



Отношение членов реанимационной бригады и сопровождающих пациента лиц к присутствию родственников пациента первой степени родства во время сердечно-легочной реанимации в отделениях неотложной помощи

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РЕЗЮМЕ

Присутствие семьи пациента у его постели во время проведения сердечно-легочной реанимации (СЛР) является одним из вопросов, привлекающих внимание. Настоящее исследование было проведено с целью определения отношения членов реанимационной бригады и сопровождающих пациента лиц к присутствию родственников пациента первой степени родства во время проведения СЛР.

Материалы и методы. Описательно-аналитическое перекрестное исследование проведено в 2 университетских больницах с участием 100 членов команд, проводящих СЛР, и 120 близких родственников пациентов, которым проводили СЛР в 2021 г. Данные были собраны с помощью разработанного исследователем опросника и шкалы стресса, тревоги и депрессии (DASS) во время СЛР. Собранные данные были проанализированы с помощью статистического программного обеспечения SPSS (версия 22).

Результаты. С точки зрения как членов команды, проводящей СЛР, так и близких пациента, наиболее значимым был вопрос о том, что самому пациенту было бы лучше договориться о присутствии или отсутствии своей семьи еще до момента госпитализации и выяснить, насколько для этого созданы благоприятные условия. Отношение к присутствию семьи пациента во время СЛР было статистически значимо связано с полом сопровождающего ($p < 0,05$) и с опытом работы и участия в СЛР членов реанимационной бригады ($p < 0,05$).

Вывод. Учитывая различные мнения членов команды, проводящей СЛР, и близких пациента относительно присутствия семьи во время реанимации, следует провести дополнительные исследования с большим объемом выборки.

Ключевые слова: реанимация, спутник пациента, реанимационное вмешательство

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The attitude of the resuscitation team members and the patient's companions toward the presence of the patient's first-degree relatives during cardiopulmonary resuscitation in the emergency departments

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ABSTRACT

The presence of the patient's family at their bedside during cardiopulmonary resuscitation (CPR) is one of the challenging issues that has been frequently taken into consideration. Considering the importance of this topic. **The objective** of the present study was conducted to determine the attitude of the CPR team members and the patient's companions toward the presence of the patient's first-degree relatives during CPR.

Materials and methods. The descriptive-analytical cross-sectional study was conducted on 100 CPR team members of two University Hospitals and 120 near relatives of patients undergoing CPR in 2021. The data were collected by the researcher-made questionnaire and depression, anxiety, stress scale (DASS) during CPR. The collected data were analyzed by SPSS (version 22) statistical software.

Results. From the perspective of both the CPR team members and the patient's companions, the highest mean response was related to the fact that it would be better for the patient to agree on the presence or absence of their family before hospitalization and whether they have favorable conditions. The attitude toward the presence of the patient's family during CPR was statistically significantly associated with the companions' gender ($p < 0.05$) and with the experience of work and participation in CPR of the CPR team members ($p < 0.05$).

Conclusion. Taking into account the different opinions of the CPR team members and the patient's relatives about the presence of family during resuscitation, additional studies with a large sample size should be carried out.

Key words: resuscitation, patient's companion, resuscitative intervention

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Introduction

The healthcare system has shifted from a paternalistic attitude to the principle of personal autonomy, and family members are often expected to actively

participate in care decisions related to the treatment of their relatives [11]. Even during cardiopulmonary resuscitation (CPR), patients prefer to have their relatives near them, and many relatives also tend to be there [22]. This is why, even if most of the evidence

shows poor quality, lack of examination of psychological consequences, as well as the impact on morbidity and mortality, the presence of family during CPR is still the practice that has been addressed and taken into account in today's world [17].

CPR can be generally described as the process of correcting physiological disorders in a critically ill patient or resuscitating an individual from anesthesia or apparent death [21]. However, survival decreases by 7 to 10 percent per minute without CPR. The observed CPR rate varies from country to country and ranges from 20% to 70% [22]. Family presence during resuscitation (FPDR) is described as the presence of the patient's family members (such as siblings, parents, spouses, children, or close friends) in the CPR room. This presence may be supported by a person from the hospital staff [15].

The presence of the patient's family members during CPR may affect their mental state, caring method, and the performance of healthcare professionals [3]. Some concerns show that the presence during CPR can lead to post-traumatic stress disorder in relatives. Patient privacy may also be compromised. When the family is presented during CPR, relatives are in direct contact with the patient and healthcare professionals [10]. On the other hand, they can interact with the patient whenever needed (e. g., they can take the patient's hand or talk to them) [25].

Much of the evidence on family presence during resuscitation (FPDR) is qualitative, and various issues arise regarding relatives' perceptions while reviewing the literature [12]. Some doctors believe that FPDR may have more advantages than disadvantages because it allows relatives to provide the patient with a sense of need and comfort. In the case of death, in particular, it may help relatives to acknowledge that all possible measures have been taken to save the patient [6].

Opposing opinions in this domain may be due to fear. The anticipated fear of negative or positive reactions has been mentioned as the reason for choosing to attend or not attend CPR [18]. Whether family members should be allowed to be during CPR or not is the question that still has no answers. Moreover, it is highly important to examine how the family should be presented. Accordingly, the present study was conducted to determine the attitude of the CPR team members and the patient's companions toward the presence of the patient's first-degree relatives during CPR in the emergency departments of two University Hospitals.

Materials and Methods

This descriptive-analytical cross-sectional study was carried out on all CPR team members and patients' companions in the emergency departments of public hospitals over one year. The necessary permits were obtained from the Vice Chancellery for Research and the Research Ethics Committee. According to the number of the statistical population, sampling

was done by census method from all the CPR team members of both hospitals ($n = 100$) and the patients' companions ($n = 120$).

The inclusion criterion for the CPR team members and the patient's companions was willingness to participate in the study. Further, if the desired person from the CPR team had not performed CPR until then, they were excluded from the study. In both groups, respondents did not have a psychological history. It should be noted that only one person from each patient's companions (first-degree relative) answered the questions. The first-degree relative included the father, mother, and siblings.

Firstly, the researcher referred to the emergency departments of Isfahan public hospitals. Then, the researcher explained the research objectives to the CPR team members and the patient's companions, and if they agreed to participate in the study, they were given the informed consent form to sign. Next, in coordination with concerned officials, the questionnaire was given to the CPR team members and the patient's companions to complete. During the data collection process, if the respondents had any questions, the researcher answered the questions. Data were collected by the researcher-made questionnaire.

This questionnaire was taken from the studies of Taraghee and Dabirian [7, 23]. The questionnaire designed for the patient's companions consisted of 7 items on the Likert scale (disagree = 1, agree = 3). It consisted of a demographic section (age, gender, education level, etc.) and an attitude section regarding the presence of the patient's family from the perspective of the patient's companions. The minimum score was 7 and the maximum score was 21. The questionnaire designed for the CPR team members included 10 items on the Likert scale (disagree = 1, agree = 3). The minimum score was 10 and the maximum score was 30. The higher score indicated more willingness to be during the resuscitation.

Before distributing the questionnaire among the patients, the validity of the questionnaire was evaluated through the opinions of experts and professors. The content validity ratio (CVR) was equal to 0.99, and the content validity index (CVI) was equal to 0.81, which confirmed the validity of the questionnaire.

Moreover, to calculate reliability before starting the study, the questionnaire was given to 10% of the participants (10 team members and 10 companions) to complete. Its Cronbach's alpha coefficient was calculated to be 0.86, which indicated an acceptable index.

Moreover, after CPR and under suitable conditions, the patient's companions were asked to complete the depression, anxiety, stress scale (DASS) during CPR if they were willing and were in the favorable state of mind.

The 21-item depression, anxiety, stress scale (DASS-21) was constructed by S. H. Lovibond and P. F. Lovibond in 1995 to measure depression, anxiety, stress. The questionnaire has 3 components, each of its sub-scales contains 7 items, and the final score of each is obtained through the sum of the scores of the

Table 1. The severity of each subscale

Severity	Depression	Anxiety	Stress
Normal	0–9	0–7	0–14
Mild	10–13	8–9	15–18
Moderate	14–20	10–14	19–25
Severe	21–27	15–19	26–33
Very severe	> 28	> 20	> 33

Table 2. Demographic characteristics

Variables	Mean±SD	Frequency (%)
<i>Patient's companion</i>		
Age (year)	55.67±19.36	
Gender (male)	–	43 (35.8)
Participation in CPR (yes)	–	42 (35.6)
Patient condition after CPR (survived)	–	82 (68.3)
<i>CPR team members</i>		
Age (year)	34.19±6.19	
Gender (male)	–	68
Frequency of participation in CPR (more than once)	–	84
Work experience (year)	6.06±9.20	

related items. Each item is scored from 0 (does not apply to me at all) to 3 (applies to me completely). Since DASS-21 is the shortened form of the original scale (42 questions), the final score of each subscale should be doubled. The severity of each subscale is shown in Table 1.

S. H. Lovibond and P. F. Lovibond reported the validity index of 0.77 for DASS-21. The reliability indices of the questionnaire subscales were 0.89, 0.84, and 0.82 for the depression, anxiety, and stress subscales respectively.

Statistical analysis. Data were analyzed by SPSS (version 22) statistical software using descriptive statistics (distribution and frequency percentage for qualitative data and mean and standard deviation for quantitative data). The chi-square test and independent t-test were used to compare nominal variables. The significance level was set at < 0.05 .

Ethical approval. The study was conducted in accordance with the Declaration of Helsinki, and after approval of the Ethics Committee of our University of the Faculty of Medicine (IR.MUI.MED.REC.1399.1013).

Informed consent. Written consent was obtained from all the patients' companions or family members.

Results

Table 2 shows the demographic characteristics of the participants. As indicated, 42 (35.6%) of the patient's companions had a former experience with CPR. Further, 84 (84%) of the CPR team members had already participated in CPR more than once. Moreover, 82 patients (68.3%) survived after CPR.

The mean scores of the attitude toward FPDR are presented in Table 3.

As shown, the mean score of attitudes toward FPDR was 12.05 ± 3.11 for the patient's companions and 18.6 ± 4.66 for the CPR team members. Since the mean score of the patient's companion questionnaire was 5.10 and that of the CPR team questionnaire was 15, the attitude toward FPDR was higher than the average level for both groups. From the viewpoint of both the CPR team members and the patient's companions, the highest mean response was related to the fact that the patient should express their opinion about the presence or absence of their family before hospitalization and whether they had favorable conditions.

The attitude score of FPDR for the patient's companions was significantly associated with the companion's gender and the experience of participation in CPR ($P < 0.05$). On the other hand, more men than women provided a positive response to FPDR, and also people who had previous experience of participation in CPR expressed less agreement with FPDR. Moreover, the attitude score of FPDR for the CPR team members was significantly associated with work experience and experience of participation in CPR ($P < 0.05$). On the other hand, the more the work experience and frequency of participation in CPR for the treatment team, the less their desire to have their companions present (Table 4).

As indicated in Table 5, 4 (4.65%) of the patient's companions had severe and very severe stress, 15 (17.44%) had severe and very severe anxiety, and 12 (13.95%) experienced severe and very severe depression.

Discussion

There was the rule stated that it would be better for the patient's family not to be during CPR. Perhaps one of the reasons for this behavior was the paternal behav-

Table 3. The mean attitude scores of FPDR

Variables	Mean±SD
Patient's companion	12.05±3.11
Resuscitation team members	18.6±4.66

Table 4. Relationship between demographic variables and attitude scores of patient's companions and CPR team members

Variables	Patient's companions	CPR team members
Gender	$p = 0.014$	$p = 0.331$
Age	$p = 0.326$	$p = 0.752$
Experience of participation in CPR	$p = 0.023$	$p = 0.026$
Kinship with patient	$p = 0.089$	-
Work experience	-	$p = 0.003$

Table 5. Frequency of depression, anxiety, stress in patient's companions

Severity	Depression	Anxiety	Stress
Normal	32 (37.21)	26 (30.23)	21 (24.42)
Mild	19 (22.09)	36 (41.86)	23 (26.74)
Moderate	23 (26.74)	9 (10.47)	38 (44.19)
Severe	8 (9.3)	12 (13.95)	4 (4.65)
Very severe	4 (4.65)	3 (3.49)	0

ior of the medical staff, which complicated the presence of the loved ones, prevented the correct implementation of this procedure, and concurrently increased the anxiety level of the family and the patient [2, 18]. Moreover, another reason for justifying the absence of the patient's companions is the issue of maintaining patient privacy because, in an emergency, there is no opportunity to get the consent of the patient on the presence or absence of companions, or the patient is a small child, which is ruled out. In line with maintaining patient privacy, there are issues such as addiction and drug use or the specific illness of the patient, in which case there is no need for the companions to find out about. In addition, the crowded, dangerous, and messy environment of the emergency room, especially during CPR, and the increased risk of injury to the patient and their companions (such as needle-stick injury) are also justifications of the opponents of FPDR.

Furthermore, another important and noteworthy issue is which of the patient's companions is more qualified to participate in CPR. The patient's home health nurse, legal guardian, or family member should also be mentally qualified to accept the events that happen during CPR and be aware of the current and previous conditions of the patient. However, public research and surveys have indicated that most patients and their families believe that the family should be allowed to be during CPR and at the moment of the death of their loved ones [24, 13]. Hence, the European Resuscitation Council (ERC) recommended that professionals allow family members to be during CPR. Although many benefits of FPDR have been identified, this practice still causes ethical and legal dilemmas.

In this study, the patient's companions and the CPR team members had the moderate view regarding FPDR. In the study in Poland, E.Niemczyk et al. [16] found

that patients and their relatives were more willing to be during the CPR of their loved ones. The majority of patients did not know about patient rights regarding FPDR. The interest in FPDR was present in 29% of patients and 27.6% of patients' family members. In the study in France, C. De Stefano reported that FPDR could help relieve pain by supporting the patient in the transition from life to death and participating in this critical moment [8]. Therefore, the central role of the family and healthcare team during CPR is confirmed. In another research in Malaysia, Chew showed that respondents strongly supported FPDR [4]. They showed that 76.1% of the participants supported the FPDR. M.E.H.Ong et al. in Singapore also showed that 73.1% of the surveyed population supported the FPDR [20].

The results of K. McMahon's study in England showed that both patients and their family members had the negative attitude toward FPDR [14]. S.Campton et al. also acknowledged that 29% of patients and 47% of their families were willing to be during CPR [5].

Z.D. Goldberger in America indicated that the average duration of CPR in hospitals with and without the implementation of the FPDR policy was not significantly different. The same results were also found for CPR quality, pharmacological and non-pharmacological interventions, and potential CPR errors [9].

A. A. Al Bshabshe (Saudi Arabia) showed that 80% of doctors opposed FPDR. The majority of them believed that FPDR could reduce the bedside space, distract the staff, cause performance anxiety, interfere with patient care, and violate patient privacy. Moreover, FPDR can cause unnecessary CPR operations, psychological damage to family members, professional stress among personnel, and numerous complaints. Further, 77.9% disagreed that FPDR could help reduce the family's anxiety about the patient's condition or eliminate

their doubts about the provided care, improving family support and participation in patient care, or the professional status of the personnel [1].

Based on the results of various studies, people in various countries have different views about the advantages or disadvantages of FPDR.

Conclusion

In conclusion, both the patient's companions and the CPR team members have the positive attitude toward FPDR. The most important factor for both groups is the patient's opinion about the presence or absence of family members during resuscitation. Gender, experience of participation in CPR, and work experience also influence attitudes toward FPDR for both groups.

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Data Availability. The data used to support the findings of this study are available from the corresponding author upon request.

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