

Self-confidence and attitude of acute care nurses to the presence of family members during resuscitation

Hossein Rafiei, Mojtaba Senmar, Mohammad Reza Mostafaie, Zeinab Goli, Sedighe Nasiri Avanaki, Leila Abbasi, Mohamad Hossein Mafi

ABSTRACT

Aim: the present study aimed to assess the relationship between attitude to the presence of family members during cardiopulmonary resuscitation and confidence of acute care nurses in performing cardiopulmonary resuscitation in the presence of family. **Methods:** this descriptive-analytical study was conducted on nurses working in acute care units (intensive care unit, coronary care unit, and emergency department) in Iran in 2017. A total of 150 nurses entered the study by convenience sampling. Data were collected on nurses' attitude towards the presence of family scale and nurses' self-confidence in presence of family scale. **Results:** of the 150 participants, 48 (32%) were men and 102 (68%) were women. Total mean score of attitude was 67 ± 10.4 (obtained scores by nurses ranged from 32 to 100). Total mean score of self-confidence was 53.86 ± 11.7 (obtained scores by nurses ranged from 23 to 81). Pearson correlation test showed a significant negative relationship between nurses' attitude toward presence of family members during cardiopulmonary resuscitation and their self-confidence ($r = -0.45$, $p = 0.001$). **Conclusion:** the present study showed that nurses with a higher self-confidence have a more positive attitude toward presence of family members during cardiopulmonary resuscitation. Given the importance of the subject, it should be considered by nursing managers and planners.

Key words: Cardiopulmonary resuscitation ■ Family-centered care ■ Critical care nurses ■ Self-confidence ■ Professional issues

Hossein Rafiei, Nurse Educator, Social Determinants of Health Research Center, hosseinr21@gmail.com

Mojtaba Senmar, Critical Care Nurse, Student Research Committee

Mohammad Reza Mostafaie, Nurse Educator, Social Determinants of Health Research Center

Zeinab Goli, Registered Nurse, Student Research Committee

Sedighe Nasiri Avanaki, Registered Nurse, and Student Research Committee

Leila Abbasi, Registered Nurse, and Student Research Committee

Mohamad Hossein Mafi, Nursing Student, and Student Research Committee

all at Qazvin University of Medical Sciences, Qazvin, Iran

Accepted for publication: November 2018

Cardiopulmonary resuscitation (CPR) is a common event in emergency departments and intensive care units (Brasel et al, 2016). The presence of family members during CPR can be considered as a part of holistic care (Lederman et al, 2017). Previous studies have shown that the presence of family members during CPR can have benefits. In a study conducted in France, Jabre et al (2013) investigated consequences of the presence of family members during CPR in two groups of family members: those who had watched the process of CPR in their relatives, and those who had not. In this study, stress and anxiety experienced by families, the effect of the presence of families on performance of the CPR team, and the outcome of the CPR procedure were assessed. The results showed that experienced anxiety and stress was significantly lower in the group that had closely watched the CPR procedure compared with the other group. The presence of family members during CPR was also found to have no effect on performance of the CPR team and outcome (Jabre et al, 2013). In a separate study Jabre et al (2014) also found that positive psychological effects of witnessing CPR on family members can persist for a long time.

Although previous studies have shown the beneficial effects of the presence of family members during CPR for family members, such as lower rates of depression, anxiety, stress and post-traumatic stress disorders (Soleimanpur et al, 2017), it does not occur in many hospitals in the world, and nurses usually have a negative attitude toward their presence (Esmaeli Abdar et al, 2016; Zali et al, 2017). In a study, Powers and Candela (2017) examined nursing performance and policies regarding the presence of family members during CPR; 124 nurses working in intensive care units were assessed. The results showed that the majority of nurses had little experience of the presence of family members during CPR. No local policy was found on the presence of family members in the wards (Powers and Candela, 2017).

Issues that concern nurses about the presence of family members during CPR include greater anxiety and stress in the members of the CPR team, discontinuing the CPR procedure when the patient has no chance of survival, legal problems and physical harm to staff (Esmaeli Abdar et al, 2016). The authors considered that it seemed that there is a relationship between the above factors and nurses' confidence level in performing CPR. However, no study was found on this topic in Iran, and few

studies have been conducted on nurses in other countries. The aim of this study was to assess the relationship between attitudes to the presence of family members during CPR and confidence of nurses in performing CPR in the presence of family.

Methods

This descriptive-analytical study was conducted on nurses working in the acute care units (intensive care unit (ICU), coronary care unit (CCU), and emergency department) in teaching hospitals affiliated to Qazvin University of Medical Sciences, Iran, in 2017. A total of 150 nurses entered the study by convenience sampling. The study inclusion criteria were: having a bachelor's degree in nursing, at least 6 months' work experience, and willingness to take part in the study. For data collection, a list of nurses working in the above wards was obtained from the hospital management. Questionnaires were distributed during morning and evening shifts, in such a way as not to interfere with the clinical tasks of nurses. Nurses were asked to answer questions, and further explanation regarding questions was provided if needed. It took 30–60 minutes to complete the questionnaires.

Tools

Part one: checklist of demographic variables

A researcher-developed checklist was used including questions about age, gender, education, years of experiences, employment status, working shift, organisational position, being a member of the CPR team and need for continuing education.

Part two: nurses' attitude towards presence of family scale

This instrument consists of 19 questions examining nurses' attitudes towards family presence during CPR in six domains: health belief (4 questions), triggers (3 questions), self-efficacy (2 questions), norms (2 questions), perceived behavioural control (7 questions) and acceptance of the practice of family presence during resuscitation (1 question). Responses to questions were graded on a Likert scale from 1 to 5 (1=strongly support; 5=strongly not support). Higher scores indicated more negative attitudes towards nursing practice. Validity and reliability of the Persian version of this instrument was determined as good in a previous study (Esmaeli Abdar et al, 2016).

Part three: nurses' self-confidence in presence of family scale

Nurses' self-confidence in the presence of family was measured using a 17-item scale. Each item of the scale is ranked on a five-point Likert scale from strongly disagree (1) to strongly agree (5), with scores ranging from 17 to 85 points. A higher score indicates a higher level of self-confidence in nurses in the presence of family members during CPR (Twibell et al, 2008). After obtaining permission, the authors translated this questionnaire from English to Persian and tested through a pilot study among critical care nurses. Validity of the questionnaire was determined using a validity discussion method by nurses who were in a hospital CPR team and nursing faculty members. Alpha coefficients of internal consistency and 3-week test–

retest coefficients ($n=30$ nurses) of stability were computed for determining reliability of the translated questionnaire. Internal consistency and stability were 0.79 and 0.86 respectively.

Ethical considerations

Permission for data collection was obtained from the Research Ethics Committee of Qazvin University of Medical Sciences. Explanations were provided about the study objectives, and participants were asked to read and sign the informed consent form. Confidentiality of collected data was ensured in all stages of the study and their use for the purposes of the study.

Data analysis

Data were analysed using SPSS-16. Given a normal distribution of data according to the K/S test, the data were analysed using mean, independent t-test, Pearson correlation, and one-way variance analysis (one-way ANOVA). A p value less than 0.05 was considered significant.

Results

Demographic

Of the 150 participants, 48 (32%) were men and 102 (68%) were women. Participants' mean age was 30.9 ± 6.1 years (ranging from 22 years to 54 years). Work experience was less than 1 year in 20 participants, 1–5 years in 47, 6–10 years in 51, and more than 10 years in 32 participants. A total of 64 participants worked in the emergency department, 60 in ICU, and 26 in CCU. Of the total participants, 148 (98.7%) had undertaken CPR courses, 130 (86.7%) stated that they needed further CPR training, 146 (97.3%) had been a member of the CPR team, and 126 (84%) felt they had received adequate information about CPR during their studies.

Attitude towards the presence of family members during CPR

Total mean score of attitude was 67 ± 10.4 (obtained scores by nurses ranged from 32 to 100). According to the independent t-test, total mean score of attitude was 66.6 ± 8.9 in male nurses, and 67.7 ± 11.1 in female nurses. No significant difference was found between them ($p=0.716$). Pearson correlation test showed a non-significant inverse relationship between age and attitude in nurses ($r=0.053$, $p=0.523$). According to one-way variance analysis (ANOVA), total mean score of attitude was 67.9 ± 11.5 in ICU nurses, 66.2 ± 8.7 in CCU nurses, and 66 ± 10 in emergency department nurses. No significant difference was found between them ($p=0.582$). Mean score of attitude was 67.2 ± 9.7 in nurses who required continuing education in CPR, and 65.7 ± 14.5 in those who did not need continuing education in CPR ($p=0.568$).

Self-confidence during family presence in CPR

Total mean score of self-confidence was 53.86 ± 11.7 (scores given by nurses ranged from 23 to 81). According to the independent t-test, total mean score of self-confidence was 54.1 ± 11.3 in male nurses and 53.5 ± 12.1 in female nurses; no significant difference was found between them ($p=0.827$). One-way variance analysis (ANOVA) showed no significant difference in the self-confidence score between groups of nurses

with different lengths of work experience ($p=0.893$). According to the ANOVA test, total mean score of self-confidence was 51.5 ± 13.1 in ICU nurses, 53.2 ± 9.6 in CCU nurses, and 55.2 ± 11.4 in emergency nurses; no significant difference was found between these groups ($p=0.233$). Pearson correlation test showed a direct and non-significant relationship between age and total score of confidence ($r=0.045$, $p=0.586$). Mean score of self-confidence was 53.6 ± 11.1 in nurses who required continuing education in CPR, and 54.6 ± 16.5 in those who did not need CPR training ($p=0.729$).

Attitude towards the presence of family members and self-confidence during CPR

Pearson correlation test showed a significant negative relationship between nurses' attitude towards the presence of family members during CPR and their self-confidence ($r=-0.45$, $p=0.001$) (higher attitude score correlates with lower self confidence).

Discussion

In this study, the attitude of nurses towards the presence of family members during CPR and its relationship with their self-confidence were assessed. The results showed that nurses have a neutral attitude towards the presence of family members during CPR. Results also revealed a significant correlation between nurses' self-confidence and attitude towards family presence during CPR.

Patient-centered care is regarded as one of the basic principles of nursing, and some part of this can be fulfilled by the presence of family members at the bedside of patients who are receiving CPR. However, it is highly challenging in many developing countries such as Iran (Soleimanpour et al, 2013; Hassankhani et al, 2017; Atabaki et al, 2018). In most situations, not only are the conditions not conducive to the presence of family members, but also the medical team does not allow family members to be present at the patient's bedside during CPR (Atabaki et al, 2018). In recent years, a number of researchers in Iran have become interested in examining presence of family members during CPR. The results of this study on the attitude of nurses towards the presence of family members during CPR seem consistent with findings of previous studies conducted in Iran. Zali et al (2017) examined attitudes of 178 nurses towards the presence of family members during CPR, and found that Iranian nurses do not have a positive attitude regarding the presence of family members at the patient's bedside during CPR, which can be explained by their fears that it may possibly cause psychological harm to family members and disruption in the process of CPR by family members. In another study in Iran, Golestani et al (2017) investigated the attitudes of members of the CPR team towards the presence of family members during CPR, and reported that nurses and other CPR team members did not have a positive attitude in this regard.

The negative attitude of health professionals, especially nurses, towards the presence of family members during CPR could result in prohibition of family members, and improvement in their attitude can contribute to solving this problem. Many factors can affect this issue including cultural, religious, managerial, organisational, and educational factors. This study

found that low self-confidence of nurses in performing CPR in the presence of family affects their attitude towards the presence of family members, so that more confident nurses have a more positive attitude towards the presence of family members during CPR. Few studies have been conducted on this subject. In a study in the USA, Tudor et al (2014) investigated the relationship between nurses' self-confidence in performing CPR and their attitude towards the presence of family members in 154 nurses, and found a strong relationship between these two variables. In another study conducted in the USA, Twibell et al (2008) investigated the relationship between nurses' self-confidence in performing CPR and their attitude towards the advantages of the presence of family members, and found that nurses' attitudes towards the presence of family members during CPR was significantly affected by their self-confidence, which is consistent with finding of this study.

Given the effect of nurses' self-confidence on their attitude towards the presence of family members during CPR, it is essential to improve their self-confidence through various means. Powers and Candela (2016) examined the effect of a relevant online training programme on the perception and self-confidence of nurses, and reported that using educational programmes can significantly improve self-confidence of nurses during CPR. Other things that can improve self-confidence of nurses during CPR include modification and increase in CPR-related parts of nursing curricula, quantitative and qualitative improvements in nursing education during their study in nursing schools, providing appropriate training environment in hospitals for nursing students to attend CPR procedures, emphasis on family-centered care in educational courses for nursing students and nurses, continuing professional education in CPR for nurses, and emphasis on the positive aspects of the presence of family members during CPR, training nursing managers and planners on CPR, developing guidelines on the presence of family members during CPR according to the culture of each society, and providing a physical environment that is conducive to the presence of family members.

Limitations

Conducting such studies in developing countries with their own particular cultures always has limitations. For example, in Iran there are many restrictions placed on patients' relatives in most hospitals. Convenience sampling and self-reporting were also among other limitations of the study.

Conclusion

Although the presence of family members has advantages, in many cases, they are not allowed to attend at the patient bedside during CPR. This issue is more common in developing countries such as Iran. Given the key role of nurses in CPR, their attitude can affect the presence or absence of family members during CPR procedures. Thus, knowledge of factors affecting nurses' attitude can be highly important. The present study showed that nurses with higher self-confidence have a more positive attitude towards the presence of family members during CPR. Given the importance of the subject, it should be considered by nursing managers and planners. Due to the shortage of related

studies on this subject, conducting similar studies is strongly recommended. It would also be worthwhile investigating this topic in other health professionals, such as doctors. **BJN**

Acknowledgements

The authors thank the research deputy of Qazvin University of Medical Sciences for their support. They also wish to express their thanks to all participants for their help in the present study.

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KEY POINTS

- Patient-centered care is regarded as one of the basic principles of nursing, and some part of this can be fulfilled by the presence of family members at the bedside of patients who are receiving cardiopulmonary resuscitation (CPR)
- Issues that concern nurses regarding the presence of family members during CPR include greater anxiety and stress in the members of the CPR team, discontinuing the CPR procedure when the patient has no chance of survival, legal problems and physical harm to staff
- In this study, the attitude of nurses in Iran towards the presence of family members during CPR and its relationship with their self-confidence were assessed
- The results showed that nurses have a neutral attitude towards the presence of family members during CPR
- Results also revealed a significant correlation between nurses' self-confidence and their attitude towards family presence during CPR

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CPD reflective questions

- What benefits can there be in having family presence during CPR?
- What role do nurses play in enabling family members to be present during CPR?
- What can the nursing manager do to change acute care nurses' attitudes to family presence during CPR?

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