SYSTEMATIC REVIEW

The Barriers and Facilitators of Family-Witnessed Resuscitation (FWR) in Adult Patients in the Emergency Department (EDS): A Systematic Review

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ABSTRACT

Aims: Aims: When attending family members, the procedure for the resuscitation of cardiac arrest patients remains controversial. There have been conflicts on why healthcare professionals, should include the family during resuscitation. This systematic review seeks to identify the barriers and facilitators related to the FWR of adult patients at Emergency Department. **Design:** A systematic review was conducted on ten studies. This review utilized a clearly formulated research question then the data was gathered and analysed from the included studies. **Data Source:** Studies on the barriers and facilitators related to allowing family members to attend were included during January 2020 to May 2020. **Methods:** A systematic review of studies that investigate the barriers and facilitators of the FWR of adult patients at emergency department. All studies evaluated the barriers and facilitators related to allowing family members to attend cardiopulmonary resuscitation. This systematic review was registered in PROSPERO with the registration number CRD42020169383. **Results:** This review has demonstrated that the facilitators reduce conflict and provide a supportive presence that builds the emotional adequacy and closure related to the resuscitation. These policies can eliminate barriers, such as conflicts in EDs and negative attitudes, and expedite the accommodation of the professional as well as individual staff's needs during witnessed resuscitation.

Keywords: Emergency Department, Barriers and Facilitators, Adult Patients, Systematic Review

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INTRODUCTION

The majority of cardiac deaths occur in emergency departments (EDs) during resuscitation due to cardiac arrest. Cardiac arrest (CA) is a significant public health issue that leads to at least 600,000 deaths in Western countries every year (1). CA is the leading cause of death in some Middle East countries (2). These deaths have a profound effect on the patients' families (3). The doctors or physicians might conduct the procedures with or without the presence of relatives. Allowing the presence of relatives during the procedure of resuscitating a cardiac arrest patient remains controversial. Healthcare providers have different opinions about whether or not to allow relatives to be present during the resuscitation procedure. The relatives or family can witness the CPR and maintain direct contact with the patient during resuscitation (1). Cardiac arrest causes occur in the emergency department (4). The segregation of the patient's relatives during resuscitation contradicts the nursing philosophy (3).

According to Madden and Condon (2017), there has been conflict regarding why healthcare professionals, such as nurses and physicians, should include the family. Madden and Condon (2017) cite the increasing transparency (3), while Jabre et al. (2013) opine that delivering quality healthcare to the patients is vital (1). Essentially, Picker's patient-centred care principles suggest that the foundation of patient-centred care is the nurses or physicians' understanding, as well as respecting patients' values, preferences and expressed or unexpressed needs (5). Furthermore, Picker's principles view the involvement of families and friends as the avenue for achieving patient-centred care. Thus, the presence of a patients' relatives during the resuscitation could improve the quality of patient-centred care. However, Jabre et al. (2013) argue that the family provides emotional and psychological support during successful resuscitation in traumatic circumstances (1).

Many health organizations have recommended FPDR practice during CPR due to its positive implications for healthcare providers. However, countries such as Turkey, Iran, and Saudi Arabia lack an apparent policy framework for allowing FWR (FWR) in the various healthcare institutions (2, 6, 7). The first description of an incidence of FWR in the literature dates back to

1987, in the United States (8). Bambi et al. (2007) and Hung and Pang (2011) studied the family's point of view, where they found significant support for loved ones undergoing resuscitation in the EDs, increased bedside during resuscitation and decreased fear and concern about care delivery (9, 10). However, Mazer et al. (2006) argued that the view could not be limited to the family perspective alone, considering the imperative role of nurses and physicians in the resuscitation procedure (11). The study outlined the conflicting opinions of the healthcare providers regarding the controversial nature of FPDR. Current quantitative studies by Mazer et al. (2006) and Al-Mutair et al. (2012) did not examine the facilitators or barriers related to FWR in the emergency setting explicitly (7, 11). A review by Porter et al. (2013) found both barriers and facilitators related to FPDR, including the perceived effect on the members, limited medical knowledge, hospital policy, divergent attitudes, and perceived burden on the staff (12). Johnson (2017) indicates both the family and healthcare provider perspectives as the sources of barriers or facilitators (13). The review could not sum up the factors that underline FWR. The conflicting findings in both the quantitative and qualitative research calls for a further examination of FPDR in the emergency adult setting. Therefore, this systematic review aims to identify the barriers and facilitators related to FWR in EDs in adult settings.

METHOD

This is a review that utilizes a clearly-formulated research question for the purpose of identifying, selecting and critically appraising all of the relevant studies in a manner that is methodical and reproducible, after which the data can be collected or, in some cases, analysed, gathered from the included studies (14). Although this is a time-consuming process (15), it empowers the contextualisation of a comprehensive systematic review with the wider literature and identifies any gaps in the evidence base. It is also considered a valuable tool for policy makers, researcher and practitioners because it provides them with guidance that is explicit and transparent to find out narrower policy and practice that are relevant to the research question (15). This systematic review was registered in PROSPERO with the registration number CRD42020169383.

This systematic review was developed following the ten-step framework displayed in Table I (14). The usefulness of a systematic review lies in the synthesis of the applicable studies relating to the factors affecting the FWR of adult patients in EDs. The review did not require a complex statistical process, as a meta-analytic study does (16). The analysis focused on appraising the evidence from the selected studies to enrich the literature on FWR. Choosing the best studies, the systematic review established their eligibility, guided by predetermined criteria. Furthermore, the systematic review requires an assessment of the risk of bias to achieve relevance and reliability. The findings presented herein are accurate and useful for evidence-based practice (EBP).

Table I: Framework for a Systematized Review (14)

No.	Step
1	Planning the review
2	Performing scoping researches, identifying the research question
3	Literature searching
4	Screening titles and abstracts
5	Obtaining papers
6	Selecting full-text papers
7	Data extraction
8	Quality assessment
9	Analysis and synthesis
10	Writing up and dissemination

Performing Scoping Searches

Scoping searches helped to provide appropriate evidence from the literature search to support the systematic review. This process helps to gain an overview of the range and depth of the research that exists about the research idea under scrutiny (17). The scoping searches involved published work and discovery of research studies on the factors affecting the FWR of adults in EDs. The procedure helped to determine the extent to which this concept has been explored. The scoping showed that the current body of research has not established the factors affecting the FWR of adult patients in EDs in terms of the barriers and facilitators. Scoping reviews help to map the broad topic and affirm the utility of the systematic review, based on the existing evidence (18). The effort helped to set the limits for the project and develop the scope for the research, including the framing of the main research question.

Identifying and Formulating the Research Question

Identifying the research question for the systematic review entailed checking past reviews to avoid duplication, as Eden (2011) recommends (19). The systematic review settled on a new and unique research question, which expedited the development of the findings on the subject matter. A comprehensive, systematic review requires a good research question that states all of the constructs of the study (20). The formulation of the right research question can be difficult due to the divergent research on FPDR (21). The existing reviews and studies helped to formulate the research question as to identify the factors promote the FWR of adult patients in the Emergency Department (12, 22, 23).

The PICO (Population, Intervention, Comparison, and Outcome) (24) framework was used to create a well-focused question, which simplified the time-consuming process of identifying the appropriate resources and undertaking an aggressive search for the relevant evidence (Table II). Practitioners use a specialised framework as part of their evidence-based practice (EBP) to facilitate a guided literature search. According to Courtney and McCutcheon (2010), the elements of the PICO framework change according to the question type (24). The framework assists in developing evidence for

Table II: The research question in a PICO Framework.

P	Nurses and physician working in EDs, and the family members
I	Family-witnessed resuscitation in emergency department
C	Family members views on FPDR

clinical queries by facilitating the search for quantitative studies. Khan (2011) argues that the PICO model expedites the retrieval of the relevant search terms by breaking down a research question into appropriate keywords or terms (25).

Search strategy

In consultation with a medical librarian (PR), a search strategy was run. Seven databases (with no time restriction) were searched independently: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, PubMed, Medical Literature Analysis and Retrieval System Online (MEDLINE), Excerpta Medica Database (Embase) and grey literature. The search strategy was applied to each of the databases. The resulting citations found in the databases were exported to Endnote software, then transferred to Systematic Review Software (Covidence). Covidence removed any duplication present in the citations. The search was conducted during January 2020 to May 2020.

Eligibility criteria and selection process

Inclusion Criteria

This review included only studies written in the English language, only studies among nurses, physician, and family members. The setting is the emergency room where CPR takes place. This review investigated the interventions used for the FWR and FWIP adoption/ implementation, such as formal policy and guidelines; family role, educational interventions. This review included studies that investigate the barriers and facilitators related to FODR. This review used different designs such as randomized controlled trials, controlled trials, before and after studies, cohort studies, case-control studies, survey studies, and case series.

Exclusoon Criteria

The exclusion criteria were studies that were not published in the English language, that did not evaluate the effectiveness of FWR, and/or did not include nurses, physician and family members in the Emergency Department. We also excluded studies that did not evaluate FWR delivered in Emergency Departments.

Data extraction process

Hence, good data management practices are imperative for data extraction because they define the data to be retained for quality assessment and analysis (Courtney and McCutcheon, 2010). Hence, using systematic review management software was vital, as it helped to retain the component variables as opposed to the compound variables based on the research topic. Covidence provided the convention for naming the data and backing up important aspects of the information, in readiness for the quality assessment.

Covidence provides access to data extraction and management for unlimited systematic reviews (25). The tool is tailored to meeting the needs of the reviews, including the analysis undertaken by individuals or systematic review teams. The process was inexpensive despite deploying fee-based software (Covidence). The information extracted from the selected studies depends on the systematic review and the research question (24). Hence, extracting and sorting the data using Covidence made it possible to define the relevant variables for which the data was sought alongside making appropriate assumptions and simplifications. Consequently, the software simplified the reading of full-text papers and the drawing of the PRISMA diagram.

Screening of the Titles and Abstracts

The titles and abstracts of the identified papers were screened using the Covidence program. Covidence is web-based systematic review software that used to make the evidence synthesis efficient and practical (26). Using this software, the inclusion and exclusion criteria were entered into the program to screen the paper's title and abstract against them, efficiently and accurately. While the paper's title and abstract were screened, the inclusion and exclusion criteria defined the referral in the review. In addition, the management feature of the software allows the entry of certain inclusion and exclusion keywords to come up in the title and abstract. The outcomes were used to assist in screening process. The findings of the research are presented in the PRISMA flow diagram shown in Figure 1.

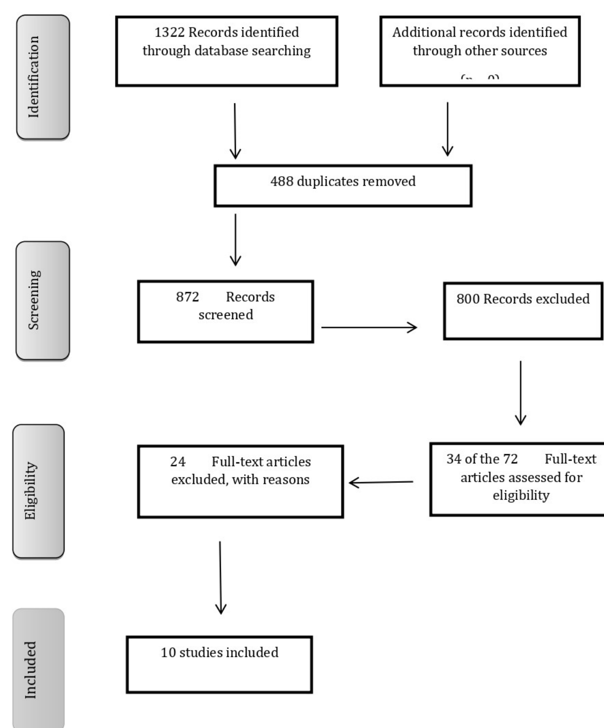

Figure 1: Flow diagram of papers accepted and rejected during selection procedure

Obtaining and Selecting Full-Text Papers
Once the papers' title and screening had been performed, automatically, Covidence transferred the included studies to the full-text screening section. After identifying the full-text papers, the inclusion and exclusion criteria were applied to them papers to ensure that they all met the inclusion criteria. The inclusion criteria comprise the nurses and physicians who work in the emergency adult setting, and the patients' family members. The research identified studies that covered the barriers and facilitators related to the presence of family members during the resuscitation procedure. The review included all studies written in the English language. The review excluded any journal article covering situations outside hospital and paediatric settings as well as other settings, such as medical and surgical, ICU and CCU settings, as shown in Table III.

Quality Appraisal
The assessment of the quality of the ten selected studies showed that high quality interventions were deployed in the research process. The studies illustrated a high level of trustworthiness, relevance, and generalisability for the research or healthcare practice related to FWR. The quality of the empirical evidence led to a worthwhile, accurate systematic review. The review achieved a high level of originality due to the quality of the appraised studies.

Value of the CASP Tool
Critical appraisal was conducted with reference to the CASP tool, which is an appropriate tool for reviewing literature compared to the scoping methods (27). Systematic reviews are the defining standard to help to identify, appraise, and synthesise selected empirical evidence that meets pre-set inclusion criteria. The CASP tool assists in answering a focused clinical question by prompting an analysis of the results, validity, and generalisability of the studies for healthcare practice. Hence, the review utilised CASP to affirm the quality of the evidence by ensuring that the rigorous assessment of the ten selected studies met the objectives of the research.

The framework provided different appraisal approaches for the quantitative and qualitative studies as opposed to a generalised method of assessing evidence, as Courtney and McCutcheon (2010) recommend (24). The review established a comprehensive perspective of the quality of each study and their qualification to be involved in the critical analysis. The structured appraisal of the studies and affirmation of their quality helped to identify various themes and concepts relating to the factors affecting FWR for adult patients in EDs.

The narrative review necessitated the use of summarised information, as the study targeted the use of a small number of quantitative and qualitative studies.

Search results
The initial search yielded 1,322 titles and abstracts. Of these, 872 papers were retrieved for screening and 72 met the inclusion criteria. Thirty-three papers were removed because they failed to investigate the barriers and facilitators related to the FWR of adults in the emergency department. Twenty-four papers were of low quality and so were removed from the review. In total, 10 studies were included. The application of the search strategy led to the identification of ten studies, which were included in the final systematic review. Appendix 1 outlines the details of the key characteristics of the ten studies. Four were qualitative studies (10, 28-30) while six were quantitative studies (3, 31-35). A range of different research designs were used, including survey, cross-sectional studies, and experimental designs.

The qualitative studies focused on illuminating the experiences of family members during CPR (10). Other studies explored the inhibitors and enhancing factors related to FPR practices from the perspective of the family members, nurses, patients, and physicians in the emergency room (28-30). The qualitative approach is appropriate as it seeks to explore the diverse aspects relating to FPR practice in EDs or AEDs. The strength of using qualitative methods is the provision of scale and patterns about the subject under scrutiny. Correspondingly, the quantitative methods use objective data drawn from primary sources, such as nurses, family members, and physicians, as Keele (2011) recommends (36). The five quantitative studies provide a clear view of the results based on the objective data. Additionally, the studies used different data collection methods.

The evident data collection methods used in the ten studies included surveys (31, 34). Five studies ((10, 28-30, 33) applied interviews as the data collection tool. However, the mode and development of each method varied with the design and the research questions under scrutiny, as Keele (2011) suggests (36). The studies considered the convenience and cost implications of collecting data with minimal influence on the respondents to prevent bias. All of the studies discussed the administration, collation, and samples used, for transparency purposes. Outlining the data collation process improves knowledge creation and its utilisation during a review process (24). The setting for the data collection was justified by the use of the CASP tool, considering that all of the studies targeted family members, nurses, and physicians in EDs.

Some of the studies failed to specify the geographical location (29, 33) although the research settings showed the researchers' focus on gaining insights into how the family's presence during CPR provokes different situations as well as behaviour. Nonetheless, the inclusion of participants from diverse locations minimises the bias and maximises the relevance as well

Table III: Characteristics of the Selected Studies

Author & Year	Location	Aim, purpose, or research question	Research setting	Study design	Sample size or participants	Data collection	Data Analysis	Ethics Discussed
Barreto et al. (2018)	Southern Brazil	To explore the views and attitudes of nurses and physicians on family presence during resuscitation in ED in Brazil	Two EDs	Qualitative	32 (11 physicians and 21 nurses)	In-depth interviews	Content analysis	Sought CAAE approval Informed Consent Guaranteed confidentiality
Davidson et al. (2011)		To explore inhibitors and enhancing factors surrounding family presence practice in the emergency room	ED of 400-beds Level 1 trauma centre	Qualitative	A purposive sample of 12 nurses and physicians	Interviews	Transcription & content analysis	Institutional review Voluntary participation
Ersoy et al. (2009)	Turkey	To determine the attitudes of patients' relatives present in the ED and elucidate the socio-demographic influencing their perspectives	The University of Dokuz Eylul, Department of Medicine	Cross-sectional study	420 patients' family members	Surveys	Single variable statistics with SPSS 11.0	Institutional Review Informed consent
Hung and Pang (2010)	Hong Kong	To illuminate the experience of family members in ED during resuscitation	AED	Interpretive phenomenological approach	18 family members of patients	Audio-recorded interviews	Verbatim transcription & thematic analysis	Approval by the ethics committee
Madden and Condon (2007)	Ireland	To examine current practices and understanding of emergency nurses on family presence during CPR in the ED	Level I trauma ED	Quantitative descriptive design	A convenience sample of 90 ED nurses	Survey questionnaire	SPPS 12.0	Ethical approval from CREC Written consent Confidentiality & anonymity guaranteed
Mahabir and Sammy (2011)	Trinidad and Tobago	To identify the attitudes of staff towards relatives in the resuscitation room	ED of a public hospital	Cross-sectional survey	214 (108 nurses and 106 doctors)	Questionnaire	SPSS 18.0	Ethical approval
Meyers, Eichhorn, and Guzzetta (1998)	Missing information	To explore the experiences of family members on their presence during CPR	ED of 1000-beds hospital	A retrospective descriptive survey	A convenience sample of 25 family members	Telephone interviews Retrospective family presence survey	SPSS for windows Content analysis	Approval and consent from the Emergency Services Department
Ong et al. (2004)	Singapore	To assess and compare local ED medical and nursing staff attitudes towards witnessed resuscitation	ED of Singapore General Hospital	Self-administered survey	132 doctors and nurses	Self-administered survey	SPSS 11.0	Ethics approval and informed consent
Twibell et al.(2015)	United States	To explore adult's inpatient perception of FWDR cardiac procedures	ED department	Exploratory-descriptive qualitative design	A convenient sample of 48 adult patients	Face-to-face interviews	Transcription and thematic analysis	Ethical approval Informed consent from patients
Zali et al. (2017)	Iran	To determine the attitude of Iranian nurses towards family presence during resuscitation	EDs of four Iranian hospitals	Descriptive study	A random sample of 178 family members in four hospitals	27-item questionnaire		Ethical approval Informed consent Voluntary participation

as the chance to replicate the methods in areas with similar settings. According to Keele (2011), scholars should be cautious when drawing conclusions based on their findings, considering the impact of cultural differences (36). Overall, the choice of location supports the studies' aim of establishing the facilitators and inhibiting factors of FWR in an emergency adult setting. The ten studies provide explicit details on how the researchers explained to the participants the core objectives of the studies. According to Marchevsky (2012), CASP necessitates an examination of the ethical issues considered (37). A study should discuss issues relating to informed consent, voluntary participation, privacy, confidentiality, and ethical approval by the relevant institutional review boards or committees. CASP prompts an evaluation of whether the studies have handled the prospective effects of the research on the participants (37). All of the journal articles met the aspirations of the screening questions by covering critical ethical concerns, such as ethical approval, informed consent, confidentiality, voluntary participation, and anonymity. Adhering to the ethical norms promotes the aims of the studies, such as expanding knowledge, truth, and the minimisation of errors (38). Hence, the studies represented the truth from the data collected from various participants.

Study selection

Different results that emerged from the data were extracted by perusing the content. The features entailed the study characteristics, including the study name and design, year of publication, purpose and location. The participants' characteristics include their age, sex, and experience, and the study results include positive and negative attitudes regarding the presence of the family while a patient is being resuscitated. The quality of the included full-text papers was appraised using two different appraisal tools: CASP (39) and a critical review by McMaster University (40). CASP was used because it enables the examination of the research quality. The data extracted from the studies helped to establish the barriers as facilitators with regard to allowing family members to attend cardiopulmonary resuscitation. The following section presents a compilation of the findings from the ten studies that were selected for the final review. The section is structured into core themes, including the barriers and facilitators related to FWR in emergency adult settings.

Data Synthesis

Data synthesis entails combining data from a group of included studies in order to draw conclusions about the overall body of evidence, so the studies' characteristics and statistical findings can be synthesised (14). This can be achieved by using a general framework with the aim of guiding the comparison, preparing and performing the synthesis and interpreting and describing the results (15).

Study participants

The studies included in the review recruited different populations; namely, physicians, nurses and patients' family members. By far the most frequently recruited participants in the identified studies were family members, who accounted for 51% of the total participants, followed by nurses (36%) and, finally, doctors (13%), which is the lowest percentage among the subjects (see Figure 1). In five studies, the authors targeted family members only (10, 30, 31, 33), while the study conducted by Zali et al. (2017) combined two different populations: nurses and family members (35). Doctors and nurses were targeted in four studies, conducted by (28, 29, 32, 34), whereas nurses were targeted alone in one study conducted by Madden and Condon (2007) (3). The studies' participants differed in regard to their gender and age.

RESULTS

The following section presents a compilation of the findings from the ten studies that were selected for the final review. The section is structured into core themes, including the barriers and facilitators of FWR in emergency adult settings.

Barriers

The studies established the attitudes of the nurses and physicians and conflicts within the EDs and AEDs as primary barriers to the FWR. Additionally, the studies further identified staff needs as a barrier to the provision of FWR in emergency settings for adult patients. All of the studies established barriers, such as conflicts in EDs, negative attitudes, and the accommodation of the professional as well as individual staff needs during witnessed resuscitation.

Attitudes

Barreto et al. (2018) determined that the professionals' attitudes towards the relatives of the patient were a barrier to the consideration of FWR in a Brazilian hospital context (28). The research failed to determine the extent to which the hospital practiced or endorsed family presence during resuscitation. The 11 physicians and 21 nurses in the two EDs revealed the controversial nature of FWR. According to Barreto et al. (2018), the attitude towards the practice was negative among the respondents (28). The physicians cited a lack of proper infrastructure and staff for responding to the emotional needs of the families. Ersoy et al. (2009) viewed the attitudes of the relatives of the ED patients rather than the professionals as the primary barrier to FWR practice in a Turkish hospital (31). The 420 family members interviewed in the study expressed a form of entitlement to presence during CPR instead of adhering to the policy

frameworks of the hospitals.

Mahabir and Sammy (2012) agreed with Barreto et al. (2018) about the attitudes of 214 professionals and relatives being the impediment to FWR in an ED in Trinidad and Tobago (28, 32). At least 72% of the nurses and doctors surveyed in the cross-sectional studies believed the presence of family members to cause stress for the staff members. Contrastingly, the family members felt that their presence would sustain the quality of the resuscitation. The hospital lacked an apparent policy for guiding the staff and relatives on their inclusion in the ED during the CPR process. Ong et al. (2004) established that 78% of the nurses opposed FWR while the doctors felt that senior decisions would ensure prior preparations to deal with the traumatic experiences of the patients' relatives (34). Additionally, there was apparent agreement that staff conflict was an impediment to the execution of FWR.

Conflict in EDs

The quantitative descriptive study by Madden and Condon (2007) clarified the conflicts among 90 nurses as a compelling barrier to FWR in the Level I Trauma Centre (3). Conflict occurred among the emergency team, despite the willingness of a faction to allow families at the bedside, if an opportunity arose. According to Madden and Condon (2007), the conflict emerged due to improper staff training, minimal educational development, and an inexistent written policy to facilitate FWR (3). Ong et al. (2004) agreed with Madden and Condon (2007) about the conflict emerging during resuscitation and decision-making related to FWR (3, 34). The study used a Singaporean case study to explore the attitudes of the medics and nurses. The doctors felt that FWR should be an executive decision rather than based on a nursing officer's pronouncement, which impeded the team spirit during the resuscitation procedure. Twibell et al. (2015) argued that physicians were unable to confront the diverse patient issues to inform FWR in EDs. Correspondingly, the staff's needs impede the use of FWR also (30).

Staff Needs

According to Davidson et al. (2011), there was a lack of staff education to facilitate the family's presence in the Level 1 Trauma Center (29). Education emerged as a critical determinant of staff emotions and the personalisation of care for patients. The personalisation of the patient was a deterrent to FWR. The interview probes revealed that the staff lacked sufficient skills to help family members to face closure or overcome emotions. Mahabir and Sammy (2011) did not cover the staff's education-related needs, but the emotional capacity of the nurses and doctors (32). The Trinidad and Tobago perspective determined that stress among 72% of the staff was a deterrent to witnessed resuscitation. Ong et al. (2004) concurred that the emotional and behavioural needs of the professionals were as impactful as the stress perceived by the staff due to the presence of relatives during the resuscitation procedure (34).

Davidson et al. (2011) recommended the inclusion of appropriate staff needs in the relevant policies related to FWR to create a multifaceted framework for guiding the practice (29). The study relied on first-hand experiences as opposed to reported findings to champion a change that accommodates both the healthcare professionals and the family members. Correspondingly, Ong et al. (2004) concurred that the development of a framework, outlining the professional and personal expectations of nurses and physicians, was the ultimate preventative measure against negative attitudes (34). However, the research emphasised the need for meeting team-based decisions to be taken in order to reduce the authority conflicts alongside the negative attitudes of the workers in the resuscitation room. However, the studies established the facilitators of FWR in different emergency settings.

Family Members' Experiences

A retrospective, descriptive telephone survey of family members by Meyers et al. (1998) revealed that their desires, beliefs, and concerns shaped their inclusion in the resuscitation room (33). The research used a small sample size of 25 respondents, which affected its representativeness. However, the consideration of the effect of their core beliefs on the family's presence during CPR prompted healthcare providers to consider FWR. Hung and Pang (2010) found, from an AED, that 18 family members would have considered being present in the room due to the knowledge of the patients, emotional connectedness, and the appropriateness of the life-sustaining interventions (10). Zali et al. (2017) and Davidson et al. (2011) provided a more explicit account of family presence preferences than did Hung and Pang (2010), by including emotional support and closure (10, 29, 35). Correspondingly, Ersoy et al. (2009) viewed the willingness of the patient's relatives to witness the resuscitation of the patients as an enabling factor, with or without ED policies being in place (31).

The Written Protocol and Understanding of Healthcare Professionals

Madden and Condon (2007) discovered, from nurses and physicians at a Level I Trauma department, that a written policy on FWR would have enhanced the team exchange in presence during resuscitation (3). The majority of the respondents perceived a written policy as a facilitator of FWR. Consequently, Madden and Condon (2007) argued that a policy would have led to a greater understanding among the ED team about the merits of FWR for the patients and their families (3). However, Ersoy et al. (2009) found that policies were subject to the socio-demographic factors of the family members (31). The research emphasised an inclusive FWR policy, that factored in the marital status, illness, education level, age, and cultural issues of the members and patients. Ersoy et al. (2009) defined the FWR policies as mitigating factors regarding the conflict in

EDs and negative attitudes, and as a tool for establishing emotional as well as psychological support (31).

Davidson et al. (2011) argued that the policy and understanding of the professionals required an optimised environment and family liaison rather than exclusive ED decision-making alone (29). The study associated the experiences and entitlement of the family members to witnessed resuscitation as the antecedents for understanding the level of the healthcare professionals. The research perceived an increased emphasis on nurses and physicians using their professional capacity to define situations that would warrant the inclusion of patients' family members during the emergency procedure. However, Twibell et al. (2015) found that using a policy and practice-based approach to inform the decision-making of the nurses and physicians regarding the family's presence was vital, and argued that a lack of policy could not impede the consideration of witnessed resuscitation in an Iranian hospital (30). The results showed that the understanding of the healthcare nurses and physicians about facilitating FWR depended on the level of education or awareness created prior to the emergency procedures.

DISCUSSION

The literature review focused on determining the factors promoting FWR in emergency settings. The review appraised and analysed ten studies that explored the barriers and facilitators related to FWR for adult patients in EDs. The review factored in the divergent views of the family members, nurses, and physicians towards witnessed resuscitation. The findings of the review extend the prevailing knowledge on FWR from the standpoint of the family members. The studies presented varied views on the factors that influence FWR in emergency settings. The barriers established by the systematic review include the attitudes of the healthcare professionals, conflicts in EDs, and staff needs. The review further discovered facilitators such as family member experiences, written policies, and the understanding of the healthcare professionals. Clearly, the ten studies presented divergent findings regarding which factors promote or impede FWR for adult patients in emergency settings.

The attitudes of the healthcare professionals emerged as a barrier to FWR, although the degree of this varied among the nurses and physicians within the chain of command in the ED. The attitudes of the nurses and physicians vary due to the perceived interference and emotional toll or lack of appropriate infrastructure to facilitate the psychological preparedness of the families, as Barreto et al. (2018) observed (28). These findings are consistent with another study by Sak-Dankosky et al. (2015) involving 390 Finnish and Polish RNs as well as physicians (23). The study revealed that this attitude emanated from inadequate experience with FWR, which led to a general negative attitude. Waldemar and Thylen (2019) found, from a cross-sectional study, that professionals might say distressing things to the family, despite the strong difference between nurses and physicians (41). Overall, the studies shared uniform negative attitudes, that impede the execution of FWR and the subsequent awareness of it in emergency settings.

The review identified conflict in EDs as impeding the execution or consideration of FWR in different emergency settings. Madden and Condon (2007) argue that conflict between nurses and physicians complicated the need for the family's presence during a critical care procedure (3). However, these findings are contradictory with those of Sak-Dankosky et al. (2019), who, in a qualitative study, found that both healthcare professionals and the patients' family members created conflict, that complicated the idea of FWR for cardiopulmonary patients (42). The review should have factored in the unique nature of hospital procedures, the professional perspective of nurses and physicians, and the unique family-patient relationship. These studies show that the understanding of the staff might vary on the professional ground and be based on the preferences of the family members. Hence, conflict in EDs indicate a gap in the family-centred care delivery in emergency settings.

Staff needs were found to have an overarching influence on the adoption of FWR in the ED. The review found that the various staff needs and perspectives regarding witnessed resuscitation were barriers more than enhancements to witnessed care. Lee and Cha (2018) noted the specific healthcare professional aspects that the review could not stipulate well (43). ED nurses might face emotional difficulties and psychological conflict before as well as during the resuscitation process. Consequently, the nurses or physicians may misconstrue the family's presence as a professional and cultural burden on the performance of CPR. However, Youngson et al. (2017) view improper practices to spell out the presence, role, and engagement of the staff as the contributing factors to the multifaceted as well as complex nature of FWR (44).

The family members' experiences emerged as the facilitating factors for FWR in emergency settings. Meyers et al. (1998) argued that the desires, beliefs, and concerns of the family members could persuade the nurses and physicians to consider family-centred delivered as opposed to preventing their presence (33). This attendance might provide a source of emotional support and closure for critical resuscitation cases. However, the outcomes of an interpretative phenomenology by Hassankhani et al. (2017) view FWR as a double-edged sword that accommodates the experiences of the family members and the resuscitation team (2). The team may perceive the family members as a supportive presence, and attendance might alleviate

any concerns the family may have and make them feel highly satisfied with the team members. O'Connell et al. (2017) argued that family experiences offer additional healthcare information and psychological support to the medical team (45). Consequently, the experiences reduce the level of conflict between/with nurses and physicians.

The review established that written policies were a facilitator of FWR for adult patients in emergency settings. However, the absence of written or clear policies to guide FWR in EDs could translate into conflict among healthcare professionals. The negative attitudes towards the practice could aggravate the differences between the resuscitation team and the families seeking emotional support and closure. Goldberger et al. (2015) found that the policies should not define FWR alone but should streamline the patterns of care delivered to adult patients without the presence of their family members (46). Overall, policies have a positive effect on resuscitation because they define the authority that can allow members to witness the procedure and stipulate a model for emotional and psychological support. Consequently, the policies shape the understanding of the healthcare professionals towards FPDR.

The review showed that the understanding of healthcare professional, such as nurses and physicians, depend on a policy that makes FWR a routine component of resuscitation care. The establishment of the correct policies should inform the awareness of the nurses and physicians regarding the hazardous and beneficial aspects of presence during resuscitation. However, Powers and Candela (2017) established the need to educate nurses and physicians in order to create proper awareness about the clinical merit of family presence during procedures (47). Overall, the understanding and policy-based decisions optimise patient-centred care delivery through resuscitation.

The study includes all papers that discuss the focus of the research, so some studies are now dated. Additionally, the review lacks papers that employ the RCT study design. An RCT research design minimises bias compared to the other research study designs. Therefore, bias may be present due to the study design and data collection tools.

This review includes all peer-reviewed studies, qualitative, quantitative or mixed method, that answer the systematic review's question. In addition, the identified studies underwent a critical appraisal. Secondly, all ten of the included studies covered the scope of the research problem as well as identifying a research gap in the evidence base. This review includes studies that recruit participants such as nurses, physicians and family members to ensure that the research problem is discussed thoroughly. Finally, the outcomes of this study may help to reduce the conflict among health care providers, and also provide the decision-makers with insightful knowledge for formulating a policy for health care settings.

CONCLUSION

The review provides a solid evidence base about the barriers and facilitators of FWR for adult patients in emergency settings. The findings answer the research question by showing that FWR implement requires written policies, the understanding or education of healthcare professionals, and maximised family, nurses, and physicians. The facilitators reduce conflict and provide a supportive presence that builds the emotional adequacy and closure with the resuscitation. The policies can eliminate barriers, such as conflicts in Eds and negative attitudes, and expedite the accommodation of the professional as well as individual staff needs during witnessed resuscitation.

The findings of the review have implications for practice, policy, education, and future research. Healthcare professionals should evaluate FWR on a case-by-case basis to enhance family-centred care delivery. This evaluation should reflect the emotional and psychological support for both healthcare professionals and the family members of adult patients. Additionally, there should be clearly written policies, defining the implementation of FWR for adult patients in emergency settings dealing. The resuscitation team needs the policy to understand the chain of command so that the leader can make decisions on whether to include or exclude the patient's relatives. The policies should stipulate the framework for offering emotional and psychological support prior to or following the resuscitation.

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