

Measuring Family Satisfaction With Care Delivered in the Intensive Care Unit

Kathleen Clark, RN, DNP, CCRN

Kerry A. Milner, RN, DNSc

Marlene Beck, RN, DNP

Virginia Mason, RN, PhD, CCRN, ACNS-BC

BACKGROUND In our competitive health care environment, measuring the experience of family members of patients in the intensive care unit to ensure that health care providers are meeting families' needs is critical. Surveys from Press Ganey and the Centers for Medicare and Medicaid Services are unable to capture families' satisfaction with care in this setting.

OBJECTIVE To implement a sustainable measure for family satisfaction in a 12-bed medical and surgical intensive care unit. To assess the feasibility of the selected tool for measuring family satisfaction and to make recommendations that are based on the results.

METHOD A descriptive survey design using the Family Satisfaction in the Intensive Care Unit 24-item questionnaire to measure satisfaction with care and decision-making.

RESULTS Forty family members completed the survey. Overall, the mean score for families' satisfaction with care was 72.24% (SD, 14.87%) and the mean score for families' satisfaction with decision-making was 72.03% (SD, 16.61%). Families reported that nurses put them at ease and provided understandable explanations. Collaboration, inclusion of families in clinical discussions, and timely information regarding changes in the patient's condition were the most common points brought up in free-text responses from family members. Written communication, including directions and expectations, would have improved the families' experience.

CONCLUSION Although patients' family members reported being satisfied with their experience in the intensive care unit, there is room for improvement. Effective communication among the health care team, patients' families, and patients will be targeted for quality improvement initiatives. (*Critical Care Nurse*. 2016;36[6]:e8-e14)

An essential component of quality of care is patients' satisfaction with care.¹ In the intensive care unit (ICU), most patients cannot make decisions for themselves; therefore, families often act as surrogate decision makers. Although hospital mortality after admission to the ICU has decreased markedly in the past 25 years, patients' severity of illness has increased, making the ICU an extremely stressful environment for patients' families.² Moreover, care in the ICU has moved to a focus on the patient's family in addition to the patient.³

The importance of including patients' families in acute care in order to improve quality and health outcomes is evident in family-centered care initiatives such as the clinical quality measures of the Centers for Medicaid and Medicare Services,⁴ the Institute for Health Care Improvement's education and resources on family engagement,⁵ and the American Association of Critical-Care Nurses' practice alerts.⁶ Involving patients' family members in the ICU stage of care is critical because health care providers cannot deliver great care if the family member who knows the patient best is not part of the care team.⁷ Evidence indicates that inclusion of patients' families in acute care can promote better health outcomes, including increasing satisfaction for patients and their family members.⁸

It is important to measure family satisfaction, particularly in the ICU, for several reasons. Foremost is the need for health care providers to develop collaborative relationships with patients' family members that are based on an open exchange of information that helps the family members cope with their distress and speak for the patient if necessary. In order to assess how well health care providers are doing in this area, data on family satisfaction must first be measured. Findings from recent studies⁹⁻¹³ suggest that most families are pleased with the care their loved ones received in the ICU. However, interventions that improve communication and interaction between patients' families and health care providers are still needed. Moreover, patients' families often do not understand the ICU experience, expectations, and routine. Additionally, patients' families perceive small, but significant differences between

nurses' and physicians' communication regarding honesty and completeness of information.

Local Problem

It is a common practice in health care systems for administrators to use data gleaned from Press Ganey surveys or Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys to direct practice changes aimed at improving outcomes and patients' experience.¹⁴ Because these widely used surveys do not directly measure patient and family satisfaction with care received in the ICU, it is difficult to understand the needs and perceptions of critically ill patients and their families. This shortcoming may hinder initiatives to improve quality and processes of care in ICUs.

Because patients' families have an important role in sharing information and engaging in health care decisions, it is critical to understand how families perceive care in the ICU.

Moreover, **Better patient outcomes can be achieved by including families in ICU care.**

Family satisfaction in the ICU has been identified as a quality indicator of ICU care¹³ and a surrogate marker of customer care.⁷ Tools selected for measuring family satisfaction should include measurement of family satisfaction with decision-making. The Family Satisfaction in the ICU 24-item (FS-ICU-24) questionnaire is a reliable and valid tool used to measure family satisfaction with care and decision-making in the ICU.^{15,16} Data from this questionnaire are useful for informing improvements in quality and processes of care in the ICU.

In this competitive health care environment, family satisfaction in the ICU is an important measurement to consider when evaluating quality and processes of care. Family satisfaction had not been measured at the study site. Therefore, measurement of family satisfaction was a first step in a series of steps aimed at improving processes of care in the study site's ICU.

Intended Improvement

The specific aim of this study was to measure family satisfaction with care and decision-making in a medical and surgical ICU. A secondary aim was to assess the feasibility of using the FS-ICU-24 as an ongoing measure of family satisfaction. Last, data on family satisfaction were analyzed and recommendations for unit-based quality and process improvement initiatives were made.

Authors

Kathleen Clark is an adjunct professor at Sacred Heart University College of Nursing, Fairfield, Connecticut, and a critical care nurse at Newton Wellesley Hospital, Newton, Massachusetts.

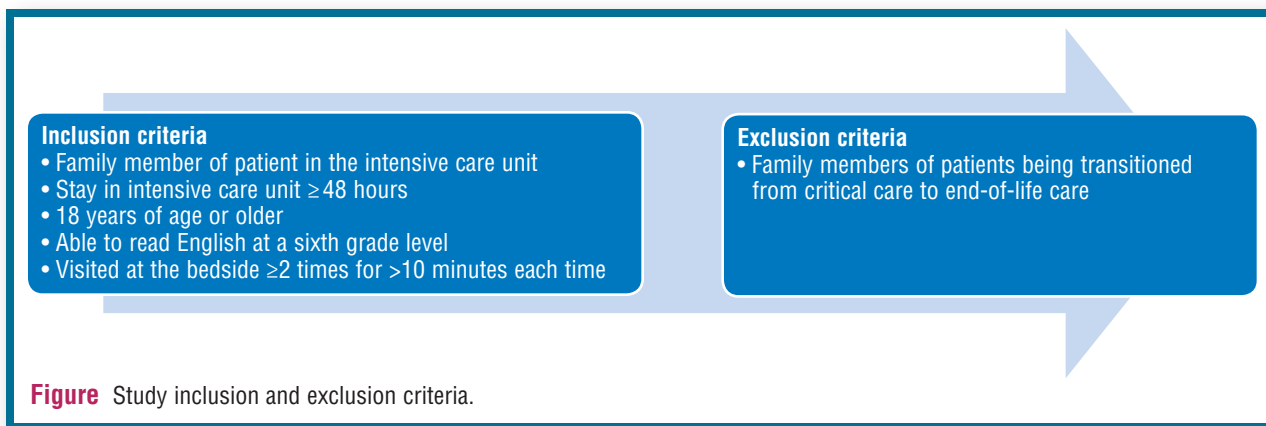
Kerry A. Milner is an associate professor at Sacred Heart University College of Nursing.

Marlene Beck is a clinical assistant professor and director of the MSN and DNP online programs at Sacred Heart University College of Nursing.

Virginia Mason is a coordinator and critical care/intensive care unit nurse education specialist at UMASS Memorial Medical Center, Worcester, Massachusetts.

Corresponding author: Kerry A. Milner, RN, DNSc, Sacred Heart University College of Nursing, 5151 Park Avenue, Fairfield, CT 06825 (e-mail: milnerk@sacredheart.edu).

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Methods

Ethical Issues

This study was approved by the institutional review boards at Sacred Heart University and the study hospital. Consent was implied if the family member completed and returned the FS-ICU-24 questionnaire.

Setting and Sample

The setting was a 12-bed medical-surgical ICU in a small community hospital in Massachusetts that is dedicated to caring for critically ill patients. Patients' diagnoses included septic shock, pneumonia, multisystem organ failure, gastrointestinal hemorrhage, and complications associated with polysubstance abuse. The sample also included patients who underwent emergent or elective surgery. Typical critical care inter-

ventions included mechanical and noninva-

Three free-text questions asked how to make the ICU care better, what things the staff did well, and any comments that may be helpful.

sive ventilation, invasive and noninvasive testing, and hemodynamic monitoring. The nurse to patient ratio was generally 1 to 2 and was 1 to 1 for gravely ill patients. The mean daily census was 7 patients. The mean length of stay was 3.5 days. The mean age of the patients was 76.6 years.

In this ICU, 4 medical attending intensivists rotate every 2 weeks to supervise the care of medical patients. The surgical team, with the medical team acting as a consulting service, primarily cares for the surgical patients. The medical and surgical team structure includes a first-year intern, a second-year resident, a third-year chief resident, and an attending physician. The medical

director of the ICU and senior nursing leaders endorsed this study.

The inclusion criteria (see Figure) were based on previous research.^{17,18} Family members who met the inclusion criteria were given study packets. The criterion requiring the family member to have visited the patient at the bedside at least 2 times for more than 10 minutes was confirmed by direct observation by the unit secretary, nurse educator, or principal investigator. Family members of patients being transitioned from critical care to end-of-life care were excluded because in previous studies such family members tended to report high satisfaction with care.

Measures

The FS-ICU-24 measures satisfaction with care (14 items) and satisfaction with decision-making (10 items).¹⁵ In addition, 3 free-text questions ask how to make the ICU care provided better, what things the staff did well, and for any comments or suggestions that may be helpful. The FS-ICU-24 is completed by using a 5-point Likert scale: 1 = excellent, 2 = very good, 3 = good, 4 = fair, 5 = poor; a score of 6 indicates a response of not applicable. This survey has well-established reliability with a Cronbach α of 0.92 for satisfaction with care and 0.88 for satisfaction with decision-making. For this study, the Cronbach α for the total FS-ICU-24 was 0.95, for the satisfaction with care subscale was 0.93, and for the satisfaction with decision subscale was 0.87, indicating excellent reliability. High scores mean satisfaction with care and decision-making. Scores were calculated for the total FS-ICU-24 and for the 2 subscales (satisfaction with care and satisfaction with decision-making). The questionnaire takes about 15 minutes to complete.

The questionnaire and scoring instructions are available online for free at <http://thecarenet.ca/>.

Procedures

From October 1, 2014, through December 31, 2014, on all shifts, family members who met the inclusion criteria were given a packet that included an explanation of the study, the FS-ICU-24 questionnaire, and basic demographic questions. Family members were asked to complete the survey and return it in one of the locked boxes located in the ICU or the family waiting area.

An information session about the study was held for the ICU staff. A unit secretary, the nurse educator, and the principal investigator recruited patients' family members for participation in the study. In the family waiting area, a poster described the study and instructed interested family members to contact the unit secretary or nurse educator. Packets that were not returned or returned blank were recorded as refusals.

Data Analysis

Data analysis was conducted by using SPSS for Windows 18 (SPSS Inc). For ease of understanding the FS-ICU-24 values, individual items were transformed from a Likert 5-point scale to a scale from 0% to 100%, with higher values indicating greater satisfaction (25% = fair, 50% = good, 75% = very good, and 100% = excellent). No one died in the ICU during the study period, so questions 11 through 13 were not included in the analyses. For the satisfaction with care subscale, individual means were calculated by using the total number of questions answered as the denominator for any family member who answered not applicable. These individual means were used in calculating the total mean score on the FS-ICU-24. This imputation was not necessary for the family satisfaction with decision-making subscale because only 1 family member who answered not applicable in this subscale had missing data in the satisfaction with care subscale, so their total FS-ICU-24 could not be calculated.

Two researchers reviewed the free-text questions, 14 through 16, on the family satisfaction subscale and identified common descriptors reported by family members for each question. Another researcher, looking for any difference in descriptors, carried out a separate review of the free-text answers, and no discrepancies were found.

Table 1 Frequencies and percentages for family demographic and baseline characteristics (n = 39)

Characteristic	No. (%)
Sex	
Male	17 (44)
Female	22 (56)
Race	
White	32 (82)
Nonwhite (other)	7 (18)
Relationship to patient	
Immediate family	30 (77)
Extended family	9 (23)
Education level	
High school diploma/GED	8 (21)
Some college	15 (38)
College with degree	16 (41)
Family member in the ICU previously	
Yes	16 (41)
No	22 (56)
Living with patient	
Yes	17 (44)
No	22 (56)
How often see patient	
Live with patient	17 (44)
More than weekly	12 (31)
Weekly	5 (13)
Monthly	5 (13)
Where do you live	
City where hospital is located	11 (28)
Out of town	28 (72)
Days in the ICU	
<2	20 (51)
3-4	10 (26)
5-6	7 (18)
6-7	2 (5)
Diagnosis	
Medical issue or sepsis	28 (72)
Elective or emergency surgery	11 (28)

Abbreviations: GED, general educational development, high school equivalency diploma; ICU, intensive care unit.

Results

Sixty-two family members of patients were given questionnaires, and 40 family members returned the questionnaire. Table 1 describes the demographics and baseline characteristics of the 39 family members who returned complete questionnaires. The majority of the family members were female, white, and college educated. The mean age of the family members was 50.15 (SD, 15.92) years. The majority of family members were a child or spouse of the patient. Extended family members included siblings, grandchildren, nieces, nephews,

Table 2 Positive and negative descriptors reported by family members in the intensive care unit (N=24)

Category	Positive descriptors	Negative descriptors
Communication	Explained things very well Provided explanations and information Helpful and makes certain patient understands	Need better way of talking directly to doctors Doctor's communication among themselves (consultations) difficult to understand and waiting for consultants Medical intern did not communicate Communication with the physicians when consultants are involved Wanted to talk to the surgeon More communication from doctors I wanted answers No one would tell me what happened Better communication between staff, patient, and family Call family if there is a change in condition Did not understand some information, too worried Explain some of the tests Provide written information
Staff	Caring Professional, caring, and compassionate Doctors in ICU were very good Nurses put us at ease Nice that nurses were at bedside Staff was skilled	Seemed busy, overextended The ER staff needs training in compassion; they were uncaring and my loved one suffered
Care/comfort	Comfortable with care Received good care Looks comfortable [patient]	Uncomfortable, restrained
Physical environment		Need cell phone charger Parking is difficult Got lost trying to find ICU Check on people in waiting room I did not like the waiting room Kept family waiting at door when waiting to visit Need designated parking for ICU

Abbreviations: ER, emergency department; ICU, intensive care unit.

and daughters-in-law. Most of the patients had diagnoses of medical diseases (pneumonia, gastrointestinal bleeding), drug overdose, or severe sepsis. The remainder of the patients had undergone either elective or emergent surgery. The mean length of stay in the ICU was 3.5 days. The study ICU used QuadraMed software (QuadraMed Affinity Corp) to calculate nurse staffing on the basis of patient acuity with nurse to patient ratios of 1 to 2 and 1 to 1 during the study.

The mean overall FS-ICU-24 score was 72.24% (SD, 14.87%; missing, n = 9). The mean score on the satisfaction with care subscale was 70.87% (SD, 16.51%; missing, n = 6). The median score was 71.15% (interquartile range, 13%), indicating that most family members reported good to very good satisfaction with care. The mean satisfaction with decision-making was 72.03% (SD, 16.61%). The median score was 68.75% (interquartile range, 10.25%), indicating that most family

members reported good to very good satisfaction with decision-making.

Table 2 displays the free-text answers to FS-ICU-24 questions 14 through 16 organized by the categories of communication, staff, care/comfort, and physical environment and the positive and negative descriptors within these 4 categories. Family members wrote mostly positive comments about staff and the care and comfort that the staff provided. Fifty percent (n = 12) of family members' free-text responses included the need for better communication with health care staff. Moreover, of the 24 families who completed the free-text responses, none had positive comments about the physical environment, instead offering suggestions to improve the waiting room and parking.

Discussion

The FS-ICU-24 was feasible for measuring family satisfaction in the study ICU. This questionnaire provided

rich data, with nearly every family member answering the free-text questions, addressing aspects that the ICU was doing well and things that needed improvement.

Results for satisfaction with care and decision-making from this study were slightly lower than results reported for other studies done in the United States^{12,18} and other countries^{13,19} that used the FS-ICU-24. The mean satisfaction with care and decision-making was in the “good” range, whereas other studies^{12,13,18,19} reported means in the “very good” range (> 77% for satisfaction with care; > 75% for decision-making). In a recent study²⁰ conducted in Greece, researchers found that satisfaction with care was much higher (mean [SD], 91.8% [13.0%]) and satisfaction with decision-making was much lower (65.2% [8.5%]) than our results. Variation in results may be explained by differences in patients’ severity of illness, the family member completing the survey, cultural expectations, and country-specific differences in ICU practices and health care systems. In the present study, families of patients who were transferred to palliative care or died were not asked to complete the FS-ICU-24. Moreover, family members had to visit the patient at least twice, at the bedside, for at least 10 minutes each time, and visiting hours were unrestricted while the patient was in the ICU.

In the free-text answers, 50% of the responding family members reported the need for better communication with health care providers and the need for timely, accurate information. Researchers in other studies measuring family satisfaction in the ICU also reported a need for better communication between health care providers and patients’ families^{11,21,22} and up-to-date information about changes in a patient’s condition.²¹ A recent review²³ emphasized that providing patients’ families with proactive communication strategies and information may increase families’ satisfaction in the ICU.²⁴

Family members expressed only negative comments about the ICU environment. This result is similar to the findings of Henrich and colleagues,¹¹ where positive comments were less commonly reported in the free-text questions of the FS-ICU-24 than were negative comments regarding the waiting room environment. This result emphasizes that small changes to the care environment such as having smart phone chargers may improve the experience for and increase the satisfaction of patients’ families.

Fewer free-text comments were made regarding the staff and care/comfort, and the responses were

overwhelmingly positive. This result was consistent with the findings on overall family satisfaction being a rating of “good.” However, these results suggest that there is room for improvement.

Limitations

Collecting data related to satisfaction with the care while a patient remains hospitalized can potentially provide false-positive results. Additionally, the self-selected family member responding may not have represented the collective view of all family members. Last, the sample size of 40 was small and we had a nonresponse rate of 35%. The inclusion criteria most likely reduced our sample size.

Recommendations

The health care providers, staff, and researchers involved in this study reviewed the study results and complied their recommendations for process and quality improvements in the ICU (Table 3). The first step toward implementing the recommendations was to identify a change agent from nursing and medicine who could facilitate the selected recommendations collaboratively in the ICU. The next step was to share the results with the ICU staff, get their buy-in, and identify individuals interested in championing the different recommendations. For example, an interprofessional collaboration between social work and pastoral care can offer conflict management workshops for ICU staff. Nursing staff can create and pilot test a template for the care journal. To address

the recom- **Family members called for better communication and the need for improvement to the physical ICU environment.**
mendations provided by patients’

family members, nursing staff can implement a facilitated sense-making intervention card for families.²⁶ Moreover, nursing and physician staff can create a combined staffing template for patient-care provider continuity. The PDCA (plan-do-check-act) method can be used for quality and process improvements, and any changes should be assessed to determine whether they would make a positive difference in care and whether the change is sustainable.

Conclusions

This study yielded new knowledge about family members’ experiences and needs in the ICU. In particular,

Table 3 Recommendations for process and quality improvements in the intensive care unit (ICU)

Category	Recommendations
ICU staff ²⁵	<p>On admission to ICU, a predetermined member of the health care team meets with the patient's family to understand the level of life-sustaining therapies desired</p> <p>ICU caregivers receive training in communication, conflict management, recognizing the signs of increasing distress in family members, and culturally competent care</p> <p>Nursing and physician staff assigned to each patient are as consistent as possible</p> <p>Mechanism is created so that all staff may voice concerns with the treatment plan, decompress, or grieve</p> <p>Family support is provided by the multiprofessional team</p> <p>Nurse-coached volunteers</p>
Family members ^{26,27}	<p>Within 24 hours of admission to the ICU, family members are introduced to the multiprofessional team and shown a video describing the routine, resources, and expectations</p> <p>At 72 hours, the team representative checks in with the family to determine their needs</p> <p>Family members of patients in the ICU for 96 hours will receive a care journal to help them take notes and to coordinate questions, concerns, or information they would like to share with the team</p> <p>Family information leaflet (facilitated sense making intervention card)</p> <p>Family members are encouraged to provide as much care as they are comfortable providing</p>
Comfort measures ²³	<p>Redesign the family waiting area to provide confidentiality and privacy for discussions</p> <p>Develop signs and way-finding systems to reduce stress</p> <p>Incorporate results of research regarding the effect of furniture arrangement, positive distractions, and reduced noise level on the health of family members visiting the ICU</p>

communication and physical environment were identified as areas contributing to family dissatisfaction with their experience in the ICU. Interventions can and will be targeted to meet these specific needs in the ICU. **CCN**

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None reported.

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