

Moving Forward with Family Centered-Care: One Step at a Time

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ABSTRACT

Moving Forward with Family Centered-Care: One Step at a Time

Family-centered care is an evolving process between patients, families, and health care providers. The family centered care model emphasizes the strength families bring to the healing process. The research project was a quasi-experimental pre-and post-test study with a communication intervention phase. The study was conducted in a Surgical-Trauma Intensive Care Unit (STICU) in a university affiliated hospital in the Southeast with restricted visitation hours. The purpose of this IRB-approved study was to measure the nurses' perceptions of communication involvement with family members before and after the intervention phase. Approximately 50% of eligible participants responded. The communication intervention phase consisted of assisting the family advocate waiting room attendant by distributing educational pamphlets to family members, along with providing the nurses with education on the availability of patient discharge information folders. There was a significant statistical change ($p > .01$) that family members received higher level of clearer and more complete explanations provided to them by the nurse about their family member's medical condition. This implied that by educating the nurses on availability and resources of patient education the nurses begin to perceive communication to be more effective. The study laid a foundation for increasing flexibility of the visiting policies.

Moving Forward with Family-Centered Care: One Step at a Time

The purpose of the study was to determine nurses' perceptions of communication as a preliminary step to more flexible visiting choices. Critical illness not only afflicts Intensive Care Unit (ICU) patients, it also impacts patients' families. As the pendulum swings more toward patient-and family care, decision making is left up to the family members.

Background and Review of Literature

Family members often struggle with decisions about their loved ones' end of life care and can themselves, experience depression, anxiety, and post-traumatic stress disorders (Liu, Read, Scruth, & Cheng, 2013). Visitation restrictions can further contribute to patients' and families' experience of the ICU's as disorienting places that enforce separation during challenging periods of critical illness and recovery (Liu et al., 2013).

Some ICU nurses believe that family visitation increases the physiologic stress in the patient, interferes with the provision of care, mentally exhaust patients and families, and contributes to increased infection rates (Liu et al., 2013). However, the American Association of Critical Care Nurses (AACN) states that the evidence does not support these beliefs. The AACN suggests that, flexible visitation decreases patient anxiety, decreases the length of ICU stay, increases quality of care, and promotes better communication. The majority of ICU's are practicing open visiting policies are located in small hospitals. Despite the reported benefits, there are few ICU's that actually participate in non-restricted visitation policies (Liu et al., 2013).

Even though this may be true, recent studies suggest that ICU's are actively rethinking their visitation policies to move towards a more progressive and family-centered care visitation (Liu et al., 2013). ICU nurses are also facilitating family-centered care by providing information to family members and allowing families to see their loved ones more frequently with less

restrictive visitation (Hunt, 2009). The nurses also deem it important to provide reassurance to family members and assist them to address their own self-care needs (Liu et al., 2013). Other family intervention strategies that are utilized in supporting families with loved ones in the ICU include facilitating shared decision making, ICU family rounds, family conferences, family progress journals, as well as having a family ICU nurse specialist on the unit. (Hunt, 2009). Furthermore, patient-and family-centered communication is now a national quality measure of ICU care (Yuen, Mehta, Roberts, Cooke, & Reid, 2013). Critical care experts recommend using the shared decision making framework for communication with family members. Including family members in collaboration and decision making process, higher levels of family satisfaction has been recorded.

Patient Centered Care

The AACN (2011) provides supporting evidence that 75% of ICU nurses in adult critical care units prefer unrestricted policies; yet 70% of hospital ICU policies restrict family visitation. This variability creates confusion and even conflict between nurses and family members. The AACN concludes it is best practice not to restrict visiting to protect the patient from adverse physiological consequences (Davidson et al.,2007). Although some units are beginning to revise visitation policies, AACN believes that a successful transition to more flexible visiting practices depends on the positive beliefs and attitudes of the nursing staff (Davidson et al., 2007). Furthermore, the visitation shift in the United States is supported by health care accreditation and regulatory agencies including The Joint Commission (TJC) and the Center for Medicare and Medicaid services.

The Joint Commission (2011) recommends hospitals allow family members to be present for emotional support during the course of the patient's stay. In addition the Affordable Care Act

(ACA) (2010) states that it is the patient's right to choose a family member or friend to remain at the bedside during a time of pain or anxiety after admission into a hospital. The ACA also emphasizes that it is imperative to transform the current restrictive visiting practices into more open and flexible policies. Hospital compliance with open visitation units is not currently mandated. However, collectively the AACN, TJC, and ACA together support practices that represent the patients and families needs during hospital stay.

Family is defined by the individual and family receiving care (Hunt, 2009). Families are an extension of the patient, not an imposition. The more involved families are with their loved ones care, the more facilities can improve quality, increase safety, and boost patient and family satisfaction (Sodomka, 2006). Open visitation is known to decrease anxiety, orient the nurses to better understand the patients, promote communication enhancement, and allow more opportunities for family teaching prior to discharge (Sodomka, 2006). That is to say, that increased visitation times are mutually beneficial for the nurses and the family members.

The study was conducted in a university affiliated hospital in the Southeast. The facility is well known for its Surgical-Trauma Intensive Care Unit (STICU), Medical Intensive Care Unit (MICU), and the Progressive Care Unit (PCU). The units all practiced the same restrictive visiting policies, which consisted of four hours between the times of 9:00am and 9:30pm. This is similar to the quality update written by Sodomka (2006), who stated that restrictive visiting hours may result in overcrowding in the unattended visitor waiting area, gathering in front of the unit doors before visitation times, and defensive family members.

The ultimate goal of family centered care is to provide interventions to encourage a more open channel of communication and to potentially improve the relationship between the nurses and family members without specifically increasing visitation time in the units at this moment.

Family Diaries

Family Centered care is a progressive movement. As many health care facilities are utilizing advanced practices to enhance the interactions with family members. There are communication protocols developed to aid in communication among families, but few developments have actually been integrated into the Intensive Care Unit (ICU) settings (Aslakson, et al.).

Furthermore, Gangi, Naretto, Cravero, and Livigni (2013) used a retrospective observational study to record themes documented in bedside diaries. The diaries are a two-way form of communication located in each patient's room for nurses and family members to write informative stories, emotional responses, needs, perceptions, and satisfactions with the quality of care supplied. During the years of 2009 and 2010, a total of 440 family members' diaries were measured to obtain subjects of importance in the entries. The diary served as a communication tool to enhance collaboration between patients, family members, and interprofessional ICU staff. Using qualitative data analysis, 168 stories by family members, were written in the form of letters addressed to the patients.

The study concluded that love/affection and encouragement are the two main themes conducted in the stories. In addition, family members expressed their need to be supported by the medical staff. In 10 journal entries out of a sample size of 440, the family members stated that the caregivers on the unit supplied "heavenly care". The families also referred to nurses and physicians as "angels on earth". Furthermore, the families commented their appreciation of the unrestricted visiting policy in the ICU as a welcomed experience and left supporting comments to the staff.

Family Bedside Rounds

Jacobowski, Girad, Mulder, and Ely (2010) implemented a routine family bedside round in a 26-bed MICU located in the Vanderbilt University Medical Center, providing care to a diverse population. The criteria of the bedside round consisted of nurses providing the patient's vital signs, initial assessment, goals, and treatment plan from the previous 24 hours. It also involved teaching a summary in lay language, and providing family members an opportunity to ask questions to the attending physician. Nurses are considered the primary influence to encourage the family members to attend the bedside rounds. This was an important study because it gave the families the ability to participate in decision making and represent the interest of the patient. Within a month of discharge, a phone survey recorded the results from the MICU with or without the implementation of beside rounding. The study involved 234 respondents, and concluded that overall satisfaction of family members were improved through communication. The family members also reported decreased levels of anxiety over their family members care due to being included in the everyday decision making. The study also concluded that there is a need to explore other implementations to optimize communication.

Barriers of Communication

A study of STICU nurses' perceptions at John Hopkins Hospital was recorded in the *Journal of Palliative Medicine*. Aslakson (2010) explored the nurses' perception of barriers to communication regarding end of life care in the STICU. This was a hypothesis-generating study that provided insight to inform larger cohorts and quantitative methods. A sample of 32 nurses met with a moderator and an independent observer. The moderator kept the conversation topic within range of the barriers of communication. The independent observer collected the nurses' responses with a note taking method and then used a content analysis technique to identify major themes emerging in the discussions. The themes for barriers to communication regarding

prognosis were logistics, discomfort with discussion, perceived lack of skill/training, and fear of conflict.

Theoretical Framework

Jean Watson is the nursing theorist responsible for pursuing to define the science of caring through *Watson's Philosophy and Science of Caring in Nursing Practice*. Jean Watson is a Distinguished Professor of Nursing, holding the Murchinson-Scoville Endowed Chair in Caring Science at the University of Colorado, Denver College of Nursing, and she is the Founder/Director of the Watson Institute of Caring Science in Colorado (Lee et al., 2007). In 1988 her theory was published in *Nursing: Human Science and Human Care*. Watson's theory on the science of caring emphasizes the importance of nurses' implementation of transpersonal relationships as a human-to-human connection in which both persons are influenced through the relationship and being-together in the moment (Alligood, 2010). This interaction can further be obtained through using Watson's formulation of the ten "Carative" factors.

1. Humanistic-altruistic system of values
2. Faith-hope
3. Sensitivity to self and others
4. Helping- trusting, human care relationship
5. Expressing positive and negative feelings
6. Creative problem-solving caring process
7. Transpersonal teaching-learning
8. Supportive, protective, and/or corrective mental, physical, societal, and spiritual environment

9. Human needs assistance

10. Existing-phenomenological—spiritual forces (Watson, 1988).

The traditional model of care places emphasis on restricting visitation interaction between patients and families. In contrast, the family-centered model emphasizes the strengths that the families can bring to the healing process (Sodomka, 2006). Family health is defined as “a dynamic changing state of well-being, which includes biological, psychological, spiritual, sociological, and cultural factors of individual members and the whole family system” (Hunt, 2009). The knowledge that the nurses use towards healthy family functioning may allow the nurse to identify family health needs and utilize the ability to take appropriate actions when deemed necessary. This includes the nurses’ anticipation and willingness to meet the special needs of patients and families relative to their physical, psychological, developmental, cultural, and spiritual requirements while ensuring that all patients receive the same standard of transpersonal care.

The ICUs are specifically designed for critically ill patients that require constant supervision. Correspondingly, patients need someone in the room to monitor their status, keeping nurses at the patient’s bedside frequently. At the bedside, nurses are also performing neurological assessments, administering medications, and performing invasive procedures. Given that the environment is task oriented, nurses are challenged with balancing the need of family members to be with their loved ones at the time of critical care and the need for ICU clinicians to conduct efficient bedside care (Lee et al. 2007). Even though, nurses are busy with prioritizing tasks in the ICU’s, nurses have adopted a more holistic view of clients as individuals with life beyond their illness, injury, and hospitalization. A holistic perspective allows the nurse to address the cadre of needs families experience across the continuum of care

when lives have been irrevocably changed by the illness of one member (Hunt, 2009).

However, healthy patient coping is achieved by assisting family members to become more resilient by interacting in a physical and spiritual way that optimize each family member's abilities and strengths. Hope seems to be a prerequisite for coping during a critical illness or injury, and nurses at the bedside instilling hope may have an empowering effect on a family's coping ability. Important hope-inspiring strategies are set in motion from religious and/or spiritual activities, support from a significant other, positive relationships with caregivers, devotion to the patient, optimism, proximity to the patient, talking with others, and distraction (Hunt, 2009).

Primary Purpose, Objectives and Research Questions

The primary purpose of this project is to enhance and improve nurse, patient, and family interaction to support patient centered care. Communication is hypothesized to improve by implementing the intervention phase and measuring the nurses' perceptions with the pre- and post-tests.

The Communication Assessment Tool was used to measure the nurses' perception of communication with the patients' family members within the units (Appendix A). The objective was to examine patient centered care and how different communication interventions can be applied to ultimately improve the care of the patient. The communication interventions consisted of assisting the family advocate waiting room attendant by distributing educational pamphlets to family members, along with providing the nurses with education on the availability of patients discharge information folders.

The research questions were expressed as 1.) *What are the STICU nurses' perceptions related to communication with family members?* and 2.) *What changes occurs after the*

communication intervention phase?

Methods

Setting

The study was conducted at a university affiliated hospital in the Southeast. The setting is a 16-bed STICU with restrictive visitation hours. The visitation hours are posted outside of the unit for families in the waiting room. The hours consist of 9:00a.m.-10:00a.m., 1:00p.m.-2:00p.m., 5:00p.m.-6:00p.m., 8:30p.m.- 9:30p.m.

Population

The population consisted of Registered Nurses (RNs) employed in the STICU. All RNs were asked to participate in the pre-and post-test. Participation with the survey was strictly voluntary and anonymous. The pre-and post-tests were distributed by the primary investigator to each nurse working on the day and night shift that were willing to participate. The selection process consisted of a convenience sample method. This means that each member of the population has an equal probability of being invited to participate (Polit & Beck, 2010).

Design

This research project was a quasi-experimental pre-and post-test that focused interventions to provide family centered care within the STICU. All nurses that worked on any shift in the designated units were invited to participate. The study consisted of measuring the STICU nurses' perceptions of communication with patients' families by providing a pre-questionnaire, an intervention phase, and a post-questionnaire. The pre-test was designed to obtain the baseline communication standard and the overall interaction among the family members, perceived by the nurses. The pre-test was conducted for a two week period, and then the results were analyzed. With the communication level of the unit better understood,

there was room for improvement by implementing an intervention phase. It was hypothesized that the intervention phase would ultimately enhance the interaction between the nurses on the unit and the family members. This would create more of a family centered atmosphere into the unit environment even with a visiting hour policy.

Ethical Considerations

The study was approved as exempt by the University of South Alabama Institutional Review Board (IRB). Consent was implied and an information sheet was given to all participants. obtained through the informational sheet provided. The information sheet was located on the front page of *The Communication Tool*. The information sheet acknowledged the volunteer participants are not giving up any legal rights by agreeing to participate in the study. Also if the nurses agreed to be a part of the study, it means that the participants understand everything that was explained in the information sheet (Appendix B).

Participants were recruited from the STICU at a university facilitated hospital in the Southeast. The participations were not compensated for their participation in the study. The participants must be employed in the STICU for at least 6 months and over the age of 19, as that is the legal age of adulthood. There was no discrimination between genders or race and there are no direct benefits to the participants the only alternative procedure was the option not to participate, which had no ramifications. However, the nurses participating in the interventions were expected to result in an increase of awareness in family centered care. The nurses would also become better informed about decision making for the patients best interest.

There were no foreseeable risks beyond those of everyday life. In some cases nurses may have been concerned that their identity would be compromised with the completion of the pre-and post-tests or that their information will be reveled to the unit management. However,

the pre-and post-tests were strictly voluntary and anonymous. The nurses participating would not be identified by personal identifiers for tracking purposes. All information collected in the study would be kept strictly confidential, except as may be required by law. No information would be given to supervisors. Publication results would be reported as group data only; no one would be identified by name.

Communication Intervention Phase

Effective communication begins by establishing a trusting relationship with the family. A short period of informal conversation at the start of the shift or during visitation hours may put the family at ease (Hunt, 2009). It is helpful to have all family members present during the patients overview of the plan of care in order to create a comfortable environment to encourage participation from everyone (Hunt, 2009).

Although open and flexible visitation is the preferred practice, the specific hospital is currently not compliant with this policy during the study. However, the nursing staff in the units has been taking steps towards patient-centered care measures by implementing a pilot of a patient educator role in the MICU, STICU, and PCU. This role is designed to increase patient and family satisfaction. The role was filled with an experienced RN on the STICU. The patient educator will begin consultation with the patient at the time of admission to the Critical or Progressive Care Unit. The consultation will involve exploration of the patient's information needs and expectations. The patient educator will offer verbal and written educational materials that require patient education. The patient educator will be available to the patient and the patient's family throughout the hospitalization and will perform rounds to reassess educational needs. As the patient prepares for discharge, the patient educator will ensure that the patient has the educational resources they require. This role does not replace the standard of patient

education required by the RN's on the units. The role is considered collaborative and essential for the patients as at times the RNs may not always have the time to provide optimal education within the units.

All nurses in the STICU were educated on the units' readily available educational material. The material is from the facilities library that is affiliated through the university. The educational material is written in lay language and consists of diagnostic medical information sheets with educational pictures. The resources are important to provide to the family members because it reinforces the verbal explanations provided by the nurses. Learning depends on both the need and readiness to learn (Hunt, 2009). This includes the cognitive, affective, and psychomotor learning domains. Therefore, it is essential to begin teaching the patient and family the discharge education process on admission with written and verbal instructions.

The patient specific educational material are combined and placed into a three prong folder labeled "Discharge Folder". The forms that are prefilled into the folder include: printed patient characterized education material, follow-up reference page with locations and telephone numbers, a brochure on the units policies, a form with hospital library additional information, and an educational log. The educational log was designed as a resource for the patient, family, nurses, and medical teams to bridge the gap in discharge education communication while working collaboratively in interdisciplinary shifts. The log also allows the staff to maintain a record of the educational subjects that have been taught to patients and family members or that need to be revisited. The patient discharge folders were placed in each room inside of a metal bin labeled "Patient Education". These bins are in each room and are designed to allow family members to easily locate the specific information related to the

patient's condition and diagnosis.

The unit also utilized a family advocate as the waiting room attendant for eight hours a day five days a week in the STICU waiting room. The family advocate oriented the family members to the waiting room and the unit. The waiting room attendant also had available resources to provide to the family members regarding any questions or concerns.

The family advocate was responsible for printing a daily census, identifying family members new to the unit, offer requested educational information, and ensure that family members have received all of the information regarding the unit admission process. The waiting room attendant also encouraged the family members to utilize the prepared discharge educational folders and explained the location of the patient education bins. Families were also informed that they may review the discharge folders while in the waiting room however, the folders must be returned back to the patients room after a timely manner so the nurses could continue to keep track of the patients' educational process.

Instrumentation

The questionnaire tool is called *The Communication Assessment with ICU Families*. The tool measured the STICU nurses' perception of communication involvement with the family members on the unit. Permission was granted for the use of the assessment tool. However, the tool was labeled *Communication Assessment Tool* for the purpose of the pre-and-post test. The assessment consists of 14 closed-ended questions allowing the participant to circle the best answer to each question. The answer choices varied from: never, sometimes, usually, always, poor, fair, good, very good, excellent, strongly agree, neutral, disagree, strongly disagree, too little, just right, and too much. Closed-ended questions are more

efficient: the nurses complete more close-end questions than open-end questions in a given amount of time (Polit & Beck, 2010).

Question number 14, asks the nurses which type of ICU visitation choices that are best for the family members. The answer choices regarding visitation are restricted, contracted, flexible, or open visitation. This questionnaire is particularly significant because it allows the nurses to express their opinions along with providing their view of the best visitation choice for the family members.

After question number 14, at the end of the assessment, there was room for the RN's to write any additional questions or concerns. There were a total of 3 comments left in the section during the collection of the pre-test questionnaires out of 22 returned from a sample of 46 RN's.

In addition, there were 7 comments in the available section during the completion of the post-tests out of 22 surveys returned from 40 RN's. The staff comments are categorized into four themes. Resources needed, visitation objection, visitation recommendation, safety precautions (Table 4).

The nurses stated that the workload in an ICU is sometimes overwhelming and demonstrated the need for more resources to manage the flow of the visitors in order to make an increased visitation more realistic. One nurse verbalized "The diligent nurse would practically kill themselves to meet all of the demands of good patient centered care. Usually the nurses who spend the time with family leave out other responsibilities."

Staff also demonstrated visitation objections and recommendations. Nurse's comments included the distress of patient acuity in the ICU and how some patients do not tolerate the small amount of visitation offered as is. Other staff included that the diverse patient/family

demographic is not conducive to any type of open visitation. However, some RN's concluded Visitation hours need to be addressed on a case to case basis dependent upon the specific situation. Specifically one nurse addressed "Having had family in both an open ICU and a closed ICU I feel that the open ICU was hard to regulate information given". In summarization each patient and family is different and it is hard to say which is a better option demonstrated in the staffs comments provided.

One of the main concerns demonstrated is safety. The nurses provided comments concluding that the STICU has a high acuity of patients and with open visitation, ensuring safety would be difficult. The staff presented possible safety measures along with increasing visitation including, security cameras, security guard rounds, metal detectors, and regulation of visitation during night shift hours.

Data Collection

Data were collected from a collection folder located on the STICU nurse educator's door, daily. The data will be kept for at least one year after the project has been completed. Data from the pre-and post-test were measured using a numerical system ranking each individual answer higher, as the response is more positive. Analysis is conducted with Statistical Package for the Social Sciences (SPSS). The last question on the pre-and-post test is qualitative will be kept as a paper copy and categorized into themes based on the answers received.

Results

The project lasted a total of seven weeks. The pre-test and post-test were each completed within two weeks and the communication intervention phase was held for three weeks. There

were 46 staff RN's on the STICU during the administration of the pre-test, 22 pre-tests were completed. There were 40 staff RN's during the intervention phase and the post-test, with 22 post-tests completed. There was a decrease in employed nurses due to a high turnover rate either from nurses pursuing more scholarly opportunities, transfers to other health care facilities, or requests for transfer due to stress that nurses' experience in Intensive Care Unit.

The participants had two weeks each to complete the pre-and post-test. The pre-and post-test had an informational sheet attached to the form, which explained that the participation in the survey is voluntary and informed the nurses of no direct harm or benefits for participating or refusing. The pre-and post tests were, completed and returned in a sealed envelope and the sealed envelopes were placed into a collection folder.

The results were analyzed in the SPSS. All answers to the questions on *The Communication Assessment Tool* were designated a number to fixate a numerical scale to measure the exact shift in the nurses perception between the pre-and post-test due to the intervention phase. Question number 11 is on a 1-3 point scale. Questions 1, 2, 3, 5, 6, 7, 8, and 9 are based on a 1-4 point scale. Questions 4, 10, 12, and 13 are based on a 1-5 point scale. The maximum amount of points given to each answer is based on the number of answer options on the assessment for the nurses to choose from. The ranking of the answer choices from a higher to a lower number is based on positivity. Question number 14 is measured by tallying all of the visitation choices per questionnaire, and comparing the end results.

Sample Description

The sample size, or the number of study participants include 22 RN's employed during the pre-test and 22 nurses during the post-test. All of the STICU nurses were invited to participate in the pre-and post test. Approximately 50% of eligible participants responded with

22/46 or 48% at pretest and 22/40 or 55%. It is unknown how many participated in both surveys as they were not tracked or linked. All participants were RN's employed full time on the unit for 6 months or longer (Table 1).

Description Variables

The variables are the 14 questions that make up the *Communication Assessment Tool*. The variables are described by content, mean, standard deviation, and the t-test value. The mean equals the sum of all values divided by the number of participants, also known as the average. The standard deviation is calculated based on every value in a distribution. It summarizes the average amount of deviation of values from the mean. The t-test values compare the pre-test and the post-test related to an overall outcome. The t-test is a parametric test for testing the significance of differences in the pre-and post tests (Polit & Beck, 2010). None of the following are statistically significant except for question number 9.

Question number 1, asked the nurses to rank how often they treated the patients' family members with courtesy and respect. The answer for the pre-and post test combined yielded a mean of 4.00 and a standard deviation of 0.00. The mean and standard deviation are expected with this question due to the context of nurses providing what they perceive to be "treating others with courtesy and respect" (table 1 & table 2).

Question number 2, asked the nurses how often did they listen to the family members. The pre-test yielded a mean of 3.84 and a standard deviation of .395. However, the post-test had a mean of 3.77 and a standard deviation of .440. There is a slight numerical decrease from the pre-test to the post-test.

Question number 3, asked the nurses how often did they explain things in a way that family members could understand. The pre-test yielded a mean of 3.77 and a standard deviation of .429. the post-test had a mean of 3.73 and a standard deviation of 0.46. There is a minor numerical decrease between the pre-and post test.

Question number 4, asked the nurses to describe the timeliness of information that the patients and families received their information. The pre-test yielded a mean of 4.05 and a standard deviation of 0.65. However, the post-test showed a mean of 4.14 and a standard deviation of 0.89. As this is not a significant increase, there is still a numerical increase from the pre-test to the post-test that the information given to the families is in a timelier fashion.

Question number 5, asked the nurses to rank how often they informed the family members about the patients' condition. The pre-test yielded a mean of 3.73 with a standard deviation of 4.56. While, the post-test had a mean of 3.83 and a standard deviation of .40. This question shows an increase in the nurses' perception of the frequency that they provided to the families regarding the patients' plan of care regarding the overall condition.

Question number 6, asked the nurses if they believe family members have confidence and trust in the doctors in the ICU. The pre-test mean is 3.10 and the standard deviation is 0.61. The post-test mean is 3.27 and the standard deviation is 0.46. The nurses' perception of family members receiving trust in doctors increased with the post test.

Question number 7, asked the nurses if they believe family members receive clear and complete explanation provided to them by the physician about their family member's medical condition while in the ICU. The pre-test mean is 2.90 and the standard deviation is 0.68. The post-test mean is 3.23 and the standard deviation is .53. There is a significant increase between

the pre-and post-test. This is possibly due to the intervention phase of nurses utilizing readily available discharge information including pre-filled discharge folders.

Question number 8, asked the nurses if they believe family members have confidence and trust in the nurses in the ICU. The pre-test mean is 3.19 and the standard deviation is 0.50. The post-test mean is 3.32 and the standard deviation is 0.57. There is also a slight numerical increase between the pre-and post-test possibly implying that nurses further believe that family members have more confidence and trust in the nurses in the STICU.

Question number 9, asked the nurses if they believe family members receive clear and complete explanation provided to them by the nurse about their family member's medical condition while in the ICU. The pre-test mean is 3.07 and the standard deviation is 0.66. The post-test mean is 3.34 and the standard deviation is 0.64. There is an also an increase in nurses perception that family members receive clear and complete explanation provided to them by the unit nurses. This was a statistically significant change of ($P<.01$).

Question number 10, asked the nurses if they believe family visitation in the ICU helps patients feel more comfortable and secure. The pre-test mean is 3.45 and the standard deviation is 0.91. The post-test mean is 3.59 and the standard deviation is 0.79. There is a slight numerical increase.

Question number 11, asked the nurses to rank if the amount of time family members are allowed to visit in the ICU is either (1) too much, (2) just right, or (3) too little. Overall the pre-test and post-test had a mean of 2.00 and a standard deviation of 0.55. This indicates that the nurses among the unit are consistent about how they feel towards the visitation time limits and the amount of time family members are allowed onto the unit.

Question number 12, asked the nurses to rank overall in the unit do they feel safer when family members are present with their family member (patient) in the ICU. The answer choices consisted of strongly agree, agree, neutral, disagree, or strongly disagree. The pre-test yielded a mean of 2.50 and a standard deviation of .67. The post-test had a mean of 2.64 and a standard deviation of 0.66. There is a slight numerical increase. This increase is related to the nurses becoming more consistent with their answer choice of feeling neutral safeness as the family members are present in the ICU. Their choice of 2.5 or 2.6 was on the side of safer but only slightly safer (midpoint of scale is 3.0).

Question number 13, asked the nurses to overall rank the perceived quality of care the family members in the ICU receive. The pre-test had a mean of 4.14 and a standard deviation of 0.83. However, the post-test has a mean of 4.32 and a standard deviation of 0.72.

Question number 14, asked the nurses to mark the ICU visitation choices that they believe is “best for the family”. The choices include restricted, contracted, flexible, and open visitation. Restricted visitation is described as a set or established fixed visiting hours and time limits. Contracted visitation is visiting hours and time limits that are contracted between the family and the healthcare team and are dependent on the condition of the patient and stability of the family. Flexible visitation hours consist of visitation that is allowed at any time, except during the change of shifts; there are no limits on the length of visitation, although the nurse may request that the family leave based on unforeseen events and/or the need for patient rest. Open visitation hours are defined as visitation that is allowed for any length of time at any time of the day or night. The pre-test and post-test were completed by 22 STICU nurses. The pre-test consisted 6 nurses choosing contracted visitation, 6 nurses choosing flexible visitation, 10 nurses choosing restricted visitation, and no nurses selected open visitation. The post-test had 7

contracted visitation, 1 flexible visitation, 12 restricted visitation, and again no open visitation. The nurses chose more restricted visitation options in the post-test.

Research Question

1. What are the STICU nurses' perceptions related to communication with family members? The pre-test analysis shows that the nurses perceive themselves generally moderate to high related to communication with the family members. The only question on *The Communication Tool* that increased statistically was question number 9. The nurses concluded that by having readily available educational resources they are able to provide a more clear and complete explanation to the family members about the patient's medical condition.

2. What change occurs after the communication intervention phase? As the intervention phase consisted of educating all STICU RN's on the availability of access to medical discharge information sheets and a convenient folders to collectively contain all of the forms, the nurses ranked question number 9 on the post-test significantly higher than on the pre-test. This concludes that by having educational material readily available for nurses on the computer and printed copies, the nurses perceive that the family members receive more clear and complete explanations provided by the nurses.

Reliability of Tool

Reliability refers to the accuracy and consistency of information obtained in the pre-and post-tests. The term is most often associated with the methods and used to measure the variables (Polit & Beck, 2010). The variable consist of the 14 questions on the pre-and post-test.

Coefficient alpha, also known as Cronbach's alpha is a reliability index that estimates the internal consistency of a measure compromised of several items or subparts. The higher the

value the more reliable (stable) the measuring tool is. Reliability coefficients higher than .70 are often considered adequate, but coefficients greater than .80 are far preferable. The Cronbach's alpha was .594 for the pre-test and .748 for the post-test. One problem with measuring the variables is that many traits change over time, regardless of the instrument's stability. Attitudes, moods, and perceptions can be changed by experiences between the two measurements (Polit & Beck, 2014). Furthermore, the Cronbach's alpha value could be higher and more adequate with the post test due to an increased consistency with the nurses answer choices of communication perception.

Discussion

Routinely, in the past, there were little to no discharges from the unit to home from the ICU's , but it is trending up. Therefore, prior to the study the units utilized an experienced RN to establish a pilot role as a nurse educator. The nurse educator organized resources from the facilities library and uploaded the material into the nurses hospital computer system and into printed copies to aid the nurses to find the appropriate material for patient specific education. However, the patient educator left the unit due to unforeseen events and the results of the trial is concluded as inconclusive regarding patient satisfaction.

In addition, the study of STICU nurses' perception of communication with family members concluded that nurses perceive communication as a viable trait of everyday provided care. There was a significant statistical change ($p < .01$) that nurses perceived family members received higher levels of clearer and more complete explanations provided to them by the nurse about their family member's medical condition from before to after the intervention. This implied that by educating the nurses on the availability and resources of patient education the nurses begin to perceive communication to be more effective.

The nurse management requested specific interventions before implementing a pilot trial of flexible visitation. Specifically having available paper and pens for the family members, families participating in bedside rounds, family relaxation, visitation cards, cameras, and a two way phone in the unit.

Having available the available writing utensils in the ICU waiting rooms, and at the bedside in the discharge folders increase the bidirectional communication features between staff, patients, and family members. The extra communication tool has the potential to aid the nurses to better understand the needs of the patient and the family members. This type of communication also relates back to Gangi's (2012) study with bedside daily diaries. Gangi concluded that by providing a simple form of communication with written material can result in the health care providers to become more informed about the family member's emotional responses to their loved one's critical illness, as well as the families need, perceptions, and satisfaction with the quality of care (Gangi et. al, 2012). The stories left by the family members may not always have positive feedback due to the effects on family experiences or the patient outcomes. However, if the health care staff were to read stories and comments provided by the family members, this may enhance their empathy and understanding of the family perceptions and needs. By providing the essential writing materials on the units, prior to the visitation change, can also improve the holistic bond between nurses and family members, as the stories provide insights on the family's experience.

The unit management requested to utilize nurse to encourage families to participate in physician bedside rounds during the implementation of the flexible visitation pilot in the MICU and the PCU. Family rounds include a brief, structured, and consistent communication within the first 24 hours of admission, providing families with a realistic, real-time format and a frequently

updated picture of the patient(Jacobowski et al., 2010). The limitation with families participating in bedside rounding in this particular facility is that the physicians can easily become busy with other life threatening priorities with other patients. Therefore, it could possibly be a challenge to include families in the bedside rounds because there would not be a set available time for the physicians to round and the families to be informed ahead of time due to the high acuity of critically ill patients in the facility. However, this implementation is similar to Jacobowski (2010) study involving routine participation of family members in critical care rounds in a MICU. The study concluded that by allowing family members to be included in daily rounds and patient care the family is reported that the proactive communication with the interdisciplinary team leads to a decrease in anxiety (Jacobowski et al., 2010). Furthermore, to facilitate a greater decrease in anxiety the unit proposed to incorporate family relaxation measures. This includes providing relaxing music and fresh beverages for the family members in the waiting rooms.

One of the main visitation concerns with the nursing staff is safety. They perceive flexible visitation as a potential to become chaotic with multiple family members in the unit all at once with no particular time limitations except for during shift change. The nurse management took this into consideration and also request before the flexible visitation implementation there are cameras set up in the ICU waiting rooms and outside of the unit doors. Also visitation cards for the family members so the nurses have the resources to monitor the individuals within the unit. Also another measure for safety includes the resource of a two way phone that would be in the unit and allow the nurses to communicate with the waiting room attendant to give the families updates on if the unit is currently busy with other priorities such as an invasive bedside procedure, or a code.

Furthermore, the units are in a progressive movement to provide optimal care for the patients by incorporating the family member's involvement. However, before the flexible visitation and more family involvement occur. The staff nurses need the support and resources to be able to manage more visitors with unforeseen events and safety of the unit.

Interpretation

The current STICU visiting policies involve restricted times and visitor limitations, including age restrictions and a maximum of two visitors at one given time. Although the unit practices restrictive visiting policies, the staff nurses are practicing various ways to increase the interaction of patient-and family-centered care. After the STICU nurses were educated on the patient discharge educational information sheets, the nurses took advantage of the availability and quickly began to utilize the resources. The nurses add patient specific educational material to the discharge folders and use it as a tool to engage in communication with the patients and family members. By increasing the interaction between nurses, patients, and family members the study laid a foundation for increasing flexibility of the visiting policies and further enhancing interdisciplinary communication.

Limitations

The main limitation in the study was the reliability of the scale. There was adequate participation and completion of the pre-and post test. The principle investigator distributed out the pre-and post-tests to all staffed RNs on the unit, including day and night shift. All of the nurses received the pre-and post-test along with an envelope to securely enclose the results. However, approximately only 50% of nurses completed and returned the pre-and-post tests.

Comparisons

All of the variables increased slightly except for question number 1, 2, 3, and 9. Question number 1, was an unchanged and expected outcome throughout the pre-and post-test. Question number 2, insignificantly decreased as the nurses acknowledged that they listened less carefully to the family members. Question number 3, decreased an insignificant amount as the nurses perceived that they did not completely explain things in a way that family members could understand.

However, question number 9 significantly increased with the post-test results as the nurses believe that they provide the family members with more clear and complete explanations about the patients' medical conditions. The communication implementation phase is a direct correlation with the statistically significant increase in the data analysis. By providing education to all nurses about the availability of the educational resources, utilizing a family advocate in the STICU waiting room, and providing families with additional educational material the interaction between nurses and families ultimately enhance.

Question number 6 and 7 can be combined together to compare how nurses overall perceive physicians communication with family members. Question number 6 asked the nurses if they believe family members have confidence and trust in the doctors also question number 7 asked the nurses if they believe family members receive clear and complete explanation provided by the physician. The pre-test yielded a sum mean of 6.00 and a standard deviation of 1.07. The post-test had a sum mean of 6.50 and a standard deviation of 0.913.

Question number 8 and 9 can be combined together to compare how nurses perceive themselves to provide the family with confidence, trust, and complete explanation provided to the family members. The pre-test had a sum mean of 6.25 and a standard deviation of 1.02. The post-test had a sum mean of 6.66 and a standard deviation of 1.06.

Overall, nurses perceive themselves higher than the physicians in terms of providing family members with confidence, trust, and complete explanations. However, the nurses do perceive the physicians as advancing the level of communication with family members in the post-test, but still continue to rank themselves above the physicians.

Recommendations for the Future

Recommendations for future research include continuing to refine *The Communication Assessment Tool* to maximize the content of each questions ability to measure the precise perception of nurses view on family communication. The study also provides insight and education for future research involving patient and family centered related to human-to-human interaction and communication.

The STICU currently is still practicing restrictive visitation policies. However, this study provided evidence that by educating the staff nurses and having readily available resources for the unit enhances the positive communication and interaction perceived by the RN's. Encouraging the appropriate resources to help reduce the workload of the STICU nurses leaves more time for the nurses to create a bond with the family members, and also allows them to view the families as helpful not a hindrance.

After the completion of the study the STICU nurses are still continuing to advance the application of patient and family centered care. The nurse management is in the process of implementing a new visitation recommendation. The visitation includes providing a trial of flexible visitation within the smaller units of the Southeast hospital, including the Progressive Care Unit (PCU) and the Medical Intensive Care Unit (MICU). Flexible visitation consists of family members allowed to visit anytime of the day or night except during shift change, there are no limits on the length of visitation. However, the unit requests that there are only two visitors at

a time. Nurses will also have the authority to request family members to leave the unit based on unforeseen circumstances. However, before the flexible visitation pilot trial is implemented in the STICU the nurse management and nurse education department request that the nurse have the appropriate available resources to help with the consistency of visitors throughout the shifts before the trial is implemented.

The recommended resources include: cameras in the waiting rooms and outside of the units; security to make more frequent rounds; adding paper and pens to the waiting area and in the discharge folders; add education about the changes in visitation to the televisions education channel; provide a more relaxing environment to the waiting room including relaxing music, coffee, and ice water; encourage patient's family members to participate in physician rounds with the patients. Furthermore, providing a waiting room attendants present 24 hours, seven days a week, having one charge nurse on each unit with no assigned patients, and having access to folding chairs for the family members to have while visiting the patients Most importantly there has been a request for time and resources to provide a formalized in-service readiness training plan for the all of the staff related to visitation changes. As the unit changes visitation policies it is important to provide adequate training related to working in team dynamics in diverting heated situations that could possibly occur with the abundance of individuals in the units. This study has opened doors for the hospital to practice in a more open visitation incorporating the family members in the patients care directly at the bedside.

Conclusion

In the study, the STICU has restrictive visiting policies regarding visiting hours and the number of visitors. These findings and interventions are the first step toward developing a more patient-and family-centered care approach among the STCIU. Furthermore, family-centered care

in ICU is associated with improvements in the long term psychiatric sequelae of critical illness, the trust between hospital staff and family members, and overall satisfaction with medical care (Vandijck et al., 2010).

By educating all STICU RN's, and providing family members with sufficient information and emotional support the nurses begin to visualize the communication between themselves and family members more beneficial. This is an improvement in initiating a stronger bond of human-to-human interaction. Once again, the family members are the key to better understanding the patients needs and the nurses are the patients strongest advocate, united together the process of healing begins.

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Table 1. Pre-and Post-Test Statistics

Questions	Survey	Number of Participants	Mean	P-value
1. During the last shift that you worked, how often did you treat you patients' family members with courtesy and respect?	Pre-test	22	4.0000	N.S
	Post-test	22	4.0000	
2. During the last shift that you worked, how often did you listen carefully to the family members of your patient?	Pre-test	22	3.8182	N.S
	Post-test	22	3.7727	
3. During the last shift that you worked, how often did you explain things in a way that family members of your patients' could understand?	Pre-test	22	3.7727	N.S
	Post-test	22	3.7273	
4. How would you describe the timeliness of information that you gave to your patient(s) and their family?	Pre-test	22	4.0455	N.S
	Post-test	22	4.1364	
5. How often did you inform your patients' family members of their family members condition?	Pre-test	22	3.7273	N.S
	Post-test	22	3.8182	
6. I believe family members have confidence and trust in the doctors in the ICU	Pre-test	22	3.0909	N.S
	Post-test	22	3.2727	
7. Family members receive clear and complete explanation provided to them by the physician about their family members medical condition while in the ICU.	Pre-test	22	2.9091	N.S
	Post-test	22	3.2273	
8. I believe family members have confidence and trust in the	Pre-test	22	3.1818	N.S

nurses in the ICU	Post-test	22	3.3182	
9. Family members receive clear and complete explanation provided to them by the nurse about their family member's medical condition while in the ICU.	Pre-test	22	3.0682	P<.01
	Post-test	22	3.3409	
10. Family visitation in the ICU helps patients feel more comfortable and secure	Pre-test	22	3.4545	N.S
	Post-test	22	3.5909	
11. The amount of time family members are allowed to visit in the ICU is:	Pre-test	22	2.0000	N.S
	Post-test	22	2.0000	
12. Overall, I feel patients are safer when family members are present with their family member (patient) in the ICU.	Pre-test	22	2.5000	N.S
	Post-test	22	2.6364	
13. Overall, how would you rate the quality of care family members received in the ICU?	Pre-test	22	4.1364	N.S
	Post-test	22	4.3182	

Table 1: Represents The Communication Assessment Tool data analysis, using the SPSS software. The table compares the participant numbers, means, and P-values between the pre-and post test surveys completed by the STICU nurses.

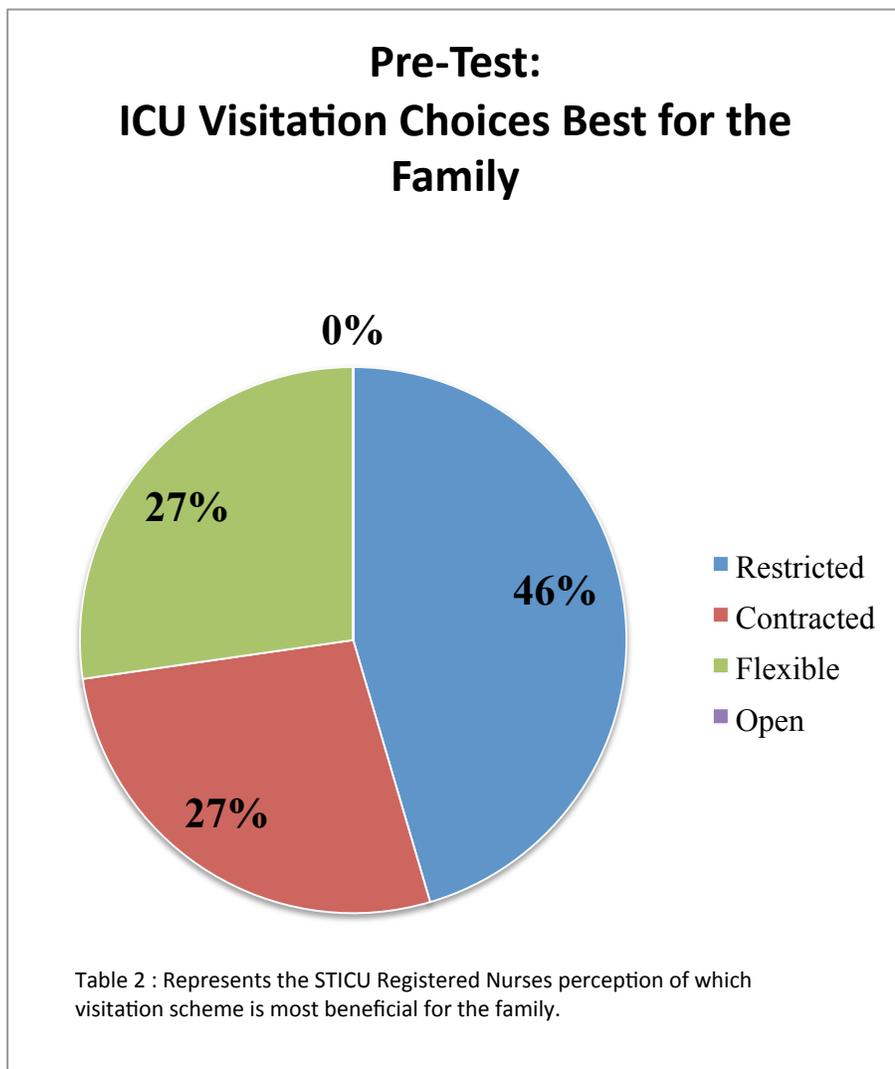
Table 2. Visitation Graph Pre-Test

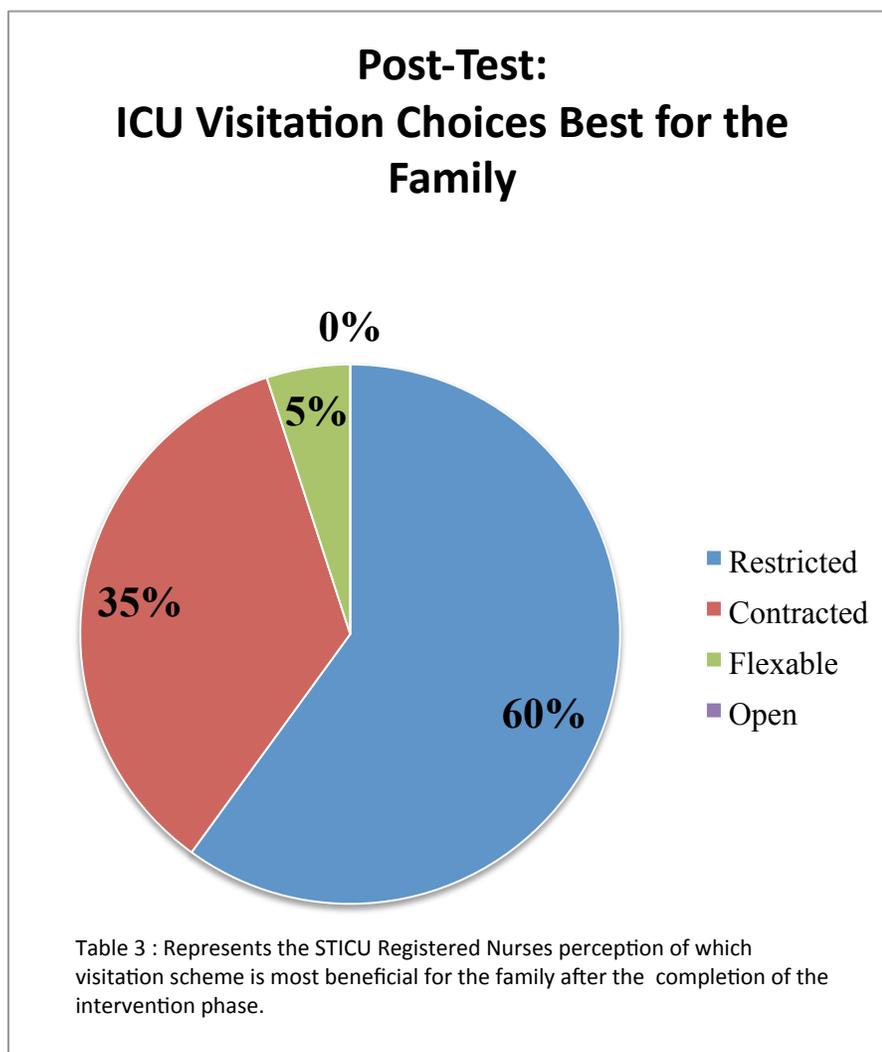
Table 3. Visitation Graph Post-Test

Table 4. Theme Content Analysis

Theme	Example(s) of Responses
Resources Needed	<p>“The nurse needs more resources to manage the flow of the visitors. If more resources are available increased visitation would be more realistic. The nurses’ workflow is overwhelming. The diligent nurse would practically kill themselves to meet all of the demands of good patient centered care. Usually the nurses who spend the time with family leave out other responsibilities.”</p> <p>“Staff may be more open to the idea of open visitation with the implementation of a metal detector.”</p>
Visitation Objections	<p>“Most patients in the ICU are fairly sick and do not tolerate the small amount of visitation we offer as is.”</p> <p>“Open visitation should be evaluated the same as any other subject. The factor is not faculty to faculty. Our patient demographic is not conducive to open visitation.”</p>
Visitation Recommendations	<p>“I would like shorter periods of visitation more often.”</p> <p>“Visitation hours need to be addressed on a case to case basis. There are some families whose presence is encouraging, nurturing, and helpful for the patient, but others whose is completely detrimental to the patients’ progress.”</p> <p>“Having had family in both an open ICU and a closed ICU I feel that the open ICU was hard to regulate information given. Conflict information as well as large numbers in our family overwhelmed and possible hindered care. Each patient and family is different and it is hard to say which is a better option”</p>
Safety	<p>“The STICU has a high acuity that open visitation would not be as conducive to patient care. The nurses provide bedside procedures throughout the shift and even though we provide patient privacy when it is an emergent procedure (which we frequently have) ensuring other patients safety is difficult.”</p> <p>“The patient population we receive in the ICU consists of: gunshot wounds, stab wounds, patients who are ran over by a deranged significant other always try to come back looking for retaliation not only putting the patient at risk but the staff as well.”</p> <p>“Related to the patient and family population, open visitation is not possible. I personally would not feel safe; a security guard should be present.”</p>