# OLDER ADULTS' PERCEPTION OF FEELING SAFE IN AN INTENSIVE CARE UNIT

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by

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The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled

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IN AN INTENSIVE CARE UNIT

Presented by Rita Sue Lasiter a candidate for the degree of Doctor of Philosophy

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DEDICATION


To the study participants who freely shared their intensive care experiences with me.

To my children, Brindy and Clay, who have been constant sources of hope and happiness throughout my life.

To my colleagues Kathy, Lori, Karen, Ruth, and Leesa for always listening and for providing me the support, challenge, and space that I needed to complete this project.

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Abstract

People whose lives have been threatened by critical health events have recounted situations in which feeling safe was central to their recovery. However, feeling safe during critical health events for adults age 65 and older has not been explored. The purpose of this study was to increase understanding of feeling safe by developing a substantive grounded theory of feeling safe for older adults who unexpectedly suffered a critical health event and were admitted to an intensive care unit (ICU). Ten older adults who received care in an ICU were interviewed to explore their experiences of feeling safe in an ICU.

Data analysis was carried out as interviews were conducted until all identified categories were developed. A substantive grounded theory of feeling safe was constructed using categories that emerged from the study data. Four main categories, (a) proximity, (b) oversight, (c) predictability, and (d) initiative, were identified as requisite to interaction with nurses. Participants' interaction and expectation of interaction with ICU nurses was essential to their perception of feeling safe in ICUs. Findings of this study are relevant to nursing care of patients in ICUs and structural design of ICUs. Practicing nurses can utilize the knowledge gained through this research to examine their own practice and make changes, if necessary, to promote the perception of feeling safe for older adults during an unexpected ICU admission. Further study is needed to explore other populations who are likely to experience an unexpected critical health event and receive care in an intensive care unit.

CHAPTER ONE

INTRODUCTION


Feeling safe may be as important for some individuals as being safe. Safety and

other higher level needs emerge after physiological needs are reasonably met (Maslow,

1954). The "safety needs" (Maslow, p. 18) are security, stability, protection, freedom

from fear and anxiety, structure, and a strong protector. Subsumed under the safety needs

is a preference for the "known rather than the unknown" (Maslow, 1954, p. 19). In cases

of emergency such as disease, injury, and other dire situations, the need for safety leads

to mobilization of personal resources (Maslow). In situations where a threat to safety is

perceived, people have responded to the apparent emergency and sometimes sought

safety in the protection of a stronger person or system (Hupcey, 2000). Adults who have

experienced physiological injury, have been in life threatening situations, and were

hospitalized in ICUs after critical health events have offered anecdotal reports about

feeling safe and unsafe (Bergbom-Engberg & Haljamae, 1988; Burfitt, Greiner, Miers,

Kinney & Branyon, 1993; Hupcey, 2000; Hupcey & Zimmerman, 2000; Laitinen, 1996;

Leith, 1999; Logan & Jenny, 1997; Nordgren & Fridlund, 2001; Russell, 1999; Wong &

Arthur, 2000). However, exploration of the social and contextual factors that influence

perceptions of feeling safe has not been the stated aim of those studies.

This study was designed to identify the basic social process of feeling safe. The

purpose was to develop a substantive grounded theory of feeling safe for adults age 65

and older who unexpectedly suffered a critical health event and who received care in an

intensive care unit (ICU). Two specific aims of this research were (a) to identify how

those older adults perceived feeling safe in an ICU and (b) to identify factors that influenced the perception of feeling safe for older adults who have received care in an ICU.

Chapter One includes an introduction to the research problem followed by an exposition of the theoretical foundation for the concept of feeling. Critical terms used in the study are listed and defined. A purpose statement and two research questions are followed by rationale for using grounded theory as the study research method. Finally the significance of the study and the research problem are discussed.

*Introduction to the Research Problem*

A literature search was conducted to learn about trends in published literature regarding safety. The following databases were included in the search: ALTA (religion), CINAHL, MEDLINE, PsychInfo, and Sociofile (now Sociological Abstracts). Search terms feeling safe, feeling secure, safety, security, intensive care, older adults, and unsafe were entered alone and in combination. Studies that were originally written in English and one that was translated into English by the original researcher (Zhong & Lijuan, 2004) were reviewed.

The initial search yielded a significant number of research articles about physical safety and being safe. In the ensuing section I will review research articles about safety topics concerning older adults, families of older adults, and caregivers of older adults. The main focus of this body of safety research was on home safety, fall safety, fear of falling or falling again, crime, and fire. This overview of literature begins with research publications about *being safe* for older adults relative to home safety, falls and the fear of falling, fall prevention, crime, and fire.

Being safe is not the same as feeling safe. Being safe is related to a physical state rather than a psychosocial state (Russell, 1999). The literature search yielded numerous research reports that focused on the objective state of being safe. Researchers explored physical safety concerns of older adults related to home safety (Chen, Mann, Tomita & Nochajski, 2000; Gurley, Lum, Sande, Lo, & Katz, 1996; McNulty, Johnson, Poole, & Winkle, 2003; Mastrian, 2001; Messecar, Archbold, Stewart, & Kirschling, 2002; Simpson, Darwin, & Marsh, 2003), falls and fear of falling (King & Tinetti, 1995; Lach, 2005; Martin, Hart, Spector, Doyle, & Harari, 2005; Suzuki, Ohyama, Yamada, & Kanomori, 2002; Yardley & Smith, 2002), fall prevention strategies (U.S. Department of Health and Human Services [DHHS], 2000; Gillespie et al., 2004; Means, O'Sullivan, & Rodell, 2003; Yardley & Smith, 2002), crime (Klaus, 2005; Tanner, 2003), and fire (Harvey et al., 2004; Jaslow et al., 2005; National Center for Health Statistics [NCHS], 2001).

Older adults are interested in physical safety because they often relate falling and the risk of falling to serious potential consequences that sometimes occur as a result of falling (King & Tinetti, 1995; Lach, 2005; Porter, 1994). Some older adults who are unable to reach help after falling are found dead or are hospitalized only to be discharged to live in places other than their own homes (Gurley, Lum, Sande, Lo, & Katz, 1996). For some older adults, consequences of an unexpected health problem might mean having to leave home because of inability to care for oneself (Porter, 1995). Fear as a consequence of falling and fear in anticipation of falling or falling again can lead to activity avoidance because of an undesirable post-fall trajectory. The resultant activity avoidance often

results in poor physical and mental health outcomes for older adults (Lach; Martin, Hart, Spector, Doyle, & Harari, 2005; Yardley & Smith, 2002).

Older adults related that they were often reluctant to heed home safety advice from strangers (McNulty et al., 2003). Home safety advice from strangers, even though the stranger was considered an expert, was often perceived as lacking relevance to the life situations of older adults. Older adults attributed fall risk to their own behaviors rather than to certain aspects of their homes and chose personal behavior changes as a primary fall prevention strategy such as "taking care" (Simpson, Darwin, & Marsh, 2003, p. 156) over safety advice from strangers (McNulty et al.; Simpson et al.). Taking care meant avoiding dangerous activities, moving slowly, holding on, and being vigilant about environmental danger (Simpson et al.). Porter (1994) suggested that caregivers should consider older persons' intentions to reduce personal risk before attempting to implement risk interventions on behalf of older adults.

In addition to research about falling, the literature search produced research reports about risk of injury from crime (Tanner, 2003) and fire (NCHS, 2001). Although the incidence of both violent crime and personal crime for older adults is low compared to all other age groups (Klaus, 2005; Tanner), the chance of serious physical injury during a crime is a recognized possibility for older adults (Klaus). In addition to the risk of personal injury from a criminal offense, older persons are considered a high-risk population for physical injury or death from fire (NCHS).

There are varied contexts in which older persons could be physically at risk of illness or injury. Being safe is a goal that older people, caregivers, and health care

providers wish to attain. Extensive research has been focused on prevention as intervention for falls, crime, and fire.

Although research has been effective in advancing the notion that a person can be physically safe from illness or injury, little attention has been paid to feeling safe, the emotional component of safety. In spite of the frequency of ICU use by older adults, few researchers have conducted studies focused on experiences of older adults who have received health care in an ICU.

*Theoretical Foundation: Scherer's Component Process Model*

According to appraisal theory, emotion is a reaction resulting from a significant stimulus event that influences or changes the organism-environment relationship (Scherer, 1999). The component process occurs over time and includes both emotion and cognition. Scherer (2005) has organized five components of emotion into a "component process model" (Scherer, 2005, p. 697). According to Scherer (2005), five components are constantly shifting in response to changing situations in a person's environment. The first component in the component process model of emotion is appraisal (Scherer, 2005).

Initial appraisal informs an individual about an event. An initial appraisal includes "stimulus evaluation checks" (Scherer, 2001, p. 94). These checks provide a person with required information to answer questions about the relevance, the implications, their coping potential, and the social normative significance (Scherer, 2001) of an event. According to Scherer, the stimulus evaluation checks (SEC) can occur at three levels. The first and lowest level is sensory-motor, which involves the neurophysiological system. The second level is schematic and is based on previous experience. Both the first and the second levels are unconscious and reactionary. The highest level is conceptual,

conscious, and reflective. Appraisal triggers a synchronous response pattern that involves the component subsystems and corresponds to personal analysis (the SEC) of the meaning or importance of an event. Appraisal is followed by a coordination and synchronization of the remaining four components: (a) neurophysiological, (b) motivation, (c) motor expression (facial and vocal expression), and (d) subjective feeling.

The neurophysiological component involves the central nervous system, the autonomic nervous system, and the neuroendocrine system. Exposure to an event that is initially appraised as being harmful triggers a response from the neurophysiological component. This response can include such physiological effects as corticosteroid secretion, increase or decrease in heart rate, or brain wave changes (Scherer, 2001).

The motivation component consists of the action tendency in response to a stimulus. The action tendency includes preparation for action and direction of action. Actions that a person may take are dependent upon the results of the appraisal process (Scherer, 2001).

The fourth component is motor expression. This component is composed of facial expression and voice inflection. This component communicates personal reaction to a stimulus; it is objective and can be evaluated by others. Motor expression can have a significant affect on social interaction (Scherer, 2001).

Feeling is the fifth component subsystem within the component process model (Scherer, 2001). According to the model, events consist of natural phenomenon or an action or behavior carried out by another person. Feeling is an emotional response to an event that is perceived by an individual to have significance which is "relevant to major concerns of the organism" (Scherer, 2001, p. 701). Feeling is a subjective "cognitive

representation reflecting a unique experience of mental and bodily changes in the context of being confronted with a particular event" (Scherer, 2001, p. 712).

According to Scherer (2005), research can be conducted to objectively measure four of the five emotion components: cognitive appraisal, neurophysiological symptoms, motivated actions, and motor expression. Feeling, the fifth emotion component, is the only subjective component of the process. Because of the subjective nature of feeling, there is no objective way in which to measure it (Scherer, 2005). The only way researchers have to access these feelings is to ask a person to describe the nature of his or her experiences (Scherer). Personal physiological changes and actions and behaviors of other people in the healthcare setting are likely to elicit feelings about the experience and trigger emotions and actions in response to these events.

*Feeling Safe in Healthcare Settings*

A smaller body of safety literature that included research conducted in critical care practice areas was reviewed (see Table 1). A brief overview of this body of literature follows. A detailed review of literature pertaining specifically to feeling safe in an ICU is included in Chapter Two.

Although patients who received health care in ICUs more commonly alluded to feeling safe than being safe, feeling safe is not unique to the ICU environment. Even though the literature about feeling safe is limited, there are few accounts of feeling safe reported by adults at home after discharge (Fridlund et al., 2000; Johnson & Morse, 1990; Kavaal & Laake, 2003; Moore, 1996) and in outpatient care facilities (Costa, 2001; Fridlund et al.; Moore). Feeling safe has also been reported to be important to adults age 18 and older who have received health care in emergency departments (Feldhaus, Koziol-

McLain, Amsbury, Norton, Lowenstein, & Abbott, 1997) and inpatient mental health care units (Gallop, Engels, DiNunzio, & Napravnik, 1999).

*Feeling safe in home care and outpatient healthcare settings.* Adults who were discharged to home from an acute inpatient setting after placement of an implanted cardioverter-defibrillator (ICD) reported feeling safe. Feeling safe was attributed to having had the mechanical device (Fridlund et al., 2000) implanted in case it was needed. One patient reported feeling safe because the ICD was there to help his heart along whenever help was needed and the device could save his life in the case of a potentially fatal cardiac event (Fridlund et al).

People in outpatient healthcare settings provided detailed accounts of feeling safe resulting from having used medical technological devices such as heart monitors. In the context of cardiac rehabilitation, older women reported feeling safe while being monitored by electronic heart monitors. For these women, one facet of feeling safe was the presence of nurses who watched them during exercise and observed the monitors (Moore, 1996).

*Feeling safe in inpatient mental health care settings.* Feeling safe was important to women who had been in abusive situations (Feldhaus et al., 1997; Gallop et al., 1999). Feldhaus et al. developed a screening tool for domestic abuse that could be administered quickly to women being treated in emergency departments. Of the three questions on the instrument, two measured abused women's perception of feeling safe. The two questions were used to measure a woman's perception of short-term risk of further violence and her need for counseling. An unexpected finding was that although the women were subjected to repeated verbal threats and ongoing verbal abuse by their domestic partners, they

stated that they felt safe in the relationship. In contrast, Gallop et al. (1999) studied the

needs of women in an inpatient mental health unit and found that abused women worried

about being in proximity to male patients. Many of the women felt safe and more secure

when staff members checked on them regularly. Additionally, feeling safe was reinforced

when nurses included the women in their own plans of care.

*Definition of Terms*

*Feeling safe*. Feeling is defined as a "subjective cognitive representation

reflecting a unique experience of mental and bodily changes in the context of being

confronted with a particular event" (Scherer, 2005, p. 712). Feeling safe is an emotional

state (Russell, 1999) during which a person *perceives* that when confronted with an

event, there is no imminent danger of psychological or physical injury.  Factors that

influence feeling safe have yet to be fully explored, but have been related to concepts

such as trust, knowing, control, and hope (Hupcey, 2000). A distinction has been made

between features of physical safety and emotional safety (Russell, 1999).

*Being safe.* Being is understood as existing in a physical state such as an object

exists (Berube, 2001). Being safe refers to one's existence in a physical state and *not at*

*risk* of danger or injury to the physical body.

*Safety*. The root term safe means that a person is *free from* injury and danger

(Berube, 2001). Safety is defined as the state of being safe (Berube). In context, safety is

implied to mean an objective, physical state of being safe. Although the term safety is not

defined forthrightly in the literature, authors have typically used safety in reference to

situations where there exists no more than minimal risk of personal, physical, or

physiological injury or damage.

*Secure.* Secure is a similar term that is used in conjunction with safety as in the common phrase "safe and secure." Secure is incorrectly applied as a synonym for safety. Secure, like safety, relates to a physical state. However, secure refers to *freedom from* danger, harm, fear, and anxiety by taking physical measures to guard from danger (Berube, 2001).

*Critical health event.* A critical health event is a physiological process or physical injury that results in extensive damage to organs and tissues (Jacoby, Ackerson, & Richmond, 2006) and places a person at risk for death. Examples of critical health events are acute myocardial infarction, unstable angina, pulmonary embolus, spontaneous pneumothorax, heart failure, acute respiratory failure, cardiac dysrhythmias, diabetic ketoacidosis, pericarditis, pericardial effusion, tamponade, hypertensive crisis, and acute gastrointestinal bleeding.

*Predictable health event.* Predictability is the expectation that certain events will follow a common pathway (Kaplow, 2003). In the case of a scheduled surgery, such as coronary artery bypass surgery, although the surgery is considered a critical health event, a patient would have had pre-surgical (anticipatory) teaching by a health care professional thereby giving the event an element of predictability. Anticipatory education is likely to alter the perception of feeling safe because the person has some knowledge of what will likely happen and has the opportunity to be prepared by planning ahead.

*Unexpected health event.* An unexpected event is an event that is not anticipated in advance (Berube, 2001) and includes an element of surprise. The unexpected nature of an event leaves the person who experiences the event unprepared.

*Older adults*. Older adults are individuals whose chronological age is 65 years and older (DHHS, 2000).

*Research Problem*

Being safe is a pervasive phenomenon in research literature addressing risks such as falling, crime, and fire. Feeling safe has been mentioned by adult patients age 18 and older in various contexts related to health care (see Appendix G). Nevertheless, little research has been conducted that specifically explored the perception of feeling safe for older adults.

Adults have suggested that feeling safe in ICU is important to recovery from illness and injury (Burfitt et al., 1993; Granberg, Bergbom-Engberg, & Lundberg, 1999; Laitinen, 1996). However, it may be premature to speculate about a cause and effect relationship between feeling safe and improved health outcomes. It is essential to generate basic knowledge about feeling safe in an ICU for older adults before exploring how feeling safe relates to health and recovery. Additionally, the research questions have not been discussed in the published health care literature. It was unlikely that all of the concepts and the relationships between concepts that were related to this phenomenon had been previously identified or fully understood.

*Purpose and Research Questions*

The purpose of this study was to increase understanding of feeling safe by developing a substantive grounded theory of feeling safe for older adults who unexpectedly suffered a critical health event and were admitted to an intensive care unit (ICU). There is a dearth of research investigating older adults' experiences with feeling

safe following an unexpected critical health event. Therefore, to achieve the aims of this study, the following research questions were proposed:

1. How is feeling safe perceived by older adults who have experienced an unexpected critical health event and have received health care in an ICU?

2. What factors influence the perception of feeling safe for older adults who have suffered an unexpected critical health event and have received health care in an ICU?

*Significance of the Research Problem*

Currently over half (55.8%) of all days in ICUs are utilized by patients older than 65 years (Angus, Kelly, Schmitz, White, & Popovitch, 2000). It is estimated that between the years 2003 and 2030 the United States population of older adults will double. In 2030, about 72 million people, 20% of the populace, will be age 65 and older (He, Sengupta, Velkoff, & DeBarros, 2005). Based on population statistics, the number of older adults receiving critical care in ICUs is also likely to increase. Research with older adults is important because (a) the number of people over the age of 65 is rapidly growing (Federal Agency Forum on Aging Related Statistics [FAFARS], 2004), (b) older adults are more likely than younger adults to suffer an unexpected critical health event (Jarvis, 2004), and (c) older adults recover more slowly after acute illnesses occur than younger adults (Jarvis). There is a growing urgency for the health care system to prepare for effective health care in anticipation of the predicted increased number of older adults who will require intensive care.

Grounded theories are useful to practitioners (Cutcliffe, 2005). Theory generation that explains and helps to solve practice problems (Cutcliffe) will help critical care nurses to better meet the needs of the increasing number of older critically ill patients and their

families. Researchers have focused on ways health care providers and family members can assist older adults to be safe. However, little attention has been paid to exploring the importance of feeling safe, the psychosocial component of safety. Practicing nurses can utilize the knowledge gained through this study as a basis for examining their own practice and making changes if necessary.

*Rationale for the Use of a Grounded Theory Method*

I evaluated two quantitative instruments developed to measure security (Maslow, Hirsh, Stein & Honigmann, 1945; Zhong & Lijuan, 2004) for potential use in this study. I excluded them as possibilities because they measured the concept of security rather than the concept of feeling safe. Furthermore, the possibility of instrument development is remote because the concept of feeling safe has not been adequately operationalized. I therefore evaluated qualitative research methods as possibilities to conduct this research because feeling safe is (a) a concept that has not been fully explored in extant research, (b) a subjective concept that is difficult to objectively measure (Scherer, 2005), and (c) psychosocial in nature.

I selected three qualitative research methods for possible use in my study. First, I considered descriptive phenomenology (Porter, 1998). It would be possible to use this method to explore the lived experience of feeling safe for older adults who have been patients in an ICU through descriptive phenomenology. However, a critical part of phenomenology is the study of everyday experience (Cohen & Omery, 1994) of the "life-world" (Spiegelberg, 1982, p. 144). Therefore, because my research questions do not pertain to everyday experience, a descriptive phenomenological method seemed too broad for my purpose.

Next, I evaluated focused ethnography. Focused ethnography is a qualitative method used to study a social unit within a small group (Boyle, 1994). Focused ethnographies further the understanding of how rules, norms, and values influence health and illness behaviors (Boyle) or caregiver behaviors (Detrick, Bokovoy, Stern, & Panick, 2006). This method is not appropriate for my study because the research is not focused on the social rules, norms, and values that are likely to affect patients within the ICU context.

Finally, I considered grounded theory. Grounded theory is a research method that "produces knowledge of the social world" (Miller & Fredericks, 1999, p. 538). Additionally, the method is useful when studying a substantive area (such as feeling safe) about which little is known (Stern, 1980). A grounded theory method can also be employed when a researcher seeks to obtain details about phenomena, such as feelings, that are otherwise difficult to investigate (Strauss & Corbin, 1990, 1998; Stern). Grounded theory originated in sociology and is useful when a researcher wishes to use process to study "social interaction and its structural context" (Glaser & Strauss, 1967, p. 32). The interpretation of a personal situation is influenced by social interaction and interaction with the environment (Benoliel, 1996; Scherer, 2001). If research questions involve social interaction processes, then grounded theory is indicated (Cutcliffe, 2005).

According to Glaser and Strauss (1967), the generation of grounded theory is a "way of arriving at theory suited to its supposed uses" (p. 3). An additional rationale for use of grounded theory is that it provides a model of research that describes and explains (Glaser & Strauss). It would thereby be applicable to specific areas of practice.

Previous qualitative research findings have included reports whereby participants who have been patients in an ICU serendipitously described interactions with nurses and perceptions of contextual factors that made them feeling safe (see Table 1). That research exposed concepts that appeared to be linked in ways that suggested the possible development of theory. Theory building is a process whereby the researcher presents interrelated concepts and relational statements that are derived from the data and used to construct a theory (Strauss & Corbin, 1998). Consequently, "one does not begin with a theory, and then prove it. Rather, one begins with an area of study and what is relevant to that area is allowed to emerge" (Strauss & Corbin, 1990, p. 23).

I determined that grounded theory method was most suitable for this study because (a) my research questions are about social interaction and context, (b) my research is about a substantive area that is relatively unexplored, and (c) a substantive theory of feeling safe would be useful to practitioners (Cutcliffe, 2005). The grounded theory process described by Strauss and Corbin (1998) used in this study are explained in detail in Chapter Three.

CHAPTER TWO

REVIEW OF LITERTURE


Chapter Two includes a brief description of critical cardiopulmonary health

events, common reasons for admission to an intensive care unit (ICU), and a review of

literature about adults' experiences in intensive care units. The concept of feeling safe

and related concepts such as control, trust, and knowing, are discussed. Conclusions

about inconsistencies in the extant literature are drawn.

*Critical Health Events*

Critical cardiopulmonary health events are among the ten most common

diagnoses in patients who are transported to the emergency room via ambulance (Center

for Disease Control and Prevention [CDC], 2006). The most common reason for

emergency transport is chest pain. Other emergencies that are related to the heart or lungs

are non-ischemic heart disease and pneumonia (CDC). Many of these people were

admitted to the hospital.

Seriously or critically ill patients are candidates for care in an ICU. Patients are

admitted to ICUs when they have complex health problems and are in need of constant

and comprehensive care and monitoring by professional nurses (Daniels, Noseck, &

Nicoll, 2007). Admissions to ICU are frequently for cardiac, pulmonary, or a

combination of both cardiac and pulmonary events such as (a) chest pain, (b)

hypertensive crisis, (c) respiratory failure with or without the need for mechanical

ventilation, (d) newly diagnosed pulmonary edema, (e) sudden cardiac arrest, and (f)

acute myocardial infarction (Daniels, Noseck, & Nicoll). These critical health events are

manifested by a sudden onset of acute illness with an emergent need for healthcare (McCanse & Huether, 2002).

*Being in an Intensive Care Unit*

For some adult patients, simply being in intensive care resulted in a sense of vulnerability (Granberg, Bergbom-Engberg, & Lundberg, 1999; Laitinen 1996; O'Brien & Fothergill-Bourbonnais, 2004). Patients described their perception of vulnerability as being helpless (Laitinen), dependent (Granberg et al.), out of control (O'Brien & Fothergill-Bourbonnais; Granberg et al.), and fearful (Granberg et al.). In a study of the experience of trauma resuscitation, O'Brien and Fothergill-Bourbonnais found that vulnerability began at the time the person was injured and continued throughout the hospital stay. Patients reported that dependence and loss of control contributed to their feelings of vulnerability. In contrast, feeling safe was among the reasons given for why patients felt that they were not vulnerable (O'Brien & Fothergill-Bourbonnais).

Patients recounted instances while in an ICU during which their perception of risk was ameliorated by certain aspects of their care. For example, intensive care patients who planned for an elective surgery and who were provided anticipatory information prior to admission reported feeling safe and secure (Wong & Arthur, 2000). Previous experience of ICU and critical illness helped the patient know what to expect (Faircloth et al., 2004; Leith, 1999). Anticipatory knowing was not the only experience of knowing, however. The need to know what was happening and what had happened helped some intensive care patients regain a sense of control, thereby influencing their perception of feeling safe (Hupcey, 2000; Hupcey & Zimmerman, 2000; Logan & Jenny, 1997; Russell, 1999).

Patients felt safe when they were being monitored. Patients felt safe knowing that the nurse "would be there for them when needed" (Hupcey & Zimmerman, 2000, p. 195), that the nurse was looking out for their best interest, and the nurse would intervene if necessary (Hupcey, 2000). Patients were willing to have the curtains drawn open, thereby sacrificing privacy to augment nurse accessibility (Wong & Arthur). Patients whose nurses were within sight and could be easily accessed felt safe (Bergbom-Engberg & Haljamae, 1988; Burfitt et al., 1993; Laitinen; Leith, 1999; Logan & Jenny; Wong & Arthur). Being watched over by nurses (Bergbom-Engberg & Haljamae; Hupcey) or by a spiritual "higher authority" (Hupsey, p.365) and praying or being prayed for were critical for some patients' sense of comfort and safety (Hupcey).

Patients also felt safe if they could trust their nurses to meet their physical and emotional needs (Hupcey, 2000; Nordgren & Fridlund, 2001). One of the most important reasons for feeling safe while on a respirator was having a nurse who could be trusted (Bergbom-Engberg & Haljamae, 1988; Logan & Jenny, 1997). Additionally, if the nurses were perceived as competent, the patients were more likely to trust the nurse and thereby feel safe (Hupcey; Logan & Jenny; Nordgren & Fridlund, 2001; O'Brien & Fothergill-Bourbonnais, 2004; Russell, 1999).

The presence of life-saving technology was an important component of feeling safe for some patients, particularly those who were ventilator dependent or who were experiencing significant cardiac events and were being monitored (Bergbom-Engberg & Haljamae, 1988; Fridlund et al., 2000; Russell, 1999). Reflecting on their experience in the ICU, patients knew that the monitors were there to save their lives, and they associated close surveillance of the monitors by nurses with feelings of physical safety

(Russell). However, fear of failure of the life supporting equipment concerned some patients and was a reason to feel insecure (Bergbom-Engberg & Haljamae). Some patients distinguished between components of physical safety and emotional safety by remembering little about the monitors and having distinct memories about the encouragement and supportive comments made by the healthcare staff (Russell).

ICU patients perceived direct beneficial outcomes as a result of feeling safe. Patients who felt safe detailed an enhanced ability to focus on getting well and experienced a peacefulness that enabled them to use their energy to recover (Laitinen, 1996). Feeling safe simply made it possible for some patients to obtain rest (Granberg et al., 1999). One ICU patient summed up her experience by expressing that she did not have to worry about what came next so she could concentrate on breathing (Burfitt et al., 1993). She added that feeling safe played a large part in getting well (Burfitt et al.).

Conversely, ICU patients who reported not knowing what happened felt unsafe and spent a great deal of time and energy trying to piece together events to get a complete idea of what had happened (Hupcey & Zimmerman, 2000). ICU patients who felt unsafe related experiencing a heightened sense of anxiety (Bergbom-Engberg & Haljamae, 1988; Laitinen, 1996).Yet other ICU patients linked feeling unsafe to sundry unpleasant reactions such as frustration, distress, and paranoia that patients outwardly expressed in vigilance about their care (Hupcey, 2000; Leith, 1999). Doubt about the competency of the ICU staff was a barrier to trust and was perceived as an obstacle to feeling safe (Logan & Jenny, 1997). On the other hand, recognition of the clinicians' expertise made patients feel safe (Russell, 1999). A review of the current state of knowledge specifically about feeling safe follows.

*The Concept of Feeling Safe*

Patients who received health care in ICUs more commonly expressed perceptions of feeling safe than patients who received care in contexts outside of an ICU. Adults age 18 and older who have received health care in ICUs have reported that feeling safe was important (Bergbom-Engberg & Haljamae, 1988; Burfitt, Greiner, Miers, Kinney & Branyon, 1993; Granberg, Bergbom-Engberg, Lundberg, 1999; Hupsey, 2000; Laitinen, 1996; Logan & Jenny, 1997; Nordgren & Fridlund, 2001; Soehren, 1995; Wong & Arthur, 2000). Although the literature about feeling safe is scant, there are a few accounts by adults of feeling safe or of facets related to feeling safe directly related to their experiences in ICUs.

Fifteen studies (see Appendix G) were conducted about patient experiences in ICUs and related critical health care areas. Findings in these 15 studies included short references to feeling safe. One investigator who studied psychosocial needs found that feeling safe was the core concept for adults in ICU (Hupcey, 2000). Additionally, participants in only one study were directly asked about nursing care that influenced feelings of "security and insecurity" (Bergbom-Engberg & Haljamae, 1988, p. 95). Morse (1996) was the only investigator who exclusively queried a sample of older adults, and she did not specifically ask about feeling safe; findings related to feeling safe were serendipitous.

*Concepts Related to Feeling Safe*

Three concepts related to feeling safe are knowing, trust, and control. These concepts were intermittently mentioned in the findings and conclusion sections of a number of research reports (see Table 1). These concepts often coexisted within the same

20

report and were intricately related to each other and to the concept of feeling safe. Minor concepts such as *confidence, comfort,* and *support* were less commonly discussed in research findings (see Table 1); however the concepts were important and were notably related to feeling safe. The inconsistent use of each concept in the table has left the relationships among the concepts confusing. The concepts of knowing, trust, and control are interwoven to such an extent that it was difficult to extract, isolate, and discuss one concept without also including the others. Further explanation about the concepts of control, trust, and knowing follows.

*Control.* Investigators discussed control as a contributing factor to feeling safe. Patients reported two aspects of control: loss of control and being out of control. Loss of control was related to having no input into what happened to them while in the hospital. Being out of control was attributed to functions of the body. Regaining control, the ability to express self-determination, was reported by patients as instilling a feeling of security (Hupcey, 2000; Nordgren & Fridlund, 2001). Being able to control one's physical body and physiological functions decreased fear of being out of control (Costa, 2001; Gallop et al., 2000; Hupcey). Additionally, being oriented to the environment gave participants a sense of control (Hupcey & Zimmerman, 2000).

*Trust.* Patients reported feeling safe when they could trust their health care provider, usually a nurse. Actions carried out by nurses that instilled trust in patients and thus contributed to feeling safe were (a) monitoring, (b) delivering competent care, and (c) safeguarding well being (Logan & Jenny, 1997; Nordgren & Fridlund, 2001). A slightly different experience was reported by patients in a mental health unit with regard to the contribution of trust to feeling safe. Female patients did not feel safe when left

alone because they did not trust themselves to not cause harm to their own bodies (Gallop et al., 2000). Additionally, the women did not feel safe while in the proximity of male patients because they did not trust the male patients. However, the female patients reported feeling safe because they felt they could trust the nursing staff to protect them from the male patients and to intervene, if necessary, to prevent self-destructive behavior (Gallop et al.). Patients who felt they could not trust the nursing staff to protect their welfare spent time and energy engaging in vigilant behavior, remaining on guard during their hospital stay (Hupcey, 2000).

  *Knowing.* Knowing contributed to feeling safe. However, there were at least two meanings assigned to the concept of knowing: knowing about what was happening and knowing what had happened (Hupcey, 2000). When patients found themselves in critical health situations they reported feeling safe when they were informed of what was presently happening to them, what events to expect, and how they could participate in their own care. The second aspect of knowing, knowing what had happened, was described by one female participant as taking place in the past tense. She described segments of time when she did not remember what had happened to her. As a result, she spent a great deal of time and energy trying to put events together in an attempt to regain knowledge of what had occurred during blank spans of time (Hupcey; Hupcey & Zimmerman, 2000).

*Conclusion*

  Extant research (see Appendix G) is useful in grounded theory research about ICU patients' perceptions of safety and feeling safe because existing literature provides concepts that can be used as sources for making comparisons (Strauss & Corbin, 1998).

Inconsistencies in the use of concepts (and their properties and dimensions) that emerged

in previous studies contributed to the interview guide for this study. These

inconsistencies stimulated the researcher to ask further questions such as; "What is going

on here?" (Strauss & Corbin, 1998, p. 45). Am I missing something? Are there contextual

differences that are causing the variations?" (Strauss & Corbin, p. 51).

Table 1
*Coexisting Concepts Related to Feeling Safe*

| Concept / Author | Feeling Safe | Safe and Secure | Control | Trust | Knowing | Confidence | Comfort | Support |
|---|---|---|---|---|---|---|---|---|
| Bergbom-Engberg & Haljamae (1988) | X | X | | X | X | X | | |
| Burfitt, Greiner, Miers, Kinney & Branyon (1993) | X | | | X | | | X | |
| Chen, Mann, Tomita, & Nochajski (2000) | | X | | | | | | |
| Costa (2001) | X | | X | | X | | X | X |
| Feldhaus, Koziol-McLain, Amsbury, Norton, Lowenstein, & Abbott (1997) | X | X | | | | | | |
| Fridlund, Lindgren, Ivarsson, Jinhage, Bolse, & Flemme, et al. (2000) | | X | | | | | | X |
| Gallop, Engels, DiNunzio & Napravnik (1999) | X | X | X | X | X | | X | |
| Granberg, Bergbom-Engberg & Lundberg (1999) | X | X | X | X | | X | | |
| Hupcey (2000) | X | | X | X | X | | | X |
| Hupcey & Zimmerman (2000) | X | | X | | X | | X | |
| Kavaal & Laake (2003) | X | X | | | | | | |
| Leith (1999) | X | | | | X | | | X |
| Laitinen (1996) | X | | X | | X | | | |
| Logan & Jenny (1997) | X | X | X | X | X | | X | |
| Mastrian (2001) | | X | | | | | | |
| Moore (1996) | X | X | | | | X | X | X |
| O'Brien & Fothergill-Burbonnais (2004) | X | X | X | X | X | X | X | |
| Nordgren & Fridlund (2001) | | X | X | X | X | | | |
| Russell (1999) | X | | | | X | | | |
| Simpson, Darwin, & Marsh (2003) | X | X | | | | X | | |
| Soehren (1995) | | X | X | | X | | | |
| Tanner (2003) | | X | | | | | | |
| Wong & Arthur (2000) | X | X | | | X | X | | |
| **TOTAL 23** | 17 | 16 | 10 | 8 | 13 | 6 | 7 | 5 |

CHAPTER THREE

METHOD

A grounded theory study was undertaken to develop a substantive theory of feeling safe for older adults who unexpectedly suffered a critical health event and were admitted to an ICU. The philosophical perspectives (Glaser, 1978, 1992; Strauss & Corbin, 1998) that influenced the methodology of this grounded theory study are discussed in the following section. Selection of Strauss and Corbin's (1998) grounded theory method was important because it provided the researcher with "a vision, where it is that the analyst wants to go with the research" (Strauss & Corbin, p. 8). It also provided a path to follow along the way.

*Methodology*

Grounded theory method was originally developed by Glaser and Strauss (1967), who perceived the need for a new method to study human behavior (Kendal, 1999). They based their new method on tenets of symbolic interactionism (Kendall, 1999; Strauss & Corbin, 1998). Strauss believed that (a) Research is field oriented; (b) theory is grounded in data; (c) phenomena are complex, variable, and exist in human action; (d) people actively respond to situations; (e) people act based on meaning derived by interaction; and (f) a relationship exists among conditions, processes, and consequences (Strauss & Corbin). Glaser promoted the process of making comparisons between data to identify, develop, and relate concepts (Strauss & Corbin).

Since the early development of the grounded theory method, Glaser and Strauss have adopted somewhat divergent approaches to data analysis. The divergence has stimulated debate over the perceived discrepancy between the approach taken by Strauss

and Corbin (1998) and the original grounded theory of Glaser and Strauss (1967). Strauss and Corbin (1998) asserted that their method provides instruction for both beginning and seasoned researchers in conducting well-developed grounded theory studies. Glaser criticized Strauss and Corbin because he thought the authors' approach to grounded theory produced conceptual description rather than theory development (Kendall, 1999). Whereas Glaser (1992) maintained a more emergent approach to both the research question and data analysis, Straus and Corbin (1998) adopted a more formulaic approach to research questions and data analysis.

Kendall (1999) suggested that the needs of the study and the experience of the researcher determine the choice of method. Although the methods of Glaser (1978) and Strauss and Corbin (1998) stem from a common origin, researchers are compelled to choose between the two methods before proceeding with a research project (McCann & Clark, 2003). This research project was conducted using Strauss and Corbin's (1998) method, because it provided explicit structure for this novice researcher to carry out a study. Additionally, Strauss and Corbin support the formulation of research questions that originate from past clinical experience prior to the outset of a study (Strauss & Corbin). I have extensive clinical experience in caring for patients in critical care units. The research questions that were explored in this study originated during my personal experiences with patients who were critically ill and were receiving nursing care in an ICU. Development of a substantive grounded theory from this study was facilitated by the emphasis Strauss and Corbin (1998) placed on structural, contextual, and interactional influences (McCann & Clark, 2003). This emphasis highlights the social process that

emerges when exploring patients' perceptions that are influenced by personal interactions and environmental factors.

*Assumptions*

Assumptions adopted prior to this research were based on the beliefs that (a) knowledge is within the meaning that people attribute to personal experiences, (b) knowledge is closely tied to context, and (c) knowledge is gained through people talking about their own meaning (Creswell, 1998). An additional assumption was that the perception of the unexpected nature of the critical health event could place a person at increased risk of feeling unsafe (Rogers, 1997; Scherer, 2001).

*Study Design*

Grounded theory method (Strauss & Corbin, 1998), an emergent design method with constant comparison of new data to previously analyzed data and the emergence of categories (Polit & Beck, 2004) was utilized in this study. As the study progressed, the method allowed me to understand the "realities and viewpoints that are not known or understood at the outset" (Lincoln & Guba, 1985, p. 245) of this study. The method, a set of techniques and procedures (Strauss & Corbin, 1998) that were proposed and carried out for this grounded theory study, is described in the ensuing sections of this chapter.

*Protection of Human Subjects*

After the Health Sciences Institutional Review Board (HSIRB) granted approval to conduct this study, permission was obtained from the administrator of the hospital in which the study was initiated. Guidelines for respect for persons who participate in research and their right to autonomy, beneficence, and justice (National Commission for

the Protection of Human Subjects of Biomedical and Behavioral Research [NCPHS], 1979) were strictly followed.

*Confidentiality*. Confidentiality for participants in this study was critically importance. Therefore, all audio recordings, paper transcriptions, and any personal documents such as names and addresses of participants were stored in a locked cabinet accessible only by me. All names were removed from the research notes, tapes, and transcripts and were replaced by random numbering to protect the participants' identities. Names and addresses were kept for mailing study summaries to participants who requested these documents. However, these names and addresses will be maintained in a separate file away from tapes and transcripts so there was no relationship of names to audiotapes and documents. One list of names and corresponding numbers was kept in a locked file. At the conclusion of the study, all links between study participant number and participant identity, original audio recordings, and research notes were destroyed. Publications from this study will not include personal identifiers. Individual participants will not be identified in any reports, papers, or presentations generated by this research.

*Burden.* Participants agreed to two interviews; one in the hospital after transfer to a less acute unit and one at home two weeks after discharge. To decrease burden and to protect the participants from undue fatigue, appointments for the first interviews were scheduled after discharge from the ICU at a time when the participants were no longer critically ill (Morse, 2002). One participant declined the first interview because he was contacted during the process of being discharged. However; he expressed interest in hearing about the study and subsequently consented to participate in an interview at home two weeks after discharge. The second interviews were conducted in the participants'

homes with all but one participant who died before the second interview could be scheduled. All interviews lasted for 30-60 minutes. The average time for any one interview was 45 minutes. The length of the interviews depended upon how much the participants were willing to share about their experiences in the ICUs and their response time to each question.

*Potential risk and protection.* I explained to each prospective participant that the act of participating in the interview process after a critical illness or injury carries minimal risk (Morse, 2002). Because fatigue and unpleasant emotional responses are potential risks, I assured each volunteer that neither of the two interviews would exceed 60 minutes and that he or she should feel free to stop the interview if she or he became fatigued. None of the participants became fatigued or became ill during an interview so none of the interviews were postponed or cancelled.

There was a slight risk of increased stressful emotional response for the participants as a result of recounting ICU experiences. However, participants might also have perceived the interview process and the visit by the investigator as beneficial, because it could have allowed the participant an opportunity to revisit and make sense of what has happened to them (Morse). The older adults in this study were willing to partner with me, a health care provider, by participating in this research. They did so knowing the possibility that the findings may lead to changes that would likely improve the experiences of other older adults (U.S. Department of Health and Human Services [DHHS], 2000). Thus, there was a clear opportunity for collaboration between health care providers and older adults that could be used to develop strategies that promote and support older adults' perception of safety. Personal satisfaction and the potential

contribution to knowledge have been recognized as potential benefits of participating in research. Providing older adults with the opportunity to participate in research that has the potential to improve health outcomes is consistent with the general characteristic attitudes of older adults (DHHS).

*Setting*

Participants were recruited from three teaching hospitals because they provide advanced levels of services and were likely to have an adequate volume of critically ill clients. Two of the teaching hospitals are in the same hospital system (H1a, H1b) and the third hospital (H2) is located within 150 miles of H1a and H1b. All three hospitals serve a combination of urban, suburban, and rural clientele. The three hospitals receive patients who have been transferred from rural hospitals via helicopter. Two hospitals (H1a and H2) are Level I Trauma Centers with fully equipped emergency departments that provide the highest level of expertise and emergency health care and are acclaimed chest pain centers. These hospitals meet national standards for 24 hour operating rooms and resuscitation equipment (Froedtert, 2006).

*Sampling Procedure*

The study began with "open sampling" (Strauss & Corbin, 1998, p. 206), a selection technique of prospective participants that is "open to those persons, places, and situations that will provide the greatest opportunity for discovery" (Strauss & Corbin, 1998, p. 206). A purposive sample (Creswell, 1998; Miles & Huberman, 1994) of older adults who unexpectedly had experienced a critical cardiovascular related health event and who received care in an ICU was sought for enrollment in this study. Interview probes were asked of participants who were recruited later in the study to clarify and

develop categories. True theoretical sampling that would have extended the sample to a wide range of participants was beyond the scope of this study and was not utilized in this preliminary exploration of the concept of being safe. Instead, participants were recruited until theoretical saturation was reached and the emergent categories were developed. When theoretical saturation was reached, careful consideration was made about continuation of recruitment of participants. Sampling was concluded based on the development, densification, and saturation of the identified categories (Miles & Huberman, 1994; Strauss & Corbin). With the support of two committee members, I decided to refer questions for further category development to two of the participants who had verbally consented to act as respondent checks. I also revisited the data as a means of fully developing and checking the theory.

   *Inclusion criteria.* The original inclusion criteria were

   a.  admitted unexpectedly to ICU for a critical cardiovascular-related health event and transferred to an intermediate unit after being in ICU 2-5 days. The average length of stay (LOS) in ICUs is 2-5 days (Kirchoff & Dahl, 2006).

   b.  adults age 65 years or older

   c.  not previously admitted to intensive care.

   d.  able to recall and understand the purpose of the study.

   e.  able, by self-report, to reflect upon and discuss their perception of events that occurred in the ICU.

   f.  able to participate in two 30-60 minute interviews.

g. English speaking people who understood and were able to hear the interviewer's questions (with or without amplification).

h. residing within 60 miles of the hospital for at least two weeks after discharge.

The following characteristics were not considered in the recruitment of participants: gender, ethnicity, race, socioeconomic status, and place of permanent residence because there is no current evidence suggesting that these characteristics influence the definition or perception of feeling safe in ICUs. ICU patients who did not meet the inclusion criteria were not enrolled in the study.

Any patient who was routinely taking benzodiazepine or sedative medications that could inhibit (a) recall or understanding of the purpose of the study, (b) decisional capacity, and/or (c) comprehension of interview questions was excluded from the study. Participants who displayed partial recall of their experience were given the opportunity to continue in the study. This was determined by patient decision, patient self-report, or my objective assessment of participant comprehension and recall. I made the decision to not proceed with one interview because the participant did not remain oriented to time.

Inclusion criteria were broadened because of difficulty in identifying patients who met study criteria. Two nurses with expert knowledge of ICU patient demographics in the first hospital (H1a) suggested that the average LOS for all ICU patients included patients who experienced an extended LOS resulting from a greater need for care related to chronic diseases or trauma. This extended LOSs may have skewed the data so that the average LOS (2-5 days) was longer. A LOS of 1-5 days thereby represented the mode rather than the average. Therefore, inclusion criterion f, (admitted unexpectedly to ICU

for a critical cardiovascular-related health event and transferred to an intermediate unit after being in ICU 2-5 days), was changed to include patients who were admitted with *any* medical diagnosis and the LOS criterion was changed to 1-5 days. Further discussion of study sampling is included in the *recruitment* section.

*Sample size.* Unlike sampling in quantitative research where randomization and power determines the number of participants, sample size in qualitative research is usually based on the purpose of the study (Polit & Beck, 2004; Rubenstein, 1994). An important consideration is sampling to tap the meaning that individuals attribute to their life experience (Luborsky & Rubenstein, 1995; Rubenstein). In qualitative research, such as grounded theory studies, the number of participants is typically determined by the investigator as the research project progresses (Luborsky & Rubenstein; Polit & Beck; Strauss & Corbin, 1998). Thus, the sample size could vary depending upon saturation and development of categories. Saturation is the point at which no new information is being offered that can contribute to further development of the identified categories (Strauss & Corbin). Creswell (1998) and Strauss and Corbin suggested that 20 to 30 interviews was acceptable for a grounded theory study. I planned to recruit 10 older adults and conduct two interviews with each of them.

*Recruitment.* It was expected that at least 10 participants would be accessible because over half of all patients in ICUs are over the age of 65 years (Angus, Kelly, Schmitz, White, & Popovitch, 2000). Additionally, it was anticipated that there would be adequate numbers of clients in one hospital (H1a) from which to recruit study volunteers (see Appendix C for Hospital support letter) because there are approximately 7,270 adults age 65 and older who resided within the city (US Census Bureau, 2000). However, I

found that the study inclusion criteria severely limited my ability to recruit a sufficient number of volunteers in a reasonable amount of time and thus the addition of a supplementary study site became necessary. Details of this process follow.

Although the study had been officially open for enrollment in May 2007 at H1a, no participants were identified between May 2007 and August 2007. It became apparent that an additional pool of prospective participants was needed. After IRB approval, a second hospital (H1b) within the H1 hospital system was added in October 2007 in an attempt to increase the pool for prospective study participants. Additionally, to enhance recruitment, a study cue card was provided to the CNSs for ease in accessing the criteria and as a reminder to consider patients who would be appropriate for this study.

Recruitment continued to be a challenge. No prospective study participants had been identified from either hospital in the H1 system (H1a, H1b) by December 2007. A meeting was held with each of the Clinical Nurse Specialists (CNS) at H1a about difficulty with recruitment. It was determined that I would call each day to remind the CNS in the H1a ICU about the study. She would then (a) check her census for patients who met study criteria, (b) go immediately to the patient for consent, and (c) phone me with the name and location of any patient(s) who were interested in hearing about my study. This revised recruitment plan worked and potentially eligible participants were identified and recruited. The second ICU in H1a was less likely to admit patients who met my study criteria. The CNS responsible for the second ICU in H1a preferred that I email her to check for prospective participants. No participants were recruited from the second ICU at H1a. At the same time, I had submitted an IRB amendment requesting to add a third hospital (H2) to the recruitment plan and the amendment was approved.

H2 had a facility specific IRB process whereby all nursing research proposals conducted within that facility were first reviewed by the Nursing Research Council and then forwarded for approval by the facility IRB. The Director of Nursing gave administrative approval and suggested contacting the Clinical Nurse Specialists (CNS) for each of two Intensive Care Units (ICUs). These ICUs were selected because the patients who were in these two ICUs would be more likely to meet study criteria. The CNSs were contacted and agreed to recruit participants for this study. Both CNSs were given study criteria. After approval by the facility IRB in late February, 2008, I recruited two Nurse Managers at H2 to identify prospective participants who met study criteria. In keeping with the facility process, one of the Nurse Managers agreed to be the contact and consent person for that site. When a patient was identified as having met the study criteria, she approached the patient and gained written permission from the patient to release their name and room number to me. Consistent with the facility IRB protocol, the patient at H2 signed an institution-generated consent (see Appendix D). The Nurse Manager alerted me to come to the patient's hospital room to explain (a) the study, (b) what was involved in consent to participate, and (c) offer the patient an opportunity to volunteer for this study. The CNSs were contacted to remind them of the study and to provide them with support.

*Sample*

Fourteen patients were recruited from H1a and H2 for this study (see Table 4). No participants were recruited from H1b. Six participants were patients at H1a and eight patients were recruited from H2. Of the six participants from H1a, two patients were not included in the sample. One patient consented to be in the study and during his second

interview I determined that he did not meet study criteria because he had previously been a patient in an ICU. One patient was discharged before contact could be made. The remaining four participants from H1a were retained for this study. Of the four, one participant did not complete the first interview because he was discharged from the hospital to home before the interview could be conducted. One participant died before the second interview could be scheduled. Two participants from H1a completed both interviews.

Eight patients were identified as prospective study participants from H2. One prospective participant did not meet study criteria and was not asked to consent because she had been a patient in ICU in the recent past. Although during the consenting process one participant seemed cognitively intact, signs of cognitive impairment became evident during the ensuing interview; she could not respond appropriately to study questions. Therefore, six participants from H2 were retained for the sample.

*Sample Demographics*

Ten participants were included in the study (see Table 2). Participants were evenly distributed among these age groups: (a) 65-74 years (n=4), (b) 75-84 years (n=3), and (c) 85-94 years (n=3). The gender distribution of individuals over age 65 in America is approximately 70% female and 30% male (Hetzel & Smith, 2000). Consistent with the gender distribution data, there were more female study participants than male participants; there were six female participants (60%) and four male participants (40%).

Table 2

*Study Sample Demographic Characteristics*

| Age (years) | Female | Male |
|---|---|---|
| 65-74 | 3 | 1 |
| 75-84 | 1 | 2 |
| 85-94 | 2 | 1 |

All participants were white; there was no ethnic diversity in the study sample. This phenomenon is difficult to explain because both H1a and H2 serve a wide range of ethnically diverse clientele. Based on US Census Bureau (2000) data for the state of Missouri, 84.9% of the total population was white and 15.1% of the population was comprised of people belonging to ethnic groups other than white. Based on Missouri state population statistics (see table 3) there should have been at least one participant that was from an ethnic group other than white. Additionally, H2 was situated in a city that is 60.7% white and 39.9% other ethnicities. Both hospitals are central to the cities in which they are located so rurality cannot explain the lack of diversity in my sample.

Table 3

*Ethnic Statistics for Study Sample*

_____

| Location | White | Other | Age 65 and older |
|----------|-------|-------|------------------|
| State | 84.9 | 15.1 | 13.5 |
| City  H1a, H1b | 81.5 | 18.5 | 8.6 |
| City H2 | 60.7 | 39.3 | 11.7 |

 *Note.* Values are expressed in percent of entire population of location.

*Data Collection*

Asking people about their perception of an experience is an essential component of developing grounded theory (Strauss & Corbin, 1998). Feeling is subjective and the best way researchers have to explore feeling is to ask people to describe the experience (Scherer, 2005).  Therefore, interviews were employed as the primary data collection method. I asked informal retrospective interview questions during two interview sessions with each participant (see Appendix A for interview guide).

There is no established rule regarding the timing of interviews after a critical health event. However, participants need time to think and reflect before they are able to talk about their ICU experiences (Morse, 2002). Of the 15 studies included in the review of literature (see Appendix E), 8 reports contained information about the timing of interviews. Researchers in 3 of the studies conducted interviews within 5 to 13 days after stays or immediately after e transfer to another unit in the hospital (Hupcey, 2000).the patients had left the ICU (Grandberg, Bergbom-Engberg & Lundberg, 1999; Logan &

Table 4

*Participant Summary Table*

| Ppt. Consent | Facility | Int. 1 | Int. 2 | Transcribed Interview # | Open Code | Axial Code | Comments |
|---|---|---|---|---|---|---|---|
| 124 Yes | H1a | Yes 1/5 | Yes 1/20 | 1 & 2 | X | X | |
| 225 Yes | H1a | Yes 2/14 | No | 1 | X | X | Died before 2nd interview |
| 305 Yes | H1a | No | Yes 2/19 | 2 | No | No | Declined 1st. Did not meet criteria: Previous ICU admission |
| 416 Yes | H1a | Yes 2/9 | Yes 2/28 | 1 & 2 | X | X | |
| 547 Yes | H1a | No | Yes 2/20 | 2 | X | X | Discharged before 1st int. |
| 622 Yes | H2 | Yes 3/12 | Yes 3/31 | 1 & 2 | X | X | |
| 670 Yes | H2 | Yes 4/10 | Yes 5/1 | 1 & 2 | X | X | |
| 714 Yes | H2 | Yes 4/12 | Yes 5/1 | 1 & 2 | X | X | *Respondent check consent |
| 783 Yes | H2 | Yes 4/23 | Yes 5/12 | 1 & 2 | X | X | *Respondent check consent |
| 813 Yes | H2 | Yes 4/30 | | | No | No | Did not meet criteria: Cog. impairment |
| 850 Yes | H2 | Yes 5/14 | Yes 6/5 | 1 & 2 | X | X | |
| 854 No | H1a | | | | No | No | Unable to get interviews: Discharged. |
| 890 No | H2 | | | | No | No | Did not meet criteria: Previous ICU exp. |
| 910 Yes | H2 | Yes 6/28 | Yes 7/19 | 1 & 2 | X | X | |

Ppt. = Participant
*Participant agreed to view the findings for validity/verification.
Red font denotes participants retained in the sample.
No participants were recruited from H1b.

Jenny, 1997; Wong & Arthur, 2000). One researcher interviewed patients during their

ICU stay. Participants in other studies were interviewed 4 to 8 days after cardiac surgery

(Laitinen, 1996), 2 to 7 days after trauma resuscitation (O'Brien & Fothergill-

Burbonnais, 2004), 7 to10 days after discharge from the hospital (Bergbom-Engberg &

Haljamae, 1988), and six months after discharge from the hospital (Russell, 1999).

Russell reported that, of the 268 respondents in her study, only 66% could recall their

experience in the ICU. All participants in the study conducted by Wong and Arthur could

recall their ICU experience.

*Instrument*

Research is a process of conscious and directed inquiry and an investigator may

enter the field with an existing researchable problem and preconceived questions

(Erickson, 1977; Strauss & Corbin, 1998). Interviews allow the researcher to ask

questions directly of the participant and to query them for depth and detail about the

concepts that arise during the interview (Brink & Wood, 2001). Important concepts

identified in qualitative research reports can be studied in subsequent research (Strauss &

Corbin). My research questions were consistent with Erickson's view; they came from an

interface between previous experience and theory. Accordingly, focused data were

collected with the conscious awareness of existing literature and practice experience

(Erickson; Strauss & Corbin) with the goal of discovering new phenomena that may not

have been identified in extant literature.

I developed an interview guide for this study (see Appendix A). The interview guide contained questions that were derived from literature which adds to the interview questions content validity (Brink & Wood, 2001). The initial interview questions were derived from concepts found in literature and from my clinical experience and are therefore considered provisional (Strauss & Corbin, 1998). Dr. Aud reviewed the questions on the interview guide and revisions were made. I presented my interview guide to two qualitative researchers for expert advice (Dr. E. Porter and Dr. J. Gubrium) and further revisions were made. An additional critique was sought from a critical care expert (Dr. G. Oliver, via email communication). As Kauffman (1994) suggested, questions and probes were designed to bring forth discussion about the research topic. These provisional questions evolved as data collection and analysis progressed. However, to maximize reproducibility and credibility, the fundamental nature of the interview questions remained constant across interviews (Strauss & Corbin, 1990).

Participants were asked open-ended questions in a semi-structured interview format to elicit discussion of recent experiences in the ICU. The discussion focused on how their experiences influenced their perception of feeling safe in ICU. Variations in response to the interview questions were expected because each participant was likely to have unique experiences (Kauffman, 1994). I referred to the interview guide during the interviews to ensure that I had asked each question of each participant. Although examples of probes were included on the interview guide, these probes varied with each unique interview (Kauffman). Additionally, the probes changed based on analysis of data

from prior interviews. Examples of probes used to prompt the participants to continue were:

1. "Tell me what you thought about ___" (Strauss & Corbin, 1998, p. 205).

2. "What was your experience with ___?" (Strauss & Corbin, 1998, p. 205).

3. Then what happened?

4. Could you tell me a little more about what you meant by ___?

Conducting interviews with people during illness poses a particular challenge for an interviewer (Morse, 2000, 2002). During the acute phase of illness or serious injury the patient is expected to be unable to reflect upon the experience and might not be able to respond at all due to treatments, pain, or temporary impairment of cognitive function (Morse 2002). Additionally if the participants were living the experience it would not be plausible for them to be able to reflect upon the present experience until a later time.

During this critical time in the patients' illness medical treatment should take priority and that, even if the interview could be conducted, it is likely that the data quality would not be worth the burden (Morse, 2002). Thus, if the interview is conducted after the critical stage of the illness or injury has passed, the participant will be better able to grasp and communicate what has happened (Morse, 2000). Morse (2002) suggested that, in patients who have been critically ill, interview data is of higher quality if interviews are conducted in retrospect. The interview can be conducted "some time after the acute event" (Morse, 2002, p. 324) when the person experiencing the illness is able to recall and communicate what has happened to them. Therefore, each hospital interview was conducted after discharge from the ICU to an intermediate unit of the hospital, after the critical stage of illness or injury had passed, and while patients were still in the hospital.

If the participant was receiving care or was scheduled for treatment during the time the interview was scheduled to take place, the interview was postponed or rescheduled.

The first interviews were conducted after the patient had been discharged from the ICU to an intermediate care unit where former ICU patients receive less intensive care (Morse, 2002). Privacy was maintained by closing the room door for patients who were in private rooms. Patients who were in a semi-private hospital rooms did not have roommates so privacy and confidentiality was maintained without moving to a more secluded area. The second interviews were conducted private areas of patients' homes approximately 2 weeks after discharge from the hospital. One participant was readmitted to the hospital soon after discharge so the second interview was delayed and was completed more than two weeks after the original discharge date. Following informed consent and a brief review of the study purpose, I turned on the tape recorder and began the interview using the interview guide. A transcriptionist transcribed interviews verbatim as soon as possible.

*Data Analysis*

Data analysis was carried out using the procedures and techniques of Strauss and Corbin (1998). Data collection and data analysis proceeded simultaneously to continuously compare previously collected data with the newly collected data, a constant comparative technique used in grounded theory method. These procedures and techniques are explained in the ensuing sections of this chapter. Following data analysis, criteria for evaluating a grounded theory are discussed.

*Microanalysis.* "Microanalysis" (Strauss & Corbin, 1998, p. 57) is a technique whereby the interview transcripts and observation notes are analyzed in detail. Data are "taken apart" (p. 58) and words, phrases, sentences, and paragraphs are closely examined for specifics. This close analysis reveals not only "what the interviewees are saying and how they are saying it" (p. 65) but also provides understanding about how the interviewees are interpreting events (Strauss & Corbin). Microanalysis leads to conceptualization and classification of data. Information gained during microanalysis also helps in further development of theoretical interview questions (Strauss & Corbin).

Based on classifications developed in microanalysis, categories can be identified and relationships among the categories can be explicated. Categorical relationships are the foundations of theory construction. Because it is the examination and interpretation of data, microanalysis is carried out during both open coding and axial coding (Strauss & Corbin).

*Open coding*. Strauss and Corbin referred to the initial step of data analysis as open coding because the data are opened, broken down into sentences, lines, and words for microanalysis. By using microanalysis technique during open coding the concepts (phenomena) and properties (characteristics) of concepts are identified. The researcher then compares and contrasts the concepts, taking into account their respective properties. Like-concepts are those that share common properties. Like-concepts are grouped together into categories; phenomena that are more abstract than the concepts that define them (Strauss & Corbin). Labels for the categories are inductively derived from data and structural (contextual) characteristics.

Data analysis began after the first interview was transcribed. I analyzed and coded the transcripts using a constant comparative technique (Strauss & Corbin). The data were organized using NVivo7 (QSR International), computer software that is useful for grounded theory studies. I analyzed the data using open coding technique, during which I considered alternative explanations for the concepts that I identified by microanalysis. To enhance analysis, I drew upon my personal experience as a critical care nurse and my acquired knowledge of the extant literature to sensitize myself to the properties and dimensions of the concepts (Strauss & Corbin, 1998).

Considering alternative explanations and asking theoretical questions (what, who, where, how, when, and why) during open coding assisted me to develop probes for subsequent interviews. Probes focused on properties, dimensions, conditions, and consequences that helped me to further develop categories. Properties are characteristics of a category that defines and gives it meaning (Strauss & Corbin, 1998). Dimension is the variance or the range of a category (Strauss & Corbin). Conditions are events that can be causal or intervening that create situations pertaining to a phenomenon. Causal conditions can influence a phenomenon. Intervening conditions alter or prevent the impact of the causal condition. Consequences are intended or unintended results of actions or interactions that are the response of a person to the contextual conditions or a change in the contextual conditions. Strauss and Corbin refer to this sequence as "process" (pp. 163-167). Thus, careful analysis and theoretical questioning was vital early in the study (Strauss & Corbin).

Categories did not have distinct boundaries; rather the categories varied dimensionally. When categories were compared for similarities and differences along

their properties (characteristics) and dimensions (variance) some of the categories were identified as subcategories. Subcategories answer theoretical questions about a category such as why, when, where, how, and who. Although subcategories are categories by definition, they do not represent phenomenon. Rather a subcategory gives a category more power to explain what is going on (Strauss & Corbin, 1998). I could see how categories related during open coding but needed to actively relate categories and determine which categories were subcategories by using axial coding.

*Axial Coding.* As data analysis progressed, open coding and microanalysis continued for new interview data and axial coding was added. The goal of axial coding was to systematically develop and relate categories (Strauss & Corbin, 1998), a step that is vital to theory building. During axial coding I examined properties and dimensions to distinguish categories from sub-categories. I did this by thinking of the category as the axis of the complex and the subcategories as categories that further define the category. Categories and subcategories were similar because they both had properties and dimensions (Strauss & Corbin). However, subcategories were distinguishable from categories because subcategories answered questions about categories such as when, what, where, who, and why.

*Selective coding.* Integration is the process through which data become theory. Strauss and Corbin (1998) stated that "integration is the interaction between the researcher and the data" (p.144), a procedure that takes time and emersion. I recognized the cues within the data revealing how categories were linked. Links were expressed in relational statements that were abstracted and constructed from the data. To carry out integration, I reduced the data into concepts, grouped the concepts into categories,

engaged in integration, and constructed relational statements that could "be used to explain…what is going on" (Strauss & Corbin, p. 145) thereby forming a more complete explanation about the phenomenon.

*Central Category*

The "central category" (Strauss & Corbin, 1998, p. 146) is an abstract term that "represents the main theme of the research" (Strauss & Corbin, p. 416). The central category evolved from the data and captured the overall conceptualization of the research (Strauss & Corbin). Identification of a central category was based on six criteria (Strauss, 1987). First, all other categories were related to the central category through explanatory statements. The central category was selected because it brought the other categories together. It accounted for variation within those categories.

Second, the central category appeared frequently in the data and in most cases, there were indicators that pointed to it. Each individual category told "a part of the story" (p. 146). However, it was difficult to identify one single category that could account for the entire story. I carefully scrutinized the categories to determine categorical relationships and to identify the central category.

Third, the explanation that evolved by relating the categories was logical and not forced. According to Glaser (1998), forcing the data is a natural human activity and can introduce bias into the research process by placing excessive emphasis on extant theory, societal norms, preconceived codes, authoritarian influence, and fictions. Glaser (1998) explained that researchers can minimize the forcing of data by suspending what is known, studying the data, conceptualizing, and constantly comparing data. Every effort to avoid

bias was exercised. I used constant comparison and developed categories to allow the main social process of the research participants to emerge (Glaser).

Fourth, the name of the central category should be abstract so it can be used to conduct research in other substantive areas. One cannot make a generalization to different types of situations having studied just one situation (Strauss & Corbin, 1990). A central category can be named and should be abstract enough so that it is potentially relevant in the development of a more general theory such as a formal theory.

Fifth, integration with other concepts refines the category so the theory grows in depth and explanatory power. Integration of concepts was facilitated by diagramming, writing the descriptive sentences, and making use of memos (Strauss & Corbin, 1998). I revisited the data numerous times to re-read interviews to validate and check general ideas of the main issues and category linkages.

Lastly, I ensured that the central category was able to explain the main point made by the data. All of the categories logically fit with the central category. The central category was broad enough to explain the dimensional extremes (Strauss & Corbin, 1998).

After identifying the central category and outlining the overall theoretical scheme, I refined the theory by checking for internal consistency and gaps in logic. I kept in mind that the findings were "presented as a set of interrelated concepts, not just a listing of themes" (Strauss & Corbin, 1998, p. 145). I evaluated the theory and if I had questions about a category, its properties or dimensions, or a relationship between categories, I reviewed the data looking for the missing link. If there was an underdeveloped category I filled it out by focused review of the data. I collected additional data by using focused

probes in later interviews to supplement data to develop the category (Strauss & Corbin, 1998). I felt comfortable that I had reached the point of theoretical saturation so the substantive theory could attain maximum "precision" (Strauss & Corbin, p. 212).

*Coding for process.* Process is a "sequence of actions or interactions that occur over time and space" (Strauss & Corbin, 1998, p. 165) that occurs in response to a set of conditions in a situational context. The process can be orderly or chaotic, but is related to a purpose (Strauss & Corbin). The action or interaction is in response to an event or an act that brings about an event. Thus, process is the participants' actions taken to respond and shape the circumstances in which they are situated. Coding for process was carried out by examining the data for movement, sequence, or changes that composed strategies acted out by the participants in response to changes in context. I became sensitive to the process of how the reported actions and interactions varied and how the outcomes of actions and interactions influenced the participants' next set of actions and interactions.

*Memos and diagrams.* Memos are detailed recordings of analysis, coding, and analytic thinking. Diagrams are schematic representations of the relationships among concepts. Memos and diagrams were recorded in the margins of the transcripts. I found it easier to use margins of transcripts rather than the NVIVO 7 database during analysis because I could record my thoughts immediately and directly next to the data. Memos and diagrams are permanent records of thoughts and ideas that can be easily referenced at a later date. I used the memos and diagrams because I could more easily visualize conceptual relationships and links. Together they were used to create a storyline and as theory building tools.

*Extant literature*. Literature that is relevant to a study topic can be used to enhance grounded theory development (Strauss & Corbin, 1998). Concepts that are repetitive in the literature (see Table 1) and that have been reported as emergent from data (e.g. Hupcey, 2000 & Russell, 1999) provided sources for comparisons to study data. Although it is "impossible to know prior to the investigation what the salient problems will be or what theoretical concepts will emerge" (Strauss & Corbin, 1998, p. 45), concepts in the literature can "provide a source of making comparisons at the dimensional level" (p. 49). Identification of the existing concepts enhanced my sensitivity to repeating and emerging concepts. If a concept emerged from the study data that was similar to or contrary to one found in extant literature, the properties and dimensions of both concepts were compared. This comparison process enabled me to differentiate and delineate aspects of the emergent concepts (Strauss & Corbin).

*Criteria for Evaluating a Grounded Theory*

During the development of a grounded theory a researcher must precisely and systematically follow a set of procedures (Miller & Fredericks, 1999). The four criteria that I will use to evaluate the process and procedures of this study are explained in the ensuing paragraphs. Evaluation about how the study criteria were met is included in Chapter Six.

*Reproducibility*. It is impossible to create the exact conditions from study to study when conducting research about humans and social phenomenon (Strauss & Corbin, 1998). However, adequacy of the research process can be evaluated and reproducibility determined by following similar processes. These processes must be described in detail by the researcher so that different observers can draw similar conclusions in similar

circumstances and in similar settings (Charmaz, 2000). Systematic application of the

grounded theory research procedures permits reproducibility (Charmaz). An "audit trail"

(Polit & Beck, 2004, p. 435), or documentation of systematic data collection, makes it

possible for other researchers to replicate a study (Polit & Beck).

 *Credibility.* Reproduction of research lends credibility to the original findings

(Strauss & Corbin, 1998). Credibility is the confidence in the truth of data and their

interpretation (Polit & Beck). Credibility is a judgment about whether the evidence

supports the claim. Plausibility adds to credibility and is the notion that something is

likely to be true based on present knowledge (Hammersly, 1990). The purpose of a

grounded theory is to "provide a plausible explanation of some phenomenon" (Miller &

Fredricks, 1999, p. 543) in limited situations. Both credibility and plausibility are

judgments but can be validated by a member check. All judgments should be subjected to

validation by free and open dialogue among those involved in the study (Smith &

Deemer, 2000).

 *Explanatory and predictive power.* Substantive grounded theory seeks to produce

theory about a specific situation that adds explanatory and predictive power (Strauss &

Corbin, 1998). Miller and Fredricks (1999) asserted that, because prediction is inherent in

theory, it is critical to evaluate the capacity of a theory to predict. Predictive power

augments the credibility of the theory (Miller & Fredricks). Substantive theories do not

have the explanatory power of general theory, because variation is limited in a small area

of investigation (Strauss & Corbin). The researcher who develops a substantive theory is

challenged to generate theory that both predicts and generates further research in limited

situations (Miller & Fredricks). The "real merit of a substantive theory lies in its ability to

speak specifically for the populations from which it was derived and to apply back to them" (Strauss & Corbin, p. 267). Researchers must describe the substantive theory so the results can be transferred by practitioners and researchers to similar practice settings (Charmaz, 2000). A discussion of the potential for this grounded theory to predict feeling safe and for the theory to generate new research questions can be found in Chapter Six.

*Empirical grounding.* There are a number of aspects of empirical grounding that must be considered when evaluating a grounded theory. Grounded theory is theory that is derived from data and begins with concepts that are "grounded in the data" (Strauss & Corbin, p. 270). Systematic linkages between the concepts, categories, subcategories, main categories, and the core category must be explained. Properties and dimensions relevant to all categories must be fully developed and be tightly linked. Conditions under which the categories can be found must be incorporated into the theory and the theory must be significant and meaningful to practitioners. That is to say, the theory must (a) be predictive in clinical situations, (b) direct research, and (c) guide clinical action (Strauss & Corbin). Empirical grounding gives the theory its specificity and explanatory power (Strauss & Corbin).

*Conclusion*

Few researchers have conducted studies to specifically explore the psychosocial perception of feeling safe although being safe, the physical phenomenon, has been reported by adult patients in studies conducted in various health care contexts. It is unlikely that all of the concepts and the relationships between concepts that are related to this social process have been identified or fully understood. The research questions in this study have not been discussed in the published health care literature. Because of this

dearth of knowledge about feeling safe, I selected a grounded theory method to conduct a study of the social process of feeling safe for older adults who have experienced an unexpected critical health event and have been patients in an ICU. Grounded theory method provided a systematic approach to study the concept and to construct a substantive theory of the basic social process of feeling safe for older adults who have been patients in an ICU.

CHAPTER FOUR

FINDINGS


Factors Influencing the Perception of Feeling Safe

The purpose of this study was to increase understanding of feeling safe by

developing a substantive grounded theory of feeling safe for older adults who

unexpectedly suffered a critical health event and were admitted to an intensive care unit

(ICU). The first specific aim was to identify factors that influenced the perception of

feeling safe for the older adults who had received care in an ICU. Findings related to the

first specific aim are presented in this chapter.

To address the first specific aim, data were reduced and concepts were identified

during open coding and are placed in Table 4. Like-concepts were grouped together to

create categories which are used as level three section headings. Subcategories that

answer questions about categories (such as why, how, who, where, and when) are level 4

subheadings. Properties (characteristics) and dimensions (variance) of the categories and

subcategories are included under each heading and data examples are offered. Then,

relationships and links between categories and subcategories are explicated in a

descriptive storyline and presented in Diagram 1. The process, consequences resulting

from actions or interactions of a person influenced by structural (contextual) conditions

(Strauss & Corbin, 1998), is discussed. The central category is identified and support for

selection of this category is explained. Findings related to the second specific aim are

presented in Chapter Five. A diagram of the substantive theory of feeling safe for older

adults who have been unexpectedly admitted to the ICU is presented in Chapter Six.

Interviews were coded using open coding and microanalysis to reveal what the participants were saying about how they perceived their experience of unexpected admission to the ICU and how they perceived their experience in ICU. Microanalyses and reduction of data lead to the identification of 28 concepts and subconcepts (see Table 5). These concepts are explicated in the ensuing sections.

The Process of Unexpected Admission to Intensive Care Units

Participants were asked questions during their first interviews about events surrounding admission to the ICUs (see Appendix A). The purpose of these questions was to develop rapport and to set the stage for discussing their perception of feeling safe in the ICUs. Participants' responses to these questions are presented in the ensuing section.

*The Fastest, Best Way to Get There*

I opened the first interviews with a question about events surrounding hospital admission. All ten participants entered the hospital through the ED. Ten participants explained the unexpected nature of their experience, and nine discussed how they were physically transported to the ED. Mode of transportation to the ED varied; seven participants were taken directly from home by car to the nearest ED and two participants had family members who called 911 for an ambulance to transport them. After arriving in the ED, six patients were then transferred to either H1a or H2 for treatments that could not have been provided in the original hospitals. Of the six that were transferred three participants were transported by helicopter, two participants were transferred via ambulance, and one was taken by his wife in the family car. Three participants went directly to either H1a or H2. The mode of transportation to the ED and to the receiving

hospitals was influenced by the patients based on their perception of *the fastest and best way to get there.* With regard to his transportation decision, Mr. 124 said that he refused the ambulance and the helicopter because he decided that "Being that the car was warmed-up and my wife was there to drive, I said, 'Well, we'll just drive up' I said, 'By the time they get an ambulance in here or get a helicopter in here, we'll probably be in [the hospital].'" His sense of urgency was further explained when on the way there, he told her, "Don't speed. You don't want to get stopped and waste time." Another participant received help from her daughter to make her transportation decision. Just before calling 911 for an ambulance, she thought "'Oh, not again!' I told my daughter to drive us. 'No, I'm not going to drive you.' And they (health care providers) said, yes, she was smart because I wouldn't have made it. So here I am."

Needing to go to the ED unexpectedly was perceived as scary. One participant explained about her feelings on the way to the hospital and her focus on getting there

> Well, any time you're sick and you have to go to the hospital, even a normal person is afraid. And I didn't; it was the unknown. It was like, 'what's wrong,' and, 'am I gonna make it?' You know, I didn't go too much into the depth of those thoughts because you're really just trying to get here and get into ER and let them find out what's wrong with you.

Table 5

*Concepts Related to Unexpected Admission to Intensive Care Units*

| Concepts | Subconcepts |
|---|---|
| The fastest best way to get there | |
| Feeling afraid or scared | Not knowing<br>Judging from others that this is an emergency<br>Other people have said<br>Realizing I might die<br>Feeling alone |
| Being in the Emergency Department | |

*Feeling Afraid or Scared*

As participants worked through their hospital experiences they discussed feeling afraid and scared. Their responses about a time when they felt afraid were related to concepts of (a) *not knowing*, (b) *other people have said*, and (c) *realizing I might die*.

*Not Knowing.* Participants discussed two aspects of knowing; knowing what had happened (remembering) and knowing what was going to happen (anticipating future events). Ms. 714 discussed *not knowing* by recounting her experience with not being able to remember: "You know the ambulance takes you but I don't remember much after that and I don't know what happened but it was just like I couldn't remember that." When asked how she felt about not being able to remember that part of her experience she replied,

> It was, yeah, it was frightening because my daughter would say, tell me different things would happen and I said, 'Oh, it did? I don't remember that.' And so and I know they didn't give me any medication or anything when I left [the hospital]. So but it was just, I guess the whole combination of everything that had transpired that just kind of left me kind of blank. But, like I say, after I was there then for that day and then they started explaining to me what was happening in there and then I started to put two and two together then.

Although Ms. 714 was troubled by *not knowing* what had happened and worked at putting the events together, other participants' perceptions of remembering were much different. For instance, Ms. 910 discussed her perception of *not knowing* in a positive way. She explained her reasoning about preferring not to remember events: "Yes, now, I don't remember from the time I was in the [hospital] emergency center when they were getting ready to put the stent in, from there until I was in intensive care, I don't remember anything about that but from then on… [Does it trouble you that you can't remember that part of your stay?] No, not really because when they put the second stent in, they do not

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put you out and I prefer being out." However, Ms. 714's perception of *not knowing* about events that were going to happen during her cardiac catheterization were not congruent with her previous experience. She said,

> I think when I was downstairs when they were putting those because I didn't know what to expect when they were, you know, they were putting those stents in there and, like I say, they didn't sedate me much and it seemed like it took longer than what I thought maybe it should have. And 'cause I kept asking them, 'How much longer? How much longer?' And they'd say, 'We're almost through. We're almost through.' But yet, it seemed like it took over an hour to do that but that wasn't very pleasant but I just didn't feel very safe with that because I didn't know what was transpiring. You know, I didn't know exactly what was going on but, of course, they did and I didn't so that's why I was kind of like, 'Oh, God, what are they doing to me?' So yeah, I was kind of scared there.

*Judging from others that this is an emergency*

Participants discussed how other peoples' actions and affect influenced their perception of their own physical condition. They based their perceptions upon who was called to help, how many came to assist the situation, and how fast the healthcare providers were moving. Mr. 850 recalled knowing that his condition was serious when he was in the ED and the physician wanted to call a helicopter to transport him to another hospital. He said,

> Well, in that situation, you know, I don't know it's really kind of dumb but the doctor down there in [name of town] well he decided to send me there in the helicopter. Now, that shook me up, you know, not the helicopter ride but the emergency, you know.

The same was true in other participants' situations. About calling an ambulance for transportation to the hospital, Ms. 714 summarized her perception about emergency transportation: "When someone calls an ambulance, you know, that's it."

When medical emergencies occur within a hospital there are usually a number of people who respond. This was the case when Ms. 714 remembered her response to her

experience of blacking out, "I never seen so many people in all of my life hovering over me and I guess I was a pretty, pretty, pretty sick person." Ms. 416's experience happened in the middle of the night. She recalled her perception and what she thought of being awakened in the middle of the night:

> Yes and they panicked and I had been sleeping and I woke up and all of these people were around me and my first thought was that I was dead and it was just my spirit looking at all these people that came to me and wake me up and tried to see me for the last time and I couldn't see. But then the girl saw that I was kind of looking up and she patted me and said, 'Your battery had gone out.'

Mr. 124 pointed out that he could tell his condition by the speed at which the health care providers were moving. His perception was, "I would have thought there was something really wrong with me if everyone had been rambling and scrambling, you know, I'd have thought, 'Boy, this might be my last trip.'" Ms. 910 recalled her perception about being taken from the ED to the treatment room for a stent placement. Her memory of the event centered on her condition and the speed at which she was taken for treatment. About her memory of being rushed to the elevator she said, "Only that I was knowing that they needed to get something done and that I hoped that they were able to do it." Based on his experience, Mr. 124's perception was that "nobody really tensed up and at the point, I think that's a good feeling too 'cause if someone's really tensed up, it makes you feel like you really have a bad problem. Probably the anxiety could harm you at that time quite a bit, you know but it was like a relaxed atmosphere."

*Other people have said.* Participants discussed the effect of what other people had said about topics related to procedures that they may be having done. There was a wide range of experience in this subcategory. The comments made by family or friends instilled confidence in the participants about making the choices necessary for their

health care. This was the case with Ms. 783 who said about her pacemaker:

> but after they talked about it and everybody I know that has one said, 'Oh, you'll feel so much better.' So, they put it in … My friend had one and you could feel it and it was like a little box like this, you know.

Mr. 124 spoke with a nurse that was "up there in intensive care … said he'd had his for six years and it made him feel a lot better. So after him talking to me, well, that helped me understand what a pacemaker is."

Words of experience and encouragement had a calming effect for these participants; however the opposite was true for other participants. Negative comments made by friends also caused worry for one participant. Mr. 850 remembered an account from his friend who told him a story about a negative hospital experience. This friend's account caused Mr. 850 a significant amount of concern that he might go directly from the ED to have open heart surgery without knowing and without his permission. Mr. 850 said of his friend, "He wants to know what's going on. He said, 'They must have doped me 'cause when I woke up, I'd had it done and I can't remember saying anything to anybody.' Mr. 850 spoke of his friend's experience repeatedly indicating that this was a significant source of worry for him.

*Realizing I might die.* Eight of the ten participants made at least one reference to the thought that he or she might die. When asked if there was a time while in the ICU when he was afraid, Mr.225 responded, "No, not of anything that was going on in there. I was afraid I might spring up and go away or something." He meant he was afraid he was going to die; later he did. According to Ms. 622, "Even a normal person is afraid. And I didn't; it was the unknown. It was like, 'What's wrong,' and, 'Am I gonna make it?'"

Ms. 416 explained her reasons for being afraid when she realized she might die,

> You do get scared at that age now where all these words like heart disease, and cancer because you think that you know, you want to live to see your kids and if something happens to you, think as a mother, you think to yourself, 'Whose gonna take care of them'?

Ms. 783 described her perception of an episode in the ICU, during which she fainted,

> My…friend from church says, '___, you know you could have died right then, don't you?' I said, 'No,' but I was scared because I was blind. I opened my eyes and I could hear but I couldn't see. It was just a fog and the doctor had came in and he kept talking to me, questioning me. And I said, 'Doctor, I haven't had a stroke, have I?'

She continued to explain what she was thinking at the time, "It was only a matter of a few seconds but, I tell you, I was afraid then and I thought, 'Good Lord, St. Peter, here I come.'"

*Being in the Emergency Department*

When the participants arrived in the ED the context of their experience of unexpected critical illness changed from getting there to being there. Seven of the ten participants had some recollection of events that occurred in the ED. One participant did not mention the ED, one participant was in the ED briefly as she was transported through to the ICU, and two participants has no recollection of the experience but remembered being taken there by ambulance. Of the six people that recalled their experience in the ED, five discussed their experience in a 'matter of fact' manner. Mr. 225 described his perception of the experience when he said, "Well, I come in and they started working on me and then they left and they were gone for quite awhile and came back and said they were gonna put me in the hospital." One participant perceived the environment as impersonal. He thought that in the emergency department "you ain't got…you can't zero

in on anybody. They're coming and going. There's no individual, you know. It's not personable. Its business kinda, its important business and I didn't make any eye contact." Another participant perceived her experience as scary and says "Well, of course it was kind of scary because they kept telling me what they were going to do but it's just the word pacemaker and heart problems and cancer. It was a scary place." No participant spontaneously discussed the ED after my initial question about their experience there.

<div align="center">Concepts Related to Being in the Intensive Care Unit</div>

From the Emergency Department the participants went either to their room in ICU or to a procedure room for a medical intervention and then to their room in the ICU. All ten participants discussed their perception of what it was like being in the ICU. Concepts related to being in the ICU follow (see Table 6).

*Being in the Intensive Care Unit*

Most of the participants generally felt comfortable in the ICU. For example Mr. 224 said, "Well, it didn't bother me because I figured, you know, I had something that I wanted the best and, you know, they're really good and I didn't care so much…yeah, no one should hate to go to intensive care." Mrs. 670 similarly thought that, "You feel good up there. I just can't imagine anyone not liking intensive care. It might scare you a little bit to think that, you know, you had to be in there, you know but it's so much better."

Mr. 622 was a little vague in describing his perception that the ICU environment was

unique by explaining that,

> There's a different atmosphere in the intensive care unit. You feel…well,
> it feels more like life and death. You know you're really sick. You know
> the other people in there are really sick and it's… I don't know how else
> to say it. When you're in the hospital room, maybe it's because there's…
> well, I don't know, just a different atmosphere, not that critical care
> atmosphere.

The participants knew that to be admitted to the ICU one must be very sick.

*People in the ICU need help.* Participants offered their perception of what a

person's physical condition must be like before being admitted to the ICU. Ms. 670 made

clear that the overall reason for admission to the ICU was "because you're sicker than

some other places." Because of the acuity of their illness, seven participants

spontaneously spoke about the help that they needed and care the nurses provided in ICU.

It was Ms. 622's perception that "you had to be pretty sick to be put into intensive care

and that you got more attention, more frequent…the nurses came in more frequently in

general but that was all." Ms. 670 offered the illustration that

> Sometimes you'd think you could sit down by yourself or something.
> Well, they wouldn't want you to. You might hurt yourself or something.
> They'd say, 'Wait, now we'll help you.' You know, which I don't know if
> they expect that other places but they did there … 'cause I guess they
> expect people that are in there (meaning ICU) need help.

Table 6

*Concepts Related to Being in the Intensive Care Unit*

| Concepts | Subconcepts |
|---|---|
| Being in the Intensive Care Unit | Feeling alone |
| | Seeing or knowing someone is there |
| | People in ICU need help |
| The Button | You could get help right now |
| | Control |
| | Qualified nurses |
| Being Monitored | Nurse checking |
| | Monitor checking |
| Others Who Helped | Family |
| | Friends |
| | Patient care technicians |
| | Doctors |
| Mechanical Devices | |
| Letting Them Take Over | Trust |
| | Faith and spirituality |
| Feeling Safe | |

*Seeing or knowing someone is there*. Five of ten participants described *feeling alone* as part of their experience in ICU. Ms. 416 explained that "when you're in there by yourself ... of course, we're talking about an old lady now, and I felt that if there isn't somebody around you, you feel alone." The structural design of the ICUs allowed participants to see the nurses' station. Ms. 622 explained the relationship like this: "Well when you are in intensive care and you don't know what's happening with you and you're frightened, it's comforting to see a person because you feel pretty isolated…" An intervening factor related to *feeling alone* was *seeing or knowing someone is there*.

When asked if a nurse was visible to them, 9 of the 10 study participants said that they could see their nurse from inside their room. Only one participant could not directly see the nurse however she explained that although she could not visualize the nurses she knew they were there. Regarding *knowing someone is there*, she recounted that she was

"just a tad down the hall from the door, I think it was, but they were there." Although much of the time Ms. 783 said she could see her nurse she recounted a time during which she could not see her nurses but she knew they were there. About this experience she said, "Yes, it was just when I had that crazy black out. I remember that. I couldn't see but yeah, I knew where my nurses were all the time."

All 10 participants described their perception of the significance of having their nurses visible to them. Being able to see the nurses was especially important for Ms. 910 during the night. She related her perception of feeling safe in ICU by saying, "at night when I would wake up, you know. I could look out and there were nurses there…so that made me feel safe because I knew they were watching what was going on."

No participant spoke unsolicited of the nurses being able to watch them. When asked about the notion that her room was open and that she was therefore open to being watched by the nurses, Ms. 783 emphasized the importance of being able to see the nurses. About being watched, Ms. 783 responded, "So I was on exhibit, I guess, all the time but I could see them out there and I knew they were watching the monitors, so I never felt ill at ease at all about anything out there."

The idea that the nurses could be visualized from the patients' rooms verified for the participants that the nurse was near. A factor directly related to feeling safe was *seeing or knowing someone is there*. It was important that the nurses were close enough to come if they were needed. When asked if having his nurse near made him feel safe, Mr. 225 said, "Mmhm, it was a good feeling…She was very close, right there three feet away from me." Ms. 910 also perceived that proximity was important to feeling safe and explained, "Had I had something that was bothering me, to be able to look out and see or

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know that help was close." Proximity was a factor in feeling safe because if the nurse was close so *you could get help right now.*

Another reason for having the nurse within sight distance was that if the nurse was within sight he or she would likely be able to hear a vocal distress call. This was best said by Ms. 622,

> I could see them, yes … it seemed like if they weren't walking around or they weren't with a patient, they were doing something where they were faced away from me on a computer or with paperwork or talking to each other.  So I still felt that if I had a critical moment that I would, if I remembered to push the call button, I would hope that they would come right away or I'd scream and I guess they would hear me.

*Seeing or knowing someone is there* was critical to feeling safe for many of the participants and will be discussed further in the section about feeling safe.

*The Button*

 The nurse call light was referred to by the participants as *the button.* Nine participants discussed their button in their response to several of the interview questions (see Interview Guide, Hospital questions 2, 3, 4 (probes), & 5; Home Q 1, 2, 5, & 6). During the hospital interview, of the nine people that discussed the button, three participants talked about the button twice. The button was discussed more often (1-5 times) and at greater length during the second interviews. One participant spoke of his button in response to five different questions. A broad dimensional aspect existed within this main category; most of the time when the button was pressed, someone came immediately, however for two participants this was not the case. An additional dimension was that of not being able to find the button. The references to the button and older adults' perception of feeling safe in ICU were most often related to three factors: (a) *you could get help right now*, (b) *control*, and (c) *qualified nurses*.

*You could get help right now.* The button was never used by the participants to get

help with a life-threatening event. However the participants spoke of the button as a way

to get help right now, in the case emergency help was needed. Mr.124 described his

location in relation to the nurses and what he expected to happen if he pushed his button:

> Their office, the room I was in was right there, was right outside the door
> to my room. So I mean, if I pressed the button, they could open their door
> and come out of their office and it was right there.  It was within ten feet
> of my room. And the door was left open, there wasn't but a short distance.
> If I'd have been in…if somebody needed somebody real quick, why they
> would get it.

He also described his perception of the button and his expectation that "if you pressed the

button, there was always somebody that would answer and then you had attention. I was

in emergency care [meaning ICU] and that's the way it should have been".

Two participants told of their experience with pressing the button when no one

came. When asked if she ever needed help in the ICU, Ms. 416 recounted her experience:

"Yes, yes, I had rang … I needed a bedpan and it took them forever to get the bedpan. So

when they did come, it was too late, you know.  I was real ashamed of myself." She had a

similar experience when she was transferred from ICU to a less acute area of the hospital.

In comparison to her care I the ICU, Ms. 416 told of her disturbing experience there:

> This morning I had an upset stomach and I called them. They never did
> show up. So I just crawled off the bed and crawled to the toilet and threw
> up. Then I crawled back and had to get back into bed by myself. About
> twenty minutes later the nurse came in to see what was wrong.

Ms. 670 told of a similar experience after her transfer from ICU. She described her

perception of response time to her call:

> You're hooked up to all that stuff and you need to go to the bathroom, you
> can't hardly go yourself because you've got something here and
> something here … then you'd ring the bell and maybe they'd come and…
> they weren't that busy.

Mr. 124 speculated about how he might feel if his call light was left unanswered, "Now, that would have disturbed me, you know. If I'd have pressed a button and nobody showed up, why, that would have disturbed me, yes especially being in intensive care."

Two participants were not always able to locate or reach their button. Ms. 416 said,

> I tried to find my button here to get to use my button. The button wasn't very convenient because it was a push button and they put it on my left hand side and it was taped up with machines and stuff and I couldn't reach around with my right hand to find the button.

Ms. 910 discussed her anxiety about losing track of her button, particularly at night when she

> … was searching to find it. I suppose that would be a little bit of anxiety. Usually that was during the night when, you know I'd been asleep and woke up. It wasn't pinned or anything. It was not secured in a certain position so with moving around in the covers, why, it would get misplaced.

When asked about her perception of the importance of the button she replied, "Yeah, especially at night. I guess maybe because it, you couldn't see it. It wasn't as easily accessible but yeah, it was important." Ms. 910 said of her button,

> you always feel more secure with something knowing that … because it would get someplace where I basically didn't know where it was and I wanted to find it so I did know where it was in case I needed it.

Mr. 124 offered his perception of how the button system worked in the ICU by describing the simple process, "You press the button, right now they helped you. So there must have been somebody sitting in front of that all the time." Ms. 670 perceived the process worked in the same way. Of the system she simply said, "Yeah, I just knew that if I needed anything, all I had to do was just ring the bell and they'd be there."

Two participants had a backup plan if pressing their button did not result in someone coming to help. Ms. 910 thought that, although she was happy to be out of the ICU, a place where she could see her nurse from her room, if she needed help she might try two things: "The call button is here; I feel comfortable with that and then I know I could holler pretty loud and get. I know it's not that far down too." Ms. 850 speculated that although she had "a button to call the nurse. I could have yelled."

The button was very important to the participants in this study but having a nurse physically present was equally or more important. Ms. 622 said "I was capable of pushing the call button if I needed to but still, I liked the idea that I could see someone. [What was the reason you liked that idea?] Well, when you are in intensive care and you don't know what's happening with you and you're frightened, it's comforting to see a person." The button also gave the participants a sense of control.

*Control.* There were various responses to the questions about times when the participants felt in control or not in control. Responses were based on the perception of the meaning of control for each participant. There were three dimensions of control identified; all were related to the participants' physical condition. The self-related aspects were (a) being able to access help, (b) ability to make personal decisions, and (c) being in control.

When asked if they felt in control of their situation in ICU, the button was the focus of their response. The call button gave two participants a sense of control. Through the button, the notion that they had control of getting help was critical. When asked about feeling in control, Mr. 124 talked about two ways to call someone; by using the button and by using the telephone. He explained about the bed controls:

Well, your bed, you got all the adjustments right there for any position that you want and your control is there and your speaker is there and it's all readily accessible so you can call them just as quick as you can press a button and they were right there.

He also explained how he might place a telephone call: "I knew what was going on before I got there and while I was there and I had control, you know if I wanted to. If I wanted to call somebody, why, the telephone was there. I could call."

Being able to make personal health care decisions was an ongoing concern for Mr. 850. He was worried from the time he went to the ED about being put to sleep and waking up only to find that he had had a coronary artery bypass surgery without his consent. When asked about his perception of control, he explained,

A friend of mine had it done and he said he'd got here and they must of gave him a downer and he's an old Missourian and he don't like anybody. He wants to know what's going on. He said, 'They must have doped me 'cause when I woke up, I'd had it done and I can't remember saying anything to anybody.' And that's what I… I was a little bit leery because they, you know, were getting ready for the procedure and they…I don't know.

He added,

I was trying to figure out how I was gonna … keep control. That buddy of mine, they give him a shot and he said, 'I didn't know was when I woke up…' Yeah and I thought it was gonna happen to me. I thought, 'Uh-oh, I've lost control.'

It was Ms. 622's perception that being in control could have two meanings for her. She believed that she was in control of her body as she explained "Well, I felt in control as far as being able to get up and walk" and "I was able to give information." However she did not feel in control of her meals. She couldn't seem to get the sweetener she wanted after a number of attempts. She recalled not feeling "in control about meals. I was supposed to have…a regular meal, which was fine, but I wanted to have Splenda

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instead of sugar on the tray and I never could get it the entire time I was there." In summary, she resigned to the reality that, "I was totally in their hands."

Ms. 714 indicated that knowing what to do and deciding when she needed help was her idea of control. About when she felt in control, she said, "I think so, yeah, because like I say, I knew just exactly what I should do and what I shouldn't do and if I needed any help, you know, I would call the nurse…"

*Qualified nurses.* Having qualified nurses was integral to the participants' perception of feeling safe. Nine participants perceived that ICU nurses possessed the following personal characteristics: (a) confidence, (b) highly educated, (c) could recognize immediately if there was a problem, (d) knew what to do, and (e) could react quickly if something happened. These attributes of the ICU nurses were recognized by participants as critical to their perception of feeling safe. Ms. 622 explained

> Well, first of all, if you're in the ICU, you're pretty scared and worried
> about yourself and I think the fact that you've got so much monitoring and
> so much attention with people that move fast and seemed a cut above as
> far as nurses…so that made me feel safe.

Ms. 622 identified two additional attributes of the ICU nurses when she explained, "I think they make the difference in the care you're getting and the attention. They seem to sense things and they seem to care." Mr. 714 said about feeling safe relative to his nursing care in ICU, "It feels like you can be helped, you know, if you're in intensive care because of the *qualified nursing* and their experience and everything because they know just what to do and it does make you feel safer." Ms. 670 liked her care in ICU so much that she wanted to spend her entire hospital stay "living" in ICU. She said, "A nurse for two people and then in other places they put one for five. And but they're just a

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lot better in the intensive care and anyone should feel better living in intensive care…or

being in it."

Two participants speculated that the institutions placed their nurses in the ICU

because the nurses were qualified. The two made very similar comments about the

qualifications of an ICU nurse. Ms. 714 said, "I figure that they're experienced and

everything in that work that she does, and that she's assigned to that floor and all and I

figure that she knows just exactly what she's doing in that one position." Mr. 783

perceived that "they wouldn't be in the position they're in if they didn't know what they

were doing or I hope they wouldn't be." Nursing care in the ICU was so important to Ms.

714 that she said,

> I think that's why they're on the ICU floor and they just know if any
> disaster or anything happens like that, they know exactly what to do…But
> yeah, like I say, the nurses in ICU, you couldn't ask for anybody better.
> They were great. I'd bank my life on them.

When participants perceived that nurses did not possess the previously named attributes

they experienced uncertainty. Ms. 622 said,

> Now, even if there was some in there, like, she graduated last May and…I
> guess a year this May. She had to ask some questions of a nurse going off
> duty and they went over everything more carefully and she kind of helped
> her before she left but that was the only one that seemed… and she was
> good. It's just that she wasn't as experienced and I could sense that.

When asked what it was about the graduate nurse that her inexperience could be sensed,

she replied, "Well, in the questions she would ask this nurse and in her confidence, just

her general confidence."

*Being Monitored*

*Being monitored* in the ICU was integral to feeling safe. Being monitored varied

dimensionally. There were two aspects of being monitored discussed by the participants;

*Machines checking* and *nurses checking*. The first aspect was related to the monitors that served (a) to provide data to nurses for interpretation and (b) as an alarm system in case something went wrong.

*Machines checking.* Participants knew they were being monitored by machines because they could see the nurses' station and people were watching the heart monitors. The perception of being monitored was sometimes based on speculation. Mr. 547 based his assumption on some objective evaluation. He said, "I assumed that they had the monitor set correctly and they did have various times at which the monitor started ringing or something or the other. And I was surprised and pleased at how rapidly they got in there." Ms. 783 said,

> Well, they usually leave you alone when you're eating dinner and I know they watch you and your record is out there. You know, they had a heart monitor on me, in other words, and the desk could see what my heart was doing all the time.

Mr. 124 suspected that in ICU,

> They had a screen. I know they did. I didn't ask them. I'm sure they had a screen in there to watch every heartbeat and everything, so I know I was being taken care of. I was being watched twenty-four hours a day, you know while I was in there.

He thought that the monitors were a safety net and felt safe knowing that "even if you would pass out, knowing that you had the monitors on before that. You would know that they would know it immediately." Similarly, Ms.783 perceived that being monitored by the machines,

> Made me feel more secure than them coming in and checking it because I knew there was a little picture right out there in front of them. '[her name], in room so and so, her heart's doing this.' And I knew they were watching it constantly 'cause every seldom you looked out there. I could see.

Two participants received help as a result of the monitor alarms. One said that she was sleeping when her pacemaker malfunctioned, and the other person said that she had lost consciousness in her room. In both cases, the women said that their monitor alarms alerted the nurses who came right away and knew what to do to help.

After leaving the ICU one participant perceived that he was still being monitored although he could not see the monitors or the people watching them. Mr. 850 surmised that, "They're monitoring me right now, so I don't feel threatened at all." When asked about the difference between being in ICU and being in a hospital room, Mr. 850 said, "The only difference was the nurse's station [in ICU] could see me all the time. I had a big glass door, so I was being watched."

*Nurses checking*. The second dimension was the perception by the participants of *nurses checking*. Checking involved the nurse who, by assessing the participant, was both physically and emotionally present. Ms. 622 spoke generally about her perception of monitoring in ICU. She said, "I felt…I was glad. I felt so…I don't know…what's the word here. I felt like I was getting extreme attention and I guess that's what the critical care unit is all about. The monitoring is constant."

Nurses were the "they" at the desk who were perceived by participants and discussed by the participants as the ones who were checking. Nurses checked on data that various machines such as glucose monitors, cardiac monitors, oxygen saturation monitors, and blood pressure monitors presented to them. Ms. 714 spoke of the nurses, "They kept close watch over me. They were in and out all the time just to see checking on me and checking my blood pressure and checking everything on me…" Ms. 622 shared the perception about nurses checking when she recounted her experience in ICU:

"I just mean that they came in and I don't always know what they checked. I mean, it was like, they were, you know, checking your heart, checking your breathing, doing your blood sugar test, or checking that chart." Ms. 622 also pointed out that laboratory tests were included in her perception of checking. She noted that changes were made in her treatment based on the data received from the blood tests.

> They would send blood down to the lab frequently and then they would make changes in what was going through my IV based on the meds or the lab report. That's more or less what makes the whole thing that… I don't always know what they were checking but I know I had a lot of attention.

Checking continued around the clock. Ms. 910 appreciated that "they would come in to check blood sugar and blood pressure during the night and so that made me feel safe because I knew they were watching what was going on."

The participants reported that their nurses not only checked data provided to them by the machines, they also continuously checked the patients. Mr. 124 noted that "there was somebody there checking on you constantly. There was always somebody coming to check to see if you needed anything or whatever." Ms. 622 recognized that attention at a critical time in her experience of ICU affected her perception of feeling safe. She noted that "they were in a lot so that made me feel safe. I think being in your room frequently checking on you at a time when you're not really able to take care of yourself is important to feel safe."

*Others Who Helped*

Although nurses had the most influence on participants' perception of feeling safe in the ICU, there were other people that made a difference. Ms. 416 was transported to the hospital via helicopter because of the long distance she had to travel for health care.

Consequently, it took her family overnight to arrive at the hospital. She recounted her

perception of being in the ICU without her family there:

> I think that if [my nurse] wouldn't have been there, I think I probably
> would have fallen apart because my family hadn't gotten here yet. There
> was a two hour drive for them and in the middle of the night. They didn't
> get there 'til morning.

Participants were asked about people, other than nurses, who played a part in their

perception of feeling safe.

*Family.*  Four participants discussed different roles that their family and loved

ones played during their ICU stay. When asked about what he would say about ways that

other older adults could feel safe if they had to go in to the intensive care unit Mr. 547

replied,

> I was helped a lot by having my wife there. She's pretty good at asking
> questions too, and she's very helpful because they allowed her to stay and
> so she would watch the hospital for me and so she made sure that they
> alerted my primary care doctor…and so yeah, that's one of the things I'd
> say, to have somebody with you who can take care of some of these
> important but mundane activities like alerting the family.

Ms. 783 depended on her daughter to help her remember information given to her

by the physicians during hospital rounds. She relied on her daughter because although "I

think doctors, as you get older realize, especially ones that has some training in geriatrics,

they're aware that you don't remember but that's why [daughter] goes with me.  She's

not nosey; she just knows I don't remember well." She explained that her daughter

"didn't stay at night and she didn't stay all day but if she felt there was a doctor coming

in or something going on, she would try to be there with me." She went on to say, "I feel

very secure and I've always said when I get ready to die, I'm not afraid to die, but I'd like

to have my family with me." When asked if the absence of her daughter would have

affected the way she perceived feeling safe in the ICU she responded, "No, I don't think

so 'cause she's not the nurse, she's not the doctor; they are. And they know what they're

doing. Not that they don't always do things right. Mistakes have been made, but you have

to depend on them as being professional and knowledgeable."

*Friends.* Participants discussed their perception of having friends visit while in the

ICU. Ms. 622 explained her perception of the role of her long-time boyfriend and having

visitors in the ICU:

> Well, [my boyfriend] took me in. I mean, I don't know if I could have
> driven myself. That's what I meant about having someone there but as far
> as having visitors, I didn't want any. And I even asked my sister not to call
> me.

Her reasons for not wanting visitors were that

> it just takes too much energy to have visitors and, you know, to sit there
> and stare at you and you sort of feel like you have to entertain them or at
> least go through the story.  And I didn't want to go through the story … I
> wanted to just read and just be by myself.

Ms. 783 felt the same way about visitors. She recounted her perception about visitors and

the time they spent with her in the ICU:

> One couple come and they're dear people but you don't need company
> when you're sick in the hospital and they stayed over a year…an hour and
> that woman talks and talks and talks and talks and talks about things
> you're not interested in, really.  I thought they were never going to
> leave… I had other friends and they come and stayed about ten minutes
> and left, which is what you should do.  I'm in the hospital to get well, not
> visit.

*Patient care technicians.*  Ms. 910 recalled the positive effect that her patient care

technician (PCT) had on her hospital stay. She named the people who helped take care of

her and her perception of her need for other caregivers: "There was the nurse and then the

RN and then a PCT right here. I don't recall of anyone else being in there or my thinking

about needing anyone else." She discussed her perception of the importance of each person in relation to her care. About the PCTs, "they do what I call the dirty work. Now, the RN's, they're definitely important because they have the training and the know-how but I see more, I have anyway, of the PCTs." Ms. 622 "felt comforted knowing that a person was in there a lot. Yeah, a nurse or what's the other term? The assistant to the nurse…I never had to push *the button*."

*Doctors.* Some participants remembered their physicians as people who helped them while in the ICU. Mr. 850 mentioned his physicians in passing by saying, "Well, the doctors came by, you know and they were great." Others remembered their physician in more detail. When asked if there were others who helped, Ms. 416 said "Yes and he [the doctor] brought pictures and he showed me pictures in a picture book and he showed me how what to expect so … that eased my mind." Ms. 622 perceived her physician as having a significant amount of influence on her experience of feeling safe. She reflected,

> From the moment I got to the emergency room. I mean, I was able to give information but I was totally in their hands. [What was that like for you?] Relief, a feeling of *trust* with *the doctor* that interviewed me or came in. I was impressed with her questions and I just kind of let go and thought, 'What will be, will be'.

Mr. 850 also recalled placing trust in his physician,

> I just seen that he was, you know, sincere and then finally I thought, 'Well, I got to *trust* somebody,' and he was, you know, he just was what he appeared to be. He was just a young doctor but he was sincere and he was… Well, he was looking after me 'cause when he said, 'You know, well the best place to go for any heart work is [hospital], it is one of the best,' and I knew it myself.

*Mechanical Devices*

Participants were asked about their perception of the mechanical devices that they used or had implanted in their bodies during hospitalization. Participants discussed

various devices including intravenous catheters (IVs), coronary artery stents, and implanted pacemakers. Mr.124 talked about his perception of the usefulness of his IV during a possible emergency. He said,

> Yeah, I asked them about that (whether or not it was still working) and they checked to see whether they was open and the one of them wasn't and immediately they put in a new one in the other hand because they have to be there all the time just in case something happens so they can plug you in right now.

He also talked about a property of his monitor as a *just in case* mechanism and how he perceived the necessity of being monitored: "Yeah…even if you would pass out, knowing that you had the monitors on before that. You would know that they would know it immediately." One participant perceived her stent as a life-saving device. Ms. 910 said about her stent and the prospect of having a second one placed, "Well, probably without that one, I wouldn't be here. So I guess I'm okay with them and so I chose to go with the second one because the first one seemed to be quote, 'cure' for the situation."

Ms. 714 perceived the reliability of her stents as being her personal responsibility because "there's a possibility that if I don't watch what I'm doing, that they'll close back up again. So that's not very good." Her perception of having the stents in her body and having to rely on them made her feel "kind of edgy, yes because see, before that, I didn't think there was anything wrong with my heart … I was just doing everything and anything and, of course, just eating everything and anything. And then all the sudden, it just made a complete turn." There was an element of uncertainty about her situation and the idea that the stents might not work forever.

Two participants who had pacemakers placed perceived them as necessary but not part of themselves. Ms. 783 explained about the possibility that her pacemaker could fail.

She explained her understanding of possible events surrounding a pacemaker failure; "so if that battery would happen to run out or something or something happened, I'd pull the wires, I'd have enough to keep me beating…to keep me alive until I got help." She also decided that after she died she might want her pacemaker removed because "the metal wouldn't make any difference but I don't want a chunk of metal thrown around in the ground with me." Ms. 416 thought that her new pacemaker may take some getting used to when she said,

> At this point, yes.  Right now I haven't really gotten used to it being there and they said it would take a couple of months before I would get used to it but its kind of strange.  I know it's there and my arm's still a little sore from it but yeah, it does feel safe.

Even though the participants knew that these mechanical devices were not a part of themselves, they *realized they might die* without them.

*Letting Them Take Over*

 Participants reached a point in their experience in which they relinquished their outcome to others. Participants expressed that, based on their evaluation of their situation, if they let someone else take over, things would turn out okay. Two facets of letting them take over were *trust* and *faith and spirituality*. Three participants referenced trust explicitly and one participant implied trust of the nurses and doctors was a reason for *letting them take over*. Two participants spoke of their belief in God and that they were letting God influence what might happen to them. They remembered praying during their time in the hospital.

*Trust.* Mr. 547 was introspective with regard to his approach to his unexpected illness. He did not explicitly mention trust however he implied that he trusted his healthcare providers when he said, "I was more or less in denial for a while that this was

happening to me but I wasn't… I felt that they were going to pull me through the heart attack." Ms. 783 compared her experience with that of another trusted profession when she said of trusting, "Just like a teacher or anyone else; you hope they know what they are doing. That's all you can. You just trust people. That's what you do." She admitted, "I didn't think about being safe. I thought, 'I'm here. I'm being cared for. They know what they're doing. Whatever they want me to do, I'll do.' And I thought, 'It's in their hands. I'm alright.'" The belief that the nurses knew what they were doing permitted Ms. 783 to trust them.

Ms. 622 reached a point in her experience where, "I just sort of let go and thought, 'They know what they're doing and I trust them.'" She felt in control and also a sense of relief with letting others take over because she "was able to give information but…was totally in their hands." [What was that like for you?] "Relief, a feeling of trust with the doctor that interviewed me or came in. I was impressed with her questions and I just kind of let go and thought, 'what will be, will be.'"

Mr. 850 resigned himself to the notion, "'Well, I got to trust somebody,' and he was, you know, he just was what he appeared to be. He was just a young doctor but he was sincere and he was… Well, he was looking after me." Mr. 850 gave his reasons for feeling this way about his physician, "'I was there and the doctor that was checking me over, you know. Finally he said, 'This is the best for you.' And then I finally just gave in and said, 'Well, I trust you.'" and "I just seen that he was, you know, sincere." When the participants perceived that they could *trust* someone in the healthcare system they *let them take over*. Other participants related their acceptance of their situation to their faith or their heath care providers.

*Faith and spirituality.* Two participants spoke of their faith in God as a source of strength during their unexpected illness experience. Based on her faith, Ms. 910 indicated that she let God take over.

> I had a conversation with the Lord that if this was the time for me to go, I thought I had everything pretty well taken care of and if it wasn't, then I was wondering what path he had for my life in the future.

When asked about her perception of the rush to the procedure room and if that made her think she was very ill, she said, "No and here again, I think it was, I had just accepted the fact that it was no longer in my hands." She added, "I guess I never did feel unsecure, I never was afraid, so I don't know maybe it's because I put it in the Lord's hands and you know whatever choice was His was what I accepted would happen."

When asked about his perception of his situation Mr. 850 spoke of his spirituality and explained,

> It's really like, in my own mind, I think they overreacted to all this stuff. But, you know, I'm glad that they were there, you know. I want to live and I was, you know, like everybody I prayed all the way, 'Give me more time. I'm seventy and I'm finally getting that added blessing.' I still, boy, a little more time, I need some more time, I've got so many loose ends.

Relationships and links between categories and subcategories are presented in Diagram 1. Consistent with Strauss and Corbin's (1998) method, during data analysis, a storyline was developed to assist with making links between categories. The following is the storyline that I have derived from the experiences shared with me by the study participants.

*Storyline*

Storylines are the integration of concepts, subcategories, and categories and their linkages. I have included a descriptive storyline as an example of integration. Main categories are in bold italics and subcategories are in italics to emphasize the categories and subcategories that were related by the participants to feeling safe.

*Descriptive storyline.* When faced with an unexpected critical health event, older adults contemplated the need to go to the hospital. When their health did not improve and the decision was made to go for healthcare, they solicited the help of others to decide whether or not to go to the hospital and to obtain *the fastest, best way to get there.* There were three ways in which the older adults were transported; family car with a family member driving, an ambulance, and a helicopter. During this time, the older adults were *feeling afraid or scared* because of *not knowing* what to expect and what was wrong. Additionally, they were *judging from others that this is an emergency* based on (a) the need to use a certain mode of transportation to travel to the hospital and (b) other peoples' sense of urgency. This perception by the older adults of their structural cues added to their *feeling afraid or scared*. After arriving in the Emergency Department (ED) the older adults perceived that *being in the ED* was impersonal and scary. People were either rushing around or they were calm. This dimension (variance) in staff behavior was interpreted by the older adults as an indication of the seriousness of their condition. If the staff were rushing around, the older adults thought that their condition was serious; if the ED staff were calm, the older adults thought that their condition was not as serious. The ED staff also used words that were unfamiliar to the older adults thereby adding to the perception of *not knowing*, *feeling afraid or scared*, and *realizing I might die*. Some

participants developed trust in the healthcare providers who worked in ED thereby *letting them take over*. Needing to be admitted to the intensive care unit (ICU) was another source of *feeling afraid or scared*. For some of the older adults, needing to go to the ICU signaled a grave outcome. To them, the ICU was a place where people go to die. The course of events; experiencing a critical health event, needing to get there fast, then *being in the ICU* put them in the situation of *realizing I might die*. An intervening factor for some older adults that mitigated or exacerbated feeling afraid or scared was knowing what ICU was like based on previous ICU experiences with a spouse or the effects of what *other people have said.*

    *Being in the ICU* was a contextual change. Older adults' perception of being in the ICU was that *people in the ICU need help*. Help was obtained by various sources such as *family, friends, doctors,* and *patient care technicians.* Ultimately, the older adults felt that having **qualified nurses**, ones that could move fast and knew what to do in emergent situations and from whom you could *get help right now*, was crucial. Older adults in the ICU perceived a sense of *control* by having **the button**. The process of the button went like this: Press the button and you could *get help right now* from a **qualified nurse**. The button was never needed or used by participants for an emergency. However participants' strategy to get help if needed involved the button. If the button was pressed, it was possible that a nurse would not come. When this happened, the participants felt abandoned.

    *Seeing or knowing someone is there* was critical to the process. When the older adults were in their rooms in bed, it was crucial that they were able to see or know someone, a nurse, was there. It was their perception that in case something happened and

you needed to be able to *get help right now*, it was critical to see or know a qualified

nurse was near. *Seeing or knowing someone is there* ameliorated *feeling alone*.

There were times when some older adults relinquished their care to others. *Letting them take over* was based on *trust* or *faith*. Trusting that the healthcare provider had the older adults' best interest in mind and the perception that the provider was sincere and qualified resulted in *letting them take over*. Some older adults had *faith* that God would take care of them.

***Being monitored*** took on two dimensions for the older adults. The participants were monitored by mechanical monitors that alarmed if something went wrong. The participants believed that the monitors were checking constantly. The process of *monitors checking* was (a) something went wrong, (b) the alarm sounded, (c) the nurse heard the alarm, (d) the nurse was near, so (e) the participants *could get help right now*. Two participants received emergency help summoned by the monitor alarm. In addition to the *monitors checking*, the nurses were checking a number of things. The nurses checked the participants' physiological status, the machines, and the monitors. They also counted on the *nurses checking* them, often without being called, to see how they were doing and to see if they needed anything. See Figure 1 for a diagram of the Storyline.

Figure 1

*Relationships of Categories and Subcategories*



Critical Health Event

The fastest, best way to get there

Judging from others that this is an emergency

Trust

Faith and Spirituality

Letting them take over

The Button

Not knowing

Feeling afraid or scared

Realizing I might die

You could get help right now

Control

Being in the ED

Other people have said

Qualified Nurses

Feeling Safe

People in the ICU need help

Seeing or knowing someone is there

Being monitored

Being in the ICU

Others who helped

Feeing alone

Nurses checking

Monitors checking

Family

Friends

Doctors

Patient care technicians

CHAPTER FIVE

FINDINGS


How Older Adults Perceived Feeling Safe in an ICU

In this chapter, findings are related to the second specific aim; to identify how

those older adults perceived feeling safe in an ICU. The findings are grounded in the

participants' explanations of their perception of feeling safe during their ICU

experiences. The interviewer asked the participants questions pertaining to feeling safe,

specifically in the ICU, however the participants spontaneously included some discussion

of their experiences outside of ICU.

*The Meaning of Feeling Safe*

Participants were asked questions about what feeling safe meant to them and what

role various conditions (such as needing help, having procedures, and being monitored)

and actions/interactions with nurses played in their perception of feeling safe. Often they

would incorporate more than a single main category or subcategory within their

responses to the questions. This intermingling of categories made it difficult to organize

and create headings for this section. However, the degree to which the categories were

integrated and related made me feel confident that I had correctly identified the central

category. Examples of participant responses are presented in the following section and in

Table 7.

A general question asked of participants during interview two was about the meaning of feeling safe. Reflecting on her experience in ICU, Ms. 910 said regarding what the meaning of feeling safe was for her,

> It would know that there was professional help there all the time and that they were checking on me periodically. And, I guess I never did feel unsecure, I never was afraid, so I don't know maybe it's because I put it in the Lord's hands and you know whatever choice was his was what I accepted would happen."

Within this statement, Ms. 910 related two main categories to her perception of feeling safe; qualified nurses and being monitored. She also spoke of her *faith* and letting Him take over.

Ms. 714 contributed to the understanding of the differences between feeling safe and being safe when she very aptly explained her perception of going home from the hospital,

> Well, I think I feel more safe now, you know but I don't know how I will feel when I get home. That's the thing. [You anticipate there might be a change in how safe you feel at home.] Well, you know it's all that possibility 'cause you don't know what could happen and that's what I said. I could stay and stay and stay. [Is it possible to be safe and not feel safe?] Yes, like yeah, yeah, I think so. You could be safe, like you said, without feeling… Well, that's a hard question to answer. So let me see… I felt safe, like I said, all the time that I was there and being safe, like I said, they knew what they were doing and if anything should have happened right there, they were always right there for me. And so that's why I say, I felt real safe with that. [Do you think you could feel safe and not really be safe?] Well yeah, there's a possibility there because, you know, you don't know what's going to happen the next few minutes or anything like that because I didn't know, you know, what could transpire with this heart. And, you know, you could, something could happen right away and you think you feel safe and then all the sudden something like that would happen.

Ms. 783 also contributed to the understanding of being safe. She was asked about a time when she felt most safe and she offered her perception of being safe,

I didn't think about being safe. I thought, 'I'm here. I'm being cared for. They know what they're doing. Whatever they want me to do, I'll do.' And I thought, 'It's in their hands. I'm alright.' So I never had any period of time that I felt insecure or frightened or thought I would die up there. I didn't have any thought of that. Even when I passed out, I didn't realize how I might be sort of on the edge. You know, I didn't even after I came to and got to feeling better… I didn't realize that I could have gone right then but I never felt insecure or unsafe.

Ms. 714 and Ms. 783 both related several categories to the core category of feeling safe; they spoke of *qualified nurses* that "knew what they were doing" and *you could get help right now* "if anything should have happened right there, they were always right there for me." Ms. 783 was willing to *let them take over* because she perceived that she had *qualified nurses*.

*The Role of Nurses in Feeling Safe*

Overall, the responses to the meaning of feeling safe in ICU contained references to nurses such as Ms. 416 who said of her nurse in regard to feeling safe, "[my nurse] understood my needs and how *scared* I was, which I was, and [the nurse] more or less put me at ease." Participants were asked about their view of the role nurses played in the perception of feeling safe. Ms. 714 noted that she felt safe because the nurses were

checking on me all the time and really, you know, taking your blood pressure and your pulse and all and watching that sort of thing don't drop down to nothing and that she knows just what to do when anything like that happens, whether it's code blue or what, you know.

Several of the participants used the exact term "checking" when they discussed their perception of what nurses did that made them feel safe. Ms. 670 explained about checking, "[Interviewer: So that idea of checking you … How does that play a part in how safe you feel?] Well, you know like if something was bothering you and they would come in and check, you know, you could tell them right away."

Seeing the nurses from the hospital room contributed extensively to the participants' perception of feeling safe. Ms. 910 explained what it was like being able to see someone is there, "Well, that was a feeling of security knowing they were there and then it provided a little of…well, made it not so quiet and like you're by yourself. I could listen to them talking and things like that." She continued, "I always thought that in intensive care you're shut off somewhere but I was in this big room and I could look out and see what all they were doing in that whole big room." [Do you think being able to see people out there affected your perception of feeling safe?] "Yeah, I think it did."

When asked how transferring to a different area in the hospital affected how safe the participants felt there were distinct dimensions in their answers (see Table 6). Ms. 850 did not perceive a difference and she explained the reason, "No because I have to wear the monitor. Well, I feel good. You know, if something would go wrong with the procedure, well, you know…They're monitoring me right now, so I don't feel threatened at all." With regard to the ICU, Ms. 783 said after she moved from the ICU, "And but up there [in the ICU] I was and I felt very secure because I felt, 'There's someone here to help me right now'…if I needed help, there was someone there."

Participants were asked to tell about a time in the ICU when they felt most safe and a time when they felt least safe. Ms. 850 spoke of the difference between the ICU and her hospital room, "There's not much difference. The only difference was [in intensive care] the nurse's station could see me all the time. I had a big glass door so I was being watched and then I couldn't get out of bed or nothing unless someone was there so I felt safe."

Ms. 910 recounted a time in the intensive care when she felt most safe. She

related her perception of feeling safe to the time of day and seeing or knowing someone

is there. About this experience she recalled feeling most safe,

> Well, I suppose at night when I would wake up, you know. I could look
> out and there were nurses there or they would come in to check blood
> sugar and blood pressure during the night and so that made me feel safe
> because I knew they were watching what was going on.

Ms. 416 also felt that seeing or knowing someone is there contributed to her perception of

feeling safe. About a time when she felt least safe she recalled,

> I think about the only time that I kind of panicked because I didn't see
> nobody or hear nobody and that was when the people were changing
> shifts. Nobody was around and it was very quiet and I kind of looked past
> the curtain and I couldn't see nobody and I thought maybe they'd
> forgotten. And yes, I did get a little anxious or shaky but that wasn't very
> long before somebody was back from there.

At this same time she considered trying to call someone but, "I couldn't reach the button

so I kind of panicked a little bit." She felt as if she had lost control because of her

inability to find her button, the mechanism used to get help right now.

Not knowing was central to Ms. 714's perception of not feeling safe. She

recounted an experience in a procedure room when she felt least safe,

> I didn't know what to expect when they were, you know, they were
> putting those stents in there and, like I say, they didn't sedate me much
> and it seemed like it took longer than what I thought maybe it should have.
> And 'cause I kept asking them, 'How much longer? How much longer?'
> And they'd say, 'We're almost through. We're almost through.' But yet, it
> seemed like it took over an hour to do that but that wasn't very pleasant
> but I just didn't feel very safe with that because I didn't know what was
> transpiring.

Not knowing also contributed to the perception of feeling safe for Ms. 783. When asked

about one experience that was most salient in her mind related to feeling safe she replied,

No, other than the fact when they said… of course, I didn't know where I was. I didn't know they'd changed rooms or anything but when they said intensive care, I thought, 'Oh Lord, *am I going to die*?' You know, that was my first thought because that's what intensive care was to me. It was a place to die and I felt sort of funny there but I knew I was feeling alright and I knew that I didn't have any problem with anything. Of course, I had oxygen most of the time also and I think that helped me on this breathing bit. I never; I never felt insecure or afraid or anything other than just the initial shock of saying, 'You're in intensive care.'

Participants were asked to consider the impact of all mechanical devices on their perception of feeling safe. These included mechanical equipment such as blood pressure cuffs, glucose measuring apparatuses, and devices that were implanted in their bodies. The participants were asked how mechanical equipment in the ICU affected their perception of feeling safe. About the effect of her pacemaker on her perception of feeling safe, Ms. 416 agreed that, "I haven't really gotten used to it being there…they said it would take a couple of months before I would get used to it but it's kind of strange. I know it's there…but yeah, it does feel safe.

About feeling safe and the monitor, Ms. 783 said "Yes, yes, knowing that they were what … See, on that monitor, they know right out there at that desk every time my heart beats and they watch it so I wasn't worrying. That made you feel assured." Ms. 714 had the same sort of feeling about her monitor. However it was the information that the monitor supplied to the nurses who would know what was wrong and could get there fast to help. This process influenced her perception of feeling safe. She said, "it makes you feel safe because one little glitch, you know that they were right there and they know what's wrong, see." Mr. 850 said of being monitored, "I thought, 'I'm better off with these people. You know they grew up with this stuff [meaning the monitor technology] I felt confident that they, you know, they were, I was being watched and observed."

Ms. 714 pointed out the good and the bad about monitors. An aspect of the

monitors that she did not appreciate, "Well, they tell you what's going on, you know,

they let them know what's going on but boy, they're nerve wracking."

Participants were asked to look back on their experience and make a summary statement

about what 'stood out in their minds' about feeling safe in ICU. In an attempt to shed

light on her perception of feeling safe, I asked Ms. 416 to clarify her response about ways

to feel safe in an ICU, these people. You know they grew up with this stuff [meaning the

monitor technology] I felt confident that they, you know, they were, I was being watched

and observed."Ms. 714 pointed out the good and the bad about monitors. An aspect of the

monitors that she did not appreciate, "Well, they tell you what's going on, you know,

they let them know what's going on but boy, they're nerve wracking."

*Ways to Feel Safe in an Intensive Care Unit*

Participants were asked to look back on their experience and make a summary

statement about what 'stood out in their minds' about feeling safe in ICU. Additionally

they were asked about their perception of ways to feel safe in ICU (see Table 7). In an

attempt to elucidate her perception of feeling safe, I asked Ms. 416 to clarify her response

about ways to feel safe in an ICU,

> So I think if they [other older adults in this situation] ask questions before
> hand, I think that would help a lot to ease their minds. [Do you think that
> easing their minds is the same thing as feeling safe?] I don't know about
> safe because you're never sure how things are gonna happen but I think if
> the doctor said that ninety percent of the time, everything is okay, that
> should assure that everything's going to be okay. But I think that you
> should ask questions. Ask questions; that's the key.

She conveyed her perception of the uncertainty about how things might turn out.

For Ms. 416, *not knowing* if everything's going to be okay was ameliorated by

believing what *other people have said.* Data about ways to feel safe in ICU are

presented in Table 8.

Table 7

*The Meaning of Feeling Safe*

| Participant | Responses |
|---|---|
| Mr. 124 | "Well, if you are coherent and you can understand what's going on, listen to the people that's working with you because they know how to take care of you better than you can take care of yourself, see. Be responsible, you know. Listen to them. They tell you to do something; do it. It's for your benefit. And don't get mad and angry with the people that are helping you." |
| Ms. 910 | "I suppose just the fact that I could see out in to the work center where the people were and knowing that there was there was some… if I pushed the button that someone would come or if something did change that the monitors or the IV tones would go off and there would be someone there shortly." |
| Ms. 416 | "I think being close to the desk and being in a room that has big windows would help and the curtain not closed and somebody looking in on you. Because when you're in there by yourself…of course, we're talking about an old lady now and I felt that if there isn't somebody around you, you feel alone…I feel that being as this was a first time for me…somebody should have been in there when I woke up to tell me that, you know, everything was okay and did I have questions. 'Is everything going okay,' 'did I have any issues' or something like that … but nobody did. |
| Mr. 850 | "Oh, I guess my faith 'cause I'm old enough to die, seventy and I, you know, just like everybody, I don't want to leave and I've got so many important people here that I want to be with. At the same time, I believe that, you know, that other people on the other side. So like, you know, I couldn't hardly complain at seventy. You can't start…you can't get mad or nothin'. I'm pretty lucky when I'm flying down there getting all that treatment and all the moves." |
| Ms. 670 | "Yeah, I just knew that if I needed anything, all I had to do was just ring the bell and they'd be there and that didn't happen in that other place." |
| Mr. 547 | "I would want to have some assurance that my doctor was experienced and capable 'cause you're meeting all these people for the first time and it was entirely fair and appropriate to be asking those questions about their background. And so I think I was helped a lot by having my wife there." |

Table 8

*Ways to Feel Safe in ICU*

| Participant | Ways to Feel Safe in an Intensive Care Unit |
|---|---|
| Ms. 622 | Well, how to feel safe in the intensive care unit. I would think just being able to reach your call button so you could feel like you could call someone and they would respond right away. As I said, with my experience, they were in a lot so that made me feel safe. I think being in your room frequently checking on you at a time when you're not really able to take care of yourself is important to feel safe. |
| Ms. 416 | Ask questions. A lot of questions because a lot of things that I think the doctor forgets to tell you or takes it for granted that you already know. I'm seventy-two years old and I didn't know these things, how these things worked. So it was a big surprise to me. So I think if they ask questions before hand, I think that would help a lot to ease their minds. |
| Ms.714 | Ways I could feel safe in ICU. Just make sure that you follow all the instructions that the nurses give you and say, don't do this or don't do that and then that way, you know, you just have to follow the rules and make sure that everything goes alright. But yeah, like I say, the nurses in ICU, you couldn't ask for anybody better. They were great. I'd bank my life on them. |
| Ms. 910 | Well, to realize that there's always someone there that your call button will get you and that their monitoring of the heart monitor and the IVs are well handled, that there is no reason to be fearful that you're going to be left unattended. |

CHAPTER SIX

DISCUSSION


Grounded theory methods are used when generating social process theory that is derived directly from data. The goal of this grounded theory study was to generate a substantive theory of feeling safe for older adults who suffered an unexpected critical illness and received care in an intensive care unit (ICU). There were two specific aims of this study: (a) To identify factors that influenced the perception of feeling safe for the older adults who had received care in an ICU and (b) to identify how those older adults perceived feeling safe in an ICU. To achieve these aims, ten older adults were interviewed. Nine were interviewed twice, once during their hospital stay and a second time after returning home, and one older adult was interviewed once at home. The interviews were analyzed and concepts were identified within the data. Like concepts were linked and grouped into subcategories and main categories. Relationships among the main categories were examined and the core category was identified. All main categories have properties that are strongly linked to the core category of *feeling safe*.

Concepts and how they are linked and related to main categories were explicated in the preceding chapters. Rationale for the core category was also explained and a diagram of the relationships between concepts and categories was displayed. A theoretical model of the substantive theory of older adults' perception of feeling safe in an intensive care unit is displayed in the ensuing chapter. Study findings will be compared to existing literature and generally accepted nursing practice. Study strengths

and limitations are elucidated. Finally, implications for clinical practice and ideas for future research will be discussed.

Participants looked to their health care providers in an attempt to feel safe. Feeling safe was accomplished through actions taken by the older adults in this study to gain the necessary interaction that was so critical to their perception of feeling safe. At the onset of their critical heath event, the older adults were forced into making decisions critical to their survival. They all sought assistance in making the decision to get help. Transportation to the facilities where they ultimately received necessary treatment varied. However they all chose the fastest and best way to get to the hospital. On the way to the hospital and after they arrived in the emergency department (ED), the older adults felt afraid. Reasons for their fear included (a) they recalled what others had said about emergencies, (b) they thought that they were seriously ill because peoples' behavior gave them a sense of urgency, (c) they did not know what was wrong and they had no personal experience with being a patient in the ICU, and (d) they realized that they might die. Their experiences in the ED were brief and the decision was made by the ED providers that intensive care was needed. The perception of being in the ICU brought a renewed feeling of fear for some of the older adults. They had preconceived ideas that people who went to ICU either died or were put away for a long time. Regardless, they all knew that people in the ICU need help and that help came from the ICU nurses. Help came to them, to a lesser degree, from family, friends, doctors, and patient care technicians.

Older adults perceived that the most effective way to get help in the ICU was by calling a nurse. They could often see or hear the nurses outside of their rooms so they knew that help was near. Knowing someone, a nurse, was there was reassuring to the

older adults that they were not alone and made them feel safe. Once summoned, older

adults believed that the nurses could identify the problem, knew what to do, and could

move fast. Thus, to satisfy the first aim of this study four main factors requisite to feeling

safe in ICU were identified. These factors were (a) *initiative*, having ways to initiate

nurse-patient interaction such as the button, calling out, or setting off the alarms;

(b) *oversight*, checking and monitoring; (c) *proximity*, being close enough to be seen or

heard; and (c) *predictability,* the nurse is perceived to be qualified and will act in a

prudent way. Explanation of the four main categories follows.

*Initiative*

As far back in history as Florence Nightingale, the ability to summon a nurse for

help using a call system has been standard equipment. Nightingale, in an 1853 letter to

her colleague Lady Charlotte Canning (Nightingale, 1989), emphasized the basic

renovation necessities for turning a house into a hospital. Among the necessities were hot

and cold running water, a kitchen, and a nurse call system. She wrote of the plan:

> The bells of the patients should all ring in the passage outside the *nurse's*
> own door, *on that story,* and should have a valve, which flies open when
> its' bell rings, and *remains* open in order that the nurse may see who has
> rung.

Since the time of nurse call bells, nurse call systems have progressed with respect to

technology however the purpose has remained the same. Call systems are used by

patients to obtain assistance.

Literature about in-hospital use of nurse call lights is scant. I believe the reason

for the lack of attention to the importance of call lights is over-reliance on information

passed down from nurse-to-nurse without adequate evidence. This assumption is

supported by the difficulty in finding even general literature about nurse call lights.

Fundamental nursing education literature that is used to educate beginning nursing students mentioned nurse call lights only in passing. Authors of a widely used fundamentals of nursing textbook (Potter & Perry, 2005) briefly list nurse call lights as "safety features found in health care settings" (p. 979). Additionally, the nurse should, upon admitting the patient to the hospital room, orient the patient to "use of the call light…and place it within reach" (p. 980). Rationale for this action was the "Use of the call light is essential for client safety" (p. 980). No book section, paragraph, or passage conveyed to the beginning nursing student the critical importance placed by a patient upon the ability to call for help.

New interest in nurse call lights has emerged within the last two years relating to call light management and patient satisfaction (Deitrick, Bokovoy, Stern, & Panik, 2006; Meade, Bursell, & Ketelsen, 2006; Stokowski, 2008). The researchers determined the most frequent reasons patients use their call lights (Meade et al.) and with whom the responsibility to answer the call lies (Deitrick et al.). After determining the reasons patients use their call lights, Meade and colleagues tested interventions aimed at reducing the use of call lights. The institution of regular nursing rounds was found to be effective in preventing patient falls and increasing patient satisfaction. There was no mention about the importance of the nurse call light to the patients.

As part of the introduction to their ethnographic research report, Meade and colleagues (2006) recognized that "the call bell is the patients' 'lifeline'" (p. 316). Additionally, they pointed out that the call light is a means of control for hospitalized patients. No reference is used to validate these statements. Although the aim of their study was to gain insight into medical-surgical patients' perceptions of quality of care,

the focus of the discussion was mainly on staff responsibilities and changes in staff behavior. The authors stated that "once staff understood the importance of call bells to patients…" (p. 322) however they do not give any information about what the patients in their study actually said that lead them to believe that call lights were important to patients. It would seem that the nurses would know about the importance of nurse call lights. However lack of knowledge about the importance patients place on the nurse call light may be attributed to the scant information provided in basic nursing education.

In 1988, the Society of Critical Care Medicine authored Guidelines for the optimal structural design of intensive care units. Since then, the design of intensive care units has made a number of iterations based on changes in technology and equipment (Rashid, 2006) and research about care providers, patients, and families. The Guidelines document includes extensive details about design including a short mention of nurse call lights system as a source of noise. The document states that "Without reducing their importance or sense of urgency, such signals should be modulated to a level that will alert staff members, yet be rendered less noxious" (p. 3). There is no mention of the benefit of nurse call systems for the patients.

Although nurse call lights are referred to in documents dating back to 1853 and the function of the call lights is well known, their importance is remarkably understated and remains undocumented. Older adults in the present study place significantly more importance on the nurse call system than do the scant research and terse references currently available to architects, nurses, and nursing students. Participants referred to the nurse call light system as "the button." Validation for the speculation by Meade et al., participants felt as if the button was a source of control for them and seemed to view the

button as their lifeline. Many of the participants in this study realized that they might die and the button gave them access to the help that they might need in case something happened. Although none of the participants in this study needed to use their button to summon emergency help, it was their perception that the button was a way to initiate interaction with a nurse; the help they might need right now. One participant said "they need the nurses to come right now and not wait because you never know; you never know what's going to happen like this morning…" Researchers who conducted studies in which study participants discussed feeling safe did not report data related to the importance of nurse call lights (Bergbom-Engberg & Haljamae, 1988; Hupcey, 2000; Laitinen, 1996; Logan & Jenny, 1997; Russell, 1999; Wong & Arthur, 2000).

The first of four main categories in this grounded theory is *initiative*. Initiative is defined as "the first step in a process that, once taken, determines subsequent events" (Encarta Dictionary, Microsoft Word 2003). Participants discussed the possibility of taking that first step to initiate interaction with their nurse by (a) pressing the button, (b) calling out, or (c) causing the monitor alarms to sound. Participants reported feeling safe because they believed that by taking the first step, pressing the button, setting off alarms, or calling out, that they would have initiated the process of getting help. Although there were only three participants who actually needed emergency help during their hospital stay, there were other participants who knew what they might do if help was needed during their stay. Of the three that experienced an emergency during their stay, two received help because the monitor alarms went off. A doctor and a PCT were present during the time when the third participant became critically ill so she did not need to call for help.

*Oversight*

Designs of ICUs include structural provisions for monitoring systems (Society of Critical Care Medicine, 1995). Monitors have been positioned in particular locations so constant monitoring of the patient by the nurse is possible (Rashid, 2006; Society of Critical Care Medicine). According to the Guidelines for Intensive Care Unit Design (Society of Critical Care Medicine), "bedside monitoring equipment should be located to permit easy access and viewing ... The bedside nurse … must be able to observe the monitored status of each patient at a glance" (p. 7). Data about being monitored by nurses and machines was a large part of a second main category, *oversight.* Without evidence, older adults in this study believed that monitors were watched constantly throughout the day. Older adults did not know for sure that "they" were watching the monitors as evidenced by one participant who said, "Well, they had a screen. I know they did. I didn't ask them. I'm sure they had a screen in there to watch every heartbeat ..." The idea of constant monitoring, oversight, of their heartbeat contributed to the perception of feeling safe.

Discussion of monitors in the literature focuses on marketing, technology, and intensive care unit design. Cutting edge technology of hemodynamic and physiologic monitoring is important to nurses and physicians in the intensive care unit because such tools gives the healthcare provider the ability to oversee physiological indicators of patient status. However, rather than *how* the person is monitored, it is the perception of being monitored and what being monitored means that was the main focus of older adults in this study. Participants in the present study, and in a study by Russell (1999), felt safe because they perceived that by machines checking, one facet of *oversight,* an alarm

would sound if something went wrong with their heart. The alarm would initiate the process that resulted in nurse-patient interaction. One participant explained the process; "the heart monitor was a good idea because if my heart was having some problems, it would start clanging and somebody would come running."

Similar to Moore's (1996) study of older women in cardiac rehabilitation and Wong and Arthur's (2000) patients' ICU experience after surgery, older adults in the current study felt safe because of the oversight of heart monitors and health status by nurses. The participants recounted instances when the nurses would come into their room to check their blood pressure, blood sugar, infusion pump, or simply to see if everything was okay. A second facet of *oversight* included a nurse within sight checking the chart or checking the monitor. Participants in both studies felt safe when they knew a nurse was checking them and that a nurse was near in case they needed help. One participant put in plain words "I just mean that they came in and I don't always know what they checked." Burfit et al. (1993) found that "vigilance … alert watchfulness" (p. 493) by the nurse was so prevalent in their study of intensive care patients that all other findings "must be described in relation to it" (p. 493). Their concept "vigilance" is very similar to the current study main category *oversight.*  About oversight, one participant said, "I could see them out there and I knew they were watching the monitors, so I never felt ill at ease."
*Predictability*

Predictability means that an event will "turn out in the way that might have been expected" (Encarta Dictionary, Word 2003). The participants indicated that they believed with a high degree of certainty that if they initiated the process, a nurse (a) would come quickly, (b) would care, (c) would know what was wrong, and (d) would know what to

do. Even though it was difficult for the participants to verbalize, they perceived that

having a nurse who was competent contributed significantly to feeling safe. Curley

(2007) described nurse expertise in the Synergy Model metric "safety" (p. 18). Relative

to this study, expertise is embodied in the critical care nurse as clinical judgment, caring

practice, response to diversity, and the nurses' capacity to rescue the older adult from

expected complications (Curley, 2007). The older adults' perception in the present study

of feeling safe when nurses could anticipate their needs and knew what to do in case

"something happens" is consistent with the notion of the nurses' capacity to rescue.

If the nurse was not believed to be an expert, the degree to which the participant

felt safe was diminished. The perceived inexperience of one nurse in the current study

was explained by one participant, "It's just that she wasn't as experienced and I could

sense that." Burfit et al. (1993) and Russell (1999) reported that the participants in their

study spoke of nurses who were highly skilled and knowledgeable practitioners. As in the

current study, the perception of skill was not only related to technology, it related to

being able to anticipate the patients' needs and knowing what to do in case of emergency.

One participant explained "the qualified nursing and their experience and everything

because they know just what to do and it does make you feel safer." Benner (1984) also

used the term "expert" when describing the most advanced nurses. Benner discussed

expert nurses in similar terms. According to Benner, characteristic of expert nurses was

their ability to anticipate problems that might arise, understand and anticipate patient

needs, accurately identify patient crises, and know what to do during an emergency.

Trust was a consequence of predictability. When the participants trusted that the

nurse was checking and he or she was competent, the participants in this study *let them*

*take over*. Morse (1997) described a similar process as "relinquish to care" (p. 30). One woman in the current study described her experience as "I just sort of let go and thought, 'They know what they're doing and I trust them.'"

*Proximity*

The fourth main category is *proximity.* Participants in Wong and Arthur's (2000) study of patients' ICU experiences after surgery told of their feelings about being able to see their nurse. Similar to older adults in the present study who were willing to trade privacy and quiet, they too felt safe in part because they could see their nurse. One reason for having the nurse within sight distance, even if the nurse was not looking directly at the participant, was that if the nurse was within sight he or she would likely be able to hear a vocal distress call. Ms. 622 described the importance of proximity when she said, "if I had a critical moment … I would hope that they would come right away or I'd scream and I guess they would hear me." Like two older adults in the present study, post-surgical patients in Laitinen's (1996) study felt safe when they knew the nurse was present even when the nurse was not within sight.

*A Theoretical Model of Feeling Safe*

A theoretical model (see Figure 2) was constructed based on extant literature and the findings of the current study As the study questions asked participants to reflect on feeling safe, study participants clearly knew what was meant by feeling safe and recounted their ICU experiences about feeling safe with ease. Thus, feeling safe was determined the central category; all other categories could be related to it. Additionally, feeling safe was the consequence of the actions and interactions of the participants. Some of the original labels of the categories were changed because the new labels were more

inclusive of the findings than the previous labels. For example, the category *qualified*

*nurses*, an in vivo label, was not inclusive of the overall description of the nurses by the

study participants. *Predictability* was adopted because the meaning was broad enough to

capture what the participants were saying; that they perceived the nurses' qualifications,

properties, and actions were predictable. Secondly, *ways to get help* was changed to

*initiative* because participants described personal actions, in addition to pressing the

button, which they could take in order to get help. Third, *being monitored* was changed to

*oversight* because the nurses were engaged in activities other than watching the monitors;

they were perceived by the participants as supervising other aspects of care. A fourth

main category, *proximity*, was added to the model as a main category (see Figure 2).

*Seeing or knowing someone is there* and *feeling alone* was changed to proximity because

the physical closeness, proximity, of the nurse made a difference in the participants'

perception of feeling safe.

The four main categories, initiative, oversight, predictability, and proximity, were

requisites of actual or potential interaction with the nurse. Two or more of the requisite

main categories must occur before the interaction is realized. For example, if the

participant presses the button (initiative), the nurse must be close enough to hear or see

the call (proximity). The participant believes the nurse will come and that he or she

possesses the necessary qualities and qualifications to resolve the problem

(predictability). The participant presses the button to initiate interaction with the nurse.

When the interaction occurs as expected, the participant feels safe.

Alternatively, if one of the requisite main categories fails to take place, the

participant does not feel safe. For example, if the participant presses the button and no

one responds, feeling safe is compromised. Additionally, if a nurse responds to the call

and he or she does not know what to do, the participant does not feel safe. The same is

true if proximity and oversight are missing. Participants in this study did not need to

initiate interaction with a nurse for an actual emergency situation. However they expected

that if an emergent situation occurred, they could summon help from the nurse. The nurse

is a necessary component of the process. In ICUs, feeling safe happens as a consequence

of interaction with nurses. Thus, the nurse is a necessary component of the theoretical

model.

Figure 2

*Theoretical Model of Older Adults' Perception of Feeling Safe in an Intensive Care Unit*

*Process*

According to Strauss and Corbin (1998), "process in data is represented by happenings and events that may or may not occur in continuous forms or sequences" (p. 166). The basic social process is identified during analysis by focusing on action and interaction and the changes that occur with contextual change (Strauss & Corbin). The diagram at the bottom of Figure 2 depicts the process of action and interaction that participants described in their interviews. The process changed depending on how the participants appraised their situations. For example, the participants believed that nurses provided oversight and would come if they needed help. The consequence of this expected interaction was that the participants felt safe. If the nurse was perceived as not in proximity and the participant could not predict that the nurse would come if needed, the participant did not feel safe.

*Comparison to Components of the Component Process Model*

The newly developed theoretical model (see Figure 2) is consistent with Scherer's component process model of emotion (Scherer, 2005). According to the component process model, there are five components of emotion and these components continuously change based on appraisal of the environment. When appraisal informed the participants that the requisites were present and the nurse-patient actual or expected interaction would take place, they felt safe. If the situation changed and the individual perceived the need for help, they might employ the motivation component; action a person might take, to correct the evolving change in the situation by initiating interaction with an ICU nurse. Motivation can also include action as well as preparation for action. Preparations for

action, such as planning actions to initiate interaction with the nurse, lead to the perception of feeling safe.

*Comparison of Feeling Safe Model to Psychosocial Needs Model*

Hupcey (2000) conducted a grounded theory study of psychosocial needs of ICU patients. Forty-five patients between the ages of 25-80 were recruited from medical and surgical ICUs for her study. The LOS ranged from 3 to 30 days. The male to female ratio in Hupcey's study was similar to the current study. The "Model of psychosocial needs of ICU patients" (p. 363) displayed feeling safe as the "core variable" (p. 363). Four additional categories that were found to be related to feeling safe were knowing, regaining control, hoping, and trusting (Hupcey). Participants in Hupcey's study described knowing as knowing what was happening and continually seeking information about their condition that they did not know or could not remember. The participants reported experiencing loss of control and losing control and felt relief after regaining control of themselves and their treatments. Participants felt as if they needed to maintain hope to optimize their outcome. The category of trust was described in relation to the nursing staff. The patients reported the nurses watching over them and meeting their needs. This resulted in trust of the staff and a relinquishing to the care the patients received. Other concepts discussed by the author were family and friends, ICU staff, and religious beliefs. Hupcey reported that these concepts were important but did not identify their formal relationship to the model.

The current study of feeling safe for older adults in ICU demonstrated findings similar to the ones reported by Hupcey (2000). Feeling safe was the focus of the interview questions for my study. *Expert nurses* (Benner, 1984) was a strong main

category that included nurses checking, nurses who could anticipate patient needs, and nurses who would come quickly and knew what to do. The expert nurse in the current study encompassed some of the combined properties of Hupcey's "trusting" (p. 364) category and "ICU staff" (p. 365) concept. For example, in addition to the properties of trusting (as stated previously), the ICU staff monitored conditions, was there when needed, and provided information. Participants in the current study did not say that the expert nurses encouraged them to hope or encourage them to fight, as the patients did in the Hupcey study. This difference may be attributed to the nature of the illnesses or injuries or the extended LOS (up to a month) of the patients in her study. Future study of feeling safe could explore the effect of the nature of an illness on feeling safe. Additionally, the exploration and comparison of factors contributing to feeling safe in the context of a shorter length of stay (LOS) (1-5 days) to an extended LOS (5-30 days or longer) could be of value to nurses.

The focus of regaining control in Hupcey's (2000) study was on patients' ability to control themselves and their surroundings. Control for the participants in my study was about ways to get help or ways to call someone at will. I identified the concept of control as a subcategory rather than a main category based on the ways the older adults related control to the button.

Family and friends played a more influential support role in the Hupcey study. Dissimilar to the model of psychosocial needs of ICU patients (Hupcey, 2000) the older adults in my study did not frequently mention their families as playing a significant support role. Two women spoke of their daughters assisting in making decisions and visiting them while they were in the hospital, but I did not get the feeling that the

daughters' presence was critical to their hospital stay. This may be attributable to the relatively short LOS or maybe the age of the participants. Younger patients may require a different configuration of support. Friends were not perceived as contributing to support for participants.

Faith (current study) and religion (Hupcey, 2000) were similar concepts in both studies. The dimension of faith for some older adults in the current study was less varied; the participants spoke of praying and talking with God. The participants in the Hupcey study spoke of others' prayers on their behalf in addition to their personal prayers. Some participants in both studies spoke of a belief that a higher power was watching over their wellbeing.

*Implications for Practice*

ICU nurses can use the findings of this study to question and change practice. Positioning themselves so (a) patients can see that their nurses are in proximity to their room, (b) their oversight of the patient is obvious, and (c) the patients perceive that they can initiate interaction if necessary is essential for their patients to feel safe. The critical importance placed on the nurse call button by the patient is reinforced in this study. ICU nurses must make certain that the nurse call mechanism is placed so the patient can initiate a call for help.

The theoretical model constructed from data is useful to predict patient interaction with nurses. ICU nurses can use the model to remind them of the requisites of interaction or expected interaction with the purpose of effecting the perception of feeling safe. Patient outcomes that result from the perception of feeling safe are yet to be elucidated

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however, based on the findings of this study, feeling safe is an important aspect of the ICU experience for older adults.

The result of this study also has implications for future ICU design. For the participants, the perception of feeling safe was, in part, based on the ability to see the nurse was near. Architects and hospital executives who are involved in constructing ICUs must keep the needs of the patients in the forefront during the planning process.

*Implications for Future Research*

*Study strengths.* Using grounded theory method (Strauss & Corbin, 1998) for the current research added strength to this study because grounded theory method is especially useful when a social interaction process is under investigation and feeling safe in an ICU is a social interaction process. ICU patients are in a particularly vulnerable situation in which they are at "risk for adverse outcomes" (Curley, 2007, p. 27) and they are dependent on at least four requisites for survival; initiative, proximity, oversight, and predictability.

An additional strength is that I conducted all of the interviews. Although Strauss and Corbin (1998) do not discuss the benefit to a researcher of single-handedly collecting data, I found it to be helpful in several ways. First, conducting multiple interviews allowed me to reflect upon the participant's previous interview to construct questions that enhanced understanding of a previous concept or to further develop a category. Second, I became more skilled at interviewing as I listened and self-critiqued my performance using the audio-taped interviews. Lastly, I thought that I had a better analytic *feel* for the data than if I had not met the participants.

Strauss and Corbin suggest that there are criteria for evaluation of a study (Strauss & Corbin, 1998). I will use five criteria. These criteria include reproducibility, including the research process, generalizability, and representativeness; credibility, including plausibility; explanatory power of the theory; and empirical grounding. Evaluation of this study in relation to these criteria adds strength to the findings and to the theory.

*Reproducibility.* Studies that explore social phenomena can never be exactly replicated (Strauss & Corbin, 1998). However, this research process has been explicated to the extent that another researcher could conduct a similar study. Reproducibility augments credibility.

According to Strauss and Corbin (1990), the purpose of a grounded theory "is to specify the conditions that give rise to specific sets of action/interaction pertaining to a phenomenon and the resulting consequences" (p. 251). The theory generated by this study has these components. There are four conditions that are requisite to action/ interaction that result in a consequence. When a theory meets these criteria, it is said to be generalizable in similar situations.

*Representativeness.* This study was carried out in two similar institutions in which participants were recruited from three ICUs. This multisite aspect adds validity and "representativeness" (Strauss & Corbin, 1998, p. 214) of the concepts to the findings and to the theoretical model. Additionally, data from 18 interviews increases the chances of full development of the categories. Although the counting of sites and interviews was not really the point, representativeness was augmented by the number of instances a concept was observed and the dimension of each concept. According to Strauss and Corbin, the center of attention when inductively building theory is on representativeness of concepts.

*Credibility.* Another strength of this study is credibility; the confidence in the truth of data and their interpretation (Polit & Beck). The degree to which credibility is assigned is determined by whether the evidence supports the claim. Plausibility also adds to credibility by judging whether the findings are likely to be true based on present knowledge (Hammersly, 1990). The purpose of grounded theory is to "provide a plausible explanation of some phenomenon" (Miller & Fredricks, 1999, p. 543) in limited situations. Credibility and plausibility can be validated by an expert member check. Consistent with Smith and Deemer's (2000) suggestion of validation with those involved in the study, the current study was subjected to expert validation by engaging in dialogue with my adviser and committee members.

*Explanatory Power.* Evaluating the quality of a theory is done through the use of explanatory power; "the ability to explain what might happen in given situations" (Strauss & Corbin, 1998, p. 266). Data collection in multiple sites as well as conducting multiple interviews contributes to the explanatory power of the current study because it adds dimension. Although a substantive theory, such as the present theory, that was developed from a targeted investigation and a specific population loses some of its explanatory power, the theory can be applied to older adults who unexpectedly suffered a critical health event and were admitted to an intensive care unit.

*Empirical Grounding.* Grounded theory is theory derived from data (Strauss & Corbin, 1998). All concepts and categories were grounded in the data and were densified and linked. Properties and dimensions, conditions, and processes were incorporated into the theory. The theory that was generated has predictive power in similar clinical situations and explanatory power in settings similar to the settings in which the data was

collected. Further research can be directed from this study. Thus, this theory boasts empirical grounding.

*Study Limitations*

A major limitation of this study is the homogeneity of the participants. The only variance is in gender and age; there is no variance in ethnicity. Insofar as variance is viewed as a positive aspect of research, diversity of participants within this study sample likely would not have been of benefit for the current theory. For example, it is possible that data provided by one older adult of a diverse ethnicity or culture could have been very different from the other nine. A participant different from the others also have suggested directions for further study to the researcher. However, data saturation was recognized after interviews with ten participants and no potential participants of varied ethnicity had been identified at the participating hospitals. Additional projects utilizing theoretical sampling will be necessary to address this limitation.

*Future study.* A substantive theoretical model of older adults' perception of feeling safe in an intensive care unit (ICU) has been constructed and discussed. However, more research is needed to continue to develop the model. Strauss and Corbine (1998) encourage researchers to engage in development of knowledge and "further qualitative and quantitative studies about the same phenomenon can extend that knowledge" (p. 23). The following are examples of research topics that have been generated by the current study and could add to the further development of theory.

Older adults may perceive feeling safe in a different way when hospitalized for other diagnoses. Different factors related to feeling safe after experiencing trauma may

emerge because of a possible increased threat to the body. The potential for lasting

effects of trauma might also change the perception of feeling safe.

Research needs to be conducted with other age groups. Research reports that were

reviewed for the current study detailed the ages of adult participants. Except for Moore's

(1998) study of older women, participants in the prior studies were generally over 18 and

a broad range of participant ages were included in one study. The current study limited

the age of recruits to over 65 years. Research about feeling safe in intensive care for other

age groups needs to be conducted because it is likely that people of varied ages

experience feeling safe differently.

Although some literature supports the idea that prior experience in the intensive

care unit mitigates the experience, the focus was not limited to older adults. In the current

study, there were participants who knew someone or had visited someone in an intensive

care unit. Knowing about experiences of the ICU through others and how it changes the

perception of feeling safe is likely of value for theory development.

Another variable in feeling safe research is length of stay (LOS). Hupcey (2000)

studied psychosocial needs of patients18 years and older in an ICU context. Length of

stay for her participants was as long as 30 days. It is plausible that factors affecting

feeling safe will likely change based on age or length of time a person stays in intensive

care.

The heightened need for family and friend support (Hupcey (2000) versus lesser

need for the same support in the current study may be due in part to the relatively short

LOS.  Friends were not perceived as contributing to support for older adults in the present

study. Additionally, younger patients may require a different configuration of family and friend support.

Trust was identified as an important concept in the current study. Trust as it related to trusting persons, such as nurses, who had not personally earned the trust of patients was undeveloped in the current study. Hardin (2002) suggested that a person can trust another based on personal characteristics or reputation in society. In the current study, participants trusted their nurses, it seemed, without justification. Reasons for trusting were not clear and beyond the scope of this study. Exploration of empirical indicators of unfounded, perceived trustworthiness of nurses and how the perception of trustworthiness versus untrustworthiness might affect patient health outcomes is needed.

*Conclusion*

Findings from this grounded theory study suggest that for older adults, feeling safe in an intensive care unit is central. Twenty-seven concepts were identified from the text of 18 interviews. Links between like concepts were identified and like-concepts were grouped together to form subcategories and categories. Four main categories that were requisite to feel safe for older adults were identified: (a) initiative, (b) oversight, (c) predictability, and (d) proximity. Participants perceived that if there was an emergency and they needed help, either the alarm would sound or the nurse would see the heart irregularity on the monitor. Monitor alarms were not the only ways to get help. The older adults believed that if they took the initiative and pressed the button or called out to the nurse, that a nurse would come to help. In any case, the interaction process would be initiated: the nurse would come quickly and he or she would know what to do.

Oversight of many aspects of the participants' health was essential to feeling safe. Older adults in this study felt that the nurses were always checking on them. The nurses checked their health status, their monitors, and just to see if everything was okay. When the participants could see the nurses checking, they felt safe.

Proximity of the nurse to the participants in the ICU was necessary to the perception of feeling safe. The ability of the participants to see their nurse from their room was vital for the potential interaction to take place between the nurse and the participant. The participants believed that proximity of the nurse confirmed that the nurse was close enough to come quickly if "something happened."

The participants perceived that the actions of the ICU expert nurses were predictable. If the process was initiated (a) the nurse would know what was wrong, (b) the nurse would care, (c) the nurses would move fast, and (d) the nurses would know what to do. The belief that the process was predictable led the participants to feel safe. All other concepts were related to the four categories. Initiative, oversight, predictability, and proximity, in combinations of at least two, were requisites for the actual or expected interaction with a nurse. In the ICUs, feeling safe was the consequence of nurse-patient interaction.

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Appendix A

Retrospective, Semi-structured Interview Guides

*Hospital Interview Guide*

1. Tell me what happened before you came to the hospital? (If the patient does not recall, go to Question #2).

Probe: How did you feel being taken to the hospital in the (car, ambulance, or helicopter)?

Probe: How did you feel being in the Emergency Department (ED)?

Probe: How did you feel being in the intensive care unit?

2. What does feeling safe in the ICU mean to you?

Probe: Tell me about feeling safe in the ICU.

3. Many people feel afraid when they are in ICU. What were you afraid of when you were in ICU? How did these things affect how safe you felt?

This study is about feeling safe in the ICU.

4. What role did the nurses play in your perception of feeling safe?

Probe: Could you see your nurse when he or she was not in your room? Did you ever need help when you were in the ICU? How did you get help? What happened when you tried to get help?

Probe: What about the other ICU staff? How did ___ influence your perception of feeling safe?

5. Now that you are out of the ICU, how did transferring to a different area in the hospital affect how safe you felt?

*Home Interview Guide*

This study is about feeling safe in the ICU and what feeling safe means to you. Now that you have been home from the hospital for a few days and you have had time to think about your ICU experience, what does feeling safe in the ICU mean to you?

1. Tell me about being in the ICU. What was it like for you?

   Probe: What did you know about intensive care before you became a patient there?

2. What was it like to be in ICU? How did the ICU work? Describe a typical day in the ICU.

   Probe: Did you feel as if you knew what was happening? What was the plan for your care in the ICU?

   Probe: Describe a time during which you felt you were/were not in control of your situation. How did this affect feeling safe for you?

3. Tell me about a time in the ICU when you felt most safe/ least safe.

4. What did you know about the [mechanical device such as mechanical ventilator, pacemaker, monitor, intra-aortic balloon pump]? How did the [mechanical equipment] in the ICU affect how safe you felt?

5. As you look back on your experience in the ICU, is there anything else that stands out in your mind about feeling safe there?

6. What are ways to feel safe in the ICU?

Appendix B
*Research Activity Plan*

| Month / Activity | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IRB approval and receipt of funding | ▓ | | | | | | | | | | | |
| Arrange for transcriptionist | ▓ | | | | | | | | | | | |
| Prepare study materials | ▓ | | | | | | | | | | | |
| Recruit and interview purposive sample | | ▓ | ▓ | | | | | | | | | |
| Transcribe and organize data | | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | | | |
| Data Analysis | | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | | | |
| Recruit and interview theoretical sample | | | | ▓ | ▓ | ▓ | ▓ | ▓ | ▓ | | ▓ | ▓ |
| Progress Report | | | | | | | | | | | | ▓ |
| Prepare and Submit Manuscripts | | | | | | | | | | ▓ | ▓ | ▓ |
| Present Findings | | | | | | | | | | | ▓ | ▓ |

*Scheduled Research Presentations*

1. Alpha Iota Chapter, Sigma Theta Tau
2. NTI, Annual Conference of the American Association of Critical Care Nurses
3. St. Lukes Hospital Nursing Research Council Annual Research Day (Spring 2009)
4. Cooperative Research Day, University of Missouri System (April 2009)

# Appendix C

## University Hospital Letter of Support

**Lori Tebbe, RN, BSN**
**Interim Manager, Adult ICUs**
One Hospital Drive
DC101.10
Columbia, MO 65212
Telephone (573) 882-1089

University
Hospitals & Clinics
*University of Missouri Health Care*

To whomever it may concern:

It has come to my attention that Sue Lasiter is submitting a proposal for her dissertation research. She wishes to study adults and their perceptions of safety as they may find themselves in as an unexpected patient in Adult Intensive Care. Sue wishes to conduct her research at our facility.

Our facility is a level one trauma center and teaching hospital. Currently we have 54 Adult Critical Care beds which encompass Surgical, Burn, Cardiac, Medicine and Neurosurgical patients. Our ICU's boast high occupancy rates as we serve every county in the State of Missouri. In addition to our Level One Trauma center, we have also achieved designation as a Chest Pain Center.

I feel our facility can easily support Sue's research effort in this area and highly support her in this project. Our hope is through her findings, we can further improve the excellent patient care we provide in our Intensive Care Units.

Please accept this letter of support of Sue with her dissertation research proposal.

Respectfully,

Lori Tebbe RN, BSN

Appendix D
H1 IRB Consent Materials

Dear Intensive Care Unit Nurses,

I am Sue Lasiter, a doctoral student at Sinclair School of Nursing, University of Missouri-Columbia. I am conducting a research project about the perception of feeling safe for older adults in an intensive care unit.

I am recruiting 10 older adults who are age 65 and older who have unexpectedly experienced a critical  health event and were admitted to an intensive care unit for 1-5 days. The patients will be asked for two interviews. The first interview will be conducted after they have left the intensive care unit and are receiving care in another part of the hospital. The second interview will take place in the participant's home approximately two weeks after discharge from the hospital to home. The interviews will take approximately 30-60 minutes to complete. The participants will be asked about their perception of feeling safe during their stay in the intensive care unit.

I am asking for your help in identifying potential participants who
- Are 65 years old or older
- Have experienced an unexpected admission to ICU for a critical health event and have transferred or will e transferring to an intermediate care unit after being in ICU for 2-5 days.
- Are able to recall and understand the purpose of the study
- Are able to reflect upon and discuss their perception of events that occurred in the ICU
- Understand and speak English and can hear the interview questions (with or without amplification).
- Have no previous experience with intensive care

It is very important that the patients know that participation is voluntary and the information they offer during the interviews will be confidential. By signing the attached form the patient is not agreeing to be in the study, they are only giving their permission for you to give their name to me. The patient may retain a copy of the form. Once the patient has expressed an interest in knowing about this study, I will come to their hospital room and explain the study in detail and ask him or her to sign a consent form.

I hope that you will partner with me in this project because I believe that the findings will help support you and your colleagues as you care for critically ill patients.

Sincerely yours,


Sue Lasiter RN
Doctoral Candidate
University of Missouri, Columbia

I have been asked to participate in a study of the perception of feeling safe for older adults in an intensive care unit. I understand that participation in research is voluntary and that by signing this paper I am expressing my interest in finding out more about this study from Sue Lasiter, who is a doctoral student at the Sinclair School of Nursing, University of Missouri, Columbia.

You may give my name to Sue Lasiter so she can contact me to explain in detail about my possible participation in the study of feeling safe for older adults in intensive care units.

Name: _____

# CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

**INVESTIGATOR'S NAME:** SUE LASITER
**PROJECT #1073777**
DATE OF PROJECT APPROVAL: NOVEMBER 1, 2006

| FOR HS IRB USE ONLY |
| --- |
| **APPROVED** |
| _____ |
| HS IRB Authorized Representative          Date |
| **EXPIRATION DATE:**  _____ |

**STUDY TITLE:** OLDER ADULTS' PERCEPTION OF FEELING SAFE IN AN INTENSIVE CARE UNIT

INTRODUCTION: **THIS CONSENT MAY CONTAIN WORDS THAT YOU DO NOT UNDERSTAND. PLEASE ASK THE INVESTIGATOR OR THE STUDY STAFF TO EXPLAIN ANY WORDS OR INFORMATION THAT YOU DO NOT CLEARLY UNDERSTAND. A COPY OF THIS CONSENT FORM WILL BE GIVEN TO YOU TO KEEP.**

**This is a research study. Research studies include only people who choose to participate.  As a study participant you have the right to know about the procedures that will be used in this research study so that you can make the decision whether or not to participate.  The information here is presented to you so you will be better informed and so you may give or withhold your consent to participate in this research study.**

You are being asked to take part in this study because you are age 65 years or older and you experienced an illness that you did not expect to happen. Because of this illness, you were admitted to the hospital and received care in the Intensive Care Unit.

This study is being sponsored by the Alpha Iota Chapter of Sigma Theta Tau International and the American Association of Critical Care Nurses.

Please take your time to make your decision and discuss it with your family and friends. In order to participate in this study, it will be necessary to give your written consent.

## WHY IS THIS STUDY BEING DONE?

The purpose of this study is to learn about the experiences of older adults who have unexpectedly been admitted to an Intensive Care Unit. Other studies have shown that feeling safe while in the Intensive Care Unit is important to recovery. We want to understand how this works for older adults, so that we can help nurses and doctors improve care for other patients in the Intensive Care Unit.

## HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

About 15 people will take part in this study. All of them will have been admitted to an intensive care unit at a large Midwestern hospital after suddenly and unexpectedly becoming ill.

## WHAT IS INVOLVED IN THE STUDY?

If you take part in this study, you will be interviewed twice for about 30 to 60 minutes. The person who interviews you will ask you questions about your experience in the intensive care unit. The first interview will be tape recorded and will take place in a private area of the hospital within three days after you leave the intensive care unit but while you are still a patient in the hospital. The second interview will also be tape recorded and will take place at your home about two weeks after you go home from the hospital.

## HOW LONG WILL I BE IN THE STUDY?

You be in the study for approximately two weeks. However, you can stop participating at any time by terminating either of the two interviews. Your decision to terminate an interview will not affect in any way your medical care and/or health care benefits. If after you consent, you decide you do not want to be interviewed you may simply contact me.

## WHAT ARE THE RISKS OF THE STUDY?

There is minimal risk involved by participating in this study. You may become fatigued or distressed by remembering your experiences and talking about them. If this happens to you, you can simply tell me that you want to stop the interview or that you would like to rest and the interview can resume at another time or on another day.

## ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

If you agree to take part in this study, there will not be direct medical benefit to you. You may expect to benefit from taking part in this research to the extent that you are contributing to health care knowledge. We hope the information learned from this study will benefit other patients who will be patients in an intensive care unit in the future.

## WHAT OTHER OPTIONS ARE THERE?

An alternative is to not participate in this research study.

## WHAT ABOUT CONFIDENTIALITY?

We will not share any information that you give us with your doctor, nurses or staff who took care of you. Information from this study will be stored in the investigator's locked file cabinet and identified by a code number only. The code key connecting your name to your information will be kept in a separate, secure location. Information contained in your file may not be given to anyone unaffiliated with the study in a form that could identify you without your written consent, except as required by law. The investigator conducting this study will be the primary researcher and the interview contents will only be seen by the transcriptionist and the consultants. The transcriptionist and the consultants will not know your name or have any way to connect your taped or transcribed interview to your name.

**The results of this study may be published in a medical book or journal or used for teaching purposes. Your results may also be grouped in with the results of others and presented in a conference. However, your name or other identifying information will not be used in any public display or teaching materials without your specific permission.**

**In addition, the audiotape of your interviews that could identify you will be destroyed after the completion of the study. If the researcher would like to use your particular case in a presentation, you will be asked for your consent and you will be given the opportunity to view or listen, as applicable, to the presentation before you give your permission for their use if you so request.**

By law, nurses are required to report physical, psychological, financial, sexual abuse or neglect of anyone over age 65 years to the Missouri Department of Health and Senior Services. This means that if there is reason to believe that you have been abused or neglected, I must report it. I will discuss the situation with you before I call the Department of Health and Senior Services.

## WHAT ARE THE COSTS?

There is no financial cost to you for your participation in the study. The study only involves the donation of your time to answer interview questions.

## WILL I BE PAID FOR PARTICIPATING IN THE STUDY?

You will receive a small honorarium payment for taking part in this study.

## WHAT IF I AM INJURED?

**It is not the policy of the University of Missouri to compensate human subjects in the event the research results in injury. The University of Missouri, in fulfilling its public responsibility, has provided medical, professional and general liability insurance coverage for any injury in the event such injury is caused by the negligence of the University of Missouri, its faculty and staff. The University of Missouri also will provide, within the limitations of the laws of the State of Missouri, facilities and medical attention to subjects who suffer injuries while participating in the research projects of the University of Missouri. In the event you have suffered injury as the result of participation in this research program, you are to contact the Risk Management Officer, telephone number (573) 882-1181, at the Health Sciences Center, who can review the matter and provide further information. This statement is not to be construed as an admission of liability.**

## WHAT ARE MY RIGHTS AS A PARTICIPANT?

Participation in this study is voluntary. You do not have to participate in this study. Your present or future care will not be affected should you choose not to participate. If you decide to participate, you can change your mind and drop out of the study at any time without affecting your present or future care. Leaving the study will not result in any penalty or loss of benefits to which you are entitled. In addition, the investigator of this study may decide to end your participation in this study at any time after she has explained the reasons for doing so.

## WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions regarding your rights as a participant in this research and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Health Sciences Institutional Review Board (which is a group of people who review the research studies to protect participants' rights) at (573) 882-3181.
You may ask more questions about the study at any time. For questions about this study or a research-related injury, contact Sue Lasiter at (816) 781-1743 or (816) 726-1179.
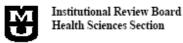
## SIGNATURE

I confirm that the purpose of the research, the study procedures, the possible risks and discomforts as well as potential benefits that I may experience have been explained to me.  Alternatives to my participation in the study also have been discussed.  I have read this consent form and my questions have been answered.  My signature below indicates my willingness to participate in this study.


_____          _____
Subject/Patient*                                                                              Date


_____          _____
Legal Guardian/Advocate/Witness (if required) **                          Date


_____          _____
Additional Signature (if required) (identify relationship to subject) ***      Date

**The presence and signature of an impartial witness is required during the entire informed consent discussion if the patient or patient's legally authorized representative is unable to read.

***This line may be used for any other signature which is required as per federal, state, local, sponsor and/or any other entity requirements.

## SIGNATURE OF STUDY REPRESENTATIVE

I have explained the purpose of the research, the study procedures, identifying those that are investigational, the possible risks and discomforts as well as potential benefits and have answered questions regarding the study to the best of my ability.

_____Date_____
Study Representative****

****Study Representative is a person authorized to obtain consent.  Per the policies of the University of Missouri Health Care, for any 'significant risk/treatment' study, the Study Representative must be a physician who is either the Principal or Co-Investigator. If the study is deemed either 'significant risk/non-treatment' or 'minimal risk,' the Study Representative may be a non-physician study investigator.

# Appendix E – IRB Approvals

**Institutional Review Board**
**Health Sciences Section**

University of Missouri-Columbia

125 Folk Hall
One Hospital Drive
Columbia, MO 65212
PHONE (573) 882-3181
FAX (573) 884-4401
E-MAIL: irb@missouri.edu
WEB: www.research.missouri.edu/hsirb

November 17, 2006

Rita Lasiter, MD
School of Nursing
11417 N Ditzler Ave
Kansas City, MO 64158

Dear Dr. Lasiter,

Regarding your application for approval of the research project, *Older Adults' Perception of Feeling Safe in an Intensive Care Unit*, the Health Sciences Institutional Review Board (HS IRB) took the following action:

a. Approved your application through expedited review [as codified under 45 CFR 46.110 (f) (7)] on November 1, 2006.
b. Found this protocol to impose minimal risk to the research participant.
c. Requires that the principal investigator obtain the informed written consent of each research participant.
d. Reviewed and approved the final version of the consent form on November 13, 2006. Please use the approved consent displaying the signed IRB approval box when consenting patients.
e. Reviewed and approved any advertisements or other recruitment materials that were submitted with your application.
f. Found that there is no HIPAA requirement for this project.
g. The HS IRB has determined that the degree of risk is such that the approval for this protocol will expire on November 1, 2007. A Continuing Review Report must be submitted a minimum of one month prior to this date.
h. Upon completion of the study a Completion Form must be submitted to the HS IRB office. If the closure is not documented on the Completion Form, you may close the study at the time of the annual review.

Please reference **IRB Project # 1073777** in all future communications regarding this project.

Pursuant to the HS IRB conflict of interest policy, investigators who are HS IRB members do not vote on protocols in which they are involved.

Death occurring in a study at this site must be reported to the HS IRB office within 24 hours of occurrence, whether or not the death is related to the study. All on-site serious adverse events must be reported to the HS IRB office within five (5) days of occurrence.

No change may be made in an approved protocol or recruitment materials unless the change is submitted to and approved by the HS IRB.

Do not depend on the HS IRB for your record keeping. Pursuant to federal regulations, the IRB retains files of only three years after termination of a research project.

Sincerely,

Niels Beck, PhD
Chair

Enclosure

## HS IRB Exempt Application
## Signature Page

Project Number: 1073777

Review Number: 58246

Project Title: Older Adults` Perception of Feeling Safe in an Intensive Care Unit

Principal Investigator: Rita Sue Lasiter

**CERTIFICATION**

The undersigned certifies that the information provided in this document is complete and accurate. The undersigned assures that modifications to the originally approved project will not take place without prior review and approval by HS IRB, and that all activities have been and will continue to be performed in accordance with federal, state, local and University of Missouri - Columbia policies and regulations.

_Rita Sue Lasiter_                     _9/22/06_
Signature of Principal Investigator          Date

_____          _____
Document Prepared By                      Date

**FOR HS IRB USE ONLY**

Project is exempt under 45 CFR 46.101 (b) (      )

APPROVED/ACKNOWLEDGED:

_____
HS IRB Authorized Representative

DATE OF SIGNATURE:  _11-7-06_

Full Board: ____  Expedited: _X_  Exempt: ____

APPROVAL/ACKNOWLEDGED DATE: _11-1-06_

APPROVAL EXPIRATION DATE: _11-1-07_

Please send signature page and supporting materials to:

Health Sciences IRB
125 Folk hall; Dc074.00
One Hospital Drive
Columbia, MO 65212

# HS Amendment Request
# Signature Page

**Project Number:** 1073777

**Review Number:** 62933

**Project Title:** Older Adults' Perception of Feeling Safe in an Intensive Care Unit

**Principal Investigator:** Rita Sue Lasiter

**CERTIFICATION**

The undersigned certifies that the information provided in this document is complete and accurate. The undersigned assures that modifications to the originally approved project will not take place without prior review and approval by HS IRB, and that all activities have been and will continue to be performed in accordance with federal, state, local and University of Missouri - Columbia policies and regulations.

_Rita Sue Lasiter_                          _5/16/07_

Signature of Principal Investigator          Date

_____                    _____

Document Prepared By                         Date

**FOR HS IRB USE ONLY**

APPROVED/ACKNOWLEDGED

HS IRB Authorized Representative

DATE OF SIGNATURE: _5/21/07_

Full Board: _____     Expedited: _____

APPROVAL/ACKNOWLEDGED DATE: _5·21·07_

APPROVAL EXPIRATION DATE: _N/A_

_____ Subjects are required to be reconsented within 60 days of the above approval date. The HSIRB must be notified if you are unable to meet this deadline.

Please send signature page and supporting materials to.

Health Sciences IRB
125 Folk hall; Dc074.00
One Hospital Drive
Columbia, MO 65212

# Saint Luke's Hospital
# Kansas City, MO  64111

**AUTHORIZATION TO SHARE PRIVATE HEALTH INFORMATION FOR RESEARCH**

**Study Title**:  Older Adults' Perception of Feeling Safe in an Intensive Care Unit

We are asking you to consider taking part in a research study being conducted by Rita Sue Lasiter, who is a doctoral student at the Sinclair School of Nursing, University of Missouri, Columbia, MO.  If you would like to consider taking part in the research, we require your permission to provide your name and hospital room number to the researcher, who is not an employee or affiliated with Saint Luke's Hospital or your doctor's office. For us to give your name to the researcher, you must sign this form authorizing Saint Luke's Hospital to disclose your private health information for research purposes.  If you choose not to sign this authorization, you may not take part in the research, but Saint Luke's Hospital will continue to provide all appropriate treatment that is not related to the research.

We will provide the researcher with your name and hospital room number. Ms. Lasiter will contact you and explain the details of the study, which involves interviews about your stay in the Intensive Care Unit. Ms. Lasiter has signed a Confidentiality Agreement with Saint Luke's Hospital to keep your information private. No identifying information about you will be revealed in any publication or presentation of this research. This form has no expiration date.

After signing this form, if you change your mind later and do not want us to share your information, you may let us know by contacting: Lauri Higgins, RN, Patient Care Director at Peet Center, 4th Floor, Saint Luke's Hospital, Kansas City, MO 64111  (816-932-3086). Your decision whether or not to participate is completely voluntary and will not affect your care at Saint Luke's Hospital.

_____Date_____

Signature of Participant or Legal Representative

_____

Relationship to Participant (If Signed by Legal Representative)

_____

(Signature of Person Obtaining Consent)

## REPORT OF EXPEDITED IRB REVIEW

**Date:** February 26, 2008

**Principal Investigator(s):** Lauri Higgins, RN, MPA      **IRB Protocol No.:** 08-159

**Sub-Investigator(s):** Rita Sue Lasiter

In accordance with 45 CFR 46.110 and 21 CFR 56.110, expedited approval of the following is hereby granted

Research activities present no more than minimal risk and are listed in Category 7 NIH/FDA publication of categories that may be reviewed through expedited review procedures (see attached)

| |
|---|
| **Study Title:** Older Adults' Perceptions of Feeling Safe in an Intensive Care Unit |
| **Length of approval:** one year      **Approval expiration date:** February 26, 2009 |
| **Study sites approved:** Saint Luke's Hospital-Plaza |
| **Informed Consent Document Revision Date:** February 2008 |
| **Authorization to Share Private Health Information for Research** |
| **Only copies of the consent form with a dated IRB approval stamp may be used for obtaining consent.** |

This information will be reported to the full IRB on March 14, 2008.

_____
Alan Forker, MD, Chair, Institutional Review Board

The IRB has the authority to suspend or terminate approval of research that is not being conducted with the IRB's requirements or that has been associated with unexpected serious harm to subject or others. No deviations from or changes to, the protocol may be initiated without prior written IRB approval except when necessary to eliminate immediate hazards to the subjects or when the change(s) involves only logistical or administrative aspects of the trial (e.g., change of monitor(s), telephone numbers). All adverse events that are both serious and unexpected and any new information that may adversely affect the safety of the subjects or the conduct of the trial must be promptly reported to the IRB.

# Expedited Review Categories

### Category (1)
Clinical studies of drugs and medical devices only when condition (a) or (b) is met.
(a) Research on drugs for which an investigational new drug application (21 CFR Part 312 is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review.)
(b) Research on medical devices for which (i) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.

### Category (2)
Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows:
(a) from healthy, nonpregnant adults who weigh at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 9-week period, and collection may not occur more frequently than 2 times per week; or
(b) from other adults and children*, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8-week period, and collection may not occur more frequently than 2 times per week.

### Category (3)
Prospective collection of biological specimens for research purposes by noninvasive means. Examples: (a) hair and nail clippings in a nondisfiguring manner; (b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction; (c) permanent teeth if routine patient care indicates a need for extraction; (d) excreta and external secretions (including sweat); (e) uncannulated saliva collected either in an unstimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue; (f) placental removed at delivery; (g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor; (h) supra- and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques; (i) mucosal and skin cells collected by buccal scraping or swab, skin swab or mouth washings; (j) sputum collected after saline mist nebulization.

### Category (4)
Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications.) Examples: (a) physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's privacy; (b) weighing or testing sensory acuity; (c) magnetic resonance imaging; (d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, Doppler blood flow, and echocardiography; (e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight and health of the individual.

### Category (5)
Research involving materials (data, documents, records, or specimens) that have been collected or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.)

### Category (6)
Collection of data from voice, video, digital, or image recordings made for research purposes.

### Category (7)
Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from HHS regulations for the protection of human subjects 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

### Category (8)
Continuing review of research previously approved by the convened IRB as follows:
(a) where (i) the research is permanently closed to the enrollment of new subjects; (ii) all subjects have completed all research-related interventions; and (iii) the research remains active only for long-term follow-up of subjects; or
(b) where no subjects have been enrolled and no additional risks have been identified; or
(c) where the remaining research activities are limited to data analysis.

### Category (9)
Continuing review of research, not conducted under an investigational new drug application or investigational device exemption where categories two (2) through eight (8) do not apply, but the IRB has determined and documented at a convened meeting that the research involves no greater than minimal risk and no additional risks have been identified.

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* Children are defined in the HHS regulations as "persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law of the jurisdiction in which the research will be conducted." 45 CFR 46.402(a)

**Saint Luke's Hospital**
**Kansas City, MO  64111**

## AUTHORIZATION TO SHARE PRIVATE HEALTH INFORMATION FOR RESEARCH

**Study Title**:  Older Adults' Perception of Feeling Safe in an Intensive Care Unit

We are asking you to consider taking part in a research study being conducted by Rita Sue Lasiter, who is a doctoral student at the Sinclair School of Nursing, University of Missouri, Columbia, MO.  If you would like to consider taking part in the research, we require your permission to provide your name and hospital room number to the researcher, who is not an employee or affiliated with Saint Luke's Hospital or your doctor's office.  For us to give your name to the researcher, you must sign this form authorizing Saint Luke's Hospital to disclose your private health information for research purposes.  If you choose not to sign this authorization, you may not take part in the research, but Saint Luke's Hospital will continue to provide all appropriate treatment that is not related to the research.

We will provide the researcher with your name and hospital room number. Ms. Lasiter will contact you and explain the details of the study, which involves interviews about your stay in the Intensive Care Unit. Ms. Lasiter has signed a Confidentiality Agreement with Saint Luke's Hospital to keep your information private. However, once we have shared your information with others outside of Saint Luke's Hospital, it will no longer be protected by privacy laws.  No identifying information about you will be revealed in any publication or presentation of this research.

This form has no expiration date.

After signing this form, if you change your mind later and do not want us to share your information, you may let us know by contacting: Lauri Higgins, RN, Patient Care Director at Peet Center, 4th Floor, Saint Luke's Hospital, Kansas City, MO  64111  (816-932-3086). Your decision whether or not to participate is completely voluntary and will not affect your care at Saint Luke's Hospital.

_____          _____
Signature of Participant or Legal Representative          Date

_____
Relationship to Participant (If Signed by Legal Representative)

_____          _____
(Signature of Person Obtaining Consent)          Date

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# CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

**INVESTIGATOR'S NAME:** **SUE LASITER**
**PROJECT #1073777**
**DATE OF PROJECT APPROVAL: NOVEMBER 1, 2006**

**STUDY TITLE:** <u>OLDER ADULTS' PERCEPTION OF FEELING SAFE IN AN INTENSIVE CARE UNIT</u>

## INTRODUCTION:

**THIS CONSENT MAY CONTAIN WORDS THAT YOU DO NOT UNDERSTAND. PLEASE ASK THE INVESTIGATOR OR THE STUDY STAFF TO EXPLAIN ANY WORDS OR INFORMATION THAT YOU DO NOT CLEARLY UNDERSTAND. A COPY OF THIS CONSENT FORM WILL BE GIVEN TO YOU TO KEEP.**

This is a research study. Research studies include only people who choose to participate. As a study participant you have the right to know about the procedures that will be used in this research study so that you can make the decision whether or not to participate. The information here is presented to you so you will be better informed and so you may give or withhold your consent to participate in this research study.

You are being asked to take part in this study because you are age 65 years or older and you experienced an illness that you did not expect to happen. Because of this illness, you were admitted to the hospital and received care in the Intensive Care Unit.

This study is being sponsored by the Alpha Iota Chapter of Sigma Theta Tau International and the American Association of Critical Care Nurses, professional organizations for nurses.

Please take your time to make your decision and discuss it with your family and friends.
In order to participate in this study, it will be necessary to give your written consent.

## WHY IS THIS STUDY BEING DONE?

The purpose of this study is to learn about the experiences of older adults who have unexpectedly been admitted to an Intensive Care Unit. Other studies have shown that feeling safe while in the Intensive Care Unit is important to recovery. We want to understand how this works for older adults, so that we can help nurses and doctors improve care for other patients in the Intensive Care Unit.

## HOW MANY PEOPLE WILL TAKE PART IN THE STUDY?

About 10 people will take part in this study. All of them will have been admitted to an intensive care unit at a large Midwestern hospital after suddenly and unexpectedly becoming ill.

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Saint Luke's Hospital Institutional Review Board
Approval date: 02/26/08
Approval expiration date: 02/26/09

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## WHAT IS INVOLVED IN THE STUDY?

If you take part in this study, you will be interviewed twice for about 30 to 60 minutes. The person who interviews you will ask you questions about your experience in the intensive care unit. The first interview will be tape recorded and will take place in a private area of the hospital within three days after you leave the intensive care unit but while you are still a patient in the hospital. The second interview will also be tape recorded and will take place at your home about two weeks after you go home from the hospital.

## HOW LONG WILL I BE IN THE STUDY?

You be in the study for approximately two weeks. However, you can stop participating at any time by terminating either of the two interviews. Your decision to terminate an interview will not affect in any way your medical care and/or health care benefits. If after you consent, you decide you do not want to be interviewed you may simply contact me.

## WHAT ARE THE RISKS OF THE STUDY?

There is minimal risk involved by participating in this study. You may become fatigued or distressed by remembering your experiences and talking about them. If this happens to you, you can simply tell me that you want to stop the interview or that you would like to rest and the interview can resume at another time or on another day.

## ARE THERE BENEFITS TO TAKING PART IN THE STUDY?

If you agree to take part in this study, there will not be direct medical benefit to you. You may expect to benefit from taking part in this research to the extent that you are contributing to health care knowledge. We hope the information learned from this study will benefit other patients who will be patients in an intensive care unit in the future.

## WHAT OTHER OPTIONS ARE THERE?

An alternative is to not participate in this research study.

## WHAT ABOUT CONFIDENTIALITY?

We will not share any information that you give us with your doctor, nurses or staff who took care of you. Information from this study will be stored in the investigator's locked file cabinet and identified by a code number only. The code key connecting your name to your information will be kept in a separate, secure location. Information contained in your file may not be given to anyone unaffiliated with the study in a form that could identify you without your written consent, except as required by law. The investigator conducting this study will be the primary researcher and the interview contents will only be seen by the transcriptionist and the consultants. The transcriptionist and the consultants will not know your name or have any way to connect your taped or transcribed interview to your name.

The results of this study may be published in a medical book or journal or used for teaching purposes. Your results may also be grouped in with the results of others and presented in a conference. However, your name or other identifying information will not be used in any public display or teaching materials without your specific permission.

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Saint Luke's Hospital Institutional Review Board
Approval date: 02/26/08
Approval expiration date: 02/26/09

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In addition, the audiotape of your interviews and paperwork that could identify you will be destroyed after the completion of the study. If the researcher would like to use your particular case in a presentation, you will be asked for your consent and you will be given the opportunity to view or listen, as applicable, to the presentation before you give your permission for their use if you so request.

By law, nurses are required to report physical, psychological, financial, sexual abuse or neglect of anyone over age 65 years to the Missouri Department of Health and Senior Services. This means that if there is reason to believe that you have been abused or neglected, I must report it. I will discuss the situation with you before I call the Department of Health and Senior Services.

## WHAT ARE THE COSTS?

There is no financial cost to you for your participation in the study. The study only involves the donation of your time to answer interview questions.

## WILL I BE PAID FOR PARTICIPATING IN THE STUDY?

You will receive a small honorarium of $20 in payment for taking part in this study.

## WHAT IF I AM INJURED?

If you become sick or hurt because you are taking part in this study, the hospital and doctors will treat you. Any expenses for treatment will be billed to you or your insurance company. Saint Luke's Hospital does not have a policy of paying the medical expenses for patients who become sick or injured while taking part in research studies.

It is also not the policy of the University of Missouri to compensate human subjects in the event the research results in injury. The University of Missouri, in fulfilling its public responsibility, has provided medical, professional and general liability insurance coverage for any injury in the event such injury is caused by the negligence of the University of Missouri, its faculty and staff. The University of Missouri also will provide, within the limitations of the laws of the State of Missouri, facilities and medical attention to subjects who suffer injuries while participating in the research projects of the University of Missouri. In the event you have suffered injury as the result of participation in this research program, you are to contact the Risk Management Officer, telephone number (573) 882-1181, at the Health Sciences Center, who can review the matter and provide further information. This statement is not to be construed as an admission of liability.

## WHAT ARE MY RIGHTS AS A PARTICIPANT?

Participation in this study is voluntary. You do not have to participate in this study. Your present or future care will not be affected should you choose not to participate. If you decide to participate, you can change your mind and drop out of the study at any time without affecting your present or future care. If you wish to withdraw from the study, you may contact Lauri Higgins, RN, Patient Care Director at Peet Center, 4th Floor, Saint Luke's Hospital, Kansas City, MO 64111 (816-932-3086). Leaving the study will not result in any penalty or loss of benefits to which you are entitled.

In addition, the investigator of this study may decide to end your participation in this study at any time after she has explained the reasons for doing so.

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Saint Luke's Hospital Institutional Review Board
Approval date: 02/26/08
Approval expiration date: 02/26/09

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## WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions regarding your rights as a participant in this research and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the Saint Luke's Hospital Institutional Review Board (which is a group of people who review the research studies to protect participants' rights) at (816) 932-3661.

You may ask more questions about the study at any time. For questions about this study or a research-related injury, contact Lauri Higgins, RN at (816) 932-3086 or Sue Lasiter at (816) 781-1743 or (816) 726-1179.

### SIGNATURE

I confirm that the purpose of the research, the study procedures, the possible risks and discomforts as well as potential benefits that I may experience have been explained to me. Alternatives to my participation in the study also have been discussed. I have read this consent form and my questions have been answered. My signature below indicates my willingness to participate in this study.

_____       _____
Subject/Patient                                                                         Date

_____       _____
Legal Guardian/Advocate/Witness (if required)**                         Date

_____       _____
Additional Signature (if required) (identify relationship to subject)***    Date

**The presence and signature of an impartial witness is required during the entire informed consent discussion if the patient or patient's legally authorized representative is unable to read.

***This line may be used for any other signature which is required as per federal, state, local, sponsor and/or any other entity requirements.

### SIGNATURE OF STUDY REPRESENTATIVE

I have explained the purpose of the research, the study procedures, identifying those that are investigational, the possible risks and discomforts as well as potential benefits and have answered questions regarding the study to the best of my ability.

_____       _____
Study Representative                                                                   Date

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FEBRUARY 2008

APPROVED
Saint Luke's Hospital Institutional Review Board
Approval date: 02/26/08
Approval expiration date: 02/26/09

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Appendix G – *Table of Studies*

| Authors | Subjects (ss) | Age/Gender | Method |
|---|---|---|---|
| Bergbom-Engberg & Haljamae (1988) | 158 ss discharged to home after treatment with a respirator in an ICU. | 36-72 years 101 male 57 female | Method: Retrospective telephone interview. Data were analyzed using Chi-square, t-test, and Pearson correlation coefficient. Purpose: To study patients' experiences of security or insecurity during respirator treatment. |
| Burfitt, Greiner, Miers, Kinney & Branyon (1993) | 13ss in ICU interviewed within 48 hrs. of transfer. LOS = 48 hrs. | 23-80 years 7 male 6 female | Method: Phenomenology (Spiegelberg, 1976). Question: What do critically ill patients perceive as demonstrations of professional nurse caring? How do critically ill patients describe their feelings about demonstrations of professional nurse caring? |
| Fridlund, Lindgren, Ivarsson, Jinhage, Bolse, & Flemme, et al. (2000) | 15 ss with implanted cardioverter-defibrillators. | 33-76 years 10 male 5 female | Method: Phenomenography (Marton 1981, Martin & Booth, 1997). Aim: To describe how patients living with an ICD device conceive their life situation. |
| Granberg, Bergbom-Engberg & Lundberg (1999) | 19 ss that were ventilated in ICU interviewed 1 week and 4-8 weeks after discharge to home. LOS*= at least 36 hours. | 25-82 years 13 male 6 female | Method: Hermeneutic phenomenology (Gadamer, 1989). Aim: To describe and illuminate patients' experiences of acute confusion, disorientation, wakefulness, dreams, and nightmares, or so called 'unreal experiences', during and after their ICU stay. |
| Hupcey (2000) | 45 ss medical & surgical ICUs LOS = 3-30 days | 25-80 years 20 male 25 female | Method: Grounded theory (Glaser & Strauss, 1967). Questions: What are the psychosocial needs of ICU patients? What happens to patients when these needs are not met? How can families and nurses meet these needs? |

| | | | |
|---|---|---|---|
| Hupcey & Zimmerman (2000) | Sub-sample of 14 critical ICU patients stabilized in the ICU or transferred to a patient unit. | 31-71 years 8 male 6 female | Method: Grounded theory (Glaser & Strauss, 1967). Objective: To elicit the experience of knowing for critically ill patients and to explore the differences in perception between patients who were intubated and not intubated during the illness. |
| Leith (1999) | 53 ss within 48 hours of transfer from medical ICU and 35 family members. LOS = 2-10 d | 44-72 years No gender mentioned. | Method: Content analysis of responses from 3 open ended questions on a cross-sectional survey. Objective: To explore patient and family perception of transfer from an intensive care unit. |
| Laitinen (1996) | 10 ss 4- 8 days after coronary artery bypass surgery. LOS = 2 days. | No demographics reported. | Method: Hermeneutic phenomenology (Astedt-Kurki, 1992). Purpose: To describe and reflect upon the patients' experience of confusion in the intensive care unit. |
| Logan & Jenny (1997) | 20 ss recently weaned from a ventilator in an ICU interviewed in their hospital room 6-13 days after transfer from ICU. LOS = 5-214 days | 19-83 years 9 male 11 female | Method: Grounded theory (Strauss & Corbin, 1990). Purpose: To examine patients' subjective experiences of mechanical ventilation and weaning to validate and extend previous work. |
| Moore (1996) | 10 ss in a cardiac rehab program | 65-83 years 10 female | Method: Focus Group (method described but not referenced). Aim: To examine the perceptions and experiences of women participating in a cardiac rehabilitation program. |
| O'Brien & Fothergill-Burbonnais (2004) | 7 ss interviewed 2-7 days post trauma code in a Level I Trauma Center emergency department and 7-12 mo. later. | 31-55 years 4 male 3 female | Method: Interpretive phenomenology (Colaizzi, 1978). Purpose: To explore the patient's experience of trauma resuscitation in the emergency department. To determine the perception of vulnerability existing in the experience. |

| | | | |
|---|---|---|---|
| Russell (1999) | 298 ss queried 6 months after discharge from ICU. | Unknown | Method: Mixed methods: questionnaire and interview. Purpose: To explore patients' perceptions, memories and experiences of an intensive care unit. |
| Soehren (1995) | 43 postoperative first-time cardiac surgery ss queried after transfer to a telemetry unit. | | Method: Descriptive survey design using the Intensive Care Unit Environmental Stressor Scale. Purpose: To determine what factors are perceived as stressful by cardiac postsurgical ICU patients. |
| Wong & Arthur (2000) | 10 ss in a surgical ICU post elective surgery interviewed 1-5 days after transfer from ICU. 10 nurses were also interviewed. Ss LOS = 2-6 days. | 40-67 years 8 male 2 female | Method: Phenomenology (Streubert & Carpenter, 1995). Purpose: To explore the lived experience of nurses caring for patients in an intensive care unit. |

* LOS is length of stay in the intensive care unit.

VITA

Rita Sue Lasiter was born October 18, 1954, in Independence, Missouri. At the age of two, she moved with her family to Gladstone Missouri where she obtained her primary and secondary education in the public school system. In 1980, she earned her BS in Nursing from Washburn University in Topeka, Kansas. After working a short time as an intensive care nurse at St. Francis Medical Center, she moved to Liberty, Missouri and accepted a nursing position at St. Lukes Hospital, Mid-America Heart Institute in Kansas City. After working for seven years in the cardiovascular recovery unit, she took a position at Liberty Hospital, Liberty, Missouri where she was a staff nurse in general intensive care unit and provided pre-anesthesia evaluation and pre-surgical teaching services. She earned a Master of Science in Nursing from the University of Missouri, Kansas City in 1996 and accepted a faculty position and taught nursing for nine years at William Jewell College, Liberty, Missouri. She received her Doctor of Philosophy from the University of Missouri, Columbia in December 2008. Currently, she is an assistant professor at the University of Central Missouri where she teaches in both the undergraduate and graduate nursing programs. She has two children, Brindy Lasiter and Clay Lasiter.