Perceptions of healthcare professionals about the presence of family members during cardiopulmonary resuscitation: An integrative literature review

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Abstract

Context: The inclusion of families during cardiopulmonary resuscitation procedures is a clinical challenge. Families are often overlooked in resuscitation protocols aimed at interventions by an interprofessional team, which includes physicians, nurses, respiratory therapists, and orderlies. The existing scientific literature has relatively little to say about the perception of the interprofessional team as to the inclusion of families during resuscitation

Objective: The goal of this integrative review is to explore existing papers on the perception of members of an interprofessional team with regard to the presence of family members during emergency room cardiopulmonary resuscitation procedures.

Methodology: This integrative literature review was carried out by referring to the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, MEDLINE, Web of Science, the Cochrane Library, and the Joanna Briggs Institute (JBI). Data were organized on the basis of the three themes identified by Twibell et al. (2008) in their work: the benefits perceived by Health professionals, the perceived risks and the level of confidence in the professional practice.

Results: Of a total 1,910 works catalogued, 23 scientific papers were selected for subsequent analysis. The three themes identified by Twibell et al. (2008) provided a basis for the analysis of the literature. A thematic content analysis was conducted. The literature primarily addresses the perception of nurses and physicians; very little attention is given to other members of the interprofessional team. Despite the risks and concerns of nurses and physicians, the presence of family members during cardiopulmonary resuscitation procedures is considered to be beneficial to the family.

Limitations: This integrative review found no papers on the perspective of managers or policy-makers; neither did it turn up any information on the point of view of interprofessional teams working in pediatric emergency rooms. Furthermore, the analysis method based on the themes identified by Twibell et al. (2008) leads to a bias in the emergence of other themes. Finally, the perceptions of the interprofessional team were not incorporated into the practice setting.

Conclusion: The results of this integrative review offer guidelines for improving the practice of inclusion of families during cardiopulmonary resuscitation procedures. Particular attention should be paid to the initial and continuing training of health professionals. Furthermore, this article allows for an initial reflection among managers and decision makers to promote a collaborative culture as well as a patient-centred approach.

Keywords: interprofessional team, resuscitation, emergency department, family, integrative review

Introduction

In emergency rooms, all cardiopulmonary resuscitation procedures take an emotional toll on the individual, their family, and the interprofessional team. Many studies, nevertheless, show that families wish to be present with their loved one in a critical care situation of this nature (Meyers et al., 2000; Mian et al., 2007). A number of researchers report multiple benefits of including family members, in that they represent a source of information for the interprofessional team (Jensen & Kosowan, 2011; Knott & Kee, 2005). Other authors point out that the family's presence helps to make the critical care situation more human (Chapman et al., 2014; McClement et al., 2009; Porter et al., 2014). Accordingly, the Emergency Nurses Association (ENA) issued recommendations in 2007 to develop and support this practice of inclusion in emergency settings (Emergency Nurses Association, 2012). Healthcare professionals' opinions on the subject are mixed, although a majority of them feel that including families is not consistent with the usual practice of keeping families away (Fisher et al., 2008; MacLean et al., 2003; Mason, 2003). This reluctance on the part of healthcare professionals underscores the importance of examining how the interprofessional team perceives the presence of family members during resuscitation procedures. The presence of the family during resuscitation is equivalent to the presence of the family in the environment within which cardiopulmonary resuscitation are provided (Twibell et al., 2018). This presence enables them to have visual or physical contact with the patient during cardiopulmonary resuscitation (Twibell et al., 2018). Thus, the purpose of the article is to provide an overview of the perceptions of the interprofessional team regarding the presence of family members during cardiopulmonary resuscitation in the emergency department.

Method

This integrative review of the literature was carried out using the five-step method of Whittemore & Knafl (2005) comprising problem identification, literature search, data evaluation, data analysis, and presentation of a summary of the data.

The research strategy focused on three key concepts: interprofessional, family and resuscitation. Scientific papers were found through the Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsycINFO, Medline, Web of Science, Cochrane and the Joanna Briggs Institute (JBI). To be included in the review, papers needed to be published in English or French; be a qualitative, quantitative, or mixed study, or a literature review; be published after 2005 to focus on recent research; and deal with family presence during cardiopulmonary resuscitation or the perceptions of healthcare professionals. Papers examining the reality of pediatric emergencies and studies from countries where clinical practices are not similar to those employed in North America were excluded. The articles were examined using a chart analyzing their relevance, rigour and methodology. This chart is based on the book by Loiselle and Profetto-McGrath (2007). The academic papers were not included on the recommendation of a librarian. Indeed, for example, the policies and procedures in terms of inclusion or exclusion of families are usually internal unpublished documents.

Data analysis

Analysis was done using the three themes identified in the works of Twibell et al. (2008) through a thematic analysis of the data (Paillé & Muchielli, 2016). This type of analysis was effective in identifying the perceptions of members of the interprofessional team with regard to the presence of family members during emergency room cardiopulmonary resuscitation procedures linking them to the three themes identified by Twibell et al. (2008). The findings of this integrative review bring to light the benefits and risks perceived primarily by the nurses and physicians with regard to the presence of family and the level of confidence in the professional practice (see Table 1).

Results

A total of 1,720 papers were excluded from the initial 1,910 papers identified because they did not fulfill the inclusion criteria (Figure 1). Of the 190 remaining papers, 158 were excluded because they did not meet the goal of the integrative review, which was to find papers dealing with the perceptions of professionals about the presence of family members during cardiopulmonary resuscitation procedures in the emergency room. In the final tally, 23 papers were analyzed using a structured

Figure 1. Literature selection process

1,910 papers found in electronic databases
190 papers catalogued
23 papers integrated in the integrative review

1,720 papers excluded
- *Published in a language other than French or English*
- *Published prior to 2005*
- *Focus on pediatric patients*
- *Non-relevant countries*
- *Did not meet inclusion criteria: paper addressing family presence during cardiopulmonary resuscitation document*

162 papers excluded
Did not meet the goal of the integrative review

Table 1. Perceived benefits and risks of nurses/physicians in different fields

PERCEIVED BENEFITS

Patient/Family	Nurses/Physicians
• Maintained bond between the patient and their family (Fell, 2009; Holzhauser & Finucane 2008; Howlett et al., 2010; McClement et al., 2009) • The family's awareness of the level of care provided for their loved one and the efforts undertaken by the healthcare team (Chapman et al., 2014; Fell, 2009; Holzhauser & Finucane, 2008; Howlett et al., 2010; Knott & Kee, 2005; McClement et al., 2009; Porter et al., 2014; Tudor et al., 2014) • Help reduce a family's anxiety and help them better grasp the severity of the situation (Jensen & Kosowan, 2011) • May make them more open when it comes time to stop resuscitation procedures (Gomes et al., 2019) • Helps the grieving process (Axelsson et al., 2010; Chapman et al., 2014; Garcia-Martinez & Meseguer-Liza, 2018; Howlett et al., 2010; Knott & Kee, 2005) • Reduction in post-traumatic stress symptoms (Jabre et al., 2013)	• A stronger family/caregiver relationship (Asencio-Gutiérrez & Reguera-Burgos, 2017; Miller & Stiles, 2009; Porter et al., 2014; Powers & Reeve, 2018) • A feeling of being appreciated by the family (Miller & Stiles, 2009) • Family acknowledges the efforts undertaken by professionals (Miller & Stiles, 2009) • Patient information is more accessible (Chapman et al., 2014; Fell, 2009; Holzhauser & Finucane, 2008; Howlett et al., 2010) • Makes the patient seem more human, rather than just a body to be resuscitated (Chapman et al., 2014; McClement et al., 2009; Porter et al., 2014)

PERCEIVED RISKS

Patient/Family	Nurses/Physicians	Environment
• Emotional burden (Garcia-Martinez & Meseguer-Liza, 2018; Holzhauser & Finucane, 2007, 2008; Howlett et al., 2010; Knott & Kee, 2005; Miller & Stiles, 2009) • Psychological trauma (Asencio-Gutierrez & Reguera-Burgos, 2017; Fell, 2009; Howlett et al., 2010; McClement et al., 2009; Porter et al., 2014; Tudor et al., 2014) • Misinterpretation of the care provided (Knott & Kee, 2005; Tudor et al., 2014) • Disruption to the grieving process (Holzhauser & Finucane, 2007) • Infringement of confidentiality and privacy of the patient (Holzhauser & Finucane, 2007; Tomlinson et al., 2010)	• Emotions experienced by the family may disrupt cardiopulmonary resuscitation (Chapman et al., 2014; Holzhauser & Finucane, 2007; Howlett et al., 2010; Köberich et al., 2010; Porter et al., 2014; Tomlinson et al., 2010; Waldemar & Thylen, 2019) • Resuscitation efforts are more stressful (Jensen & Kosowan, 2011) • May lead to an increase in the number of legal proceedings (Axelsson et al., 2010; Fell, 2009; Howlett et al., 2010; Koberich et al., 2010; McClement et al., 2009; Porter et al., 2014; Powers & Reeve, 2018; Tomlinson et al., 2010) • Potential difficulties in stopping resuscitation efforts (Axelsson et al., 2010; Holzhauser & Finucane, 2008; Howlett et al., 2010)	• Considerable reduction in the size of the environment of the resuscitation room (Chapman et al., 2014; Holzhauser & Finucane, 2008; Howlett et al., 2010; Knott & Kee, 2005; McClement et al., 2009; Waldemar & Thylen, 2019)

LEVEL OF SELF-CONFIDENCE EXPERIENCED BY HEALTHCARE PROFESSIONALS

• The higher the level of self-confidence, the more likely physicians and nurses will be to ask the family to be present (Twibell et al., 2008)
• The absence of discretionary authority can present a barrier to self-confidence (Fulbrook et al., 2005)
• When staff are open to the idea of the presence of family members, the comfort level rises (Holzhauser & Finucane, 2007)

chart produced by the authors. The chart was used to synthesize data from the thematic analysis. It is comprised of the following information: the reference to the paper, the country, the research quote, the objective, the data associated with the perceived benefits, risks and level of self-confidence experienced by healthcare professionals. These 23 papers comprised the following: an integrative literature review ($n = 1$), literature reviews ($n = 4$), quantitative descriptive studies ($n = 11$), qualitative descriptive studies ($n = 5$), a mixed-method descriptive study ($n = 1$), and a randomized control trial ($n = 1$). The majority of these papers ($n = 20$) were published from 2008 onward. The work of Twibell et al. (2008) on the development of a tool validated by psychometric properties, used to measure nurses' perceptions of family presence during resuscitation, set out a path with regard to nursing-related research on the inclusion of family during resuscitation procedures.

Most of the studies were from North America, either the United States ($n = 10$) or Canada ($n = 2$). The others were conducted in Europe ($n = 5$), Australia ($n = 5$), and Latin America. The number of participants in the studies ranged from 10 to 242. For the quantitative studies, the samples ranged from 40 and 570. The sample size in most of the studies was more than 120. The number of study samples varies greatly, which may influence the generalizability of the results. However, generalization is not an end in itself in the integrative review method of the literature. Participants were either nurses ($n = 12$) or a combination of nurses and physicians ($n = 5$). One study group was composed exclusively of physicians despite the inclusion of the concept of an interprofessional team in the selection criteria for the articles and keywords.

The studies originate from emergency departments ($n = 6$), intensive care units ($n = 5$), a combination of other hospital units ($n = 4$), cardiology unit ($n = 3$) and a study aimed at nurse members of ENA and the AACN (American Association of Critical-Care Nurses).

Theme 1: Perceived benefits of family presence for nurses and physicians.

In the scientific literature, we identified a number of benefits perceived by nurses and physicians. According to Twibell et al. (2018), the perceived benefit involves the individual's assessment as to the adoption of a behaviour. These benefits fall mainly into two categories: patient/family and nurses/physicians.

Patient/family related benefits

Eighteen papers assess the benefits related to patient/family. There are many perceived benefits for the team with regard to patients/families: these benefits concern comfort, emotional support, awareness of the level of care, the grieving process, interruption of resuscitation, assistance, and mitigation of post-traumatic stress.

It is important to point out that the benefits for the patient are not as prevalent in the literature. Waldemar & Thylen (2019) point out that nurses ($n = 189$) feel that having family present may be beneficial for the patient. Some authors support the presence of family members as a way of providing comfort and emotional support for patients (Fell, 2009; Holzhauser &

Finucane, 2008; Howlett et al., 2010; McClement et al., 2009). According to these authors, the presence of family members would allow the bond between the patient and their family to be maintained.

Comparatively, the benefits for the family are well documented. According to many authors, nurses feel that family presence during cardiopulmonary resuscitation helps families understand the level of care provided for their loved one and the efforts undertaken by the healthcare team (Chapman et al., 2014; Fell, 2009; Holzhauser & Finucane, 2008; Howlett et al., 2010; Knott & Kee, 2005; McClement et al., 2009; Porter et al., 2014; Tudor et al., 2014). This awareness helps reassure families in the situation (Tudor et al., 2014) and provides a sense of meaning (Porter et al., 2014). Several authors report that the family members' presence helps them understand that everything has been done for their loved one (Fulbrook et al., 2005; Gomes et al., 2019; Jensen & Kosowan, 2011; Köberich et al., 2010). This in turn may help reduce a family's anxiety and help them better grasp the severity of the situation (Jensen & Kosowan, 2011). Waldemar and Thylen (2019) report that this presence can help prevent the family from developing a distorted or erroneous view of the circumstances. Some authors that show that the presence of family members may make them more open when it comes time to stop resuscitation procedures (Howlett et al., 2010; McClement et al., 2009) also report that nurses see this same benefit (Fulbrook et al., 2005; Köberich et al., 2010). Additonally, Gomes et al. (2019) reports 82% of nurses ($n = 40$) speculate that family members would be more open to stopping treatment if they were present. A number of authors stress that families who are allowed to be present during their loved one's last moments have the opportunity to say goodbye (Axelsson et al., 2010; Fulbrook et al., 2005; Holzhauser & Finucane, 2007; Howlett et al., 2010; Köberich et al., 2010; McClement et al., 2009). In the view of many authors, family presence may be helpful in initiating the grieving process (Axelsson et al., 2010; Chapman et al., 2014; Fulbrook et al., 2005; García-Martínez & Meseguer-Liza, 2018; Howlett et al., 2010; Knott & Kee, 2005; Waldemar & Thylen, 2019).

In their study, Jabre et al. (2013) report that the frequency of occurrence of post-traumatic stress is significantly higher among families who are not present during the resuscitation of their loved one compared with those who are. Some symptoms of post-traumatic stress, such as anxiety and depression, are more prevalent among family members who were not there while resuscitation was being administered (Jabre et al., 2013).

Nurses/physicians related benefits

Fourteen papers were included under the subtopic of nurse/physician related benefits. The nurse/physician related benefits reported in the papers are as follows: a stronger family/caregiver relationship, rapid access to the patient's medical history, and a more human resuscitation situation. Many authors contend that family presence helps strengthen the relationship between the family and the healthcare team (Asencio-Gutiérrez & Reguera-Burgos, 2017; Fulbrook et al., 2005; Miller & Stiles, 2009; Porter et al., 2014; Powers & Reeve, 2018). Miller and Stiles (2009) indicate that nurses say they feel appreciated by the family if

the family is able to be present during cardiopulmonary resuscitation. These same authors stress that, in this situation, the family acknowledges the efforts undertaken by professionals, thereby creating a stronger caregiver/family bond (Chapman et al., 2014; Fell, 2009; Holzhauser & Finucane, 2008; Howlett et al., 2010). Axelsson et al. (2010) and Fulbrook et al. (2005) feel that family presence has a positive impact on team performance. Several authors assert that family presence makes the patient seem more human, rather than just a body to be resuscitated (Chapman et al., 2014; McClement et al., 2009; Porter et al., 2014). Holzhauser and Finucane (2008) argue that family presence can also be comforting for nurses and physicians.

Theme 2: Risks related to nurses and physicians with regard to family presence

The risks perceived by nurses and physicians with regard to the presence of family members during cardiopulmonary resuscitation are well documented in the scientific literature. Perceived risk is based on how likely a person feels that a threat will materialize (Twibell & al., 2018). Including families can be a negative experience if the professional sees inclusion as a risk

Risks related to the patient/family

Fifteen papers assess the risks related to family. The risks perceived by nurses and physicians as they relate to the patient/family are diverse and varied: emotional burden, misinterpretation of the care provided, harmful behaviour, disruption to the grieving process, and infringement of confidentiality.

Many authors assert that there is an emotional burden for the family who witnesses resuscitation procedures being administered to a loved one (Fulbrook & al., 2005; García-Martínez & Meseguer-Liza, 2018; Holzhauser & Finucane, 2007, 2008; Howlett et al., 2010; Knott & Kee, 2005; Miller & Stiles, 2009). Köberich et al. (2010) state that 24% of nurses (η n = 394) fear that the experience may have long-term emotional repercussions on family members. Recently, Waldemar and Thylen (2019) reported that 13.2% of nurses and physicians (n = 189) feel that the family will suffer negative emotional effects. A number of authors put forward the possibility of psychological trauma for the family (Asencio-Gutiérrez & Reguera-Burgos, 2017; Fell, 2009; Howlett et al., 2010; McClement et al., 2009; Porter et al., 2014; Tudor et al., 2014). Jensen and Kosowan (2011) indicate that 21.9% of nurses and physicians (n = 137) think that the experience is too traumatic and disturbing for the family. Other authors contend that the presence of family members may lead to a skewed interpretation of certain medical acts and the belief that the healthcare team is doing more harm than good (Knott & Kee, 2005; Tudor et al., 2014). In a study by Fulbrook et al. (2005), 75% of nurses (n = 124) believe that they might say something that would unintentionally upset the family. Other authors report potential problem behaviours such as family members who are out of control, hysterical, or panicked (Holzhauser & Finucane, 2007; Knott & Kee, 2005). In Fell (2009), caregivers state they fear a family member may faint while their loved one is undergoing resuscitation. Holzhauser and Finucane (2007) point to a risk of adapting poorly to the grieving process. Gomes et al. (2019) report that 12% of nurses interviewed (n = 40) feel that family presence actually prolongs bereavement. Several

authors report that patient confidentiality and right to privacy may be violated if family members are present (Fulbrook et al., 2005; Holzhauser & Finucane, 2007; Köberich et al. 2010; Tomlinson et al., 2010). Fulbrook et al. (2005) and Waldemar and Thylen (2019) both assert that 36.9% of nurses (n = 124) in the first study feel that family presence is not beneficial for the patient. Whereas 31.4% of nurses (n = 124) and 55.6% of physicians (n = 65) in the second study also share this perception. To summarize, nurses and physicians perceive multiple risks with regard to the patient and family.

Risks related to nurses and physicians

Eighteen papers assess the risks related to nurses and physicians. Many risks related to nurses and physicians are reported in the papers: interference during resuscitation procedures, legal action, and difficulties in stopping resuscitation. Many authors contend that the emotions experienced by the family may be disruptive while a patient is coding: some refer to anxiety (Asencio- Gutiérrez & Reguera-Burgos, 2017; Fell, 2009; Howlett et al., 2010; Knott & Kee, 2005; McClement et al., 2009; Porter et al., 2014; Waldemar & Thylen, 2019), some to stress (Chapman et al., 2014; Holzhauser & Finucane, 2007; Howlett et al., 2010; Köberich et al., 2010; Porter et al., 2014; Tomlinson et al., 2010; Waldemar & Thylen, 2019), and others to fear (Holzhauser & Finucane, 2007; Howlett et al., 2010). Jensen and Kosowan (2011) indicate that 61.5% of physicians and nurses (n = 137) feel that family presence during resuscitation would make the situation more stressful for members of their team. McClement et al. (2009) mention that healthcare professionals feel less confident if family members are present while a patient is coding.

Many other authors indicate that caregivers worry that family presence may lead to an increase in the number of legal proceedings against members of the resuscitation team (Axelsson et al., 2010; Fell, 2009; Howlett et al., 2010; Köberich et al., 2010; McClement et al., 2009; Porter et al., 2014; Powers & Reeve, 2018; Tomlinson et al., 2010). Fulbrook et al. (2005) state 26% of nurses (n = 124) fear that misunderstandings might lead to a greater number of lawsuits. According to Fell (2009), healthcare providers think that families' misinterpretation of their interventions may lead them to assume that the code team is incompetent. Other authors report that professionals tend to act casually and use humour to alleviate pressure during resuscitation procedures (Axelsson et al., 2010; McClement et al., 2009; Miller & Stiles, 2009). According to these same authors, this may prompt family members to initiate legal proceedings in the event that resuscitation is unsuccessful. Some authors point out potential difficulties in stopping resuscitation efforts when the family is present (Axelsson et al., 2010; Fulbrook et al., 2005; Holzhauser & Finucane, 2008; Howlett et al., 2010). Köberich et al. (2010) show that 23% of nurses (n = 394) believe that family presence might lead to unnecessary attempts to resuscitate the patient. A number of authors claim that the family may interfere with the resuscitation process (Axelsson et al., 2010; Chapman et al., 2014; Howlett et al., 2010; Jensen & Kosowan, 2011; Köberich et al., 2010; Porter et al., 2014; Tomlinson et al., 2010). Several authors show that this interference may be disruptive to

resuscitation efforts (Jensen & Kosowan, 2011; McClement et al., 2009; Powers & Reeve, 2018) or add to the code team's workload (Chapman et al., 2014). Knott & Kee, (2005) point out that this interference may make nurses feel uncomfortable (McClement et al., 2009), and mention a feeling of inadequacy. Other authors report that being observed by the family could be a distraction to caregivers (Fell, 2009; Powers & Reeve, 2018). Still others bring up the issue of concentration problems among the team (Axelsson et al., 2010; Fulbrook et al., 2005). Recently, Waldemar & Thylen (2019) reported a response rate of 20.5% among nurses ($n = 124$) and 41.2% among physicians ($n = 65$) with regard to this topic.

Risks related to the environment in the resuscitation area

Seven papers assess the risks related to the environment. Overall, only a few authors make mention of the risks related to the resuscitation area environment. However, some do specify a considerable reduction in the size of the environment of the resuscitation room (Chapman et al., 2014; Holzhauser & Finucane, 2008; Howlett et al., 2010; Knott & Kee, 2005; McClement et al., 2009; Waldemar & Thylen, 2019). Köberich et al. (2010) indicate that 42 nurses ($n = 394$) feel that resuscitation rooms are not large enough to allow for families to be present and that any such presence would be detrimental to the environment. Despite these space considerations, it is important to underscore that the authors of most of the studies report rates under 50% with regard to the risks perceived by nurses and physicians. Thus, a majority of caregivers do not perceive any risks due to family presence during cardiopulmonary resuscitation, even when the smaller space is considered.

Theme 3: Nurses' and physicians' self confidence when family members are present

Fourteen papers assess nurses' and physicians' level of self-confidence when family members are present. Twibell et al. (2018) define self-confidence as the capacity for a person to adopt a given behaviour. Self-confidence is an important consideration in the inclusion of families during emergency resuscitation. Twibell et al. (2008) among others, assert that nurses' self-confidence while family members are present has a direct impact on family inclusion: the higher the level of self-confidence, the more likely physicians and nurses will be to ask the family to be present.

A number of barriers can affect self-confidence and consequently restrict family inclusion; among these factors are the novelty of this practice and the absence of discretionary authority (Fulbrook et al., 2005). Holzhauser and Finucane (2007) show that, when staff are open to the idea of the presence of family members, the comfort level rises. In such an environment, it is entirely possible for family inclusion to be adopted as a practice. Using the definition provided by Twibell et al. (2018), their self-confidence level would be enhanced. According to Tomlinson et al. (2010), greater public awareness about the resuscitation process would encourage nurses to be more open to family presence. Thus, they will be more inclined to include family members during resuscitation efforts, hence strengthening their confidence in their professional experience.

The level of self-confidence itself is directly linked to professional experience. Tudor et al. (2014) used the scales put forward by Twibell et al. (2008). They concluded that nurses who have previous experience including families in the resuscitation process, or who have themselves stated that they would want a member of their own family to insist on attempting resuscitation on them if need be, have a higher level of self-confidence (Tudor et al., 2014). Howlett et al. (2010) report that 79% of 14 experienced physicians in a regional trauma care centre had a more positive attitude toward family presence than the 19% ($n = 22$) of less-experienced residents. Self-confidence is also contingent on previous experience in including families in resuscitation procedures. Recently, Twibell et al. (2018) found that physicians who have asked family members to be present during cardiopulmonary resuscitation score significantly higher on the self-confidence scale than those who have never done so. Porter et al. (2014) also point out that, if staff have previously included family members, they are more likely to do so again. The same authors indicate that education may help change attitudes and encourage more caregivers to be open to the presence of family members (Porter et al., 2014). The higher the level of self-confidence, the more likely physicians and nurses will be to ask the family to be present. Their level of self-confidence in their professional experience will thus be increased.

Twibell and her fellow researchers (2018) have led studies using a tool that measures the level of self-confidence in nurses and physicians. They report that nurses who perceive more benefits and fewer drawbacks tend to exhibit greater self-confidence. Emergency nurses show greater self-confidence (Twibell et al., 2008) as well as those who have a specialized certificate (Tudor et al., 2014).

Discussion and recommendations

This integrative review features a table summarizing the benefits and risks perceived by physicians and nurses, as well as their self-confidence levels, with regard to including family members during cardiopulmonary resuscitation procedures (See Table 1).

An initial observation: the studies included in this review focus exclusively on the perceptions of nurses and physicians, even though they are not the only healthcare professionals in the resuscitation room: they work closely within an interprofessional team of nurses, physicians, respiratory therapists and personal support workers (Vincent, 2006). The Ordre des infirmières et infirmiers du Québec (OIIQ) highlights the importance of this interprofessional collaboration in a position paper where the OIIQ asserts that it is a necessary element in every care scenario (OIIQ, 2015). Five years after this paper was issued, the OIIQ reiterated its position on the importance of a collaborative approach (OIIQ, 2020). Similarly, the Université de Montréal embraces a broad view of collaboration, considering both patients and families as partners in the healthcare journey. Furthermore, the institution defines teamwork as the predominant dynamic among patients, families, and healthcare professionals (DCPP & CIO-UdeM, 2016). It is therefore important to stress that this collaborative approach is vital to

interprofessional practice. This collaborative approach supports the results of this integrative review by underlining the importance of patients and their families as healthcare partners. Thus, this collaborative approach could provide the framework for managers in the creation of institutional policies in the context of including family members during emergency room cardiopulmonary resuscitation procedures.

The results of the integrative review also show that favorable perceptions of family inclusion led to families being invited by the interprofessional team. It was further emphasized that these perceptions would lead to greater self-confidence in their professional experience regarding the inclusion of families. Thus, informing students during their initial training on all the benefits highlighted by this integrative review of the literature would certainly elicit favorable opinions regarding this practice. Their level of self-confidence could thus be positively influenced. Simply providing information to students about the benefits of family inclusion may not be enough to ensure that inclusion is put into practice in health care settings. However, it was also seen that professional experience influences the perception of benefits for the interprofessional team in the presence of families during resuscitation procedures. For this reason, it would be relevant to give students the opportunity to practice resuscitation procedures in the presence of a close relative of the patient, during the sessions in the integrated simulation centers. In fact, it has been shown that after simulation-based training, a better application of the recommendations during resuscitation procedures is observed (Boet et al., 2013). Moreover, the simulation would reduce student anxiety (Roh, 2014). This is particularly interesting in view of the results of the integrative review, which show that the inclusion of families could be a source of stress and anxiety for the interprofessional team.

The benefits also extend to on-the-job training. Given this same observation, it would be interesting to include sessions in a simulation centre for healthcare professionals. In effect, the OIIQ highlights that continuing education allows knowledge to be updated, skills to be maintained and care practices to evolve and develop (OIIQ, 2011). What's more, it has been shown that work experience can be acquired through training and on-the-job learning through simulation (Grasser & Rose, 2000). Thus, as the results of the integrative review show, the experience gained could strengthen the level of self-confidence of the interprofessional team in their professional experience leading to positive opinions with regard to the inclusion of families.

It is also possible to conclude, in light of the findings of this integrative literature review, that there seems to be a lack of research on the link between healthcare professionals' perceptions and workplace organization. Yet, from the perspective of hospital management, there is every indication that this research could lead to a culture of family inclusion. To support this hypothesis, it is important to note that the World Health Organization (WHO) presents several advantages of this collaborative culture, such as a more complete and integrated response to the needs of patients and their families, as well as better management of acute care episodes by healthcare workers (WHO, 2010).

Limitations

This paper sheds light on the limitations of this integrative literature review. First, there were no articles included on the point of view of managers or policy-makers. Their perceptions were not included in the research questions. It may have been worthwhile to take this into consideration given the importance of fostering a culture of family inclusion in the healthcare process. This integrative review also did not contain any articles on the point of view of interprofessional teams working in a pediatric emergency context. The study was limited to adult care.

In addition, the data analysis method based on the themes of Twibell et al. (2008) lead to a bias in the emergence of other themes. A final limitation would be the failure to differentiate the perceptions of the interprofessional team according to their practice setting. Thus, this integrative review does not allow for potential differences in perceptions depending on the practice setting.

Conclusion

The results of this integrative review offer new intervention methods to improve the practice of inclusion of families during resuscitation procedures. Particular attention should be paid to initial training for future health professionals, but also to continuing education. Promoting the benefits of this inclusion to students and the interprofessional team would help to generate more positive opinions about the practice. Simultaneously, introducing the inclusion of the family in the integrated simulation centers will develop the caregivers' experience of this care practice while strengthening their confidence in the professional practice. Finally, this article encourages managers and decision-makers to start thinking about the importance of establishing a collaborative culture and a patient-centred approach in healthcare settings.

Implications for nurses

The potential impacts of this integrative literature review extend to clinical practice, training, research, policy-making, and management.

1. From a management perspective, the most significant impact is related to nursing leadership in promoting the inclusion of families during emergency resuscitation procedures. In light of these findings, it is clear that the development of management protocols and policies would help encourage family inclusion as a clinical practice. Faced with these divergent perceptions, it becomes desirable for the manager to facilitate interprofessional meetings during the development of protocols in order to open a dialogue on perceptions among team members.

2. Ongoing efforts to promote awareness within the interprofessional team with regard to the inclusion of families during emergency resuscitation procedures would help contribute to the team's professional development.

3. Finally, from a research standpoint, further studies are required to document the perception of each member of the interprofessional team so that the voices of orderlies and respiratory therapists can also be heard. This would aid in fostering a better understanding of the elements promoting family inclusion.

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