

The attitudes of team members towards family presence during hospital-based CPR: a study based in the Muslim setting of four Iranian teaching hospitals

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ABSTRACT

Background: Contrary to international guidelines recommending family presence during cardiopulmonary resuscitation (CPR), allowing family members to be present remains a matter of debate in many countries. The purpose of this study was to determine the opinions of healthcare providers from a Muslim setting concerning family-witnessed resuscitation (FWR).

Methods: The sample population consisted of CPR responders in four teaching hospitals in Tehran. These centres have no policy regarding the presence of family members during resuscitation. We developed and circulated a questionnaire gathering opinions, and collated their comments.

Results: From 200 respondents, 77% opposed FWR. We found that gender, age, experience, previous exposure to FWR or specialty (except for emergency physicians) did not predict opinion towards family presence during CPR. The most common reasons given for opposition to family presence were fear of psychological trauma to family members, possible interference with patient care/decision-making, and a perceived increase in staff stress.

Conclusion: In a largely Muslim community, and contrary to general guidelines, our survey suggested that the majority of CPR responders do not favour the presence of relatives during cardiopulmonary resuscitation. Any counter to this opinion would need to be based on educating team members about the possible benefits of relatives being present during resuscitation. Public education surrounding CPR would also be a fundamental element for implementing any formal programme encouraging family-witnessed CPR in hospitals such as ours.

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INTRODUCTION

Family presence during cardiopulmonary resuscitation (CPR), or family-witnessed resuscitation (FWR), is not a new concept. Since 1980, interest in and support for FWR has been growing. In many communities FWR is an approved part of CPR hospital policy, although it remains a controversial topic,¹⁻³ indicating perhaps a need for more research on attitudes.⁴⁻⁶

Findings from previous studies show mixed opinions among healthcare providers about FWR.⁷ Opponents believe that family presence may disturb patient care, increase liability and staff stress,⁸⁻¹⁰ have the potential to compromise patient confidentiality⁹ and cause psychological trauma to

family members.^{11,12} Proponents note that family presence helps in accepting death, eases grieving reactions and allows family members to understand that all reasonable efforts have been made during resuscitation, thus reducing the risk of legal action/complaints and strengthening family-staff relations.¹³ The American Heart Association advocates FWR and recommends that family members be allowed to be present during all attempted resuscitation, where relevant.¹⁴

In many countries, however, there are no policy statements issued regarding FWR, and CPR is generally performed without the presence of any family members. This is the case in many predominantly Muslim countries. Indeed, in most hospitals in Iran there is no policy regarding FWR, and

TABLE 1 Characteristics of survey respondents (n=200)

| Variable | n (%) |
|--|------------|
| Female respondents | 113 (56.5) |
| Mean age of respondents, in years | 30.5 ± 3.5 |
| <i>Occupational groups</i> | |
| Nurse | 109 (54.5) |
| Emergency physician | 29 (14.5) |
| Internist | 38 (19) |
| Anaesthesiologist | 24 (12) |
| <i>Participation in cardiopulmonary resuscitations per month</i> | |
| <4 | 60 (30) |
| 4-8 | 68 (34) |
| >8 | 72 (36) |

CPR is generally performed without the presence of family members. To the best of our knowledge, no study has previously been performed about opinions among CPR responders on FWR in Iran. The purpose of this study was to outline a sample of team members' opinions regarding FWR in the Muslim community of Iran and compare this to data from different cultures.

METHODS

The sample population consisted of CPR team members in the emergency ward and intensive care units (ICUs), assembled from each of four teaching hospitals. None of these team members had prior protocols regarding FWR. We developed a questionnaire including demographic characteristics, responders' experience/duration of practising medicine, previous FWR experience and questions asking their basic opinion about the presence of relatives during intubation and/or resuscitation. In emergency wards, intubation and chest compression were carried out by emergency physicians and drug treatments were largely given by nurses. In ICUs, intubation, chest compression and drug treatments were carried out by anaesthesiologists, internists and nurses respectively.

We trialled the questionnaire on three emergency physicians and three critical care nurses, each with at least ten years' clinical experience, and considered their comments in revising the questions. Questionnaires were issued to relevant critical care nurses, emergency physicians, internists and anaesthesiologists actively involved in CPR. All had passed standard certified advanced cardiac life support courses in the past. Consent to participate in the study was implied. Where comparative statistical analysis was performed, this was by a χ^2 test, with a p-value less than .05 considered as statistically significant. Analysis was completed using SPSS 15 for Windows.

TABLE 2 Comparative opinions of physicians and nurses regarding FWR

| Response n (%) | Completely agree | Agree | No opinion | Disagree | Completely disagree |
|----------------|------------------|---------|------------|-----------|---------------------|
| Nurses | 2 (1.8) | 4 (3.7) | 18 (16.5) | 31 (28.4) | 54 (49.5) |
| Physicians | 1 (1.1) | 9 (9.9) | 12 (13.2) | 34 (37.4) | 35 (38.5) |

RESULTS

A total of 207 surveys were completed. Seven surveys were regarded as inconsistent and were rejected from the analysis. In total, 200 responders' questionnaires were collated. The subjects' mean age was 30.5 ± 3.5 years, and 113 (56.6%) were female. The number of qualified nurses was 109, while 91 were physicians (29 emergency physicians, 38 internists and 24 anaesthesiologists). With regard to CPR experience, 60 (30%) of them had participated in fewer than four episodes of CPR per month, 68 (34%) between four and eight, and 70 (36%) more than eight. The number of CPR exposures per month did not appear to affect the opinions expressed on FWR ($p=0.684$).

Characteristics of responders' experience of FWR are shown in Table 1. Eighty-two per cent of physicians and 69% of nurses had had previous experience of relatives being present during CPR. Although those who had previous FWR exposure were more in favour of family presence, this was not statistically significant ($p=0.155$). The comparative opinions expressed by physicians and nurses are shown in Table 2. There appeared to be no significant difference among opponents of FWR based on gender, age, the number of prior CPR exposures or the experience or staff group of respondents ($p>0.05$). Emergency physicians were more likely to be advocates of FWR than other specialties ($p=0.004$). A small sample of anaesthesiologists appeared to be opposed in principle to FWR.

The questionnaire revealed general opposition to FWR and a resistance to the suggestion that allowing relatives to witness resuscitation may have some benefit (Table 3). Respondents who opposed FWR expressed a variety of reasons: they believed that it might increase staff stress (74%), interfere with/affect staff performance during CPR (69%), increase litigation after CPR (47%), prolong resuscitation times (81%) or cause psychological trauma to family members (90%). There was no statistically significant difference among physicians and nurses regarding these opinions. The majority of respondents, in contrast, believed that nationwide public education about CPR would be beneficial.

TABLE 3 Questionnaire responses

| | Agree (Doctors) | Agree (Nurses) | Disagree (Doctors) | Disagree (Nurses) |
|---|-----------------|----------------|--------------------|-------------------|
| Relatives should be given the opportunity to witness CPR. | 22 | 29 | 69 | 80 |
| Relatives should be present during CPR if there was prior permission from the patient. | 14 | 22 | 77 | 87 |
| Emotional stress for the CPR team will be increased. | 7 | 93 | 13 | 16 |
| Relatives may show a bad reaction towards the CPR team after an unsuccessful CPR. | 77 | 98 | 14 | 11 |
| The presence of relatives may interfere with treatment. | 71 | 90 | 20 | 19 |
| The presence of relatives makes the decision to stop CPR more difficult. | 86 | 96 | 5 | 13 |
| Procedures involved may offend relatives. | 86 | 105 | 5 | 4 |
| FWR may assist grieving. | 30 | 39 | 61 | 70 |
| FWR may increase litigation/complaint. | 67 | 84 | 24 | 25 |
| Relatives should be allowed to be present during children's CPR. | 8 | 13 | 83 | 96 |
| Relatives should be allowed to be present during the CPR of patients with chronic diseases. | 27 | 33 | 64 | 76 |
| Relatives should be allowed to be present during the CPR of traumatic or unexpected arrest. | 16 | 10 | 75 | 99 |
| Relatives should be present during CPR if they are supported by a staff member. | 31 | 47 | 60 | 62 |
| Relatives should be present if nationwide public education about CPR was promoted. | 53 | 75 | 38 | 34 |

DISCUSSION

Whether family members should be present during CPR is a matter of controversy in many communities and in differing institutions. In previous studies, the percentage of healthcare staff in favour of FWR has varied widely, from 3% to 98%.^{1,2,9,15} Doyle et al.¹⁶ showed that in their study of opinions, 10.6% of medically qualified staff supported FWR. In our sample only 1.6% of participants strongly approved of FWR, contrary to previous studies that reported stronger agreement.¹⁷⁻¹⁹ Our sample incorporated both nurses and physicians: 77.9% of nurses opposed FWR, similar to a study sampled from nurses in Turkey.²⁰ Studies from the UK have shown a higher percentage of proponents of FWR among nurses.²¹

This variance may be due to differing emphases on the patient-family relationship during nurse training in different cultures.

The most significant issue in support of a policy of FWR is the suggested benefits to the relatives of the patient undergoing the CPR attempt. Knowledge of these benefits would necessitate disseminating information to the public and the development and positive adoption of written policies to address the needs of patients and families, as well as staff concerns. In this regard our sample revealed that emergency physicians more often approved of FWR. Our evaluation showed that this group was routinely informed of the potential benefits of FWR during residency training. Education on the benefit of FWR has been shown to increase staff favouring FWR from 11% to 79%.²²

Age, gender, the experience of contributing to CPR and previous FWR exposure did not correlate to staff attitudes. This is again in contrast to research where greater age and experience has been associated with a more favourable opinion of FWR.⁵ In contrast, McClenethan et al. reported that health professionals with previous CPR exposure were less likely to approve of FWR.¹⁹

In our study, similar to other surveys,^{2,11,17,23} the most common reason for opposing FWR was fear of the psychological trauma to witnessing relatives. This is in direct opposition to observed data. Robinson et al.²³ showed no adverse psychological effect on witnessing relatives. Meyers et al.¹¹ found that no family members had traumatic memories two months after FWR events. In another survey,¹⁶ 94% of family members who had had a previous FWR experience expressed a desire to be present again should they face another critical event affecting a family member. Two-thirds noted that their presence during resuscitation had helped them understand and cope with the death, while 76% believed that it helped them in accepting death and was beneficial for grieving. Facilitating family members witnessing CPR only after all invasive lines and tubes have been placed may lessen staff concerns that this might affect their performance.¹⁹

The impact of FWR on staff performance was a common concern in our survey and in previous reports.^{9,19,24} Contrary to a survey that noted FWR would interfere with staff performance,¹⁰ in a nine-year retrospective study no disturbance of CPR routine was reported with FWR.²⁵ Notwithstanding, prospective studies are needed to more fully assess the impact of FWR on staff performance.

The impact of FWR on staff stress levels was another common issue in our sample, as in previous reports,^{16,17,24} although Boyd et al. reported that FWR does not affect recorded staff stress symptoms.⁸ Developing a formal support programme for stress management may be a good method for achieving a balance among CPR team members between stress and the positive feeling of helping patients.

Fear of increased litigation following failed CPR is another common explanation for disagreement with FWR in principle,^{9,12,20} although in fact no data exist on the impact of FWR on litigation patterns.¹ Most advocates of FWR believe that viewing the critical situation of the patient and efforts of staff should, if anything, alleviate many questions about the process of CPR and thus reduce levels of litigation.^{2,5,26} In fact, many medico-legal conflicts are more the result of poor communication than issues of technique and practice.²⁶

Public education regarding CPR²⁰ and the presence of a trained staff specifically escorting and guiding family members during resuscitation²⁷ may ameliorate CPR respondents' opposition to FWR.

Contrary to previous research,^{28,29} our participants were even less in favour of FWR during paediatric resuscitation. This finding may demonstrate the fact that most of our participants have little experience in dealing with CPR in children.¹⁹ Many parents believe that it is their right to be present during resuscitation, helping their child and easing their fears. However, as with adult studies on the impact of FWR, parents showed no traumatic memory from FWR.^{3,28}

Opposition to family attendance at traumatic or unexpected arrest was higher in our survey. We were given to understand that CPR team members would be particularly distressed during such procedures and that this might lead to a greater risk of interference with team performance. There are no data to substantiate or confirm such a fear on behalf of staff involved in resuscitation.

There is also a trend in opinion against FWR in clinical scenarios associated with poor outcome and death.³⁰ This may have been a factor among our respondents who held a strong opinion against FWR in patients with chronic disease. Simplest of all, evidence from Turkey suggests that

CPR team members unfamiliar with the concept of family presence during cardiopulmonary resuscitation did not want family members in the resuscitation room.^{20,31} Studies from the UK, Ireland and Canada have supported FWR and shown that some individual CPR team members either have taken, or would be willing to accompany, family members to the bedside/attempt during resuscitation.^{32,33}

In summary, we believe that general social or cultural opinions, awareness or lack of it about evidence, hospitals' policy statements and lack of knowledge about FWR in different countries and social settings is behind the observed attitudes of correspondents' support or opposition towards FWR. The cultural background of a Muslim society is different from a Westernised one. Families are potentially closer and more prone to displays of emotion, and this could possibly distract some CPR responders' activity, but this is untested. Evidence from Westernised cultures and healthcare systems suggests this is not the case.

We think that more studies on the cross-cultural implications and impact of FWR should be a priority for our system, and that policies must be examined in many countries where FWR is not routine.

CONCLUSION

Our study of opinions among CPR responders in Tehran's teaching hospitals suggested that CPR team members in Iran do not support the presence of relatives during cardiopulmonary resuscitation. Education as to the value of allowing family member to be present during CPR may be the first priority. Assessment of patients', families' and healthcare providers' wishes and concerns are fundamental elements of implementing educational programmes on the potential benefits of FWR, directed at patients, relatives and staff.

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