Evaluation of attitude of doctors and nurses of emergency department toward presence of patients’ relatives during cardiopulmonary resuscitation in selected emergency department centers in Urmia, Iran

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Abstract
Introduction: There are different aspects of the presence of family members in cardiopulmonary resuscitation (CPR). The present study was carried out with the aim to determine the attitude of nurses and physicians towards the presence of family members during CPR in educational hospitals of Urmia University of Medical Sciences, Urmia, Iran.

Methods: In this study, 190 nurses and emergency medical staff were asked to complete a questionnaire. The sampling method was as counting all the participants. Data collection tool was a pre-designed questionnaire. The questionnaire consisted of two parts: the first and the second parts were respectively related to demographic information and family presence during resuscitation (FPDR) issue and various factors influencing this attitude. After collecting the data, their analysis was performed using SPSS software.

Results: In this study, 62 (44.0%) and 101 (53.2%) of the participants respectively agreed and disagreed that during the CPR process, the relatives of the patients had the right to attend the resuscitation room. A significant number of participants in the study (64.2%) believed that the presence of the patient relatives during resuscitation violates the privacy of the patient, regardless of his/her prior consent.

Conclusion: The findings of the study showed that many physicians and nurses opposed the presence of family members during the resuscitation process, and the number of individuals who agreed on this idea was much lower, however in some studies, physicians and nurses were agreed about the conditions. This can be due to cultural differences and conditions and also the place where resuscitation was performed.


Introduction
Cardiopulmonary resuscitation (CPR) includes actions to restore the vital functions of the two important organs (heart and lung) so that blood circulation and respiration artificially continue until establishing spontaneous blood flow.¹ Cardiopulmonary arrest happens unexpectedly at any time and place and half of the deaths are caused by this complication. Nevertheless, many of the patients can be rescued by the rapid onset of resuscitation operation.²

The survival rate and the improvement of the resuscitation are due to the rapid onset of
resuscitation and advanced cardiac interventions. Traditionally, in case of occurrence of a cardiovascular arrest in a hospital, the patient's family members wait in the waiting room (outside the CPR room) and a nurse usually leaves the resuscitation room and explains the patient's condition.

The presence of patient's family during CPR, in addition to the regulations in this field depends on other factors, especially the attitude of the emergency department staff. The presence of the patient's family members on his/her bedside during the advance of CPR [family presence during resuscitation (FPDR)] is considered as a controversial important topic, and this challenging topic has created an extensive discussion in the United States over the past few years.

Discussion about the FPDR has started in 1980 at the Foteh hospital in Michigan, USA for the first time. No studies have yet been performed based on the absence of patient's family members during CPR. The presence of the family members at patient's bedside is known as a need, which is a real need for all painful moments of life taking into account the important issue that human being is a social creature and shouldn't die lonely. In recent years, the importance of FPDR is taken into consideration in eastern countries. Of course, this is a fact that Asian residents have different cultures than other populations, which requires further research on attitudes of the emergency staff towards FPDR.

Today, there is a wide variety of perceptions and feelings of the public regarding the risks and benefits of FPDR worldwide. These topics are also discussed among the health care staff and staff of specialized care units, and how to inform and invite family members during the patient's resuscitation is a very important issue.

Several professional organizations, including the Royal College of Nursing (RCN), the American Heart Association (AHA), and the European Resuscitation Council (ERC) have accepted the FPDR, however some health centers do not allow family members to attend in a resuscitation operation unit. There are also different perspectives towards FPDR in Iran among treatment unit staff and patient's family. Some find it useful and consider it as the right of the patient's family, and some find it harmful to both the family and employees. The main reasons for the opposition can be divided into two groups:

1. Harmful effects of the family like increasing family members' emotional pressure, uncontrollable mourning, family insistence to continue operations in vain cases, and the lack of space for the presence of family members,

2. The damaging effects of the rescue team, including increasing the emotional pressure on the members of the rescue team, disrupting concentration of the team members, and ethical and legal issues like increasing the complaint from the rescue team.

Furthermore, FPDR supporters believe that the old attitude in which the patient is considered apart from the family must be overcome, in addition, a comprehensive method in which the integrity and dignity of the family are important from birth to death, should be in priority. The presence of the family eliminates the sense of fear that is happening when they are in the waiting room without being aware of what is going on for their patient. Many individuals blame themselves as they couldn't stay alongside their patient, and family members were reassured by observing the CPR process and the emergency staff reporting that they did everything they could do for their patients; this helps in accepting the death of their loved ones.

According to the above issues, it seems that due to the lack of unified rules in this regard worldwide, the issue is a major global challenge in the field of ethical issues for the resuscitation of ill patients, and now, investigation in this issue continues in the world's leading research and treatment centers and institutions.

Methods
After approval of the research plan, a
questionnaire and a well-informed consent form for the research project were sent to 4 educational hospitals of Urmia (Shahid Motahari Hospital, Shahid Taleghani Hospital, Imam Khomeini Hospital, and Seyyedalshohada Cardiology Hospital), which are equipped with a, emergency department, in addition, the questionnaires were completed by nurses and physicians of the emergency departments. The questionnaire consisted of two parts. The first part was related to the participants' demographic information including age, gender, background, and university of service, and the second part included 21 questions for assessing the attitudes about FPDR and various factors affecting this attitude. The questions in this table were designed based on several behavioral theories including health belief model (HBM), theory of planned behavior, and self-efficacy theory. The responses given to each of the 18 questions were scored on the Likert scale ranging from 1 to 5 according to the degree of acceptance of the FPDR action as 1, 2, 3, 4, and 5 indicating strongly support, support, neutral, do not support, and do not support at all, respectively.

In this study, 190 nurses and physicians from the emergency departments completed the questionnaires. The mean age of the participants was 32.46 years with a standard deviation (SD) of 0.52. Table 1 illustrates the age distribution of respondents in the study. 95 and 95 of the participants were men and women, respectively. As shown in the table, most of the participants were between 26-35 years old and the two groups of men and women were equal in terms of age (P = 0.15).

Results

In this study, 190 nurses and physicians from the emergency departments completed the questionnaires. The mean age of the participants was 32.46 years with a standard deviation (SD) of 0.52. Table 1 illustrates the age distribution of respondents in the study. 95 and 95 of the participants were men and women, respectively. As shown in the table, most of the participants were between 26-35 years old and the two groups of men and women were equal in terms of age (P = 0.15).

Table 1. Classification of respondents based on age group and gender

<table>
<thead>
<tr>
<th>Age (year)</th>
<th>Category</th>
<th>Men [n (%)]</th>
<th>Women [n (%)]</th>
<th>Total [n (%)]</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-25</td>
<td></td>
<td>28 (29.40)</td>
<td>24 (25.20)</td>
<td>52 (28.40)</td>
</tr>
<tr>
<td>26-35</td>
<td></td>
<td>48 (50.52)</td>
<td>65 (68.50)</td>
<td>113 (58.47)</td>
</tr>
<tr>
<td>36-45</td>
<td></td>
<td>15 (15.78)</td>
<td>6 (6.30)</td>
<td>21 (11.00)</td>
</tr>
<tr>
<td>46-55</td>
<td></td>
<td>4 (4.20)</td>
<td>0 (0)</td>
<td>4 (2.13)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>95 (100)</td>
<td>95 (100)</td>
<td>190 (100)</td>
</tr>
</tbody>
</table>

In this study, 91 (47%) and 99 (53%) of the subjects were single and married, respectively.

In this study, 24 (13%), 35 (18%), and 131 (69%) of the participants were emergency department physicians, resident physicians, and nurses, respectively. The participants have been categorized in figure 1 based on job position in the emergency department.

![Figure 1. Classification of respondents based on job position](image)

In this study, most of the participants had less than 5 years of working experience. They have been categorized in figure 2 based on work experience in the emergency department.

![Figure 2. Classification of respondents based on work experience in emergency department](image)
Discussion
In the present study, 101 (53.2%) of the participants were opposed to the right of relatives to be present during the CPR process. In a study conducted in UK with the same purpose, a large number of physicians and nurses (79%) had considered the presence of family members in the CPR room as desirable, and 21% of the participants had considered it undesirable.21 A study by Oczkowski et al. in the United States in 2015 emphasized the presence of close companions at the patient's bedside.22

There are several reasons in various studies for the opposition of the treatment staff with the presence of the patient's family members in the CPR room. One of the main reasons for the disagreement of nurses and doctors with the FPDR was the lack of patients' privacy in the presence of the family. In the present study, 64.2% of the participants believed that FPDR violated the patient's privacy regardless of his/her prior consent. In a study by Fulbrook et al., the majority (62.9%) of nurses stated that the presence of family members violated the confidentiality of the patient's information.12

Another reason for the opposition against FPDR is intervention of the family in resuscitation process. In the present study, while the majority of participants (73.9%) felt that all members of the CPR team should jointly decide on the process, in this study, only 10% of the participants thought that the patient's family had the right to decide on the CPR process after attending the resuscitation operation.

In a study by Grice et al., there were numerous cases of family involvement and disturbance of the resuscitation process during resuscitation.6 In the study by Fulbrook et al., 30.6% of nurses considered the interference of family members in CPR process as the main reason for their opposition to the FPDR.12

Other harmful effects mentioned in the studies included harmful effects of families like increased emotional pressure of family members, uncontrollable mourning, family insistence to continue operations in vain cases, and the lack of space for the presence of family members at the time of resuscitation.12

Some studies conducted using a questionnaire filled by or through asking questions from the patients' family members indicated that many people blamed themselves as they could not stay alongside their patient, and family members were reassured by observing the CPR process and the emergency staff reporting that they did everything they could do for their patients; this helps in accepting the death of their loved ones.11-14

In the present study, 42.2% of the physicians and nurses believed that the relatives of the patient were more likely to tolerate the grief process after experiencing FPDR, although 41.2% of the participants disagreed with this idea, on the other hand, 75% of the participants in the survey believed that the FPDR process might create a traumatic experience (a psychological disorder) among the family members of the patient and only 4.9% of the participants disagreed. A study by Duran et al. showed that the FPDR could be a great help to deal with the pain of losing the loved ones for the family members; the patient and the family also welcomed this, however this requires providing emotional support, explaining and interpreting the CPR operation during and after the process, as the lack of proper conditions and the presence of staff and space constraints may create problems for the process.23

Conclusion
The findings in the present study revealed that many physicians and nurses were opposed to the presence of family members during the resuscitation process, and the number of individuals who agreed to this was much lower, while in some studies physicians and nurses were satisfied with the conditions. This can be due to cultural differences and the conditions and also the place where the resuscitation process is performed.
Acknowledgments
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Authors’ Contribution
Payman Atabaki: First author Hamid Reza Mehryar: Corresponding author Javad Aghazadeh: Final approval author

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Presence of family members during resuscitation

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