<sup>14</sup> addressed the ethical concerns of excluding families from critical care situations and responded to their preference for being present during resuscitation.<sup>15</sup>

Studies have identified several potential benefits of FPDR, including facilitating information exchange between families and resuscitation teams, offering emotional support to families during a critical time, and allowing families to witness resuscitation efforts firsthand.<sup>16,17</sup> However, research also indicated that many healthcare

professionals opposed FPDR.<sup>18–20</sup> Their concerns primarily focused on potential negative consequences, such as fear of legal issues and complaints from families, unnecessary interference in medical decision-making, and disruption of resuscitation procedures. Additionally, they reported increased pressure on the resuscitation team—including feeling compelled to continue futile resuscitation efforts—heightened stress and anxiety among team members, concerns about verbal or physical aggression from family members, inadequate support for families during this stressful experience, and limited space constraints in resuscitation areas.<sup>21–23</sup>

The attitudes of healthcare professionals play a crucial role in determining the feasibility of implementing FPDR programs.<sup>24,25</sup> Moreover, their active support is vital to the successful adoption and sustainability of these programs.<sup>26</sup> While research from Singapore<sup>22</sup> and Turkey<sup>27</sup> suggests that most physicians and nurses oppose FPDR, a study in Saudi Arabia found that intensive care nurses hold positive attitudes toward FPDR.<sup>28</sup> In Iran, family members are generally excluded from resuscitation rooms, with healthcare professionals subsequently providing timely updates to the patient's family and significant others regarding the patient's condition and progress.<sup>7,29</sup> This practice may conflict with the Iranian Patient Bill of Rights, which ensures that patients have the right to be accompanied by a person of their choice during their final moments.<sup>30</sup>

A significant gap exists in Iran between the roles of families during resuscitation and the current FPDR policies. This gap likely results from a combination of cultural norms, healthcare system limitations, managerial concerns, and lack of clear FPDR protocols. These factors, along with limited experience and training, hinder effective implementation.<sup>15,29,31</sup> Given the ongoing debate surrounding FPDR, further research across diverse environments and cultures is warranted to shed light on this complex issue.<sup>32</sup>

Despite growing international interest in FPDR, research in Iran remains limited, particularly regarding the attitude of healthcare professionals. This study aims to address this gap by exploring the attitudes of Iranian ED staff towards FPDR in three distinct scenarios: (A) the patient is the ED nurse or physician itself (this scenario presents a unique challenge, as the healthcare professional is both the patient and the decision-maker regarding family presence); (B) the patient is the ED nurse's or physician's immediate family member (this scenario explores the potential conflict between professional obligations and personal connections); and (C) the patient is not the ED nurse or physician itself, and not the ED nurse's or physician's immediate family member. By examining attitudes within a specific cultural context and across various relationship dynamics, this research contributes to a more nuanced understanding of FPDR implementation challenges and potential strategies. Additionally, the inclusion

of healthcare professionals as patients offers a unique perspective on the ethical and emotional complexities of balancing personal and professional roles in life-threatening scenarios. This study's findings may inform the development of culturally sensitive FPDR policies and guidelines in Iran and other similar settings.

## Materials and Methods

This descriptive cross-sectional study was carried out to examine the attitudes of ED nurses and physicians toward the FPDR program at four hospitals affiliated with Khoy University of Medical Sciences, in the city of Khoy, located in Northwest Iran. The city was selected due to its diverse and representative population, offering valuable insights into urban healthcare perspectives. None of the participating hospitals had formal FPDR policies at the time of data collection.

Given the small population size (24 ED physicians and 124 ED nurses) and the feasibility (cost and time), a census sampling approach was employed. All participants were required to have experience caring for a patient undergoing CPR, willingness to participate, at least six months of ED experience, and no prior attendance of FPDR-related classes. Participants who completed less than 80% of the questionnaire or voluntarily withdrew from the study were excluded from the final analysis.

A two-part questionnaire was used to collect the data. The first part assessed demographic characteristics and included three scenario questions evaluating ED nurses' and physicians' attitudes toward FPDR: (1) whether the patient is the ED nurse or physician him/herself, (2) whether the patient is the ED nurse's or physician's immediate family member, and (3) whether the patient is neither the ED nurse or physician him/herself nor the immediate family member. The response options for these scenario questions were "Agree" and "Disagree." The second part addressed attitudes toward the FPDR developed by Tsang in 2012. The FPDR scale consists of 27 items divided into four domains: (1) attitudes towards patients' and family members' rights to FPDR (score range: 3–15), (2) potential advantages of FPDR (score range: 8–45), (3) potential disadvantages of FPDR (score range: 12–60), and (4) opinions about supportive requirements for FPDR implementation (score range: 4–20). All items used a 5-point Likert scale with response options ranging from "strongly disagree" (1) to "strongly agree" (5) for the first 23 items and "very unimportant" (1) to "very important" (5) for the last 4 items. For the FPDR attitude scale, higher scores in domains (1), (2), and (4) indicate a more positive attitude toward FPDR, reflecting greater agreement with patients' and family members' rights, perceived advantages, and supportive requirements, whereas higher scores in domain (3), which addresses potential disadvantages, indicate stronger agreement with perceived negative aspects, thus representing a more negative attitude toward FPDR.<sup>7</sup>

The content validity of the FPDR attitude scale was confirmed by a panel of 10 nursing faculty members and five emergency medicine faculty members from the Urmia University of Medical Sciences. The reliability of the FPDR attitude scale was assessed using Cronbach's alpha for each of the four sub-scales as well as the overall scale. The Cronbach's alpha coefficients for the sub-scales were as follows: attitudes towards patients' and family members' rights to FPDR ( $\alpha=0.79$ ), potential advantages of FPDR ( $\alpha=0.85$ ), potential disadvantages of FPDR ( $\alpha=0.81$ ), and opinions about supportive requirements for FPDR implementation ( $\alpha=0.77$ ). The total scale demonstrated good internal consistency, with an overall Cronbach's alpha of 0.83. The questionnaire was piloted on a randomly selected sample of 25 nurses and 5 physicians (4 general practitioners and 1 emergency medicine specialist). Minor modifications were made based on feedback regarding the content, sentence structure, and clinical relevance. Those who participated in the pilot study were excluded from the study.

Data analysis included descriptive statistics (frequency, percentage, mean, and standard deviation) to summarize the data. The Shapiro-Wilk test was used to assess the normality of distribution. For inferential statistics, Mann-Whitney U and Chi-square test were applied for non-normally distributed data. Due to differing subscale ranges on the FPDR scale, min-max normalization was performed to transform scores to a 0–100 range for comparability. Statistical significance was set at  $P=0.05$ . Analyses were conducted using SPSS version 25 (IBM Corp., Armonk, NY, USA).

The study was approved by the Institutional Review Board of the Urmia University of Medical Sciences (Ethics Code: IR.UMSU.REC.1402.211, Approval Date: 2023-10-11). The purpose of the study was explained to all participants (nurses and physicians) by the first and second authors, who addressed all questions. Written informed consent was obtained from all participants prior they completed anonymous, self-administered questionnaires. Participants were assured of response confidentiality and their right to withdraw from the study at any time, without repercussions.

The study participants included 124 ED nurses (83.8%) and 24 ED physicians (16.2%). The average age (SD) of ED nurses was 32.48(6.71) years. Sixty nurses (48.4%) were female and 64 (51.6%) were male. Most nurses held a bachelor's degree, and only 6 (4.8%) had a master's degree. The average work experience (SD) of the nurses was 8.36(6.21) years. Only three nurses (2.4%) had not previously participated in resuscitation courses and none had attended courses on FPDR.

ED physicians' average age (SD) was 30.46(4.40) years. Eighteen physicians (75%) were female. Twenty-two physicians (91.6%) were general practitioners, and only two (8.3%) were emergency medicine specialists. Their average work experience (SD) was 3.83(3.42) years. All

participating physicians had experience of participating as members of the resuscitation team. Only five physicians (20.8%) had not previously participated in resuscitation courses, and none had attended courses on FPDR.

The other demographic characteristics of the ED nurses and physicians are presented in Table 1.

Nurses and physicians displayed similar attitudes toward FPDR depending on the patient's relationship with the healthcare provider. When the patient was not a healthcare professional or a healthcare professional's immediate family member, 21.8% of ED nurses and 8.3% of ED physicians supported the FPDR. Conversely, 8.9% of ED nurses and 16.7% of ED physicians endorsed FPDR when they considered themselves as patients undergoing resuscitation. In the case of the provider's immediate family, 52.4% of ED nurses and 54.2% of ED physicians agreed with the FPDR. No significant difference was found

**Table 1.** Demographic characteristics of the ED nurses and physicians

Variable	N (%)	
	Nurses	Physicians
Gender		
Female	60 (48.4)	18 (75)
Male	64 (51.6)	6 (25)
Marital status		
Single	43 (34.7)	13 (54.2)
Married	81 (65.3)	11 (45.8)
Ethnicity		
Turkish	119 (96)	21 (87.5)
Kurdish	5 (4)	3 (12.5)
Place of living		
Urban area	121 (97.6)	24 (100)
Rural area	3 (2.4)	0 (0)
Financial status		
Sufficient	9 (7.3)	8 (33.3)
Insufficient	115 (92.7)	16 (66.7)
Shift		
Fixed	10 (8.1)	0 (0)
Rotational	114 (91.9)	24 (100)
Employment status		
Indefinite	88 (70.9)	6 (25)
Non-indefinite	36 (29.1)	18 (75)
Participating as a member of the resuscitation team		
Yes	124 (100)	24 (100)
No	0 (0)	0 (0)
Participation in resuscitation courses		
Yes	121 (97.6)	19 (79.2)
No	3 (2.4)	5 (20.8)
Attended courses on FPDR		
Yes	0 (0)	0 (0)
No	124 (100)	24 (100)

between the nurses' and physicians' attitudes in these scenarios ( $P=0.17$ ,  $P=0.27$ , and  $P=1.00$ , respectively). The detailed results are presented in Table 2.

To compare physicians' and nurses' attitudes regarding the FPDR questionnaire subscales, scores were normalized (0-100) using min-max normalization. The Mann-Whitney U test revealed a significant difference ( $P=0.003$ ) in physician and nurse attitudes toward the "Potential disadvantages of FPDR" area. Nurses reported a mean score of 71.72 (SD=15.71), whereas physicians scored higher (79.77, SD=20.64). In contrast, no significant differences were found in the other areas. Notably, both ED nurses and physicians reported the lowest mean scores for the potential advantages of the FPDR (nurses: 38.03, SD=21.39; physicians: 34.63, SD=20.33). (Table 3)

Detailed responses from ED nurses and physicians to each questionnaire item along with comparisons between groups are presented in Table 4.

## Discussion

This study examined the attitudes of Iranian ED nurses and physicians in northwest Iran toward FPDR. The findings reveal a complex relationship between the healthcare providers' connection to the patient and their level of support for FPDR. A literature review identified a growing preference among patients and families for being present during resuscitation, yet healthcare providers hold

conflicting views.<sup>33-35</sup> The strength of this study lies in its comprehensive assessment of attitudes toward (a) FPDR (focusing on immediate family is implied), (b) ED nurses' and physicians' presence at the bedside of their immediate family members during resuscitation, and (c) family presence during potential resuscitation of the ED nurses and physicians themselves (novel contribution).

Our study revealed conditional acceptance of FPDR among ED nurses and physicians. While the majority of ED nurses and physicians initially opposed FPDR when treating unrelated patients or considering themselves as patients undergoing resuscitation, their opposition significantly decreased and support increased when the patient was their immediate family member. This shift may be attributed to a change in ED nurses' and physicians' roles and priorities. There is a possibility that ED nurses and physicians might be detached from their professional roles and shift to personal roles during this critical situation.<sup>36</sup> While fears of witnessing an unsuccessful resuscitation, hindering resuscitation efforts, and uncertainty about patient wishes could contribute to their preference for remaining outside the resuscitation room,<sup>37-39</sup> it seems that the ED nurses' and physicians' lack of trust in their colleagues' skills and expertise might lead to hesitation about their loved one receiving the best possible care when treated by resuscitation teams and could contribute to their desire to be present for their loved

**Table 2.** Comparison of ED nurses' and physicians' attitudes toward FPDR

Attitudes toward FPDR, if	N (%)			Chi-square test
	Nurses	Physician	Total	
The patient is the ED nurse or physician himself/herself				
Agree	11 (8.9)	4 (16.7)	15 (10.1)	Statistics = 1.34 P value = 0.27
Disagree	113 (91.1)	20 (83.3)	133 (89.9)	
The patient is the ED nurse's or physician's immediate family member				
Agree	65 (52.4)	13 (54.2)	78 (52.7)	Statistics = 0.03 P value = 1.00
Disagree	59 (47.6)	11 (45.8)	70 (47.3)	
The patient is not the ED nurse or physician himself/herself and the ED nurse's or physician's immediate family member				
Agree	27 (21.8)	2 (8.3)	29 (19.6)	Statistics = 2.31 P value = 0.17
Disagree	97 (78.2)	22 (91.7)	119 (84.4)	

**Table 3.** Comparison of ED nurses' and physicians' responses on questionnaire areas regarding FPDR

Areas	Number of items	Range of scores	Nurse		Physician		Mann-Whitney U test
			Mean (SD)	Median	Mean (SD)	Median	
Patient and family member rights for FPDR	3	3-15	48.59 (23.52)	45.83	41.32 (23.88)	41.66	Statistics=0.90 P value=0.37
Potential advantages of FPDR	8	8-40	38.03 (21.39)	34.37	34.63 (20.33)	32.81	Statistics=0.51 P value=0.61
Potential disadvantages of FPDR	12	12-60	71.72 (15.71)	72.92	79.77 (20.64)	84.38	Statistics=3.02 P value=0.003
Opinions about supportive requirements for the implementation of FPDR	4	4-20	64.96 (17.90)	62.50	62.76 (13.60)	62.50	Statistics=0.74 P value=0.46
Total	27	27-135	58.17 (9.54)	58.33	59.61 (13.69)	60.19	Statistics=1.28 P value=0.20

**Table 4.** Comparison of ED nurses' and physicians' responses on questionnaire items regarding FPDR

	Items	Group	Responses** N (%)					Mean (SD)	P value <sup>†</sup>
			Strongly disagree	Disagree	Neutral	Agree	Strongly agree		
1	Family members have the right to be present during CPR of their relatives	Nurse	38(30.6)	48(38.7)	12(9.7)	15(12.1)	11(8.9)	2.30 (1.27)	0.40
		Physician	9(37.5)	9(37.5)	3(12.5)	2(8.3)	1(4.2)	2.04 (1.12)	
2	Permission should be obtained in advance, if possible, from the patient before witnessing CPR	Nurse	19(15.3)	35(28.2)	14(11.6)	38(30.3)	18(14.5)	3.01 (1.34)	0.06
		Physician	5(20.8)	7(29.2)	8(33.3)	4(16.7)	0(0)	2.46 (1.02)	
3	I would be present during the CPR of my relative if allowed	Nurse	7(5.8)	18(14.5)	21(71)	59(47.3)	19(15.4)	2.52 (1.09)	0.70
		Physician	4(16.7)	4(16.7)	1(4.2)	7(29.2)	8(33.3)	2.46 (1.53)	
4	The presence of family members during CPR would benefit the patient	Nurse	43(34.7)	45(36.3)	23(18.5)	10(8.1)	3(2.4)	2.07 (1.04)	0.17
		Physician	12(50.0)	7(29.2)	4(16.7)	0(0)	1(4.2)	1.79 (1.02)	
5	The presence of family members allows relatives to ensure everything is done	Nurse	14(11.3)	44(35.5)	23(18.5)	32(25.8)	11(8.9)	2.85 (1.17)	0.97
		Physician	3(12.5)	8(33.3)	1(4.2)	4(16.7)	8(33.3)	2.83 (1.17)	
6	The presence of family members allows relatives to stay with the patient until the end	Nurse	15(12.1)	39(31.5)	5(23.3)	28(22.6)	13(10.5)	2.88 (1.20)	0.46
		Physician	4(16.7)	5(20.8)	4(16.7)	4(16.7)	7(29.2)	3.03 (1.38)	
7	The presence of family members makes the patient less worried	Nurse	25(20.2)	50(40.3)	25(20.2)	20(16.1)	4(3.2)	2.42 (1.08)	0.16
		Physician	8(33.3)	9(37.5)	4(16.7)	3(12.5)	0(0)	2.08 (1.02)	
8	Family members provide support to the patient	Nurse	26(21.0)	44(35.5)	27(5.0)	22(17.7)	5(20.8)	2.48 (1.13)	0.59
		Physician	6(25.0)	5(20.8)	6(25.0)	6(25.0)	1(4.2)	2.63 (1.24)	
9	The presence of family members during CPR would benefit the family members	Nurse	27(20.2)	50(40.3)	23(20.2)	20(16.1)	4(3.2)	2.39 (1.10)	0.09
		Physician	11(45.8)	6(25.0)	3(12.5)	3(12.5)	1(4.2)	2.04 (1.23)	
10	Witnessed CPR may be beneficial to the relatives' grieving process	Nurse	23(18.5)	44(35.5)	25(20.2)	27(21.8)	5(4.0)	2.57 (1.14)	0.95
		Physician	5(20.8)	7(29.2)	6(25.0)	5(20.8)	1(4.2)	2.58 (1.18)	
11	Family presence during CPR improves their understanding of CPR	Nurse	30(24.2)	40(32.3)	23(18.5)	24(19.4)	7(5.6)	2.50 (1.21)	0.09
		Physician	9(37.5)	8(33.3)	4(16.7)	3(12.5)	0(0)	2.04 (1.04)	
12	Family presence may impair the patient's dignity	Nurse	12(9.7)	23(18.5)	34(27.4)	45(36.3)	10(8.1)	3.14 (1.11)	0.53
		Physician	1(4.2)	4(16.7)	8(33.3)	8(33.3)	3(12.5)	3.33 (1.05)	
13	Relatives may have a bad last impression of the patient	Nurse	5(4.0)	7(5.6)	14(11.3)	71(57.3)	27(21.8)	3.87 (0.95)	0.19
		Physician	2(8.3)	1(4.2)	4(12.5)	3(29.2)	7(45.8)	4.00 (1.25)	
14	The process of CPR is too distressing for relatives	Nurse	3(2.4)	4(3.2)	4(3.2)	69(55.6)	44(35.3)	4.19 (0.84)	0.005
		Physician	1(4.2)	0(0)	1(4.2)	5(20.8)	17(70.8)	4.54 (0.93)	
15	Relatives who witness CPR may have long-term psychological sequel	Nurse	2(1.6)	7(5.6)	11(9)	69(55.6)	35(28.2)	4.03 (0.86)	0.048
		Physician	1(4.2)	0(0)	0(0)	12(50.0)	11(45.8)	4.33 (0.87)	
16	Family members may interfere with CPR	Nurse	3(2.4)	7(5.6)	5(4.1)	58(46.8)	51(41.1)	4.19 ± 0.93	0.39
		Physician	1(4.2)	0(0)	1(4.2)	10(41.7)	12(50.0)	33.4 ± 0.93	
17	The presence of relatives will prolong the resuscitation, deciding to stop more difficult	Nurse	2(1.6)	7(5.6)	9(4.9)	64(51.6)	45(36.3)	4.15 ± 0.88	0.034
		Physician	1(4.2)	1(4.2)	0(0)	7(29.2)	15(62.5)	4.42 ± 1.02	
18	Emotional stress for doctors will be increased by the presence of relatives	Nurse	4(3.2)	12(9.7)	12(9.7)	63(50.8)	33(26.6)	3.88 ± 1.02	0.08
		Physician	1(4.2)	1(4.2)	0(0)	12(50.0)	10(41.7)	4.21 ± 0.98	
19	Doctor's performance in CPR will be negatively influenced by family presence	Nurse	5(4.0)	12(9.7)	16(10.4)	7(56.5)	21(19.4)	3.77 ± 1.00	0.026
		Physician	1(4.2)	1(4.2)	2(8.33)	9(37.5)	11(45.8)	4.17 ± 1.05	
20	Emotional stress for nurses will be increased by the presence of relatives	Nurse	4(3.2)	12(9.7)	11(8.9)	6(55.6)	28(22.6)	3.85 ± 0.99	0.009
		Physician	1(4.2)	1(4.2)	0(0)	10(41.7)	12(50.0)	4.29 ± 1.00	
21	Nurse's performance in CPR will be negatively influenced by family presence	Nurse	6(4.8)	12(9.7)	15(12.2)	6(4.8)	2(18.50)	3.73 ± 1.03	0.018
		Physician	1(4.2)	1(4.2)	2(8.3)	9(37.5)	11(45.8)	4.17 ± 1.05	
22	Overall, CPR performance will be negatively influenced by family presence	Nurse	3(2.4)	12(9.7)	18(14.5)	5(47.6)	32(25.8)	3.85 ± 1.00	0.026
		Physician	1(4.2)	1(4.2)	0(0)	10(41.7)	11(45.8)	4.25 ± 0.99	
23	Allowing relatives to witness CPR may increase litigation or complaint	Nurse	7(5.6)	11(8.9)	21(17.0)	4(38.7)	37(29.8)	3.78 ± 1.14	0.047
		Physician	1(4.2)	0(0)	2(8.33)	10(41.7)	11(45.8)	4.25 ± 0.94	



Table 4. Continued.

24	Relatives witnessing CPR should be supported by a member of staff**	Nurse	34(27.4)	23(18.5)	34(27.4)	24(19.4)	9(7.3)	2.60 ± 1.27	0.16
		Physician	8(33.3)	7(29.2)	6(25.0)	2(8.3)	1(4.2)	2.21 ± 1.14	
25	Facilities must be available to screen off the area where the CPR takes place to allow privacy**	Nurse	5(4.0)	15(12.1)	11(8.9)	50(40.3)	43(34.7)	3.90 ± 1.13	0.70
		Physician	0(0)	4(16.7)	1(4.2)	10(41.7)	9(37.5)	4.00 ± 1.06	
26	The physician should speak with or write the relatives afterward to discuss the CPR**	Nurse	2(1.6)	8(6.5)	7(5.6)	47(37.9)	64(48.4)	4.25 ± 0.94	0.93
		Physician	0(0)	1(4.2)	2(8.3)	10(41.7)	11(45.8)	4.29 ± 0.81	
27	If required, the doctor should arrange appropriate referrals for witnessed relatives**	Nurse	7(5.6)	10(8.1)	33(26.6)	44(35.5)	30(24.2)	3.65 ± 1.11	0.62
		Physician	1(4.2)	3(12.5)	7(29.2)	8(33.3)	5(20.8)	3.54 ± 1.10	

\*Mann-Whitney U Test; \*\*For the last 4 items, responses were rated on a 5-point Likert scale ranging from “not important” (1) to “very important” (5)

ones. Their presence can serve as a means to personally monitor or oversee the medical team's performance during resuscitation.<sup>6,8</sup> However, initial opposition to FPDR suggests perceived disadvantages that warrant further exploration. Future research is needed to explore the potential impact of family presence on resuscitation team dynamics and patient outcomes.

Our findings indicate a notable difference in perceptions of FPDR disadvantages between ED nurses and physicians. While both groups reported low scores on perceived advantages, nurses expressed significantly less apprehension about potential logistical and emotional challenges than physicians. Consistent with our findings, Soleimanpour et al<sup>40</sup> observed that Iranian and Austrian ED physicians were less receptive to FPDR, primarily due to increased fear of litigation, unlike other healthcare providers, such as nurses, who displayed more favorable attitudes toward FPDR. This discrepancy may be attributed to differences in role responsibilities, workload, and professional training.<sup>41,42</sup> Nurses, often positioned as patient advocates, may be more attuned to the emotional needs of patients and families. At the same time, physicians, with a heavy clinical focus, may perceive FPDR as an added burden.<sup>43</sup>

The findings also highlight a potential gap between the perceived disadvantages of FPDR and the documented benefits for patients and families, such as improved emotional well-being and potentially better decision-making during critical situations.<sup>34,44</sup> In contrast, Willmes et al<sup>26</sup> found that while FPDR accounted for approximately 25% of the time spent interacting with family members during resuscitation and was associated with increased frustration and perceived temporal and mental demands, it did not have negative impacts on the quality of resuscitation. To effectively implement FPDR, ‘changes are needed’ to adapt hospital infrastructures for FPDR, and it is essential to address the concerns of both nurses and physicians through targeted interventions, such as education, training, and support systems, to respond to families’ information and emotional needs.<sup>23</sup> Further research is needed to explore the specific factors contributing to these differing perceptions and to develop strategies to optimize the benefits of FPDR while

minimizing potential challenges.<sup>33</sup>

A small percentage of participants viewed FPDR as an inalienable right for patients and families. Notably, requiring permission from the resuscitation team leader for a family member's stay in the resuscitation room significantly increased endorsement of FPDR among ED physicians and nurses, aligning with findings from other studies.<sup>5,45–48</sup> This emphasizes the need for targeted educational interventions, such as workshops or simulation training, that focus on the benefits of FPDR and incorporate culturally sensitive policies addressing the concerns of both healthcare professionals and families.<sup>7</sup>

FPDR should be evaluated across diverse regions and cultures, taking into account local traditions, cultural values, and religious beliefs. For example, in a deeply interconnected society like Iran, where family ties are paramount, cultural and religious considerations significantly shape attitudes toward practices like FPDR. In Islam, visiting a critically ill patient is highly valued as a spiritual act, influencing families’ desire to be present during resuscitation and often framing such presence as both a moral and spiritual obligation.<sup>49</sup> This cultural emphasis on familial closeness and religious observance means that families commonly view being present during critical moments not just as a right but as a vital expression of care and solidarity.<sup>50</sup> However, many Iranian healthcare professionals remain hesitant toward FPDR, citing concerns about potential psychological trauma to family members, interference with medical care, increased stress for clinical teams, and legal liabilities—concerns compounded by insufficient formal policies and training within Iranian hospitals.<sup>19</sup> The Iranian healthcare system faces the challenge of reconciling these cultural and religious values with the practical needs of clinical care, underscoring the necessity for culturally sensitive guidelines that balance family involvement with patient safety and healthcare staff well-being.<sup>51</sup> To effectively implement FPDR, policy development must integrate these culture-specific considerations and organizational supports, including staff education and designated family liaisons, to ensure protocols are both clinically sound and culturally acceptable within Iran's unique social and

healthcare context.<sup>52</sup> Addressing these factors is essential for overcoming resistance among healthcare providers and fostering an environment where family-centered care and safe, effective resuscitation coexist harmoniously.<sup>40</sup>

Despite offering valuable insights, this study has several limitations. The relatively small sample size of Iranian ED physicians limits the generalizability of the findings to all healthcare professionals in Iran. Future research should involve larger and more diverse samples, including other healthcare professionals involved in resuscitation. The study's cultural context, specifically in Northwest Iran, may influence the attitudes and perceptions of healthcare professionals toward FPDR. The findings may not be directly applicable to cultures with significantly different family dynamics, privacy norms, power dynamics, or healthcare beliefs. To gain a comprehensive understanding, future research should explore the perspectives of Iranian healthcare professionals from diverse backgrounds regarding their cultural expectations and preferences for FPDR. While this study provided quantitative data, qualitative research could investigate deeper into the reasons behind the significant differences between nurses' and physicians' perceived disadvantages of FPDR. Finally, implementing and evaluating pilot programs for FPDR in Iranian hospitals with established guidelines could offer valuable insights into the feasibility and impact of this practice in the Iranian context.

## Conclusion

In conclusion, the study findings suggest that attitudes toward FPDR among Iranian ED nurses and physicians are influenced by their connections with the patient. While the majority of ED nurses and physicians initially opposed FPDR when treating unrelated patients or considering themselves as patients undergoing resuscitation, their opposition significantly decreased and shifted towards support when they considered themselves as immediate family members of patients undergoing resuscitation. These results highlight the complexity and context-dependency of attitudes toward FPDR in Iran, emphasizing the need for further exploration and development of clear guidelines and policies. Addressing these issues through policy development, education, and further research can pave the way for a more comprehensive approach to FPDR in Iranian EDs that considers the needs of both healthcare professionals and families during critical situations.

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## Authors' Contribution

**Conceptualization:** Sevda Hosseinnia, Amin Soheili, Aram Feizi.

**Data curation:** Sevda Hosseinnia, Amin Soheili.

**Formal analysis:** Sevda Hosseinnia, Amin Soheili.

## Research Highlights

### What is the current knowledge?

- Family presence during resuscitation (FPDR) is a globally debated practice with acknowledged benefits and challenges.
- In Iran, families are typically excluded from resuscitation rooms, which raises ethical concerns regarding patient rights.
- Healthcare professionals' attitudes are pivotal for successful FPDR program implementation worldwide.
- Existing international studies report mixed attitudes, showing both opposition and support for FPDR documented.

### What is new here?

- This study uniquely explored Iranian ED staff attitudes towards FPDR across three distinct patient relationship scenarios.
- Attitudes significantly differed based on the patient's connection to the healthcare professional.
- While most staff opposed FPDR for unrelated patients, they supported it when the patient was a close family member.
- The findings provide unique insights for developing culturally sensitive FPDR policies in Iran and similar contexts.

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## Competing Interests

The authors declare no competing interests in this study.

## Data Availability Statement

The data supporting the findings of this study are available upon request from the corresponding author.

## Ethical Approval

This study was approved by the ethics committee of Urmia University of Medical Sciences (Ethics code: IR.UMSU.REC.1402.211, Approval Date: 2023-10-11). Written informed consent was obtained from all participants before they completed anonymous, self-administered questionnaires.

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