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Original research article

Factors associated with nurses' perceptions and self-confidence in relation to family presence during resuscitation: a cross-sectional study in Indonesia

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Abstract

Background: The presence of family during resuscitation attempts provides moral and religious support for the patient. It also strengthens the relationship between the family and the health care team, as well as the patients. However, the implementation of this practice remains unclear.

Purpose: This study aimed to explore the nurses' perception and their self-confidence in relation to family presence during resuscitation in Indonesia, in order to adapt the Indonesian version of the Family Presence Risk-Benefit Scale and Family Presence Self-Confidence Scale tools.

Methods: The study was cross-sectional, using the Indonesian version of the Family Presence Risk-Benefit Scale and Family Presence Self-Confidence Scale tools.

Results: 174 nurses working in the intensive care/intensive cardiac care unit and emergency room at a tertiary referral hospital in Riau Province of Indonesia completed the questionnaire, including the opinion-based questions. Our respondents had neither positive nor negative perceptions of family presence during resuscitation (mean score 3.37; SD 1.00). The Pearson r correlation test showed that nurses who perceived more benefits of this practice are more confident when it comes to implementing it (r = 0.618; P-value 0.000). We found that the only demographic factor determining the nurses' attitudes toward family-witnessed resuscitation was the number of times they had been involved in a resuscitation scenario.

Conclusions: A high self-confidence score in implementing family-witnessed resuscitation was found among our respondents. In fact, most of them had invited family members to witness the resuscitation attempt. However, the nurses had a neutral attitude toward family presence during resuscitation. This study also suggests that nurses will likely support this practice when other doctors also support it.

Keywords: Family presence during resuscitation; Family-witnessed resuscitation; Nurses' perceptions

Introduction

Lifesaving procedures can be brutal and traumatizing for patients and their families. However, many studies have revealed that family members and the patients want a Family-Witnessed Resuscitation (FWR) (Bradley et al., 2017; Leske et al., 2013; Masa'Deh et al., 2014; Porter et al., 2013). Although professional organizations such as the Emergency Nurses Association (ENA) and the European Resuscitation Council (ERC) have recommended Family Presence During Resuscitation (FPDR), this practice remains debatable among nurses and doctors. In Indonesia, this topic is completely overlooked. To our knowledge, this study is the first to explore nurses' attitudes toward FPDR in Indonesia.

Family-witnessed resuscitation refers to the presence of a family member being in the room, or in an area that allows the family to see or get physical contact with the patient, during a lifesaving procedure (Joyner Jr., 2018). Studies have shown that family members and patients support this practice. Critically ill patients interviewed in a study indicated that they would want their next of kin to be with them during the resuscitation, despite knowing it might be traumatizing for the family (Egging et al., 2011; Leung and Chow, 2012; Mortelmans et al., 2010). The families argued that witnessing the resuscitation attempt would give them a better understanding of the patient's condition, allow them to support and protect the patient, and help with the grieving process. In addition, studies have revealed no negative psychological effects on the family who witnessed the resuscitation process (Clark et al.,

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2013; Jabre et al., 2013; Leung and Chow, 2012; Sak-Dankosky et al., 2019).

Despite many studies reporting the beneficial effects of FPDR on the patients and their family, health professionals (including nurses) remain hesitant to offer the family the option to witness the resuscitation process (Gutysz-Wojnicka et al., 2018; Powers and Reeve, 2018). Themes that frequently emerge in opposition to this practice include that it can be too distressing for the family, it increases the possibility of medicolegal claims, there can be misunderstandings about the procedures performed during the process, there is a possibility that the family can disrupt the care, and the health care team may suffer from increased performance anxiety (Al Bshabshe et al., 2020; Sak-Dankosky et al., 2018; Zali et al., 2017). On the other hand, reasons stated by the nurses and other health care providers who support FWR include: increased staff performance, better relative support for the patient as well as the staff, and more importantly, the family have assurance that everything possible was done to help the patient (Al Bshabshe et al., 2020; Joyner Jr., 2018; Lederman and Wacht, 2014).

Nurses' perception of FPDR and their self-confidence in managing FWR can be measured quantitatively using the Family Presence Risk-Benefit Scale (FPR-BS) and the Family Presence Self-Confidence Scale (FPS-CS) (developed by Twibell et al., in 2018). These scales have been translated and used in studies conducted in many different countries, excluding Indonesia.

Many studies have explored factors associated with nurses' attitudes towards FPDR. However, the results were inconclusive and varied greatly. Factors that may affect the nurses' perception of FWR include: years of experience, work unit, number of times they have been involved in resuscitation attempts, advanced cardiac life support training or similar trainings, level of education, whether they are members of professional organizations, and whether they have received education or training related to FPDR (Niemczyk and Ozga, 2019; Powers and Reeve, 2018; Tudor et al., 2014; Twibell et al., 2008). Understanding nurses' attitudes toward FWR and the factors associated with this is critical to helping the hospital administration or other authorities to develop guidelines on FPDR, and to facilitate medical staff with the relevant education related to this practice.

Objective

This study aimed to explore nurses' perception and self-confidence in relation to family presence during resuscitation in a tertiary referral hospital in Indonesia.

Materials and methods

Design

This study was a cross-sectional in design, using a survey method.

Study sample

The respondents were nurses working in an Intensive Care Unit/Intensive Cardiac Care Unit: ICU/ICCU (n = 116) and Emergency Room: ER (n = 58) at a tertiary referral hospital in Riau Province, Indonesia. There were a total of 174 respondents.

Study questionnaires

22 items of the Indonesian version of FPR-BS and 17 FPS-CS items were used to evaluate nurses' perceptions of the risk and benefits of FWR and their self-confidence in this practice. The FPR-BS requires nurses to rate their agreement on each item, using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5), with a higher score indicating a greater level of the perceived benefit of FWR. Negatively worded items of the questionnaires were reverse-scored. Likewise, the FPS-CS requires the respondents to rate their agreement on each 17 items using a five-point Likert scale, ranging from not at all confident (1) to very confident (5). The higher the score the higher the level of self-confidence in implementing FPDR. We included open-ended questions at the end of the questionnaires. The purpose of these was to explore the nurses' experiences when performing resuscitation with family members present.

Data collection

Data collection was carried out from 1 of August to 31 of October 2020. Besides exploring the Indonesian nurses' perceptions on family-witnessed resuscitation using validated scales, this study also aimed to adapt and validate the Indonesian version of the Family Presence Risk-Benefit Scale (FPR-BS) and the Family Presence Self-Confidence Scale (FPS-CS) tools. Anonymous and self-administered questionnaires were distributed to the respondents. A total of 174 nurses completed all the questions and were included in the statistical analyses. Permission to use these tools was granted by the original authors. Ethical approvals were obtained from the Health Research Ethics Committee of the State Polytechnic of Health Malang.

Data analysis

To test the validity of the questionnaires, Pearson's correlation was carried out. The reliability of the instrument was tested using the coefficient of Cronbach alpha. Demographic data were analyzed descriptively. Spearman's correlation test was conducted to determine the difference in the respondents' score in relation to their demographic factors. The correlation between FPR-BS and FPS-CS score was analyzed using Pearson's correlation test. A multiple linear regression was then conducted to determine factors affecting nurses' confidence in managing FWR. Qualitative data were analyzed using a thematic analysis approach in which the data were coded and themes identified. The themes were then analyzed, discussed, and approved by all team members.

Results

Most of the participants in our study were female (80.5%) and had more than 10 years of experience of working as a nurse (89.7%). Only 22 nurses were trained in Advanced Cardiac Life Supports. 77% of the participants had been involved in more than ten resuscitation attempts, and 60.9% of them had invited the relatives to witness the process (Table 1).

Nurses' perceptions of self-confidence and risks vs. benefits in relation to family presence during resuscitation

To assess the construct validity of the Indonesian version of the Family Presence Risk-Benefit Scale (FPR-BS) and the Family Presence Self-Confidence Scale (FPS-CS), Pearson's correlation was employed. All items in both instruments were valid as r_{count} was greater than r_{table} ($r > 0.361$) for each item. Reliability testing was conducted by computing the coefficient of Cron-

Table 1. Characteristic of the respondents

Characteristics	No.	%
Sex (*n* = 174)		
Male	34	19.5
Female	140	80.5
Age (*n* = 174)		
<25 years	6	3.4
25–30 years	10	5.7
31–35 years	70	40.2
36–40 years	32	18.4
>40 years	56	32.2
Work unit (*n* = 174)		
ICU/ICCU	116	66.7
ER	58	33.3
Years of experience (*n* = 174)		
≤5	12	6.9
6–10	6	3.4
>10	156	89.7
Member of professional organization (*n* = 174)		
Yes	130	74.7
No	44	25.3
Advanced Cardiac Life Support Training (*n* = 174)		
Yes	22	12.6
No	152	87.4
Times involved in resuscitation efforts (*n* = 174)		
<5	10	5.8
5–10	30	17.2
>10	134	77.0
Ever invited relatives to be present during resuscitation (*n* = 174)		
Yes	106	60.9
No	68	39.1

bach alpha. The instruments in this study met the Cronbach alpha reliability as the value was greater than 0.600.

The mean score for FPR-BS was 3.37 (SD 1.00). This suggests that overall, participants had neither positive nor negative perceptions of family presence during resuscitation. More than half of the participants (60.9%) indicated that they agreed or strongly agreed that family members should be given the option to be present when their next of kin is being resuscitated. However, almost half of them also agreed or strongly agreed that the resuscitation team will not function as well if family members are present in the room (mean score 2.85; SD 1.17), and that they will be a disruptive element if they attend the resuscitation attempt (mean score 3.02; SD 1.09). Nevertheless, the participants indicated that family-witnessed resuscitation is a right that all patients and family members should have (mean score 3.86 and 3.75 respectively). More than half of the nurses (60.9%) had invited the next of kin of a patient to be present during resuscitation on at least one occassion (Table 1).

The overall mean score for FPS-CS was 3.72 (SD 0.80), which suggests that the participants were quite certain about implementing FPDR in clinical practice. The items in which the participants were less confident in were delivering electrical therapy to the patients with their family present in the room (mean score 3.34, SD 0.94), and getting physicians' support for FPDR (mean score 3.46, SD 0.82).

The Pearson *r* correlation between FPR-BS and FPS-CS was significant (*r* = 0.618, *P*-value: 0.000), indicating that nurses who perceived more benefits of family presence during resuscitation are also more confident in including a patient's relative during resuscitation attempts (Table 2).

Table 2. Pearson's correlation of the Family Presence Risk-Benefit Scale (FPR-BS) and the Family Presence Self-Confidence Scale (FPS-CS)

		Risk-benefit	Self confidence
Risk-benefit	Pearson correlation	1	0.618**
	Sig. (2-tailed)		0.000
	N	174	174
Self confidence	Pearson correlation	0.618**	1
	Sig. (2-tailed)	0.000	
	N	174	174

** Correlation is significant at the 0.01 level (2-tailed).

Nurses' perceptions of their self-confidence and the benefits and risks of FPDR by demographic factors

Spearman's correlation test was conducted to determine statistically significant difference in nurses' perceptions on FPDR in relation to their gender, age, working area, years of experience, time involved in resuscitation efforts, Advanced Cardiac Life Support (ACLS) training, and being a member of a professional organization. We found that nurses who had been involved in resuscitations efforts more than ten times perceived more benefits than risks of FPDR, and were also more confident in including the patient's relatives during resuscitations (Table 3). Meanwhile, differences in either FPR-BS or FPS-CS were not significant for other demographic factors, including years of experience, work unit, and ACLS training.

Using Spearman's correlation test, we found that the number of times nurses had been involved with a resuscitation attempt was the only demographic factor that correlates significantly with respondents' perceptions on FPDR – and their self-confidence in including the patients' families during resuscitation (sig. <0.000 and sig. <0.000 respectively). We also conducted a multiple linear regression analysis of the Family Presence Self-Confidence Scale (FPS-CS) on the independent variables of times involved in resuscitation, years of experience, member of professional organization, ever invited family during resuscitations, and FPR-BS. The scores are shown in Table 4 below.

Factors that positively affect the respondents' self-confidence in including family during resuscitation include: times involved in resuscitation, member of professional organization, ever invited family during resuscitations, and FPR-BS score (with coefficients of 4.195, 3.579, 2.762, and 0.441 respectively).

Other findings

We asked the respondents to write about their opinions and experiences on family-witnessed resuscitations. The respondents stated their experiences and reasons for allowing or not allowing the family to witness the resuscitation attempts, and their experience with the FPDR. The themes are described below.

To provide moral and religious support for the patient during the agony of death

Almost all the nurses who had invited a family member to witness the resuscitation of a loved one stated that the patient

Table 3. Spearman's correlation of the Family Presence Risk-Benefit Scale (FPR-BS) and the Family Presence Self-Confidence Scale (FPS-CS) on demographic factors

Variable	FPR-BS		FPS-CS	
	Correlation coefficient	Sig. (2-tailed)	Correlation coefficient	Sig. (2-tailed)
Gender	0.084	0.438	–0.030	0.781
Age	0.057	0.597	–0.107	0.322
Work unit	–0.168	0.120	–0.078	0.475
Trained in Advanced Cardiac Life Support	0.002	0.985	0.084	0.442
Times involved with resuscitation	**0.381****	**0.000**	**0.213***	**0.000**
Years of experience	–0.040	0.711	0.074	0.493
Member of professional organization	0.133	0.218	–0.001	0.989

Note: Bold indicates significant correlation. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

Table 4. Predictors of the Family Presence Self-Confidence Scale (FPS-CS) Score

Model	Unstandardized coefficients		Standardized coefficients	*t*	Sig.
	B	Std. error	Beta		
(Constant)	16.502	7.150		2.308	0.024
Times involved in resuscitation	4.195	1.145	0.300	3.665	0.000
Years of experience	–2.027	1.199	–0.136	–1.690	0.095
Member of professional organization	3.579	1.417	0.197	2.525	0.014
Ever invited family during resuscitations	2.762	1.522	0.171	1.816	0.073
FPR-BS score	0.441	0.061	0.678	7.233	0.000

should be accompanied by the family member. For Muslim patients, the nurses believed that the family should be there to guide the patient and recite the "Shahadah" or declaration of Muslim faith, so that the patient may die peacefully in cases when the resuscitation attempt is unsuccessful.

To assure the family that everything has been done to save the life of their loved one
Some respondents stated that the family needs to see that everything possible was done for their loved one, thereby promoting better closure.

It is the right of the family members to witness their loved one being resuscitated
Some respondents believed that witnessing the resuscitation attempt is the family members' right and may improve their satisfaction with the care provided.

To strengthen the relationship between the patient and their family
Some of the nurses stated that FWR can help to strengthen the bond between the patient and their family. The presence of the family may also make the patient feel loved and cared for.

Uncomfortable with the presence of family during a lifesaving procedure
One of the themes frequently raised by our respondents in opposition to this practice was increased performance anxiety. The nurses stated that the presence of the family reduced their concentration, as some of the family may cry loudly and panic when witnessing their loved one being resuscitated. The nurses also reported feeling uncomfortable and not fully functioning as they were afraid that the family may misunderstand the procedure they are performing. For example, seeing the patient being given shock therapy may be too traumatic for the family.

Disrupting the care
Some of the nurses who had invited the family to witness the resuscitation stated that sometimes the family asked them to stop the attempt as they could not bear the procedure. The relatives seemed to feel that the procedure may hurt the patient. This usually happened during the intubation procedure or chest compression.

Discussion

Involving the family in a patient's care planning is important. It is linked to better communication and quality of care, and also improved patient safety (Chapman et al., 2012; Ganz and Yoffe, 2012). However, whether the family should be included in the resuscitation processes remains debatable. In Indonesia, this topic is for the most part overlooked. To our knowledge, ours is the first study to explore nurses' perception of family witnessed resuscitations and their confidence in implementing this practice. This study was a single centered study involving 174 nurses working in Critical Care Units and ER.

Previous studies have been conducted to explore nurses' opinions on family-witnessed resuscitation using the English version of FPS-CS and FPR-BS. Our study validated the Indonesian version of these scales. Although most of the nurses involved in our study had invited families to witness a resusci-

tation attempt, they had neutral perceptions of this practice. This finding was inconsistent with many other studies, which found that nurses who had invited patients' families to witness the resuscitation process had a positive attitude towards this practice (Bellali et al., 2020; Tudor et al., 2014; Twibell et al., 2008). Some of the respondents in our study reported that a number of family members who witnessed the resuscitation attempts were disruptive. They were crying, loud, or arguing with the team, and on occasions even asked for the process to be ended because they thought the patient was being hurt. However, the majority of nurses believed that family should be given the choice to witness the resuscitation attempt. Nurses, especially in many non-western countries, remain unfamiliar with this practice, despite the growing evidence of its benefit to the patients and their families – and the implementation of family-centered care (Al-Mutair et al., 2012; De Mingo-Fernández et al., 2021; Ganz and Yoffe, 2012; Wacht et al., 2010; Zali et al., 2017).

Previous studies have suggested that nurses who have more years of working experience and have trained in Advanced Cardiac Life Support will likely support family-witnessed resuscitation. However, our study did not find a significant correlation between the two factors in relation to positive attitude toward FPDR or increased self-confidence score (De Mingo-Fernández et al., 2021; Powers and Reeve, 2020; Tudor et al., 2014). Indeed, studies that have investigated factors influencing nurses' perceptions of this practice have produced inconclusive results, which may be caused by respondents' cultural background and other factors. Educational interventions related to family witnessed resuscitations could improve the nurses' attitudes toward this practice. Institutional guidelines on FPDR should be developed and implemented by each hospital, as many studies have reported that this practice yields beneficial effects for the family members as well as the patients (De Stefano et al., 2016; Holzhauser and Finucane, 2007; Leske et al., 2017).

We would like to highlight that one of the most frequent reasons stated by nurses who support family presence during resuscitation is to provide religious support for the patient during the passage from life to death (otherwise known as the agony of death). A phenomenological study, conducted in a referral hospital in Indonesia, revealed that family members want to be present when their loved one is being resuscitated. The family stated that they need to be with the patient to support and comfort him or her. In addition, witnessing the attempt can help the family with the grieving process. That being said, the hospital should provide a facilitator to help the family to understand what happened during the resuscitation process (Pae et al., 2015; Pratiwi, 2018).

Our study found a significant correlation between FPR-BS and FPS-CS. This indicates that nurses who perceived more benefits to FPDR will also be more confident in implementing this practice. This finding is consistent with previous studies conducted in other countries (Chapman et al., 2012; Powers and Reeve, 2020; Tudor et al., 2014). One of the most cited items that the nurses were less confident in performing was getting the doctor's support for the family to witness the resuscitation. A previous study, conducted in Ball Memorial Hospital, Indiana, also found that the nurses were less confident in enlisting physicians' support for this practice (Tudor et al., 2014). This indicates a need for training sessions on interprofessional communication and collaboration related to FWR (Twibell et al., 2018). Standard operating procedures related to the implementation of FPDR should be formulated by every hospital committee, with input from nurses, doctors, patients, family members, and other health care providers. But first, educational interventions or training related to family presence during resuscitations should be developed to equip the nurses with knowledge and guidance on the implementation of FWR (Niemczyk and Ozga, 2019). In Indonesia, strategies to introduce the concept of FPDR to nurses, doctors, and the public, should be actively implemented through seminars, workshops, or mini lectures.

Our study has several limitations. We employed a non-random sampling and relatively small sample size of nurses from one hospital only. This may limit the generalizability of the study and may not represent the general attitude of Indonesian nurses toward FPDR. Furthermore, the respondents worked in critical areas only, and so may have a very different perception on FPDR and demographic factors to ward nurses.

Conclusions

Understanding nurses' perception of this practice and the factors associated with it, may help educators, clinicians and hospital authorities to develop guidelines and educational programs for all health care providers in order to better support families in a critical situation. This study was the first to investigate the perceptions of Indonesian nurses on the risks, benefits and self-confidence in implementing family-witnessed resuscitation. A high self-confidence score in implementing family-witnessed resuscitation was found among our respondents. In fact, most of them had invited family members to witness a resuscitation attempt. However, the nurses had a neutral attitude toward family presence during resuscitation.

This study also suggests that nurses will likely support family-witnessed resuscitations when other health care teams, especially doctors, are also in favor of this practice – one of the items in which most nurses were less confident in was enlisting a physician's support for this practice. Further studies are needed to explore the perception and experiences of the family and patients of FPDR practice, as well as the perception of other health care providers.

Ethical aspects and conflict of interests
The authors have no conflict of interests to declare and did not receive any funding for this study.

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The Health Research Ethics Committee of State Polytechnic of Health Malang has approved this study (Ethical Clearance Certificate Reg. No.: 937/KEPK-POLKESMA/2020).

Faktory související s postojem a sebedůvěrou sester ve vztahu k přítomnosti rodiny během resuscitace: průřezová studie v Indonésii

Souhrn

Úvod: Přítomnost rodiny při resuscitačních pokusech poskytuje pacientovi morální a náboženskou podporu. Posiluje také vztah mezi rodinou, zdravotnickým týmem a pacienty. Zavedení přítomnosti rodiny při resuscitaci do praxe však zůstává nejisté.
Cíl: Cílem této studie bylo prozkoumat postoj a sebedůvěru sester ve vztahu k přítomnosti rodiny během resuscitace v Indonésii a upravit indonéskou verzi nástrojů Family Presence Risk-Benefit Scale a Family Presence Self-Confidence Scale.
Metody: Studie byla průřezová, s použitím indonéské verze nástrojů Family Presence Risk-Benefit Scale a Family Presence Self-Confidence Scale.
Výsledky: Dotazník vyplnilo 174 sester pracujících na jednotce intenzivní péče nebo jednotce intenzivní kardiologické péče a na pohotovosti v terciární referenční nemocnici v indonéské provincii Riau. Naši respondenti nevnímali přítomnost rodiny při resuscitaci ani pozitivně, ani negativně (průměrné skóre 3,37; SD 1,00). Pearsonův r korelační test ukázal, že sestry, které vnímají přítomnost rodiny při resuscitaci jako přínosnou, jsou si jistější, pokud jde o její provádění (r = 0,618; P = 0,000). Zjistili jsme, že jediným demografickým faktorem, který určoval postoje sester k resuscitaci za účasti rodiny, byl počet případů, kdy se sestry na resuscitaci podílely.
Závěr: Mezi našimi respondenty bylo zjištěno vysoké skóre sebedůvěry při provádění resuscitace za účasti rodiny. Většina sester pozvala rodinné příslušníky, aby byli svědky resuscitace. K přítomnosti rodiny při resuscitaci však měly sestry neutrální postoj. Tato studie také naznačuje, že sestry budou přítomnost rodiny při resuscitaci pravděpodobně podporovat, pokud ji budou podporovat i lékaři.

Klíčová slova: postoj sester; přítomnost rodiny při resuscitaci; resuscitace se svědky z řad rodiny

References

1. Al-Mutair AS, Plummer V, Copnell B (2012). Family Presence During Resuscitation: A Descriptive Study of Nurses' Attitudes from Two Saudi Hospitals. Nurs Crit Care 17(2): 90–98. DOI: 10.1111/j.1478-5153.2011.00479.x.
2. Al Bshabshe AA, Al Atif MY, Bahis MA, Asiri AM, Asseri AM, Hummadi AA, et al. (2020). Physicians' Characteristics Associated with Their Attitude to Family Presence During Adult Cardiopulmonary Resuscitation. BioMed Res Int 2020: 4634737. DOI: 10.1155/2020/4634737.
3. Bellali T, Manomenidis G, Platis C, Kourtidou E, Galanis P (2020). Factors Associated with Emergency Department Health Professionals' Attitudes toward Family Presence During Adult Resuscitation in 9 Greek Hospitals. Dimens Crit Care Nurs 39(5): 269–277. DOI: 10.1097/dcc.0000000000000417.
4. Bradley C, Keithline M, Petrocelli M, Scanlon M, Parkosewich J (2017). Perceptions of Adult Hospitalized Patients on Family Presence During Cardiopulmonary Resuscitation. Am J Crit Care 26(2): 103–110. DOI: 10.4037/ajcc2017550.
5. Chapman R, Watkins R, Bushby A, Combs S (2012). Family-Witnessed Resuscitation: Perceptions of Nurses and Doctors Working in an Australian Emergency Department. ISRN Emerg Med 2012: 1–10. DOI: 10.5402/2012/369423.
6. Clark AP, Guzzetta CE, O'Connell KJ (2013). Family Presence During Resuscitation Attempts Is Associated with Positive Psychological Effects for the Observers. Evid Based Mental Health 16(3): 78. DOI: 10.1136/eb-2013-101354.
7. De Mingo-Fernández E, Belzunegui-Eraso Á, Jiménez-Herrera M (2021). Family Presence During Resuscitation: Adaptation and Validation into Spanish of the Family Presence Risk-Benefit Scale and the Self-Confidence Scale Instrument. BMC Health Serv Res 21(1): 221. DOI: 10.1186/s12913-021-06180-2.
8. De Stefano C, Normand D, Jabre P, Azoulay E, Kentish-Barnes N, Lapostolle F, et al. (2016). Family Presence During Resuscitation: A Qualitative Analysis from a National Multicenter Randomized Clinical Trial. PLoS One 11(6): e0156100–e0156100. DOI: 10.1371/journal.pone.0156100.
9. Egging D, Crowley M, Arruda T, Proehl J, Walker-Cillo G, Papa A, et al. (2011). Emergency Nursing Resource: Family Presence During Invasive Procedures and Resuscitation in the Emergency Department. J Emerg Nurs 37(5): 469–473. DOI: 10.1016/j.jen.2011.04.012.
10. Ganz FD, Yoffe F (2012). Intensive Care Nurses' Perspectives of Family-Centered Care and Their Attitudes toward Family Presence During Resuscitation. J Cardiovasc Nurs 27(3): 220–227. DOI: 10.1097/JCN.0b013e31821888b4.
11. Gutysz-Wojnicka A, Ozga D, Dyk D, Mędrzycka-Dąbrowska W, Wojtaszek M, Albarran J (2018). Family Presence During Resuscitation – the Experiences and Views of Polish Nurses. Intensive Crit Care Nurs 46: 44–50. DOI: 10.1016/j.iccn.2018.02.002.
12. Holzhauser K, Finucane J (2007). Staff Attitudes to Family Presence During Resuscitation: Part A: An Interventional Study. Australas Emerg Nurs J 10(3): 124–133. DOI: 10.1016/j.aenj.2007.06.001.
13. Jabre P, Belpomme V, Azoulay E, Jacob L, Bertrand L, Lapostolle F, et al. (2013). Family Presence During Cardiopulmonary Resuscitation. N Engl J Med 368: 1008–1018. DOI: 10.1056/NEJMoa1203366.
14. Joyner Jr., BL (2018). Does Family Presence in the Trauma Bay Help or Hinder Care? AMA J Ethics 20(5): 507–512. DOI: 10.1001/journalofethics.2018.20.5.sect1-1805.
15. Lederman Z, Wacht O (2014). Family Presence During Resuscitation: Attitudes of Yale-New Haven Hospital Staff. Yale J Biol Med 87(1): 63–72.
16. Leske JS, McAndrew NS, Brasel KJ (2013). Experiences of Families When Present During Resuscitation in the Emergency Department after Trauma. J Trauma Nurs 20(2): 77–85. DOI: 10.1097/JTN.0b013e31829600a8.
17. Leske JS, McAndrew NS, Brasel KJ, Feetham S (2017). Family Presence During Resuscitation after Trauma. J Trauma Nurs 24(2): 85–96. DOI: 10.1097/JTN.0000000000000271.
18. Leung NY, Chow SK (2012). Attitudes of Healthcare Staff and Patients' Family Members Towards Family Presence During Resuscitation in Adult Critical Care Units. J Clin Nurs 21(13–14): 2083–2093. DOI: 10.1111/j.1365-2702.2011.04013.x.
19. Masa'Deh R, Saifan A, Timmons S, Nairn S (2014). Families' Stressors and Needs at Time of Cardio-Pulmonary Resuscitation: A Jordanian Perspective. Glob J Health Sci 6(2): 72–85. DOI: 10.5539/gjhs.v6n2p72.
20. Mortelmans LJ, Van Broeckhoven V, Van Boxstael S, De Cauwer HG, Verfaillie L, Van Hellemond PL, et al. (2010). Patients' and Relatives' View on Witnessed Resuscitation in the Emergency Department: A Prospective Study. Eur J Emerg Med 17(4): 203–207. DOI: 10.1097/MEJ.0b013e328331477e.

21. Niemczyk E, Ozga D (2019). Attitudes of Intensive Care Unit Nurses to Family Involvement and Their Presence During Cardiopulmonary Resuscitation: What Should Be Done to Make Family Presence During Cardiopulmonary Resuscitation a Common Practice in Hospitals? Dimens Crit Care Nurs 38(2): 113–114. DOI: 10.1097/DCC.0000000000000345.
22. Pae K, Andarini S, Lestari R (2015). Studi Fenomenologi: Pengalaman Keluarga Dalam Mendampingi Pasien Saat Proses Resusitasi Di Instalasi Gawat Darurat RSUD Dr. Saiful Anwar Malang. Wiraraja Medika 5(2).
23. Porter J, Cooper SJ, Sellick K (2013). Attitudes, Implementation and Practice of Family Presence During Resuscitation (FPDR): A Quantitative Literature Review. Int Emerg Nurs 21(1): 26–34. DOI: 10.1016/j.ienj.2012.04.002.
24. Powers K, Reeve CL (2018). Factors Associated with Nurses' Perceptions, Self-Confidence, and Invitations of Family Presence During Resuscitation in the Intensive Care Unit: A Cross-Sectional Survey. Int J Nurs Stud 87: 103–112. DOI: 10.1016/j.ijnurstu.2018.06.012.
25. Powers K, Reeve CL (2020). Original Research: Family Presence During Resuscitation: Medical–Surgical Nurses' Perceptions, Self-Confidence, and Use of Invitations. Am J Nurs 120(11): 28–38. DOI: 10.1097/01.NAJ.0000721244.16344.ee.
26. Pratiwi ID (2018). Family Presence During Resuscitation: Patient and Family Members' Preferences and Attitudes. Int J Res Med Sci 6(2): 394–400. DOI: 10.18203/2320-6012.ijrms20180275.
27. Sak-Dankosky N, Andruszkiewicz P, Sherwood PR, Kvist T (2018). Health Care Professionals' Concerns Regarding in-Hospital Family-Witnessed Cardiopulmonary Resuscitation Implementation into Clinical Practice. Nurs Crit Care 23(3): 134–140. DOI: 10.1111/nicc.12294.
28. Sak-Dankosky N, Andruszkiewicz P, Sherwood PR, Kvist T (2019). Preferences of Qualitative Perspective of Intensive Care Patients' Family Members. Intensive Crit Care Nurs 50: 95–102. DOI: 10.1016/j.iccn.2018.04.001.
29. Tudor K, Berger J, Polivka BJ, Chlebowy R, Thomas B (2014). Nurses' Perceptions of Family Presence During Resuscitation. Am J Crit Care 23(6): e88–e96. DOI: 10.4037/ajcc2014484.
30. Twibell R, Siela D, Riwitis C, Neal A, Waters N (2018). A Qualitative Study of Factors in Nurses' and Physicians' Decision-Making Related to Family Presence During Resuscitation. J Clin Nurs 27(1–2): e320–e334. DOI: 10.1111/jocn.13948.
31. Twibell RS, Siela D, Riwitis C, Wheatley J, Riegle T, Bousman D, et al. (2008). Nurses' Perceptions of Their Self-Confidence and the Benefits and Risks of Family Presence During Resuscitation. Am J Crit Care 17(2): 101–111; quiz 112.
32. Wacht O, Dopelt K, Snir Y, Davidovitch N (2010). Attitudes of Emergency Department Staff toward Family Presence During Resuscitation. Isr Med Assoc J 12(6): 366–370.
33. Zali M, Hassankhani H, Powers KA, Dadashzadeh A, Rajaei Ghafouri R (2017). Family Presence During Resuscitation: A Descriptive Study with Iranian Nurses and Patients' Family Members. Int Emerg Nurs 34: 11–16. DOI: 10.1016/j.ienj.2017.05.001.