



NURSES' PERCEPTIONS OF THEIR SELF-CONFIDENCE AND THE BENEFITS AND RISKS OF FAMILY PRESENCE DURING RESUSCITATION

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CE 1.0 Hour

Notice to CE enrollees:

A closed-book, multiple-choice examination following this article tests your understanding of the following objectives:

1. Describe nurses' perceptions of self-confidence with families being present during resuscitation.
2. Recognize the association between perceptions of nurses regarding family presence during resuscitation and decisions of nurses to invite family presence.
3. Understand the use of both the Family Presence Risk-Benefit Scale and the Family Presence Self-confidence Scale.

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Background Debate continues among nurses about the advantages and disadvantages of family presence during resuscitation. Knowledge development about such family presence is constrained by the lack of reliable and valid instruments to measure key variables.

Objectives To test 2 instruments used to measure nurses' perceptions of family presence during resuscitation, to explore demographic variables and perceptions of nurses' self-confidence and the risks and benefits related to such family presence in a broad sample of nurses from multiple hospital units, and to examine differences in perceptions of nurses who have and who have not invited family presence.

Methods Nurses (n = 375) completed the Family Presence Risk-Benefit Scale and the Family Presence Self-confidence Scale.

Results Nurses' perceptions of benefits, risks, and self-confidence were significantly and strongly interrelated. Nurses who invited family presence during resuscitation were significantly more self-confident in managing it and perceived more benefits and fewer risks ($P < .001$). Perceptions of more benefits and fewer risks were related to membership in professional organizations, professional certification, and working in an emergency department ($P < .001$). Data supported initial reliability and construct validity for the 2 scales.

Conclusions Nurses' perceptions of the risks and benefits of family presence during resuscitation vary widely and are associated with how often the nurses invite family presence. After further testing, the 2 new scales may be suitable for measuring interventional outcomes, serve as self-assessment tools, and add to conceptual knowledge about family presence. (*American Journal of Critical Care*. 2008;17:101-112)

Debate persists in critical care units around the world about the risks and benefits of having family members of a patient present during resuscitation of the patient. Family members of patients overwhelmingly report a desire to be with their loved ones during end-of-life emergency measures.¹⁻⁸ At the urging of professional organizations, including the American Association of Critical-Care Nurses,⁹ the Emergency Nurses Association,¹⁰ and the American Heart Association,¹¹ an increasing number of hospitals now allow family members of patients to be present during resuscitation. Because few acute care facilities have policies about family presence during resuscitation,^{12,13} healthcare professionals often make case-by-case decisions about whether family members are given the option to be present. Therefore, clarifying the perceptions of nurses who are often “gatekeepers to the bedside” during resuscitation is vital.¹⁴

Background

Research suggests that various healthcare professionals have different opinions about family presence. Physicians, particularly interns and residents, are overall less positive than are other healthcare professionals about family presence during resuscitation.^{1,2,15-20} Some nurses support family presence during resuscitation,^{2,15,17,20,21,22} whereas other nurses have more negative views.^{2,4,5,15,17,18,20,23}

Healthcare professionals report 3 primary reasons for their reluctance to invite patients’ families to be present: the unpleasantness of what the families will see,^{16,17,19,22-26} fear that the resuscitation team will not function well with patients’ families in the room,^{16,19,20,22,24,25} and anxiety that family members will become disruptive.^{17,18,20,22,24,25,27} Less frequently mentioned concerns include patient confidentiality,²⁴ possible increase in litigation if patients’ families are present,^{17,28} and more aggressive and prolonged treatment if patients’ families are present.²

However, research has not indicated that patients’ families are disruptive, anxious about what they will see, or more likely to sue.^{1,6,28-30} In fact, in one study,³¹ family members reported that they feared being disruptive and wanted to stay out of the way. Little research documents long-term detrimental effects on families.³² Likewise, research has not shown that the resuscitation team performs less adequately or that confidentiality is breached when families are present.²⁸

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According to nurses, common advantages of family presence during the resuscitation of adult loved ones include the following: families grasp the seriousness of the patient’s condition, families see that everything was done for their loved one, and families move more positively through the grieving process.^{2,19,20,26,27,33-36} In addition, families report that their presence helps the patient and enables the families to receive information quickly.^{2,3,32-34,36,37} Consensus is growing that parental presence during resuscitation of children has many advantages.³⁰ Recently, 18 healthcare organizations united in a national forum to support parental presence during resuscitations of children.³⁸

Three distinct gaps exist in what is known about the perceptions and decisions of nurses regarding family presence during resuscitation of adults. The first gap is due to the way perceptions were measured in earlier research. Most of what is known about nurses’ perceptions of family presence during resuscitation has been assessed by using opinion surveys or interviews.^{6,12,14,16-19,23-27,32,34,36,37,39,40} Both methods of data collection are difficult to replicate. Findings across studies cannot be compared when the survey questions used in the studies differ, making it difficult to build a scientific body of knowledge of family presence. More rigor in the measurement of concepts related to family presence is needed.^{41,42}

Recently, several instruments to measure healthcare professionals’ perceptions of and opinions about family presence have been developed and tested for psychometric properties.^{20,22,43} Early evidence of reliability and content validity have been reported.^{20,22,43} In 2 studies,^{20,22} researchers measured attitudes, values, and beliefs of healthcare providers related to family presence during resuscitation and invasive procedures. In both studies, nurses and physicians were surveyed. In addition, Duran et al²⁰ surveyed respiratory therapists, patients’ families, and

Families believe it is their right to be present during resuscitation.

patients. In both studies,^{20,22} the sample consisted of fewer than 100 nurses, all from critical care or emergency departments. Statistical analysis of subscales of the instruments was not part of either study.

The second gap is due to the lack of a conceptual framework. To date, research related to family presence during resuscitation has been atheoretical. More specifically, nurses have not yet identified the primary determinants of decision making about family presence and the pattern of relationships among key factors. Several concepts related to inviting or not inviting patients' families to be present during resuscitation are consistent in the literature, including perceived risks and benefits of the practice.^{5,7,12,15,16,17,26,29,34,37,44,45} Furthermore, according to Rogers' theory of diffusion of innovation,⁴⁶ new ideas are adopted in part on the basis of estimates of relative risks and benefits. In addition, according to Bandura,⁴⁷ the likelihood that a person will behave in a new way depends in part on the person's perception of his or her ability to perform the relevant behavior. In other words, people tend to perform behaviors that they feel confident in doing.⁴⁸

Research is needed to test the relationship between risks, benefits, and self-confidence in managing family presence during resuscitation. If nurses have high self-confidence about their ability to perform adequately during resuscitation when a patient's family is present, will they be more likely to invite families to the bedside? To what extent do perceptions of risks, benefits, and self-confidence influence nurses' decision making about the innovative practice of family presence?

The third gap is due to the types of samples included in earlier research. In most studies of nurses' perceptions of family presence, the sample consisted of nurses employed in emergency departments. Critical care nurses were included in some studies,^{17,20} but none of the studies included nurses who worked in non-critical care units. The samples in prior research consisted of fewer than 100 nurses,^{20,22} and sometimes the response rates were low.²⁸ In addition, the relationships between respondents' personal and professional characteristics, including age and years of experience, and their perceptions of family presence have not been consistently described.²⁸

The purposes of the study reported here were to address the 3 gaps and, specifically, to test instruments used to measure nurses' perceptions of family presence; to explore demographic variables and nurses' perceptions of self-confidence, risks, and benefits related to family presence in a broad sample of nurses from multiple hospital units; and to examine differences in perceptions of nurses who have and who have not invited patients' families to

be present during resuscitation. The research questions were as follows:

- What are the psychometric properties of 2 new instruments used to measure nurses' perceptions related to family presence?
- What are the relationships between nurses' perceptions of risks, benefits, and self-confidence related to family presence during resuscitation?
- What are the relationships among demographic variables and nurses' perceptions of family presence during resuscitation?
- What are the differences in perceptions of nurses who have and have not invited patients' families to be present during resuscitation?

Methods

Sample, Setting, and Procedure

Participants were registered nurses (RNs) and licensed practical nurses (LPNs) employed at Ball Memorial Hospital, a regional medical center associated with Ball State University in Muncie, Indiana. The hospital did not have a policy about family presence during resuscitation. Some units of the hospital routinely used family presence, whereas others did not. To be included in the study, participants had to be 18 years or older, be able to read English, and hold a nursing license in Indiana.

The study was approved by the appropriate institutional review boards. Nurses completed the 2 instruments and returned them by mail. Participation was voluntary and anonymous. Data were confidential.

Instruments

Perceptual variables in the study were perceived risks, perceived benefits, and self-confidence related to family presence during resuscitation. On the basis of the theories of Rogers⁴⁶ and Bandura,⁴⁷ qualitative data from content experts, and the findings of earlier research,^{5,7,12,15,16,17,26,29,34,37,44,45} we developed 2 instruments to measure the perceptual variables. The Family Presence Risk-Benefit Scale (FPR-BS) was used to measure nurses' perceptions of the risks and benefits of family presence to the family, patient, and resuscitation team. Two items addressed the extent to which being present was a right of families and patients. The Family Presence Self-confidence Scale (FPS-CS) was used to measure nurses' self-confidence related to managing resuscitation with patients' families present. Items for both scales were developed on the basis of the literature and interviews with expert nurses from a variety of clinical areas. Items on

Two-thirds of nurses had never invited family presence during resuscitation.

Table 1
Sample characteristics (n = 375)^a

Characteristic	No.	%
Sex		
Male	8	2.1
Female	359	95.7
Race		
White	351	93.6
African American	1	0.3
Asian Pacific	3	0.8
Other	5	1.3
Level of education in nursing		
Baccalaureate degree	185	49.3
Associate degree	108	28.8
Licensed practical nurse	45	12.0
Advanced practice/degree	14	3.7
Type of patients in nursing unit		
Adults	300	80.0
Children	38	10.1
Neonates	37	9.9
Years of experience		
<1	14	3.7
1-5	69	18.4
6-10	82	21.9
11-20	115	30.7
>20	88	23.5
Age, y		
18-24	17	4.5
25-29	143	38.1
40-55	173	46.1
>56	32	8.5
Type of clinical unit		
Critical care	136	36.3
Emergency	22	5.9
Non-critical care inpatient	165	44.0
Outpatient	26	6.9
Number of times invited family presence		
0	254	67.7
<5	83	22.1
≥5	28	7.5

^a Because of missing data and rounding, not all percentages total 100.

both scales had 5-point Likert response options, from strongly disagree (1) to strongly agree (5). Clinical experts in family presence, academicians, and statistical experts in design and testing provided content review of the items. The initial items were pilot tested with 20 nurses from multiple nursing units in an acute care setting. After modifications, 26 of the 30 original items were included in the FPR-BS. The possible range of scores was 26 to 130. Of the original 19 items, 17 were included in the FPS-CS; the possible range of scores was 17 to 85.

Demographic variables were measured by using single items that addressed age, sex, ethnicity, educational level, role as an RN or an LPN, current professional certifications, and years of experience as a nurse.

A single item asked, "How many times have you invited a family member to be present during a resuscitation attempt at this hospital?" Response options were never, fewer than 5 times, and 5 times or more.

Statistical Analysis

For analysis of the psychometric properties of the 2 instruments, maximum likelihood exploratory factor analysis with varimax rotation was computed to determine the construct validity of the scales. Item-to-total correlations and Cronbach α reliability were used to assess whether items were consistently measuring the same underlying ideas. Relationships among study variables were examined by computing Pearson r correlations among scores for perceived benefits, perceived risks, and self-confidence.

Relationships among demographic variables were analyzed descriptively. Because of the small number of men and nonwhite participants, data on sex and ethnicity of the participants were eliminated from the analysis. Pearson r correlations, t tests, and analysis of variance were used to determine relationships between perceptual variables and demographic variables. Analysis of variance was used to examine differences in scores on the FPR-BS and the FPS-CS on the basis of how often nurses had invited patients' family members to be present during resuscitation.

Significance was set at $P < .05$. A sample size of at least 250 was targeted. SPSS for Windows, version 14.0.2 (SPSS Inc, Chicago, Illinois), was used for all analyses. Negatively worded items were reverse scored. Residual analyses revealed acceptable linear trends.

Results

Characteristics of the Sample

A total of 375 nurses participated in the study, for a response rate of 64%. More than 95% were women, more than 90% were white, and more than 75% had at least 6 years of nursing experience (Table 1). One half of the sample had a baccalaureate degree in nursing. A total of 44% ($n = 165$) worked on inpatient, non-critical care units, 36% ($n = 136$) worked in critical care units, 6% ($n = 22$) worked in the emergency department, and 7% ($n = 26$) worked in an outpatient setting. Most respondents provided care for adults (80%). Nurses from a pediatric unit (10%) also cared for some adult surgical patients. Nurses from a neonatal ICU (10%) cared solely for infants.

About two-thirds of the participants ($n = 254$) had never invited the family of a patient to be present during resuscitation, more than 20% ($n = 83$) had invited family presence at least once but fewer than 5 times, and 7.5% ($n = 28$) had invited it 5 times or more.

Table 2
Factor analysis^a: items on Family Presence Risk-Benefit Scale

Original item number	Item	Factor loading
1	Family members should be given the option to be present when a loved one is being resuscitated	0.787
2	Family members will panic if they witness a resuscitation effort	-0.602
3	Family members will have difficulty adjusting to the long-term emotional impact of watching a resuscitation effort	-0.739
4	The resuscitation team may develop a close relationship with family members who witness the efforts, as compared with family members who do not witness the efforts	0.566
6	If my loved one were being resuscitated, I would want to be present in the room	0.667
7	Patients do not want family members present during a resuscitation attempt	-0.648
9	Family members who witness unsuccessful resuscitation efforts will have a better grieving process	0.740
11	Family members will become disruptive if they witness resuscitation efforts	-0.676
12	Family members who witness a resuscitation effort are more likely to sue	-0.591
13	The resuscitation team will not function as well if family members are present in the room	-0.498
15	Family members on the unit where I work prefer to be present in the room during resuscitation efforts	0.528
16	The presence of family members during resuscitation efforts is beneficial to patients	0.781
17	Family presence during resuscitation is beneficial to families	0.800
18	Family presence during resuscitation is beneficial to nurses	0.848
19	Family presence during resuscitation is beneficial to physicians	0.807
20	Family presence during resuscitation should be a component of family-centered care	0.856
21	Family presence during resuscitation will have a positive effect on patient ratings of satisfaction with hospital care	0.869
22	Family presence during resuscitation will have a positive effect on family ratings of satisfaction with hospital care	0.854
23	Family presence during resuscitation will have a positive effect on nurse ratings of satisfaction in providing optimal patient and family care	0.890
24	Family presence during resuscitation will have a positive effect on physician ratings of satisfaction in providing optimal patient and family care	0.843
25	Family presence during resuscitation is a right that all patients should have	0.680
26	Family presence during resuscitation is a right that all family members should have	0.673

^a Maximum likelihood extraction, varimax rotation.

Scores on Study Variables

Mean total scores were 3.15 (range, 1.09-4.91) on the FPR-BS and 3.65 (range, 1.0-5.0) on the FPS-CS. The responses of the participants varied greatly. Almost every item on the 2 instruments elicited responses that ranged from strongly disagree to strongly agree. Because of the large sample size and the variability in responses on such a controversial topic, normal distributions of scores were not anticipated. However, Shapiro-Wilks tests of normality indicated that scores on the FPS-CS and the FPR-BS had nearly normal distributions. Furthermore, the skewness and kurtosis measures were small, from 0.15 to 0.87, indicating that departures from normality were not marked. Visual inspection of graphs of scores likewise revealed that the distributions were nearly normal. Because strict normality was not a strong assumption for the statistics proposed in the study, parametric statistics were computed.⁴⁹

Instrument Testing

Factor analysis of the FPR-BS revealed a single interpretable factor. Four items were deleted because of low item-total correlations and inconsistent loading on the single factor. The scale was bipolar: high scores signified perceptions of more benefits and fewer risks; low scores, perceptions of more risks and fewer benefits.

The single factor of the FPR-BS explained 53% of the variance in nurses' perceptions of risks and benefits of family presence. Factor loadings ranged from -0.498 to 0.890 (Table 2). The Cronbach α reliability of the 22-item scale was .96.

All 17 items on the FPS-CS correlated with the total score and were retained in the analysis. A single factor explained 52% of the variance in nurses' self-confidence to manage family presence. Factor loadings ranged from 0.553 to 0.825 (Table 3). The Cronbach α reliability of the scale was .95.

Table 3
Factor analysis^a: items on Family Presence Self-confidence Scale

Original item number	Item	Factor loading
1	I could communicate about the resuscitation effort to family members who are present	0.732
2	I could administer drug therapies during resuscitation efforts with family members present	0.585
3	I could perform electrical therapies during resuscitation efforts with family members present	0.553
4	I could deliver chest compressions during resuscitation efforts with family members present	0.671
5	I could communicate effectively with other health team members during resuscitation efforts with family members present	0.713
6	I could maintain dignity of the patient during resuscitation efforts with family members present	0.640
7	I could identify family members who display appropriate coping behaviors to be present during resuscitation efforts	0.755
8	I could prepare family members to enter the area of resuscitation of their family member	0.825
9	I could enlist support from attending physicians for family presence during resuscitation efforts	0.591
10	I could escort family members into the room during resuscitation of their family member	0.800
11	I could announce family members' presence to resuscitation team during resuscitation efforts of their family members	0.789
12	I could provide comfort measures to family members witnessing resuscitation efforts of their family member	0.799
13	I could identify spiritual and emotional needs of family members witnessing resuscitation efforts of their family member	0.788
14	I could encourage family members to talk to their family member during resuscitation efforts	0.693
15	I could delegate tasks to other nurses in order to support family members during resuscitation efforts of their family member	0.787
16	I could debrief family after resuscitation of their family member	0.751
17	I could coordinate bereavement follow-up with family members after resuscitation efforts of their family member, if required	0.715

^a Maximum likelihood extraction, varimax rotation.

Relationships Among Perceptions

The Pearson *r* correlation between nurses' perceptions of risks and benefits and self-confidence related to family presence was significant ($r = 0.56$, $P < .001$). Nurses who perceived more benefits and fewer risks also perceived more self-confidence in their ability to manage family presence.

Slightly more than half of the sample agreed or strongly agreed that family presence was a "right" of both patients and families. These perceptions were significantly related to perceptions of fewer risks and more benefits ($r = 0.72$, $P = .008$) and to high scores on the FPS-CS ($r = 0.40$, $P = .04$).

Relationships Between Demographic Variables, Risks-Benefits, and Self-confidence

Scores on the FPR-BS differed significantly between nurses who did and did not belong to a professional nursing organization ($t = 5.3$, $P < .001$) and between nurses who were and were not certified in a clinical specialty ($t = 3.9$, $P < .001$). Certified nurses and members of professional organizations perceived more benefits and fewer risks than did nonmembers and noncertified nurses.

Likewise, scores on the FPS-CS differed significantly between nurses who did and did not belong to a professional nursing organization ($t = 5.1$, $P < .001$) and between nurses who were and were not certified in a clinical specialty ($t = 3.8$, $P < .001$). Certified nurses and members of professional organizations perceived greater self-confidence than did noncertified nurses and nonmembers.

Perceptions related to family presence did not differ between RNs with an associate degree, a baccalaureate degree, or an advanced nursing degree. Compared with all RNs, LPNs perceived fewer benefits and more risks ($F = 14.3$, $P < .001$). LPNs reported less self-confidence than did RNs with a baccalaureate degree ($F = 2.76$, $P = .04$), but the self-confidence of LPNs did not differ significantly from that of RNs with an associate degree or an advanced practice degree.

Number of years of experience in nursing was not significantly related to nurses' perceptions of risks, benefits, or self-confidence. Nurses' age was not significantly related to their perceptions of family presence.

Scores on the 2 instruments varied across units. The perceptions of nurses who worked in critical

care settings did not differ from those of nurses who worked in non-critical care inpatient units. Although only a few participants in the sample worked in the emergency department, their perceptions varied significantly from those of the other participants. Emergency nurses perceived significantly fewer risks and more benefits ($F=7.56, P<.001$) and greater self-confidence ($F=6.90, P<.001$) than did nurses who worked in all other units. Nurses who worked in outpatient ambulatory settings, also a small part of the sample, reported significantly more risks and fewer benefits than did nurses from other units ($F=6.9, P<.001$).

Who Invites Family Presence?

Mean scores on the FPR-BS differed significantly ($F=32.6, P<.001$) between nurses who had never invited family presence ($n=254$; mean score = 2.99), nurses who had invited family presence fewer than 5 times ($n=83$; mean score = 3.38), and nurses who had invited family presence 5 times or more ($n=28$; mean score = 4.00). The more times nurses invited family presence, the more benefits they perceived (see Figure).

Scores on the FPS-CS also varied significantly ($F=36.4, P<.001$) between nurses who had never invited family presence (mean score = 3.47), nurses who had invited family presence fewer than 5 times (mean score = 3.93), and nurses who had invited family presence 5 times or more (mean score = 4.43). The more times nurses invited family presence, the greater was their self-confidence (see Figure).

Discussion and Implications

The dramatically divergent responses of participants, from strongly agree to strongly disagree on most items, reflect the continuing controversial nature of family presence during resuscitation. Despite families' clear desire to be present and the support of family presence by professional organizations and consensus groups, nurses still do not agree on the risks and benefits involved. The total mean score of 3.15 on the FPR-BS was slightly positive, indicating that nurses still see both benefits and risks in family presence. This score was higher than the 2.79 mean score, which indicated positive attitudes toward family presence during resuscitation and procedures, in the study by Duran et al.²⁰ Mean scores on scales in the study by Mian et al²² also were in the 2.7 range. However, a clear and insightful comparison of scores is not possible, because the sample in our study consisted solely of nurses, the focus was resuscitation, and the items differed from those on earlier tools.

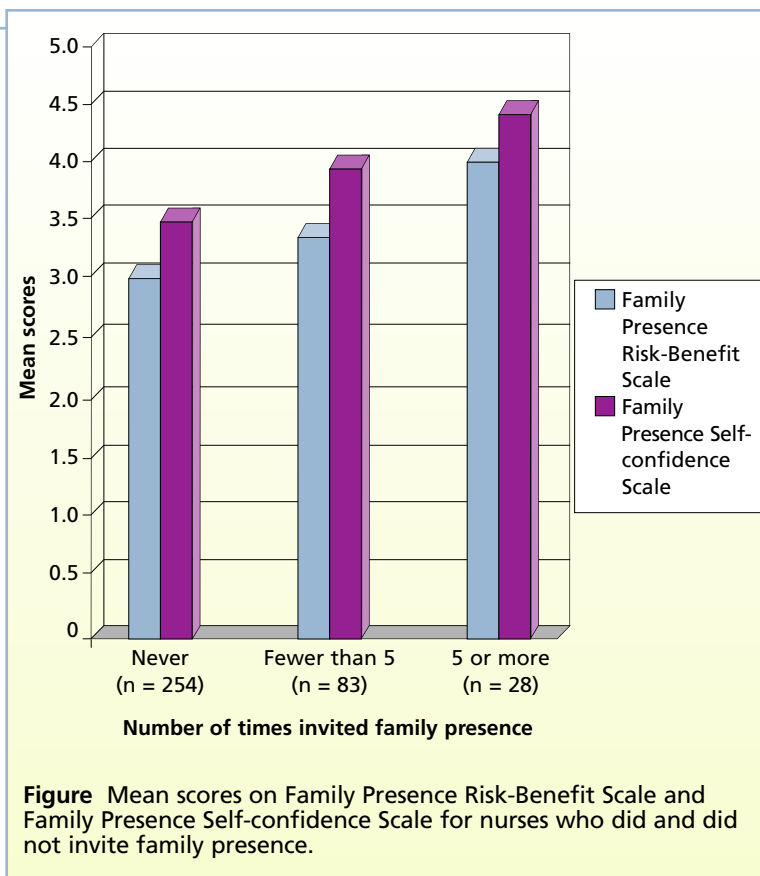


Figure Mean scores on Family Presence Risk-Benefit Scale and Family Presence Self-confidence Scale for nurses who did and did not invite family presence.

Despite limited experience in inviting family presence, the total sample of nurses in our study scored themselves moderately high on self-confidence in caring for patients and families during family presence. No other investigators have used a multi-item tool to assess self-confidence, so no data from other samples are available for comparison. The finding that nurses with greater self-confidence had invited family presence more often is consistent with results from 2 earlier studies,^{18,43} in which health-care providers with increased confidence and competence were more likely to adopt family presence than were providers with less confidence and competence. Our findings do not indicate whether increased confidence in managing family presence precedes more frequent invitations for family presence or whether more frequent invitations for family presence increase nurses' confidence in managing such presence. Further exploration of the relationship between nurses' confidence and perceptions related to family presence is needed.

Our results do not indicate why nurses make certain decisions about family presence, but the

More than half of the nurses believed that family presence during resuscitation was a "right" both of patients and their families.

findings do suggest that the perceptions of nurses who have invited family presence differ from those of nurses who have not invited such presence. Nurses who invited family presence perceived more benefits, fewer risks, and more self-confidence than nurses who did not invite family presence. These results support other research findings^{22,27,33} suggesting that once nurses participate in family presence, they perceive more benefits than risks in the practice.

Our data depict a profile of nurses who typically invite family presence. Nurses most likely to invite family presence were RNs who were certified, were members of a professional organization, and were working in the emergency department. Possibly, the respondents were members of the American Association of Critical-Care Nurses or the Emergency Nurses Association, organizations that advocate for family presence. In 2 other studies,^{17,23} nurses certified by the Emergency Nurses Association were more likely than other nurses to invite family presence. Similar to our findings, in the study by Bassler,²⁴ nurses who worked in the emergency department were more likely than critical care nurses to invite family presence. Nurses in emergency departments may tend to integrate patients' family members into patients'

experiences more than nurses do on inpatient units, where even open visitation for patients' families may still be controversial.⁵⁰

Nurses who work in critical care units did not differ in their perceptions of risks, benefits, or self-confidence from nurses who worked in non-critical care inpatient units. This finding was similar to that of Fulbrook et al⁴² that ICU and non-ICU nurses in a European sample did not differ in attitudes toward family presence. Nurses who worked in an outpa-

tient setting may have perceived more risks and fewer benefits because their experiences with resuscitation are rare and usually unexpected.

Our results did not clarify the relationships between nurses' age, years of experience, and perceptions related to family presence. We found no significant relationships, in contrast to the findings of other studies,^{18,23} which suggested that nurses with more nursing experience were more favorable toward family presence. Fulbrook et al⁴² found no differences in attitudes related to years of nursing experience.

Our data reflect disparity about whether or not patients' families have a "right" to be present during resuscitation. The key question is, Who owns the family presence decision? Families have commonly

reported that family presence is a right.^{2,3,24,34} The nurses in our study were evenly divided on whether or not families had a right to be present. Similar results from other studies^{2,12,25,40} indicate that healthcare professionals do not yet fully embrace family presence as a right to be exercised by patients' families, independent of the judgment of healthcare professions.

Strategies to increase adoption of family presence can focus on skill building for both inviting and managing family presence. Once a nurse has experienced family presence during resuscitation, debriefing can provide further learning opportunities and a chance to reflect and develop confidence. Active-learning strategies could include role playing, mentoring, supervised practice, coaching, case-study simulations, and self-exploration of the evidence on family presence. Membership in professional organizations can be encouraged.

One purpose of our study was to test instruments to measure nurses' perceptions related to family presence. The instruments in prior research were used to measure global concepts of attitude, beliefs, and values^{20,22} rather than specific concepts such as risks, benefits, and self-confidence, although some overlap occurred in the content of items. Our use of factor analysis of the instruments to examine construct validity is the first statistical evaluation of the factor structure of measures of concepts of family presence. No discrete subscales were identified. The data provided initial support for the internal consistency reliability and construct validity of the 2 scales.

Further development of the FPR-BS and FPS-CS could address validity, reliability, and the scope of the items on the scales. Validity of the scales can be enhanced by testing the factor structure of the 22-item FPR-BS in other samples with ethnic and geographic diversity. The factor structure of the FPS-CS also requires confirmation in other samples. Concurrent validity of the FPR-BS could be tested by using selected subscales from similar measures, such as the family presence attitude scale in the study by Duran et al.²⁰ Concurrent validity of the FPS-CS could be tested by using a general measure of self-efficacy, such as the General Self-efficacy Scale.⁵¹ However, measures of self-efficacy and self-confidence are more valid and precise when associated with a specific behavior rather than measured as a global construct.⁵²

Internal consistency reliability of the scales can be tested in other samples. The high Cronbach α values for our scales suggests that some items are redundant and could be removed. Test-retest reliability may be informative as a measure of stability of scores over time, although perceptions of family presence may change in response to day-by-day experiences.

Members of professional organizations perceived greater benefit and less risk than did non-members.

The scope of the items on the FPR-BS could be expanded to explain more of the variance in the scores. In our study, slightly less than half of the variance in scores on both instruments was unexplained. Unexplained variance could arise from 2 sources. One source might be inconsistent responses to items by individual respondents, because of the emotional and controversial nature of the debate on family presence. If nurses are not sure about risks, benefits, and self-confidence, responses to items may not be consistent, and more unexplained variance will result. Fulbrook et al⁴² noted that respondents (n = 124) changed their views on issues related to family presence from the beginning to the end of a survey. A second source of unexplained variance might be the existence of additional influences on nurses' perceptions of risks, benefits, and self-confidence that were untapped by these tools.

Qualitative research on family presence may reveal more specific concepts related to nurses' decisions about the practice that can be operationalized on further revisions of the instruments. For example, it might be useful to measure additional, specific benefits of family presence on the FPR-BS, such as "family can see that everything was done," "family can have closure," "family can touch the patient," "patient can be comforted by the family," "patients' confidentiality may be compromised," and "patients' personhood may be preserved." The development of a conceptual framework for family presence will offer further direction for expanding the items of the scales.

After more development, these 2 scales may contribute to what is known about family presence in several ways. First, the scales may offer a standardized, psychometrically sound alternative to researcher-developed, single-study opinion surveys and thus may allow results to be compared across studies and samples. Clarification of the conceptual underpinnings of family presence may be enhanced as additional, psychometrically sound tools are developed.

Second, the scales could be used to quickly and easily identify nurses who favor family presence and feel confident in managing it. The Synergy Model⁴⁸ recommends matching patients' needs with nurses' competencies. To optimize patient and family outcomes during resuscitation, nurses who are confident of their abilities in managing family presence can be assigned to code teams, rapid response teams, and family care during resuscitations. Likewise, nurses who favor family presence and are confident of their ability to manage the practice may act as role models for novice nurses, mentor experienced nurses, teach family presence at the bedside, serve effectively on

code teams, and lead change in units that do not practice family presence.

Third, the 2 scales could be used as pretests to detect learning needs for an educational intervention on family presence and as posttests to measure the effectiveness of interventions, a study design piloted by Mian et al.²²

Fourth, the scales also can be used as quick self-assessments for nurses who want to understand more clearly why they feel the way they do about family presence. For example, nurses can ask themselves, Am I nonsupportive of family presence because I don't feel confident about my ability to manage the situation?

Further exploration of nurses' self-confidence related to family presence may expand to include the concept of self-efficacy. Self-efficacy includes not only how confident nurses feel about performing an activity but also the extent to which nurses believe that the activity will bring about desirable results.⁴⁷ Once the desirable results of family presence are verified through research, the FPS-CS could be adapted to measure self-efficacy related to family presence.

Limitations

In interpreting the results of this study and planning future research, it is important to note how the study could be improved. One limitation was that participants reported solely about their experience in inviting family presence, not past experience with resuscitation in general. In our study, the focus was on nurses' perceptions regardless of their experience with resuscitation and family presence. Because more than 75% of the sample had at least 6 years of nursing experience and more than 90% worked in acute care units, most participants probably had exposure to at least one resuscitation effort. However, we made no attempt to examine the effect of past experience with resuscitation in general on perceptions related to family presence. Because recent research^{5,20} suggests that exposure to resuscitation with or without family presence could influence attitudes and beliefs, experiences with resuscitation should be measured in future studies. Researchers could inquire about the number of resuscitations in which participants had been involved and the number of opportunities participants had to invite family presence.

The limited variety in the ethnicity of participants and the geographic setting of the study constrain the

Despite limited experience, nurses scored moderately high on self-confidence in providing the experience.

generalizability of the results. Perceptions of family presence may vary across geographic regions and ethnic groups.^{17,25,42} Our sample was more than 90% white, although it did reflect the ethnic composition of the region in which data collection occurred. Therefore, replication of this study is recommended in other world regions and in multiethnic samples of nurses.

Conclusions

Our results suggest that nurses hold widely divergent perceptions of risks, benefits, and their own self-confidence related to family presence. Nurses who hold professional certification, work in emergency departments, and are members of a professional organization are more favorable toward family presence than are other nurses, and they invite family presence more often. Increased participation in professional nursing organizations may provide greater exposure to current research and evidence-based practices related to family presence.

Perceptions of risks, benefits, and confidence in managing family presence are associated with the decisions nurses make about inviting family presence. Nurses who have high confidence view family presence as more beneficial and less risky. Active-learning strategies may boost nurses' confidence about family presence.

Initial tests of the FPR-BS and FPS-CS indicate that the scales provide reliable and valid measures of nurses' perceptions of risks, benefits, and self-confidence related to family presence. Further testing of both scales is needed, with the eventual goal of developing highly reliable and valid measures of nurses' perceptions related to family presence. Evidence-based practice will be enhanced as concepts relevant to family presence are identified and measured consistently across studies.

ACKNOWLEDGMENT

We acknowledge the contribution of Dr James A. Jones, Ball State University, to the statistical analysis of this study.

FINANCIAL DISCLOSURES

None reported.

SEE ALSO

To learn more about family presence during resuscitation, visit <http://ccn.aacnjournals.org> and read the article by Mian and colleagues, "Impact of a Multifaceted Intervention on Nurses' and Physicians' Attitudes and Behaviors Toward Family Presence During Resuscitation" (*Critical Care Nurse*, February 2007).

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CE Test Test ID A0817022: Nurses' Perceptions of Their Self-Confidence and the Benefits and Risks of Family Presence During Resuscitation.

Learning objectives: 1. Describe nurses' perceptions of self-confidence with families being present during resuscitation. 2. Recognize the association between perceptions of nurses regarding family presence during resuscitation and decisions of nurses to invite family presence. 3. Understand the use of both the Family Presence Risk-Benefit Scale and the Family Presence Self-confidence Scale.

1. Which of the following is *not* listed as a primary reason for healthcare professionals not inviting families to be present during resuscitation?

- a. Possible increase of litigation if patients' families are present
- b. Unpleasantness with respect to what families will see
- c. Fear the resuscitation team will not function well
- d. Anxiety that family members will become disruptive

2. Which of the following best describes an advantage of family presence during resuscitation?

- a. Families grasp the seriousness of the patient's condition.
- b. Families attempt to help during the resuscitation.
- c. Families move more positively through the grieving process.
- d. Both A and C are correct.

3. Which of the following best identifies the nursing theory used for this study?

- a. Benner's theory of novice to expert
- b. Rogers' theory of diffusion of innovation
- c. Travelbee's theory of human-to-human relationship
- d. Henderson's theory of nurse-patient relationship

4. Which of the following best identifies the scale used to measure quantitative data in the study?

- a. Appropriate Personnel Discernment Scale
- b. Comparative Personnel Risk-Benefit Confidence Scale
- c. Family Presence Risk-Benefit Scale
- d. Healthcare Provider Self-confidence Scale

5. Which of the following best describes the use of the Family Presence Self-confidence Scale?

- a. Measures family's self-confidence levels with healthcare providers during resuscitation
- b. Measures nurses' perceptions of the healthcare team when interacting with the family during resuscitation
- c. Measures nurses' self-confidence related to managing resuscitation with patients' families present
- d. Measures nurses' perceptions of the risks and benefits to the family, patient, and resuscitation team

6. Which of the following were eliminated from the demographic variables?

- a. Sex and ethnicity
- b. Age and years of nursing experience
- c. Age and sex
- d. None of the above

7. Which of the following best identifies the percentage of nurses inviting families to be present during resuscitation more than once?

- a. 7.5% (n = 28)
- b. 66.7% (n = 252)
- c. 28% (n = 105)
- d. 39% (n = 136)

8. Which of the following best identifies the scoring of the Family Presence Risk-Benefit Scale?

- a. The scale was unipolar and can only be used with samples that favor family presence during resuscitation.
- b. The scale was bipolar: high scores signified more benefits and lower risk; low score, perceptions of more risk and fewer benefits.
- c. The scale was bipolar: high scores signified fewer benefits and higher risk; low scores, perception of low risk and greater benefits.
- d. The scale was bipolar: high scores signified more benefits and higher risk; low scores, perception of low risk and fewer benefits.

9. Which of the following best describes the differences in the relationships between demographic variables among nurses?

- a. Noncertified nurses and nonmembers of professional organizations perceived equal self-confidence compared with certified nurses and members.
- b. Certified nurses and members of professional organizations perceived greater self-confidence than did noncertified nurses and nonmembers.
- c. Certified nurses and nonmembers of professional organizations perceived greater self-confidence than did noncertified nurses and members.
- d. Noncertified nurses and members of professional organizations perceived less self-confidence than did noncertified nurses and nonmembers.

10. Which of the following is *not* identified as a strategy for nurses to develop their self-confidence in increasing adoption of family presence during resuscitation?

- a. Debriefing
- b. Mentoring
- c. Case-study simulations
- d. Not inviting families in during resuscitations

11. Which of the following was identified as a possible solution to the further development of the Family Presence Risk-Benefit Scale to produce concurrent validity?

- a. Concurrent validity could be tested using selected subscales from similar measures, such as the family attitude scale (Duran et al)
- b. General measure of self-efficacy using the General Self-efficacy Scale
- c. Measuring self-confidence by using the Healthcare Provider Self-confidence Scale
- d. Concurrent validity could be tested using selected subscales from similar measures, such as the mean-healthcare provider assessment scale

12. Based on the study, which of the following conclusions appears to hold true?

- a. Perceptions of risk and benefit of family presence are not associated with nurses' decisions to invite family presence.
- b. Nurses who work in non-acute-care settings are more apt to allow family presence during resuscitation.
- c. Nurses who hold professional certifications, work in emergency departments, and are members of professional organizations are more favorable toward family presence than are other nurses.
- d. Nurses who have more than 6 years of experience and hold professional certification are more apt to allow families to be present during resuscitation.

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