Positive Effects of a Nursing Intervention on Family-Centered Care in Adult Critical Care

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Background Generally, families of critical care patients are not actively involved in the patients' care in meaningful ways. A family-centered care model formalizes each patient and the patient's family as the unit of care. Family-centered care comprises 3 concepts: respect, collaboration, and support.
Objective To evaluate the effects on family-centered care of having critical care nurses partner with patients' families to provide fundamental care to patients.
Methods At the control site, patients' families experienced usual care; at the intervention site, patients' families were invited to assist with some of their relative's fundamental care with nurses' support. The family-centered care survey was used to measure families' perceptions of respect, collaboration, support, and overall family care at baseline and 48 hours later. Multivariate logistic regression was used to determine independent predictors of scores.
Results A total of 174 family members of patients participated (75 control, 99 intervention). Total median scores on the survey were 3.2 (control) and 3.2 (intervention) at baseline and 3.2 (control) and 3.5 (intervention) at follow-up. After adjustments in the multivariate model, the family-centered care intervention was the strongest predictor of scores at 48 hours (odds ratio [OR] = 1.66; $P < .001$). Other independent predictors included relatives with previous critical care experience (OR = 1.27; $P = .006$) and those who were partners of the patient (OR = 1.33; $P = .002$).
Conclusion Partnering with patients' family members to provide fundamental care to the patients significantly improved the respect, collaboration, support, and overall scores on the family-centered care survey at 48 hours. (*American Journal of Critical Care.* 2009;18:543-553)

CE 1.0 Hour

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

1. Identify a family-centered care model and the 3 key indicators that comprise such a model.
2. Describe ways in which a critical care nurse can partner with patients' families to provide fundamental care to patients.
3. Discuss the effects of family involvement in providing care to intensive care unit patients on their perceptions of respect, support, and collaboration.

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Although patient-focused care has been part of nursing since the 1970s,[1] recognition of the important role that patients' families play in providing support, assistance, and care for adult critical care patients is much more recent. We evaluated the effect of families' participation in patient care on their perceptions of respect, collaboration, and support, 3 key indicators of family-centered care.[2,3] Family-centered care is defined as "an innovative approach to the planning, delivery, and evaluation of health care that is grounded in mutually beneficial partnerships among health care patients, families, and providers. Patient- and family-centered care applies to patients of all ages, and it may be practiced in any health care setting."[4] Although practices to promote family-centered care have been adopted in many areas of nursing, such as palliative care, children's units, and pediatric critical care units,[3,5] and information on family needs in critical care is available,[6] few data are available on family-centered care interventions in adult critical care. In a landmark study published in 1979, Molter[7] found that families of critical care patients require proximity to the patients and value communication opportunities with the nursing and medical team. Having patients' families assist in providing patient care may meet some of these family needs.

Health professionals have come to value the role of patients' family members in providing nursing care.[8] Friedman et al[9] assert that families are the single greatest social institution that influences a person's health. During a critical illness, patients' families fulfill an additional essential role for patients who may be unconscious or unable to communicate or make decisions. The families not only provide vital support to patients[10] but also become the "voice" of the patients. However, critical care nurses are hesitant to add to the complexity of their work by including patients' family members in planning and performing nursing care.[11-13] Even so, critical care nurses acknowledge that patients' family members provide an essential link to patients and are an important resource for nurses.[14]

Patient- and family-centered care applies to patients of all ages in any health care setting.

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Family Needs in Critical Care

Much research has been done on the needs of families of critical care patients. The families need information, reassurance, and proximity to the patient.[7,15] Proximity helps reassure family members of the patient's state of being; physical separation is a constant reminder of the fragility of their relative's existence. Eldredge[16] found that family members who wanted to be physically close to their relative in critical care also desired to be helpful but could not always help because nurses at times did everything. A majority (80%) of family members who helped with some patient care stated that the act of caregiving resulted in the family members' having a more positive outlook.[16] For patients, family members both provide a link with home life that helps orient the patients[17] and produce a calming effect and sense of security.[18]

Although the needs of the families of critical care patients are well known, Verhaeghe et al[6] concluded that not enough was being done to meet families' needs and that nurses underestimated their (the nurses') role in satisfying these needs. Nurses provide 24-hour care and, with their knowledge and understanding of patients' illness situation, are well placed to incorporate patients' families more fully into the care the nurses give. A study in Australia[19] indicated that when the needs of patients' families were met, the families were better prepared to contribute to the patients' care after discharge. In a

pilot study of 49 family caregivers in the United States, Li et al[20] found that when family caregivers of elderly patients actively participated in the care of the patients in an acute care setting, the patients experienced fewer episodes of confusion and depression after hospitalization. Although the results of these 2 studies are promising, the benefits of including patients' family members in the care of critical care patients have yet to be fully determined.

Family-Centered Care

Because of the crucial role that patients' families play in the continuum of care in critical illness, going beyond patient-centered care to a more encompassing family-centered care seems logical. The inclusion of patients' families as valid recipients of nursing care may help the families participate more actively with health professionals in making decisions about patient care and in providing that care.[21] However, the research to date provides limited direction on how patients' families can participate in the care of critically ill adults, and anecdotal evidence suggests that family-centered care is the exception rather than the norm in many adult critical care units.

Family-centered care provides a model of care in which a patient and the patient's family, rather than the patient alone, are recognized and formalized as the unit of care. Family-centered care is based on the "belief that patients and their families should participate in decisions related to their own health care."[22(p625)] In family-centered care, a patient's family is an essential element in the patient's well-being[3,5,22,23] and helps protect and support that well-being.[12,14,24] Family-centered care is far more than what may be experienced in some pediatric units, which often have a narrowly focused philosophy of family-centered care. In these units, rather than providing holistic family-centered care that includes planning, delivery, and evaluation of health care by "mutually beneficial partnerships among healthcare providers, patients and families,"[4] the aim seems to be to have parents assume a greater responsibility for the management and actual care of their chronically ill child.[25] The relationship between a patient's family and the patient's nurse is essential to family-centered care and is based on mutual respect, collaboration, and support for the family and the patient.[2] Respect is defined as acknowledging individuals; collaboration, as partnerships in care and support pertaining to a family's needs.[2,3]

The Institute for Family-Centered Care in the United States advocates that a family-centered care model of care can be implemented in any nursing area.[26] For example, in neonatal transitional care units, parents reported feeling less anxious after the adoption of family-centered care, lengths of hospital stay were shorter, and rehospitalizations were fewer.[27] However, few specific strategies[16,20] to promote family-centered care in adult units have been published. Thus, although family-centered care sounds beneficial in theory, little evidence is available of ways to operationalize this model of care. The purpose of our research was to determine the effect of a family-centered nursing intervention on the perceptions of family members of critical care patients of family-centered care as measured by respect, collaboration, and support.

Methods

The study was approved by the appropriate human research ethic committees.

Research Design

A pragmatic clinical trial[28] with a nonequivalent control group pretest-posttest design[29] was used. Pragmatic (also termed practical) trials are used to measure the effectiveness of a treatment (the benefit a treatment produces in routine clinical practice) in real-world settings.[30] In pragmatic trials, the intervention must be clearly described, but this requirement does not mean that the same treatment is offered to each patient; the management protocol is the subject of investigation, not the individual treatment.[28(p285)] Although classified as a quasi-experiment and weaker than experiments, a nonequivalent control group pretest-posttest design was the best and most feasible. Because the critical care environment is relatively small and open planned, a randomized control trial could not be effectively carried out; contamination across groups would be unavoidable. Two sites were used because a limitation of this type of design is the influence that history may have on the study findings. If significant improvements are found at the intervention site but not at the control site, the improvements are less likely to be due to historical effects.

> Family-centered care recognizes and formalizes the family and patient as the unit of care.

Sample and Setting

Both study sites, Princess Alexandra Hospital and the Gold Coast Hospital, in Queensland, Australia, are metropolitan teaching hospitals with comprehensive critical care services. The mean length of stay was similar at both sites: 2.8 days. Both sites were combined surgical and medical units that did

not admit burn patients. At both sites, patients' families were not normally invited to participate in providing care to patients. A patient's family members were defined as individuals who came to visit the patient and who had a sustained direct relationship with the patient. Families of patients predicted to be in critical care for longer than 2 days were eligible to participate. Families could be recruited only once. Family participation was limited to 1 self-nominated family member per patient. Family members were not eligible if they were less than 18 years old or could not speak and read English.

Family-centered care is composed of respect, collaboration, and support.

Intervention

Before the study, 4 focus groups (with 12 critical care nurses per group) from the intervention site were held to discuss family-centered care and identify activities that reflected the concepts of respect, collaboration, and support of patients' families. Audio recordings were made and field notes were taken. Verification of the accuracy of the discussion points was sought from participants in each focus group. Responses were coded by searching for differences and similarities between comments made by participants. Because many nurses could not attend a focus group, all critical care nurses were contacted via e-mail with the same questions as those used in the focus groups.

In total, 53 participants provided comments. Identified themes included that family needs were important and that fundamental care options were appropriate and should be individualized for each patient's situation. The participants recognized the need of patients' families for proximity and considered that the inclusion of families in providing fundamental or basic patient care activities such as hair combing, hand massage, and bathing would promote respect, collaboration, and support, and thus family-centered care.

The 3 most common care activities provided by family members were massage, full wash, and eye care.

The participants stated that they were willing to negotiate with patients' families what activities the families would be willing to participate in, taking into consideration the patients' condition and context. Such "bundles of care" options[31] were thought essential to allow for individualizing the intervention to suit patients, family members, and cultural perspectives.[32] That is, the participants thought limiting a family's participation to only a single patient care option would be inappropriate because the option might not suit all families. Therefore, combinations of these activities became the basis for the intervention. As in other pragmatic trials[28] and as Conn et al[31] recommend, the intervention was tailored to the patients' families.

Data Collection

Family members at both sites were invited to participate in the study by the bedside nurse, who then introduced the data collectors during the first day. The data collectors were critical care research nurses at the intervention site and a member of the study team at the control site, which did not have a dedicated research nurse. The data collectors obtained consent from patients' family members and distributed and collected the 2 surveys.

After reading an information sheet and signing a consent form, family member participants completed the baseline (pretest) survey, which included questions on demographics and the family-centered care survey. When possible, consent also was obtained from patients. At the control site, routine nursing care was continued unchanged; at the intervention site, nurses helped patients' family members participate in fundamental care. Nurses at the intervention site were clearly instructed about the project to ensure they understood their role in supporting family members.

After approximately 48 hours, family members were resurveyed by using the same family-centered care survey that was used at baseline. This time frame was selected because it was considered sufficient time to allow family members a number of opportunities to perform some care and yet reduce attrition due to discharge of patients from the unit. The type and number of episodes of care that family members provided were recorded by the bedside nurse at the intervention site.

Instrument

The data collection instrument, a self-reporting survey with 4 sections and 30 questions, required approximately 5 to 10 minutes to complete. The first section was for demographic data: the reason for a patient's admission, degree of illness, age of the patient and the family member, sex of the patient and family member, ethnic background, education of the family member, the family member's previous experience of critical care, and the family member's relationship to the patient. The second section was an adapted version of the Family-Centered Care Survey, a 20-item tool developed by Shields and Tanner[3] to measure respect (6 items, such as "I feel

like a visitor rather than a relative when I attend the unit"), collaboration (9 items, such as "The staff give me honest information about the care that my relative may need"), and support (5 items, such as "All team members listen to my concerns"). All items were questions about how often a stated event occurred; response options ranged from 1 (never) to 4 (always). This 4-point scale is used for mean subscale scores; higher scores indicate perceptions of higher levels of family-centered care. Because the original tool was developed for pediatric settings, the wording was changed to reflect the adult critical care context.

Data Analysis

Data were analyzed by using SPSS software (SPSS Inc, Chicago, Illinois). Data cleaning involved checks for completeness and a check of all variables for out-of-range values and logic of values. The intention-to-treat principle was used in all analyses; the survey scores at 48 hours were used as outcome measures.

A 3-step data analysis process was used. First, descriptive statistics were used to summarize the sample and survey responses. The Cronbach α values, medians, and interquartile ranges (IQRs) for the total family-centered care scale and its 3 subscales for both time periods were calculated. Second, Mann-Whitney and χ^2 tests were used to detect group differences related to demographic and clinical characteristics. The third step in the analysis involved model building. Initially, univariate ordinal logistic regression was used to identify predictors of each outcome variable (scores of respect, collaboration, support, and total family-centered care at 48 hours). Potential predictors entered into the univariate model were group (intervention or control), patient's age and sex, score on the Acute Physiology and Chronic Health Evaluation (APACHE) III, length of stay, family member's age and sex, family member's previous experience in critical care, and scores at baseline; scores obtained at 48 hours were the outcome. Then, multivariate ordinal logistic regression was used, with significant univariate predictors only. In order to account for baseline differences between the 2 groups, baseline scores were entered into the multivariate logistic regression. For all statistical tests, α was set at .05.

Results

In total, 174 family members (75 control, 99 intervention) participated in the study (Table 1). The sex of the patients or family members and patients' critical care length of stay did not differ significantly between the 2 groups. The relationship of the family member to the patient and the family member's previous experience with critical care also did not differ between the 2 groups. Differences between the groups were significant for patients' ages, scores on the APACHE III, and family members' ages (Table 1). Patients in the intervention group and their family members were younger than the patients and family members in the control group and had lower scores on the APACHE III.

In the intervention group, care was provided to patients by 82% of the family members. We were unable to determine why the remainder did not provide care. Family members provided care a median of 3 times (IQR, 3; range, 1-14). Table 2 indicates the types of care provided by family members to the patients. The 3 most common care activities provided were massage (29%), full wash (23%), and eye care (17%).

Table 3 gives the scores for the subscales and the total family-centered care scale obtained at baseline and 48 hours later. Scores tended toward the positive. The subscales and total family-centered care scale

Table 1
Demographic characteristics of intervention and control groups, patients, and patients' family members

Participant	Group[a] Control (n = 75)		Intervention (n = 99)		*P*
Patient					
Age, mean (SD), y	52.1 (17.9)		45.5 (18.1)		.03[b]
Length of stay in critical care unit, mean (SD), d	11.1 (9.3)		12.6 (13.3)		.90
Score on Acute Physiology and Chronic Health Evaluation III, mean (SD)	63.6 (28.3)		52.8 (26.2)		.01[b]
Male	48	(65)	65	(66)	.90
Female	26	(35)	34	(34)	
Family member					
Age, y					.03[b]
18-25	2	(3)	4	(4)	
26-35	7	(9)	21	(23)	
36-55	37	(49)	45	(50)	
56-70	24	(32)	19	(21)	
71+	5	(7)	1	(1)	
Relationship					.56
Partner	33	(44)	48	(53)	
Son/daughter	23	(31)	2	(23)	
Sister/brother	7	(9)	5	(6)	
Niece/nephew	7	(9)	9	(10)	
Parent	4	(5)	7	(8)	
Grandparent	1	(1)	0		
Female	64	(85)	74	(83)	.70
Male	11	(15)	15	(17)	
Previous critical care experience	32	(43)	43	(48)	.50

[a] Values are number (%) of patients unless otherwise indicated. Values do not always add up to total for column because of missing data.
[b] Significant at $P < .05$.

Table 2
Patient care provided by patients' family members

Care provided	No. (%) of times care provided by patients' family members[a]
Massage	61 (29)
Full wash	48 (23)
Eye care	36 (17)
Comb hair	20 (9)
Mouth care	20 (9)
Antithrombotic stockings applied	9 (4)
Hair wash	7 (3)
Shave	3 (1)
Face wash	2 (1)
Limb exercises	2 (1)
Other	3 (1)
Total	211 (100)

[a] Because of rounding, percentages do not total 100.

Table 3
Results of survey on family-centered care for 3 subscales and total score

Scale (score range, 1-4)	Cronbach α	Median score (interquartile range), by group	
		Control	Intervention
At baseline			
Respect	0.62	3.5 (0.75)	3.7 (0.33)
Collaboration	0.70	3.0 (0.78)	3.3 (0.61)
Support	0.80	3.2 (0.80)	3.6 (1.00)
Total	0.84	3.2 (0.66)	3.5 (0.49)
At 48 h			
Respect	0.67	3.5 (0.80)	3.7 (0.33)
Collaboration	0.72	3.0 (0.73)	3.4 (0.63)
Support	0.78	3.2 (0.08)	3.6 (1.00)
Total	0.83	3.2 (0.61)	3.5 (0.44)

were reliable, with Cronbach α from 0.62 to 0.84.

Four significant predictors of the score on the respect subscale at 48 hours were identified in the univariate analysis: baseline respect score, group (control or intervention), being a partner of the patient, and higher APACHE III scores, and these were entered into the multivariate analysis. In this analysis (Table 4), after adjustments for other significant factors, the baseline respect score was the strongest predictor of the respect score at 48 hours; group (control or intervention) was the next strongest predictor. Compared with the control group, participants in the intervention group were almost twice as likely to perceive more respect (odds ratio [OR] = 1.93; $P < .001$); in the intervention group, partners who provided the care were approximately 1½ times more likely than other relatives who provided care to perceive more respect (OR = 1.41; $P = .04$). The other 2 factors, a family's experience of critical care and APACHE III scores, were not predictors of respect scores at 48 hours after the other factors were controlled for.

For the collaboration subscale at 48 hours, univariate analysis indicated 5 significant predictors: baseline collaboration score, group (control or intervention), male family member, family member's previous critical care experience, and the patient's sex. When these factors were included in the multivariate model, the strongest predictor of the collaboration score at 48 hours was baseline collaboration score; the next strongest was group. Participants in the intervention group were approximately 1½ times more likely than those in the control group to perceive higher collaboration (OR = 1.63, $P < .001$; Table 4). Those family members with previous critical care experience were also approximately 1½ times more likely than family members without such experience to perceive greater collaboration (OR = 1.52; $P < .001$). In both the control and intervention group, family members of female patients were approximately 1⅓ times more likely than family members of male patients to perceive higher collaboration scores (OR 1.35; $P = .03$). After adjustments for the other significant factors, the family member's sex was no longer a significant predictor of the collaboration score at 48 hours.

Univariate analysis indicated 5 significant predictors of the score on the support subscale at 48 hours: baseline score, group, relationship of the family member to the patient, sex of the family member, and the patient's age. In the multivariate analysis (Table 4), after adjustments for other significant factors, baseline support score and group were the strongest predictors. The intervention group was approximately 1¾ times more likely than the control group to perceive greater support (OR = 1.79; $P = .001$; Table 4). In both the control and intervention group, family members who were the partner of the patient were nearly 1½ times more likely than those who were not a partner to perceive increased support (OR = 1.44; $P = .03$). After the other factors were controlled for, the sex of the family member was not a predictor of the support score at 48 hours.

Univariate analysis indicated 7 significant predictors of total scores on the family-centered care survey at 48 hours: baseline score, group, sex of the family member, being the patient's partner, family member's previous experience of critical care, APACHE III score, and female patient. In the multi-

Table 4
Multivariate ordinal logistic regression model

Variable	Respect		Collaboration		Support		Overall	
	OR (95% CI)	*P*	OR (95% CI)	*P*	OR (95% CI)	*P*	OR (95% CI)	*P*
Baseline score	7.05 (5.56-8.95)	<.001[a]	4.28 (3.69-4.97)	<.001[a]	6.75 (5.30-8.60)	<.001[a]	5.48 (4.90-6.12)	<.001[a]
Intervention group	1.93 (1.37-2.71)	<.001[a]	1.63 (1.28-2.07)	<.001[a]	1.79 (1.27-2.51)	.001[a]	1.66 (1.40-1.97)	<.001[a]
Family member has critical care experience	1.21 (0.87-1.68)	.27	1.52 (1.18-1.94)	<.001[a]	NA		1.27 (1.07-1.50)	.006[a]
Partner of patient	1.41 (1.02-1.95)	.04[a]	NA		1.44 (1.03-2.01)	.03[a]	1.33 (1.11-1.58)	.002[a]
Male family member	NA	NA	1.19 (0.81-1.70)	.37	1.18 (0.73-1.9)	.50	0.99 (0.76-1.29)	.96
APACHE III score	0.99 (0.99-1.0)	.07	NA		NA		1.0 (1.00-1.00)	.21
Patient's age	NA	NA	NA		1.01 (1.0-1.02)	.009[a]	NA	
Female patient	NA	NA	1.35 (1.03-1.77)	.03[a]	NA	NA	1.48 (1.21-1.80)	<.001[a]

Abbreviations: APACHE, Acute Physiology and Chronic Health Evaluation; CI, confidence interval; NA, not applicable; OR, odds ratio.
[a] Significant at $P < .05$.

variate analysis (Table 4), after adjustments for other significant factors, the baseline total score was the highest predictor; the next highest was group. Participants in the intervention group were approximately 1½ times more likely than participants in the control group to perceive higher overall family-centered care (OR = 1.66; $P < .001$). In both the control and intervention group, when the patient was female, the total family-centered care scores were approximately 1½ times greater than the scores when the patient was male (OR = 1.48; $P < .001$). Family members who had previous critical care experience (OR = 1.27; $P = .006$) or were the partner of the patient (OR = 1.33; $P = .002$) were approximately 1⅓ times more likely than those who did not have previous critical care experience or were not the partner of the patient to have higher total family-centered care scores (Table 4). After other factors were controlled for, sex of the family member and APACHE III scores were not predictors of total family-centered care scores at 48 hours.

Discussion

Although the importance of the role of the patient's family is recognized in most areas of health care, integration of the family into the unit of care has not been widely explored in adult critical care. Our results indicate that patients' family members involved in the care of the patients (intervention group), even after other group differences were controlled for, perceived more respect, support, and collaboration than did patients' family members who were not involved in the patients' care (control group). However, the 2 groups differed significantly in age of the patient and APACHE III scores. These differences may reflect the catchment areas at each site; the intervention site receives referrals from various smaller hospitals, and the control site is in an area favored by retirees.

The types of care delivered by the family members in the intervention group ranged from combing hair to more complex and demanding procedures such as bathing patients. With help from the bedside nurse, each family member decided which patient care activity or activities the family member would perform, thus allowing for appropriate individualized options and targeting the intervention to suit the participant as proposed by Conn et al.[31]

Family members' emotional connections to the patients provided knowledge the nursing staff did not have about individual patients' preferences for the care the nurses provided.[18] Although helping with the physical needs of patients was not high on the list of the needs of patients' family members in the small study by Maxwell et al,[33] providing care has been suggested as a way to promote closeness,[17] patients' safety and security,[18] and family integrity.[34-36] Conversely, all patients and their family members interviewed by Bergbom and Askwall[18] thought the family members should have the opportunity to participate in giving care on a voluntary basis because caregiving by a patient's family member sustains the patient though difficult periods, promotes closeness and sharing of experiences, and contributes to the patient's well-being.

The sex of the patient affected the perceived collaboration and overall family-centered care; family members of female patients had higher scores on the surveys. We do not know the reason for this finding, but the result is worthy of further examination.

Family members who were partners of the patient perceived significantly greater overall family-centered

care, respect, and support than did nonpartners. Providing adequate support to family members can reduce their anxiety levels[37] and improve their coping strategies, changes that can enhance patients' recovery.[38] Critical care staff may show a bias toward patients' partners and perceive that the partners are more likely to be the primary caregivers when the patients leave the hospital. Health care personnel may consider the partners more worthy or engage with them in such a way that the partners feel they are treated with greater consideration and are offered additional assistance. This view of who is the patient's caregiver may be inaccurate, and critical care staff could broaden their support and esteem to include other family member groups; any assumptions of who will provide ongoing care may be questionable.

Families providing care perceived more respect than the control group.

Each family member participant decided what care he or she should provide by consulting with the bedside nurse and the patient. These decisions, which required discussion, collaboration, and support by the nurses, could not have been made without good communication. Of the top 10 needs of family members, 7 are related to the need for information[7]; thus, good communication is essential in critical care. Patients also need effective means of communicating their feelings and needs. Family members can help patients communicate with staff, either because the members know the patients well or because the members have the time to persevere to interpret the patients' needs.[18]

Previous experience of critical care had a positive effect on family members' perceptions of collaboration and of overall family-centered care. Equipment may have been more familiar to these families than to first-time visitors to critical care, a situation that may have supported the families' participation and engagement with staff. Family members who have previous experience with critical care might feel less overawed by the surroundings and have more confidence in communicating with nurses and staff. Li et al[20(p296)] agree with this notion and suggest that "care givers' confidence and knowledge in the hospital may be key to their effective participation in the hospital care and to achievement of positive outcomes."

Providing care may promote closeness, patient safety and security, and family integrity.

During illness, a patient's family generally provides care along the continuum. The inclusion of patients' families in providing care that is offered in pediatric and palliative care units[3,5] is also needed in critical care. As critical care nurses strive to improve the care they deliver, the needs of patients' family members are both relevant and important aspects of the care the nurses deliver.

Limitations

Our study has several limitations. First, we used a convenience sample from 2 sites, and baseline differences existed between the 2 groups. Consequently, the sample may not be representative and could be biased. However, even after baseline scores were controlled for, the intervention group still reported more respect, collaboration, and support than the control group did. Second, the intervention was conducted in a single unit, and therefore the results cannot be generalized. Third, only the family members of longer term patients were included in the sample, thereby limiting the results to this group. Fourth, patients were not followed up afterward to ask how they felt about having a family member provide some care. Such follow-up would have provided useful information. Finally, the reliability of the family-centered care survey was not optimal. Unexpectedly, the Cronbach α for the respect subscale was less than 0.70, although the values for the other subscales and the total scale were greater than 0.70. Although this study was the first time this scale was used to measure perceptions of family-centered care in adults and provides a foundation for its use, further exploration of the scale is warranted.

Further Research

Our findings provide a foundation for trials of additional interventions to promote family-centered care. Data on qualitative components of the experiences of family members, patients, and nurses of such interventions would provide broader insight. Use of a more formalized approach such as the development of a care plan incorporating patients' family members in care activities could assist in improving the family members' satisfaction and better meet the needs of the family. Such a care plan must be structured cautiously, because the goal is to improve holistic care and better meet family members' needs, not impose on family members to provide care to which they do not want to contribute.

Conclusion

A group of family members of patients who were included in the patients' care perceived more respect, collaboration, and support than did a group of family members who were not included.

The intervention of partnering with family members to provide fundamental care to their sick relative resulted in a significant difference in the levels of family-centered care as measured by respect, collaboration, and support. To provide holistic care, critical care nurses must involve patients' families in patient care and by so doing better meet the needs of the families and patients. Partners of patients perceived greater respect, support, and overall family-centered care.

The scores for family members who were experiencing critical care for the first time suggest that such members may require additional recognition by staff of the challenges this experience brings. When their needs are met, family members have a greater capacity to provide the support and ongoing care their relative needs both in the critical care unit and after discharge. The independent nursing intervention of allowing family members to help with patient care provides a beginning for understanding how to operationalize the family-centered care model in the clinical setting and will be useful in the evaluation of other family-centered care interventions.

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FINANCIAL DISCLOSURES

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For more about family-centered care, visit the *Critical Care Nurse* Web site, **www.ccnonline.org**, and read the article by Davidson, "Family-Centered Care: Meeting the Needs of Patients' Families and Helping Families Adapt to Critical Illness" (June 2009).

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CE Test

Test ID A0918062: Positive Effects of a Nursing Intervention on Family-Centered Care in Adult Critical Care.

Learning objectives: 1. Identify a family-centered care model and the 3 key indicators that comprise such a model. 2. Describe ways in which a critical care nurse can partner with patients' families to provide fundamental care to patients. 3. Discuss the effects of family involvement in providing care to intensive care unit patients on their perceptions of respect, support, and collaboration.

1. Close proximity to an adult intensive care unit (ICU) patient does which of the following for family members?
a. Serves as a constant reminder of the fragility of their relative's existence
b. Increases their confidence in the patient's caregivers
c. Helps reassure them of the patient's state of being
d. Helps them develop more realistic expectations of what the nursing staff can accomplish in a given period of time

2. Which of the following is the formalized unit of care in a family-centered care model?
a. The patient's family
b. The patient and the patient's family
c. The patient's family and the patient's health care providers
d. The patient, the patient's family, and the patient's health care providers

3. Which of the following relationships is essential to family-centered care?
a. The relationship between a patient's family and the patient's nurse
b. The relationship between a patient and the patient's family
c. The relationship between a patient and the patient's physician
d. The relationship between a patient's family and the patient's entire health care team

4. What reason did the authors give for the hesitancy of critical care nurses to include patients' family members in planning and performing nursing care?
a. Nurses believe it will place an additional burden upon families who are already too stressed.
b. Patients prefer care from skilled personnel rather than their own family members.
c. Care required by critically ill patients is often too complicated and overwhelming for families.
d. Involving families adds to the complexity of the nurses' work.

5. Implementation of a family-centered care model is most fitting in which of the following settings?
a. A pediatric critical care unit
b. An adult critical care unit
c. Palliative care
d. Any nursing area

6. Prior to beginning this study, critical care nurses met to identify those family-centered care activities that would do which of the following?
a. Allow the nurses to be relieved of the more mundane and time consuming duties
b. Reflect the concepts of respect, collaboration, and support of patients' families
c. Require the least amount of training and/or expertise of family members who would be providing care
d. Provide the most consistency from patient to patient

7. Which of the following was one of the most common care activities provided to patients by family members?
a. Bathing/washing
b. Shaving
c. Repositioning
d. Limb exercise

8. A pragmatic design was chosen for this research study because it allowed for which of the following?
a. Ease of interpretation of the study results
b. Targeting interventions to suit the particular patients
c. Greater reliability of comparisons between the groups studied
d. Utilization of a randomized process for selecting the sample populations

9. Which of the top 10 needs of critical care patients' family members is met by allowing them to decide what care they should provide?
a. The need for independence
b. The need for control
c. The need for information
d. The need for positive recognition

10. Which of the following was identified as a limitation of this study?
a. There were a substantial number of similarities between the 2 study groups.
b. There was no process to control for biases of critical care staff.
c. Patients were not followed up afterward.
d. Family participation was determined on a voluntary basis.

11. Which of the following group of family members who provided care perceived significantly greater overall family-centered care, respect, and support?
a. Family members of male patients
b. Female family members
c. Family members of younger patients
d. Patient partners

12. This article cited a lack of available data in which of the following areas?
a. Practices to promote family-centered care in pediatric critical care units
b. Needs of families of critical care patients
c. Family-centered care interventions in adult critical care
d. The importance of patient-focused care

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❑d	❑d	❑d	❑d	❑d	❑d	❑d	❑d	❑d	❑d	❑d	❑d

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