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Should Family be Allowed During Resuscitation

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Abstract

The practice of family presence during resuscitation provides the opportunity to the family members to attend visually and physically with the patient during resuscitation. The concept of family presence during resuscitation empowers the family-centred care philosophy. However, allowing families during resuscitation is controversial among health care providers. Using predefined search terms, a systematic search was carried out on CINAHL, PubMed, Proquest, Meditext, Ebsco and MedLine. Of the references identified, 35 studies were identified that met the inclusion criteria. The included studies clearly highlight the family members revealed a desire to their presence during resuscitation and indicated further benefits of their presence. Health care providers had different opinions, some refused the practice indicating that it would be offensive and may interfere with the treatment. Others believed that it would positively affect patient care and would reassure family that the best care is being provided. Both family members and health care providers showed a need for educational programs and written policies to facilitate family presence during resuscitation.

Keywords: resuscitation, presence during resuscitation, family witnesses resuscitation, relatives, health professionals

1. Introduction

The idea of allowing family members to be present during resuscitation began at the Foote Hospital in Michigan in the United States of America in 1983 [1, 2]. This was when two family members refused to leave their loved one during resuscitation and asked to be with them even for few minutes to offer what they could during such a crisis event. The American Emergency Nurses Association in 1993 was the first professional organisation to develop evidence-based written guidelines endorsing the practice of family presence during resuscitation [3]. Over the years, the option for relatives to be present during resuscitation has been highly recommended by a number of medical organisations throughout the world.

Family presence during resuscitation is an important topic and of current debate among health care professionals. The literature has shown that attitudes of nurses, physicians and families towards family presence were found to be significantly different [4, 5]. Some health care providers feared that family members may end up having traumatic memories of the practice [6], whereas many family members indicated they would prefer to remain with the patient [4]. Physicians were found to be more against family presence during resuscitation than were nurses [7–9].

Many health care organisations, including the American Association of Critical-Care Nurses, American Heart Association, Emergency Nurses Association, Canadian Association of Critical Care Nurses, Royal College of Nursing, British Association for Accident and Emergency Medicine, European Federation of Critical Care Nursing Associations, European Society of Paediatric and Neonatal Intensive Care and European Society of Cardiology Council on Cardiovascular Nursing and Allied Professions have issued statements that family members of patients undergoing resuscitation should be given the option to remain during the procedure [3, 10–12].

2. Search strategy

An electronic comprehensive search of resulting references was conducted on CINAHL, PubMed, Proquest, Meditext, Ebsco and MedLine using the words ‘family presence during resuscitation’, ‘health professionals’, ‘nurses’ with ‘family witnesses resuscitation’, ‘relatives’ and ‘resuscitation’. Articles were included only if the manuscript was published in a peer-reviewed journal and was based on an empirical study. The quality of the studies included in the review was appraised using Polit and Beck guide to critique research articles asking questions on the report of the research process to determine whether the findings are usable and of good quality [13]. Questions were on study purpose, research design, literature review, research question/hypothesis, study sample, data collection, study results and study recommendations (refer to **Table 1**).

Critique element	Questions to be asked
Study purpose	Is the purpose clear? Is it relevant to the practice? Will the study improve practice and add to the body of the knowledge?
Research design	Is there a framework/theory to guide the study? If there is no framework/theory, is it clear to identify? How the data were collected? Who will be studied? What is the plan for conducting the study?
Literature review	Is the literature review comprehensive? Is the literature review current? Are the majority of sources primary or secondary? Is the literature review well organised?
Research question/ hypothesis	Is the research question/hypothesis clearly stated? Does the question/hypothesis match the purpose of the study?
Study sample	How were the sample chosen? How large is the sample?
Data collection	What steps taken to collect data? How often data was collected and for how long? What instruments or tools were used? Is the tool valid and reliable? Were data analysis procedure appropriate?

Critique element	Questions to be asked
Study results	Is the research question/hypothesis answered? Were there limitations? Can generalisation be made? Are the results supported in the literature?
Study recommendations	Are recommendations for further use in practice? Is there identified need for further research? Can change be made in practice based on the results of the study?

Polit and Beck [13].

Table 1. Polit and Beck guide to critique research articles.

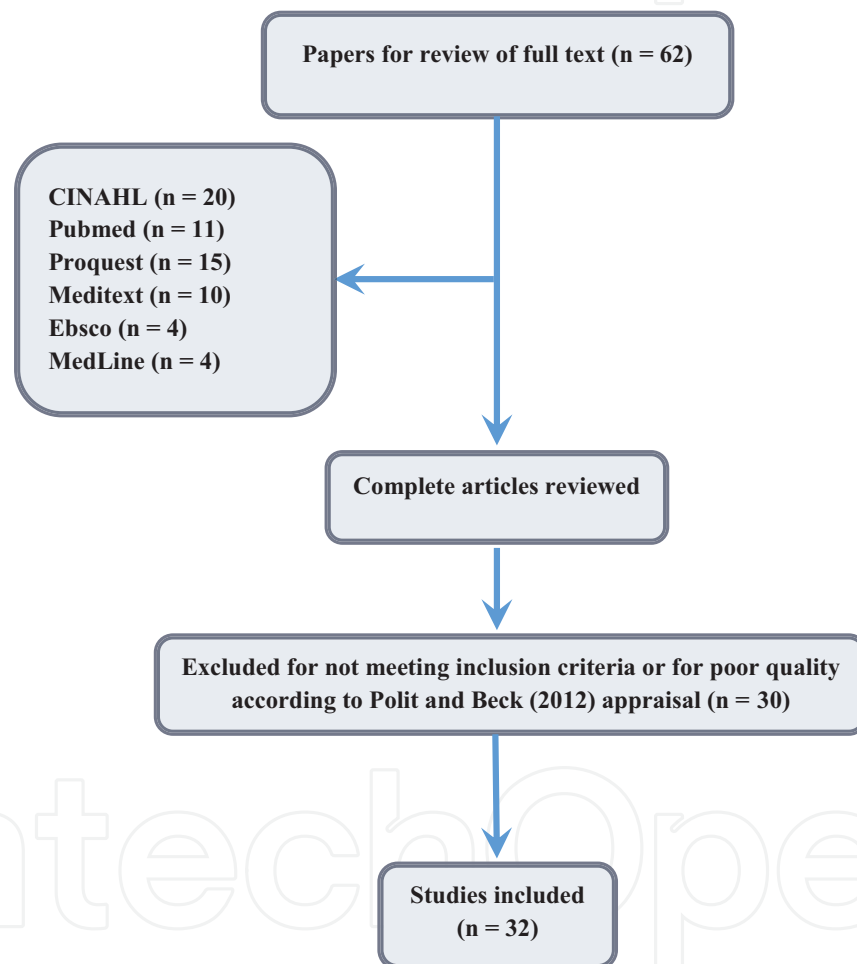


Figure 1. Literature review flow diagram.

As a result of the search, 62 articles were retrieved that were published between 1982 and 2016. These publications were mainly research reports, discussion and review papers. Most of the studies were descriptive and mainly used a quantitative approach to identify family presence during resuscitation and other invasive procedures [12, 14]. Fewer studies used an experimental design or qualitative approach. The majority of those studies were American in origin; however, some were Canadian, British, Swedish, Norwegian, Chinese, Icelandic, French, Australian, Turkish, Jordanian and German. In total, 32 English language publications were selected for this review. The excluded studies were either of poor quality or did not

meet the inclusion criteria. This sample ($n = 32$) included seven papers that were published following the definition and initial development of family presence during resuscitation. A larger sample of 25 more recently published papers between 1990 and 2016 was included to represent the different perspectives of family presence during resuscitation (**Figure 1**). The attitudes of family members during resuscitation as perceived by family members will be discussed, followed by the attitude of health care providers towards the practice. However, before proceeding, the benefits of family presence during resuscitation are addressed.

3. Benefits of family presence

The benefits of family presence during resuscitation include several factors [7, 15, 16].

1. It assists in obtaining the patient's history quickly, thereby actively supporting the patient.
2. Family presence helps nurses to provide more holistic care.
3. Family presence encourages more professional behaviour among staff during resuscitation.
4. It strengthens the link between nurses and families and alleviates many of the doubts.
5. It provides an opportunity to educate the family about the condition of the patient.
6. The family presence during resuscitation and other invasive procedures reduces family anxiety and fear.
7. It is easier to manage family members when they are present in the room with the patient.
8. It enables family members to recognise that everything possible is being done to save the patient.
9. Family presence allows the opportunity for family members to say goodbye to their loved one when death occurs.

4. Family attitudes to family presence

The presence of family members during resuscitation can help them to face the reality of the situation and support the critically ill patient. Much of the literature has examined the attitudes of the family members towards their presence during resuscitation, but has neglected to explore the psychological effects of the practice on the family members.

In 1998, a small retrospective survey study took place at an inner-city teaching hospital in London [17]. The study was to assess the family members' desire to be present and to determine their knowledge of what was involved in the resuscitation process. Thirty-five family members who were not present during the resuscitation were asked to complete a questionnaire 3 months after their loved one's death. The findings suggested that only 4 (11%) of the 35 family members were given the option to be present during the resuscitation. Interestingly, of the total sample, 62% of family members would have chosen to be present during the

resuscitation attempt if they had been given the option. This study indicated that most of the participating family members did not have an accurate idea of what occurred during the procedure. Therefore, their inclusion may have had a positive impact by knowing that everything possible was done to save their loved one. Family members of patients who survived were not included in the study and their inclusion would have added depth and enriched the study findings.

In the same year, Meyers et al. [18] completed a retrospective survey study of 25 family members who were not present during resuscitation, regarding their attitudes towards the practice. The participants were interviewed via telephone within 8 weeks to 15 months after the patient's death; all patients had received resuscitation and died within 1 h after admission to the hospital and 95% of the patients' deaths were caused by traumatic injury. The findings here revealed that 80% of family members who were surveyed indicated their desire to be with their loved one during resuscitation; 96% believed that they had the right to be present; 68% believed that their presence would have helped the patient and 64% felt their presence would have helped their sorrow following the death of their loved one. Regardless of the long period between the death of the family member and the data collection, the family members confirmed the benefit to the patient and family members and supported the option of being present [17, 18].

The third study which was a randomised controlled trial conducted in an Emergency Department (ED) in Cambridge, United Kingdom [15]. The study concerned the psychological effect on 18 family members who witnessed the resuscitation of their family member. The family members of patients who required resuscitation were divided into two groups: the first was the family members who were given the option to remain during the resuscitation ($n = 8$). The second was the family members who were not given the option to remain during the resuscitation ($n = 10$). The relatives were asked to complete five standardised psychological questionnaires within 1–6 months after the resuscitation. The small sample size and the criteria for subjects which were not provided in the article, have constrained the study findings. The findings showed that relatives who witnessed the resuscitation had lower levels of anxiety, intrusive imagery, depression and grief than did those who did not witness the resuscitation. No family members in the group reported being frightened or had to be asked to leave the room. The routine exclusion of family members from the resuscitation room may not be appropriate because family presence provides a means of expression for grieving family members.

Researchers using mixed methods surveyed family members to investigate their attitudes towards family presence during resuscitation and other invasive procedures [4]. They surveyed 39 family members, following 19 instances of family presence during resuscitation and 24 invasive procedures. The study indicated that all participating family members ascribed benefits in attending resuscitation. They added that for the families of dying patients, family presence afforded the opportunity to say goodbye and come to closure on a shared life for people who believed being with the patient was their right. Family members involved in resuscitation viewed themselves as 'active participants' in the care process, which met their needs for knowing about providing comfort and support for their loved one. All the participating family members surveyed in this study believed that visitation was helpful to them

and noted that they would do it again. Also, almost all participants said they thought it was their right to be present with their loved one, and most importantly follow-up did not show they suffered from traumatic effects. They added that other benefits for the family included knowing that everything possible had been done, reducing their anxiety and fear and easing their bereavement. A strong bias can clearly be identified in the data collection, family members who accepted visitation during resuscitation or other invasive procedures were included in the study while those who refused it were excluded.

Differently from the previous studies, six family members whose loved ones underwent resuscitation and survived were interviewed within 24 h of the resuscitation [19]. This study was conducted in the Coronary Care Unit in a 700-bed urban community hospital in north eastern Ohio. The participants were adult family members and they were asked to describe the experiences, thoughts and perceptions of their critically ill relative during resuscitation in the ICU. The interviews showed that the family members were barred from the patients' room and asked to wait in another room. They struggled with the question of 'should we go or should we stay'. The author added that 'families lose autonomy and do not gain ground when they attempt to negotiate their way into the resuscitation room' (p. 417) [19]. The study concludes that when families are not provided information during resuscitation they cannot determine what is going on. Also, during the resuscitation of the loved one, the family is in crisis and needs reassurance and informational support to cope effectively. The study had a small sample size due to the exclusion of families whose relative underwent resuscitation and died. Although this exclusion criterion is understandable, it had influence on the power of the study as those members may have opinions and concerns to share that could have enriched the study findings.

A randomised control trial design was used to study the attitudes of family members who were present during resuscitation [16]. The study was carried out by the researchers in a major tertiary referral teaching hospital in Queensland, Australia. Family members meeting the inclusion criteria were randomised to either the control group or experimental group. The control group ($n = 40$) did not attend the procedure and remained out of the resuscitation room. The experimental group ($n = 58$) were invited to the resuscitation room during resuscitation. A questionnaire was developed to gather the data for the study based on clinical staff experience and review of literature. The findings showed that the majority of family members in both the control and experimental group were grateful to be present during the resuscitation of their loved one. None of the participants felt pressured or traumatised to be present and 43% preferred to be present. Sixty-seven per cent of control group participants preferred to be present. Furthermore, in this study all of the family members who were present during resuscitation (experimental group) were glad that they were present to support their relative. The vast majority of the experimental group participants agreed that their presence during resuscitation helped them to come to terms with the patient's outcomes. Of the control group, 71.2% thought their presence would have helped them to cope better with their loved one's outcome. Participants in the experimental group (85%) felt their presence was beneficial to the patient's recovery. The findings of this research strongly support the presence of family during resuscitation, and have several clinical implications.

5. Healthcare providers' attitudes to family presence

The health care providers' behaviours towards family members often affect the family members' decision to be present or leave during the resuscitation. In 2000, three studies of health professional attitudes towards family presence during resuscitation were released using a survey design, which was conducted in three different contexts throughout the world. A retrospective study was conducted in a university-affiliated level I trauma centre [7]. The authors surveyed a total of 96 medical staff; 14 physicians, 22 residents and 60 nurses, who had participated in resuscitation or an invasive procedure with family members. The participants were asked to complete a 33-item questionnaire developed for the study within 17 days of the resuscitation or invasive procedure event.

Most of the medical staff (96% of nurses, 79% of physicians and 19% of the residents) favoured family presence during resuscitation. The vast majority (95% of the nurses, 77% of physicians and 64% of the residents) were comfortable with family presence during resuscitation. The study also evaluated the perceived stress of the 96 health care providers who had performed resuscitation efforts with family members present. The majority (84%) believed their performance was unaffected by the family's presence. The study concluded that the provider discomfort and inexperience decreased the likelihood of a supportive family presence. Also, the authors claim that family members should be assessed for their coping abilities and emotional stability before the option of family presence during resuscitation is offered. The study resulted in the development of a policy for family presence during resuscitation. The accuracy of the recollections of the medical staff may be questioned in Meyers et al.'s study [7], because the survey was completed over 2 weeks after the actual event.

In the second study, researchers surveyed 368 members of the American Association for the Surgery of Trauma (AAST) and 1261 Emergency Nurses Association (ENA) members [20]. The study proposed to determine the health care providers' opinion regarding the phase of the trauma resuscitation in which family members should be allowed to be present. The results indicated that only 3% of AAST members' participants, but 59% of ENA members, favoured family presence during resuscitation. The authors concede that the findings were biased by, firstly, the overrepresentation of ENA members, and secondly because the AAST members do not represent ED staff. Similarly to the previous study, the current study suggested the implementation of family presence may cause conflicts and thus impact on the performance of the trauma team [20].

In a third study a retrospective study was conducted in the Accident and Emergency (A&E) Department which took place at Hope Hospital Salford in the United Kingdom [21]. The study included only non-traumatic adult cardio pulmonary resuscitation and was to determine whether the presence of relatives during resuscitation altered perceived symptoms of stress in medical staff. An anonymous structured questionnaire was used to survey 114 medical staff 24 h after participating in resuscitation to obtain symptoms and acute stress reaction based on ICD-10 diagnostic criteria. The results indicated that 25 medical staff reported at least more than two symptoms of acute stress reaction. Of the 25 reporting more than two symptoms, 13

reported with the family being present during resuscitation and 12 without the family being present: there was thus no significant difference between the two groups. The study included only non-traumatic adult resuscitation and excluded the traumatic resuscitation which would have enriched the study findings. The findings here substantiate [7] findings that the presence of relatives witnessing resuscitation did not affect self-reported stress symptoms.

Researchers surveyed 592 health care professionals attending the International Meeting of the American College of Chest Physicians in San Francisco, using a quantitative method [8]. The questionnaire distributed consisted of six questions about family presence practice and resuscitation experience with relatives. The study found that fewer physicians (20%) compared to nurses and allied health care workers combined (39%), would allow family members presence during adult resuscitation. Thus study indicating that the majority of intensive care professionals did not support it. They added that the intensive care professionals' opposition was based on many reasons, which included the fear of psychological trauma to the witnessing family members, performance anxiety among the CPR team, and the distraction of the resuscitation team. However, others believed strongly that the presence of family members in the resuscitation bay would positively affect patient care. An interesting significant relationship of this study was found in that the health care professionals with previous experience of family presence opposed the practice more than those with no experience.

A quantitative descriptive research study was undertaken using a 30-item survey on a random sample of 1500 members of the American Association of Critical-Care Nurses and 1500 members of the ENA [9]. The study sought to identify policies, preferences and practices of critical care and emergency nurses towards family presence during resuscitation and invasive procedures. The survey consisted of 20 items on demographic data, 9 items on practice, preferences and policies and 1 item for comments and experiences of the nurse. A total of 473 intensive care nurses, 465 emergency nurses and 55 nurses who either practised in both areas or did not provide detailed work information participated in the study. The results indicate that nearly all of the 984 respondents had no written policies for family presence during resuscitation and other invasive procedures, and most preferred it to be allowed. Nearly half the participants indicated that they worked in units that allow family presence without written policies. Thirty-seven per cent of the respondents preferred written policies allowing family presence. Furthermore, most intensive care and emergency nurses supported the practice. These findings are consistent with [7] findings. The findings of this study also add to the evidence that health care providers who have experience with family presence tend to support the practice more than those who do not have experience, in contrast to Ref. [8].

These findings are important and have implications for conducting research on this issue in different settings because many nurses receive requests from patients' family members to be present during resuscitation and other invasive procedures and nurses are often the facilitators of the family presence. The study concluded that family presence during resuscitation lacked written policy. The study did not undergo reliability testing and appeared to have no construct validity, also the generalisability of the study is limited to nurses.

Ellison applied a descriptive correlational study with qualitative components to identify the relationship between demographic variables and nurses' attitudes and beliefs regarding

family presence during resuscitation or invasive procedures [22]. These demographic variables included educational preparation, specialty certification, experience, completion of a family presence educational offering, age, sex and ethnicity. A total of 208 hospital nurses and New Jersey ENA members completed the questionnaire. The study found a statistically significant difference between positive attitudes towards family presence and higher educational preparation ($r = 0.216$, $P < 0.01$), certification in emergency nursing ($r = 0.216$, $P < 0.01$) and emergency nurse specialisation ($r = 0.234$, $P < 0.01$). These findings support [20] study that certified nurses had more favourable attitudes towards family presence than noncertified nurses.

Qualitative findings revealed that personal factors such as experience with crisis situations, ability to manage crisis situations and cultural differences between patients/families and nurses were identified as variables influencing respondents' attitudes towards family presence [22]. Qualitative findings also revealed organisational and social factors that can have a negative impact on nurses' attitudes towards family presence. Working in an environment with supportive colleagues such as those with higher education and specialised training was more likely to bring a change in behaviour. Additionally, nurses found family presence most acceptable when they or their families were patients [22]. Those findings are limited as the data was collected from only one hospital and one professional nursing organisation.

Another descriptive qualitative study was carried out [23]. The study explored nurses' beliefs regarding family presence during resuscitation. The data were gathered from ten Registered Nurses (RNs), one male and nine female with a minimum of 4 years clinical experience working in diverse acute care units through a semi structured interview. The interview consisted of 16 open-ended questions and lasted for 45 min. Certain findings in this study are similar to those in study [7], both studies revealed that families should be assigned with staff due to the possibility of psychological harm to the families; staff feelings of being watched; and increased professional behaviour on the part of the resuscitation team when families are present. The issue of disruption by family members was also raised but authors commented that nearly their entire health care provider sample of 60 RNs and 36 physicians responded that family behaviour towards resuscitation procedures was appropriate [7].

Findings in Refs. [9, 23] differed with respect to participants' views about the need for policies. Participants in Ref. [23] study were not asked to address the issue of having written policies regarding family presence. In contrast, findings from Ref. [9] indicated that most intensive care nurses preferred having policies in place for resuscitation. They also noted that nurses, more than physicians, supported family presence [9]. Family presence is not traditionally practised and it may not be considered, unless brought to the attention of administration by nursing staff committed to change their policy. The study group in current study was small ($n = 10$), the age group was limited to 31–41 years of age and those factors accordingly limited the generalisability of the study findings [23]. Furthermore, the setting of the interview was different for all nurses and this did not allow consistency in the interview process.

The experiences and attitudes of 124 European critical care nurses to the family presence during resuscitation of adult patients were explored [12]. The nurses were invited to participate in the study during the first conference of the European Federation of Critical Care Nursing

Associations which was held in Paris in May 2002. A self-administered questionnaire was used to capture the attitudes and experiences of nurses. It consisted of biographical data, 6 questions concerning nurses' experiences of the practice and 30 questions concerning nurses' attitudes of family presence during resuscitation. Generally, critical care nurses supported the presence of family members and the majority ($n = 94, 76.4\%$) thought that allowing family members to be present would reassure them to see that everything possible was done to save the patient.

Further, a majority of the nurses ($n = 71, 57.3\%$) believed that family might draw comfort from sharing the last moment with patient. Nurses from the UK, however, held significantly more positive attitudes towards the practice than their non-UK counterparts. A more important finding of this study was the strong agreement among nurses that there should be a member of the resuscitation team facilitating family members throughout the experience, including providing emotional support, explanations and interpretations of the procedure, to the attending families. The authors believed that cultural values varying from country to country in Europe may have affected the experiences and attitudes of nurses towards family presence during resuscitation. This study relied on convenience sampling of critical care nurses, so there are difficulties in generalising the results to other areas. Additionally, the questionnaire was based on a review of the existing literature rather than an already validated tool; thus its validity and reliability might be questioned. In spite of the study limitations, the authors propose that further policy be developed accordingly to guide clinical practice.

The concept of family presence during resuscitation has also been researched in the Turkish context [14]. This descriptive study with a quantitative approach sought to explore experiences and opinions of critical care nurses regarding family presence during resuscitation in Turkey. The data were gathered using a 43-item questionnaire [12, 14]. The questionnaire consisted of three main areas: demographic characteristics of nurses, experiences of family presence during resuscitation and nurses' opinions of family presence. The study took place at 10 hospitals, 4 affiliated with the Turkish MOH, 3 affiliated with universities and 3 affiliated with Social Security Agency hospitals. A total of 409 eligible critical care nurses returned the self-report questionnaire [14].

The results indicated that more than half of the nurses had no experience of family presence during resuscitation and none of them had ever invited family members to be present during resuscitation [14]. The study indicated that the majority of the nurses did not agree that it was necessary for family members to be with the patient during resuscitation and they did not want family members to be present. In fact, none of the Turkish hospitals that participated in this study had a protocol or policy allowing family members to be present during resuscitation. The findings reveal that critical care nurses in Turkey are not familiar with the concept of family presence during resuscitation; accordingly, the authors further recommended educational programs about this issue and policy changes within the hospitals to enhance critical care.

Researchers designed and implemented a program of family presence during resuscitation at the Urban Academic Medical Centre [24]. The study assessed the attitudes of all nurses and physicians regarding family presence during resuscitation, using a two group pre-test post-test design. The initial survey was completed by 86 nurses and 35 physicians and the follow-up survey was completed by 89 nurses and 14 physicians. The questionnaire included three

parts, demographic information, professional attitudes and behaviours and personal and professional experience of the practice. Consistent with the study [7–9] found that nurses showed stronger support for the rights of patients to have their families present than did physicians on both surveys. The authors in this study failed to identify the psychological effects of family presence during resuscitation on medical staff; also a limitation that was highlighted by the authors was that anonymity of participants did not allow the authors to evaluate individual change in the practice. Despite the differing concerns of nurses and physicians, the implementation of a family presence program was successful and is now the standard practice at the hospital where the study was conducted.

At the same time that the study [24] was released, another study in different contexts has been published on family presence during resuscitation. It examined the perception of 90 emergency nurses towards the family presence during resuscitation at Cork University Hospital in Ireland [25]. The authors in this study used a descriptive quantitative design through a questionnaire utilised for the study, which was developed by the ENA. The sample was a convenience sample of 90 nurses working in a level 1 trauma ED with over 6 months' experience. The nurses were predominantly females (83.3%) in the 30–40 years age group and were employed as staff nurses (80%). Surprisingly, the study showed that 58.9% of the participants had invited family members to attend the resuscitation. Another 17.8% had not had the opportunity to do so, but would allow the family members to be present if the opportunity arose. However, 74.4% of the nurses preferred a written policy, which gives the family members the option of being present during resuscitation. In spite of using a quantitative design which did not allow the nurses' perceptions to be explored in detail, the study has clinical implications. The study emphasised the need to develop educational programs for nurses on the safe implementation and practices of families witnessing resuscitations.

A descriptive study using survey methods was conducted to investigate the outcomes of family presence on staff attitude immediately post-resuscitation [26]. The findings here are part of a larger project of family presence that was conducted at a tertiary referral hospital in Brisbane in Queensland, Australia. The participants of this study were any medical staff members present during resuscitation of patients who met the inclusion criteria for the study. The inclusion criteria for an eligible resuscitation were Australian patients presenting as Triage Categories 1 or 2, with or without an altered level of consciousness, hypotension, respiratory distress or the need for CPR. The majority of the informants were nurses, followed by registrars, residents, consultants then social workers. In this survey, the staff felt there were positive aspects and advantages for relatives being present during resuscitation. These advantages include being able to obtain a medical history quickly; the patients being comforted by having relatives present; and the relatives benefiting by being present; thus the staff thought it was easier to manage while the relatives were present.

This study provided an Australian and international perspective to the existing research literature on staff attitudes to family members present during resuscitation, and a new perspective as well by examining staff attitudes immediately post-resuscitation. The findings of this study further support the presence during resuscitation within an environment that supports staff to undertake the care of the patients with their family being present.

Nurses' opinions of family presence during resuscitation have been influenced by culture and religion, according to Cunes [27]. This study [12, 14] replicated survey to determine the experiences and attitudes of Turkish intensive care nurses concerning family presence during resuscitation. Using a descriptive design research study, they surveyed 135 intensive care nurses from 2 university hospitals in Izmir by structured questionnaires [12, 27]. The vast majority (88.1%) disagreed that family members should be given the option to remain with their loved one during resuscitation. Only 22.2% of the intensive care nurses participated in resuscitation where family members were present. Almost all nurses (91.1%) agreed that they did not want family members to be present.

In addition, all nurses indicated that they had no protocol on family presence during resuscitation. Nurses agreed (72.6%) that family members, if present, would interfere with the resuscitation team performance and 86.6% of nurses believed that witnessing resuscitation by family members is a traumatic experience and a very stressful situation. The findings of this study are consistent with those of Ref. [14] as to the lack of support of Turkish intensive care nurses, which is a result of nurses having no knowledge, and neither policy nor protocol for family presence during resuscitation. The researchers concluded that educational programs, if implemented together with the developmental of protocols and guidelines, should both aid in the acceptance of the concept by the intensive care nurses in Turkey. The instrument used did not have any open-ended questions to allow nurses to write their additional thoughts.

Authors from Germany conducted another descriptive survey study to explore the German intensive care nurses' experiences and attitudes towards family presence during resuscitation [28]. The study used the questionnaire which was developed by Fulbrook et al. [12]; however, a fourth section was added to allow delegates to further write any additional concerns related to the issue. Unlike Ref. [12], this qualitative data enhanced both the depth and comprehensiveness of the participants' experiences. A total of 164 intensive care nurses were recruited who attended the 26th Reutlinger Fortbildungstage held in Reutlingen, Baden-Wurttemberg, Germany during September 2008. According to the researchers, most of the participants (68%) did not agree that family members should be given the option of being present during the resuscitation of their loved one. Also, over half (56%) were concerned that family presence would disturb the performance of the resuscitation team.

Consistent with Ref. [12] informants in this study, 73.5% agreed that there should be a dedicated member of the resuscitation team who should be available to meet the family needs, for instance to support and explain the resuscitation procedure to the family members. Moreover, 68% of nurses believed that family presence could help them to know that everything possible was done for their patient, which was also found [12]. Nurses in this study indicated that they rarely invited family to be present, which might be due to the lack of unit protocol or practice guideline. Researchers interpreted that the nurses' decision regarding practice might have been influenced by the German cultural values and societal traditions. The study encouraged simulation training techniques to assist practitioners to increase their confidence, overcome their fears and support the family during the situation: those topics are to be introduced within the nursing curricula.

In Iran, a study was undertaken to determine the opinions of health care providers of family presence during resuscitation and other invasive procedures in four teaching hospitals in

Tehran [29]. A total of 200 health care providers were surveyed by a questionnaire developed for the study which asked about the demographic characteristics of the respondents, years of working experience and opinions about relatives' presence during intubation and resuscitation. The participants' age, gender, experience and speciality did not correlate with the participants' attitudes towards family presence. However, participants with previous exposure to family presence were more in favour of family presence. Similar to a study previously sampled from nurses in another Muslim community in Turkey [14], the results of this study revealed that the majority (77.9%) opposed the practice. The most common reasons for the participants' opposition, as indicated by the authors, were the health care providers' fear of psychological trauma to family members, possible interference with patient care as the Muslim families are potentially closer and more prone to display emotions which may distract the resuscitation team.

Further, a total of 132 nurses were surveyed using a self-administered questionnaire in two hospitals in Saudi Arabia [30]. The study found that 75.6% of the participants did not support the family presence practice indicating the same reasons as Ref. [29] for opposition such as witnessing resuscitation is a traumatic experience and fearing that family members will negatively impact on the resuscitation team. An interesting finding was a statistically significant relationship between nurses with previous experience of family presence and support for the practice [30]. Nurses with previous experience of family presence opposed the practice more than nurses with no previous experience ($P = 0.001$). However, this was not the case where ICU health care providers with previous experience of family presence during resuscitation were found to be more supportive of the practice, compared to the health care providers with no previous experience [28]. Authors maintained that the Islamic religion and the Saudi culture influenced the nurses' attitudes towards the practice of family presence [30].

Significantly, different perceptions can be perceived regarding family presence during resuscitation [31]. However, studies have shown that family members consider the need to be close to the patient as very important as the unpredicted admission without any warning causes high level of stress and anxiety among family members [31]. Additionally, the experience resuscitation creates an intense emotional situation for both patients and their family members [32]. The health care providers reported a need for training programmes to support the family when they attend resuscitation [30–32]. A number of studies also emphasised the need to develop educational programmes for medical staff on the safe implementation and practice of family presence [12, 24, 28]. The health care providers also indicated the need to develop policies to support family involvement and give family the option to attend resuscitation [31].

6. Conclusion

In general, most of the reviewed studies were descriptive, using either quantitative or qualitative approaches. The family members in those earlier reviewed studies indicated their desire and supported their presence during resuscitation. They also advocated further benefits including helping the patient, knowing everything possible was done to save their loved one

and support provided to grieving family members. These findings highlight the importance of giving the health care providers the confidence in including the family during the care of the patient and considering them as part of the caring team. The studies also demonstrated that health care providers have significantly different opinions regarding family presence during resuscitation. Some oppose family presence for many reasons including that the practice would be offensive, produces stress in staff and that family members may interfere with the treatment. Other health care providers were comfortable with the family presence and believed that it would positively affect patient care, agreeing that their presence would reassure them that the best care is being provided. It was obvious that the research so far has failed to identify the psychological effects of family presence on the families during resuscitation. Regardless of the difference in health care providers' views, some endorsed the need for written policies to allow family presence and others suggested a 'nurse facilitator' dedicated to evaluate readiness of the family members to attend the procedure and explain it to them when they attend.

The findings of this research suggest a number of recommendations, including clinical implications and further research which include the following:

6.1. Clinical implication

The decision to implement the family presence practice should be well prepared. The decision needs to be made at the individual level (health care providers) and organisational level (hospitals). The study helped also to identify some issues which needed to be addressed before offering the option to families to be present during the resuscitation attempts on their family member. The identified issues include guidelines, written policies, informed consent and family presence educational programs.

A significant concern should be given to the family presence policy. The policy must ensure providing the family members a safe and caring environment. Before the option is offered, the families should be assessed for coping abilities and the absence of extreme psychological and emotional disturbance. The policy also should stress on the nurse facilitator interventions regarding the follow-up and explanations to the family throughout the procedure. Therefore, this study suggested a proposed practice standard (Appendix A) that could help to fulfil the family as a whole, rather than treating the patient individually and assures the safe implementation of family presence during the resuscitation of the loved one.

Secondly, the family presence educational programs should benefit the health care providers and families who would like to attend the resuscitation of their loved one. Accordingly, staff support programs should be developed to assist families who want to be present during resuscitation. Health care facilities also should contribute educational sessions on the family presence practice for the society to be well informed and have adequate knowledge of the practice. Through different teaching strategies, the family presence practice can be instructed to the participants such as lectures or pamphlets. This study suggested a proposed assessment of the family members to cope with the situation, and the infection control practices for safe implementation by the health care providers.

6.2. Further research

Future studies should include other health care providers' attitudes regarding family presence practice. It is most important to study the view of patients and family members as to whether they really want to and benefit from being the family presence during resuscitation for both adults and paediatric patients. This study also will act as a stimulus for further research in an area of family presence during resuscitation.

6.3. Recommendations for successful family presence program

- Development of protocol of family presence practice.
- Attendance at educational program regarding family presence for all staff involved in the practice.
- Program should include:
 - Assessment of family members' ability to cope with the situation and the absence of extreme emotional disturbance behaviours.
 - Removal of the non-essential equipment from the resuscitation room in order to make space for the family members.
 - Infection control practices, for example, the family members may be asked to wear gloves, gown or eye protection to prevent exposure to blood or body fluids.

7. Standard of practice for family presence during resuscitation

7.1. Definition

It is the presence of family members during the resuscitation of their loved one.

7.2. Purpose

To treat the patients and families holistically and to support the family needs.

7.3. Policy statement

Family members will be permitted in the patient care during resuscitation of their family member.

7.4. Procedure

1. The nurses will be responsible for assessing patient and family needs to be present during resuscitation.

2. The facilitator nurse is responsible for assessing the family members' ability to cope with the situation and the absence of extreme emotional disturbance behaviours before the option can be offered.
3. If the facilitator nurse agrees to allow the family members during the resuscitation, the patient (if conscious) will be asked if they agree for the family to be present.
4. Only two of family members will be allowed in the resuscitation room, prioritising the next of kin and at this time the consent must be secured by the family members.
5. Prior to entering the resuscitation room, the facilitator will explain to the relatives about the patient's condition, treatments and equipment available in the room, where they stand in the room and when they may leave if any psychological distress appears.
6. The family members will be accompanied by the facilitator in the resuscitation room.

The nurse facilitator will:

- Explain the procedure to the family members.
- Provide information about the expected outcomes and the patient's response to the treatment.
- Reassure the relatives, open space for the family's point of view and answer their questions.

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