ETHICAL ISSUES AND DECISION MAKING RELATED TO RESUSCITATION OF SEVERELY INJURED PATIENTS: PERCEPTIONS OF EMERGENCY DEPARTMENT NURSES

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DEDICATION

To my husband, Mark, the best and most supportive husband a woman could ever ask for

and

my children, Noah and Ari, in hopes that they have a life long love of learning.

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ABSTRACT

ETHICAL ISSUES AND DECISION MAKING RELATED TO RESUSCITATION OF SEVERELY INJURED PATIENTS:

PERCEPTIONS OF EMERGENCY DEPARTMENT NURSES

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Nurses working in emergency departments (EDs) of trauma centers are integral members of the trauma team during the initial resuscitation of severely injured patients. Decisions regarding these resuscitations are made in high stress environments and are inevitably rife with ethical issues due to the high frequency and severity of injury and its exorbitant costs to society. These decisions are made with little background knowledge about the patients during a complex process of rapid assessment of physiological status overlaid by ethical principles, societal norms and expectations, and legal mandates. The purpose of this study was to assess the specific ethical issues that ED nurses encounter and their effects during the resuscitation of severely injured patients, the factors contributing to the decisions made during resuscitation, and how nurses are involved in these decisions. A qualitative descriptive design using semi-structured interviews of 22 ED nurses who participated in the resuscitation of severely injured patients was used. Data were analyzed using content analysis. The findings suggest that nurses experience many ethical issues related to the resuscitation of severely injured patients including: respect for persons, justice-related concerns, patient care issues, and job and role tensions. These

issues had many effects on participants including threats to their being (ontological) with emotional, physical, life, and professional role consequences. Participants also experienced epistemological threats or threats to their knowing including realizations about insurance, life, and the healthcare system, and authoritative and cognitive dissonance. Findings reveal multiple factors considered when making decisions during a resuscitation ranging from the more physiologic or concrete protocol-driven factors to those that were perceived as intangible. Additionally, participants' cited various levels of involvement: some felt involved, some not involved, and some believed involvement was more situational based. Findings highlight nurses' thoughts about their role in emergency medicine and the resuscitation of severely injured patients, when they feel comfortable bringing forward their ethical concerns, and with whom they can discuss these issues. These findings underscore the ethical challenges that nurses face every day in clinical practice; steps are needed to address organizational aspects of care and the retention of nurses caring for injured patients.

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CHAPTER 1: INTRODUCTION

Trauma resuscitations often occur when severely injured patients arrive at emergency departments (EDs) and include simultaneous assessment and management to restore oxygenation and circulation, and treat life-threatening injuries (American College of Surgeon Committee on Trauma (ACSCOT), 1997). Nurses working in EDs of trauma centers are integral members of the resuscitation team. These nurses, and the entire team, are faced with the challenge of making rapid decisions with limited information that have life-altering consequences for injured patients and their families. The decisions made by the trauma team during this period may create conflict between personal values and treatment goals. These conflicts (or ethical issues), factors that contribute to decision making, and how decisions are made by the team during initial resuscitation of severely injured patients remain largely unknown.

Trauma resuscitation is unique in several ways. First, the traumatically injured patient frequently arrives at the ED unable to provide information about his/her past health status. Second, the absence of family members limits knowledge of relevant health information that may be used by healthcare providers in the decision making process. Third, no previous patient-provider relationship exists. Limited information and the absence of a pre-existing patient-provider relationship translate into lack of knowledge about the patient's medical information, previous health status, values, beliefs and wishes. Indeed, even simple vital information such as name, age, and contacts are often unknown. Although quality information is seldom available to inform resuscitation decisions, particularly those of an ethical nature, these decisions directly influence patient

care and outcomes. Research describing what data inform these decisions is scarce, but largely indicates they are based on physiologic determinants (Cera et al., 2003; Eckstein, 2001; Levy, Davis, McComb, & Apuzzo, 1996; Lieberman et al., 2003; Stockinger & McSwain Jr., 2004). It is not clear, however, what other factors are considered, especially when faced with ethical questions regarding care, treatment goals, and the allocation of resources.

The resuscitation of a severely injured patient, or more pointedly, the decision that a patient can (or should) be resuscitated, has many ethical attributes. These decisions involve a complex process of rapid assessment of physiological status overlaid by ethical principles, societal norms and expectations, and legal mandates (Zeitzer, 2008). The factors that actually contribute to resuscitation decisions, however, have not been studied empirically; nor do we know what roles nurses play in making these decisions. Elucidating ethical issues and their effects on ED nurses, factors that contribute to resuscitation decisions, and the extent of nurse involvement with decisions during the resuscitation of severely injured patients will help fill these gaps in knowledge and contribute to our understanding of the nurses' experience during the resuscitation of severely injured patients.

Study Purpose and Research Questions

The purpose of this study was to explicate ED nurses' perceptions of ethical issues and decision making during resuscitation of severely injured patients. A qualitative descriptive design using semi-structured, in-depth, face-to-face interviews of

ED nurses who participate in the initial resuscitation of severely injured patients was used to answer the following four research questions:

1.) What ethical issues arise during the initial resuscitation of severely injured patients?

2.) How are ED nurses affected by the ethical issues that arise during initial resuscitation of severely injured patients?

3.) What factors contribute to the decisions made during the initial resuscitation of severely injured patients?

4.) How are nurses involved in making decisions during resuscitation of severely injured patients?

Significance

This study will begin a trajectory of empirical bioethics research examining the ethics involved in trauma care, the effects ethical issues have on healthcare providers, and ultimately, methods of improving healthcare provider ethical decision making with regard to trauma patients. This study addresses ethical problems encountered by nurses for the betterment of patient care and quality of nursing care. This is the first study to describe ethical issues ED nurses encounter and will provide foundational knowledge of nurses' perceptions of the resuscitation process for severely injured patients. Moreover, this study will lay the groundwork for future work from which to develop strategies and interventions to address ethical problems in ED nursing and trauma care.

CHAPTER 2: BACKGROUND & SIGNIFICANCE

Resuscitation of severely injured patients is expensive and the cost of trauma care, now the most expensive healthcare problem in the United States (U.S.), approaches $71.6 billion each year (Agency for Healthcare Research and Quality, 2005), while cost of injury to society approaches $260 billion dollars each year (National Center for Injury Prevention and Control, 2002). Trauma resuscitation includes actions taken to restore oxygenation, circulation, and treat life-threatening injuries as delineated by the ACSCOT (1997). This process often occurs when severely injured patients arrive at the ED. Severely injured patients are those patients who meet specific criteria indicating an Injury Severity Score (ISS) greater than 15 (American College of Surgeons (ACS), 2006).

Unintentional injury is the leading cause of death in the U.S. for persons between 1 and 44 years of age, and the fifth leading cause of death for all ages (National Center for Injury Prevention and Control, 2009b). Intentional injury including homicide and suicide are within the top eight leading causes of death for ages 1 to 64, with homicide being the second and third leading cause of death for ages 10 to 34, and suicide being the second and third leading cause of death for ages 15 to 34 (National Center for Injury Prevention and Control, 2009b). Furthermore, various types of injuries create a multitude of outcomes ranging from full recovery, to various levels of disability, and death (Brenneman, Boulanger, McLellan, Culhane, & Redelmeier, 1995; Pickens, Copass, & Bulger, 2005). The frequent occurrence, high costs and variable outcomes associated with injury affect patients, families, and society, often requiring the trauma team to make difficult ethical decisions. The actions and decisions made during trauma resuscitation,

often with limited information, most likely create ethical issues for nurses caring for this unique population of patients during this critical time.

In June 2006, the Institute of Medicine (IOM) published three reports describing the fragmented and ill-equipped emergency system in the U.S. (2006a, 2006b, 2006c). An executive summary of these three reports describes that the demand for emergency care has risen by 26% over the last decade while the actual number of EDs has decreased by 425 (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006d). EDs have closed due to reasons such as under-funding, lost money due to treating uninsured patients, and lack of resources (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006d). Additionally, on-call specialists needed to treat emergencies such as trauma are becoming harder to find due to increased physician liability (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006d). This lack of on-call specialists and the nursing shortage continue to disrupt hospital operations and are detrimental to patient care and safety (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006c; Needleman & Buerhaus, 2003). These system challenges exist in the face of annual increases in trauma visits and create unique challenges for nurses caring for injured patients in the ED. Emergency healthcare providers, with limited resources and workforce, are forced to make decisions related to allocation of resources and care. It is likely that the issues identified by the IOM and the challenges of rapid decision making with limited information create ethical issues for ED nurses.

This chapter discusses the theoretical framework used to guide this study. This is followed by a synthesis of the literature exploring ethical issues for nurses and their effects, factors in resuscitation decision making, interdisciplinary collaboration in decision making, and injury, its costs, and outcomes. Finally, a summary and gaps identified in the literature is provided.

Theoretical Framework

While no single theoretical framework encompasses the components of this study, an integration of theories and concepts helped guide it. This study was guided primarily by the concepts of ethical problems, or issues, in nursing as described by Andrew Jameton (1984), but also adopted Beauchamp and Childress's (2001) conceptualization of moral dilemmas, and Bronstein's (2003) model for interdisciplinary collaboration.

Jameton (1984) classifies ethical problems or issues into three categories - moral uncertainty, moral dilemmas, and moral distress. *Moral uncertainty* occurs when "one is unsure what moral principles or values apply, or even what the moral problem is" (Jameton, 1984, p. 6). *Moral dilemmas* occur "when two (or more) clear moral principles apply, but they support mutually inconsistent courses of action" (Jameton, 1984, p. 6). Beauchamp and Childress (2001) further define moral dilemmas as "circumstances in which moral obligations demand or appear to demand that a person adopt each of two (or more) alternative actions, yet the person cannot perform all the required alternatives" (p.10). No matter which action is opted to be performed, the conflicting principle will be compromised. *Moral distress* occurs "when one knows the right thing to do, but

institutional constraints make it nearly impossible to pursue the right course of action" (Jameton, 1984, p. 6).

Jameton (1984) explains that morals guide the actions of individuals in both their personal and professional lives. The manner in which one acts professionally, however, affects one personally (Jameton, 1984). If one acts contrary to one's morals, these actions may lead to outcomes such as moral distress. This study examines the ethical issues stemming from resuscitation of severely injured patients and attempts to determine how these issues affect ED nurses in the professional and personal aspects of their lives.

Ethical issues can occur in relation to several factors including patients, other nurses, supervisors and administrators, physicians, aides, orderlies and attendants, technicians, pharmacists, other healthcare workers, hospitals, potential patients, family and friends of patients, professional associations and unions, licensure boards, the law, and society (Jameton, 1984). This study examines the ethical issues that arise in relation to resuscitation of severely injured patients and decisions surrounding the resuscitation. These problems may include any or all of the factors listed above. Furthermore, an additional focus of this study includes elucidating the individual factors that are considered and contribute to decisions surrounding issues during resuscitation of severely injured patients.

Bronstein's (2003) model for interdisciplinary collaboration will also help guide this research. The model was developed to depict generic components of interdisciplinary collaboration between social workers and other professionals (Bronstein, 2003). She uses a definition developed by Bruner (1991) explaining interdisciplinary

collaboration as "an effective interpersonal process that facilitates the achievement of goals that cannot be reached when individual professionals act on their own" (Bronstein, 2003, p.299). Bronstein incorporates five components into her model that contribute to interdisciplinary collaboration and four factors influencing it.

Bronstein's (2003) model includes the following five components: 1) interdependence, 2) newly created professional activities, 3) flexibility, 4) collective ownership of goals, and 5) reflection on process. Interdependence refers to interactions whereby each individual is dependent on the other to accomplish the goals. Newly created professional activities refer to actions accomplished collaboratively that achieve more than individuals acting individually. Flexibility refers to role blurring by reaching compromises and role alteration when disagreement occurs. Collective ownership of goals refers to the shared responsibility throughout the entire process of reaching the goals. Finally, reflection on process refers to the attention that must be paid in the process of collaboration and the working relationship. These five components represent essential features for interdisciplinary collaboration.

Bronstein (2003) has also identified four factors influencing interdisciplinary collaboration – professional role, structural characteristics, personal characteristics, and history of collaboration. Professional role influences interdisciplinary collaboration through individuals' professional values and ethics, degree of allegiance to the agency setting and profession, level of respect for colleagues, and the personal perspective of the individuals as compared to the other collaborators. Structural characteristics encompass caseload, agency culture and administration that are supportive of collaboration,

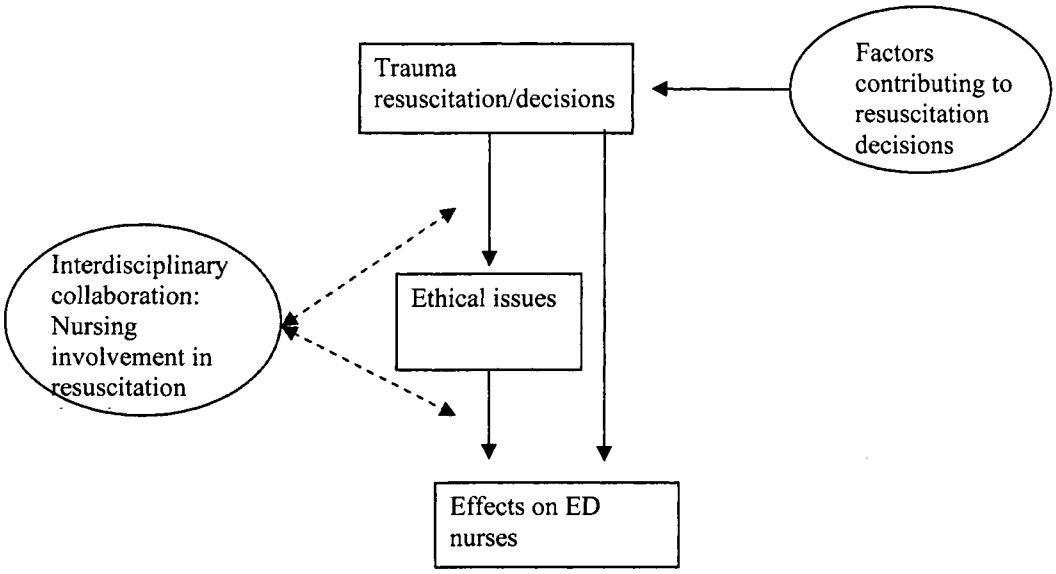
professional autonomy, and time and space for collaboration. Personal characteristics influence interdisciplinary collaboration by how individuals view other collaborators outside their professional role including factors such as trust, respect, and understanding. Lastly, history of collaboration refers to previous experiences with interdisciplinary collaboration.

Members of the collaborating team must feel as though they contribute, through interdependence, to the collective goals. Understanding how nurses participate during the resuscitation of severely injured patients will help illuminate nurses' roles. Additionally, describing how nurses perceive their involvement or collaboration, in resuscitation and the decision-making process will facilitate increased understanding of nurses' experiences with these situations.

While no single theory encompasses the concepts of the proposed study, the study was guided by the concepts and models of Jameton (1984), Beauchamp and Childress (2001), and Bronstein (2003). (See Figure 2-1 for the Model of the Theoretical Framework.) While these frameworks helped guide the research, the investigator bracketed, or put aside her understanding of these frameworks, during data collection and analysis to help avoid researcher imposed bias. This allowed the researcher to obtain pure description from the participants and allowed themes to emerge from the data without preconceived notions about the concepts that were studied (Streubert Speziale & Carpenter, 2003).

Figure 2-1

Model of Theoretical Framework Incorporating Concepts Studied (based on Jameton (1984), Beauchamp & Childress (2001), and Bronstein (2003)).



Review of the Literature

Ethical Issues Nurses Encounter

Nurses encounter a multitude of ethical issues while caring for patients. Some of these issues are related to over- and under-treatment, quality of patient care, and patients' rights (Redman & Fry, 1996, 1998a, 1998b), and may lead to moral distress (Jameton, 1984). Moral distress can cause feelings of anger, frustration, and guilt (Wilkinson, 1987/1988), and can additionally lead to nurse burnout, turnover, and nurses leaving the profession altogether (Corley, 1995; Corley, Elswick, Gorman, & Clor, 2001; Elpern, Covert, & Kleinpell, 2005; Kelly, 1998; Sundin-Huard & Fahy, 1999; Wilkinson,

1987/1988). The situations ED nurses face during resuscitation likely differ from those of nurses in other settings; however, the ethical issues and their effects on ED nurses caring for severely injured patients during resuscitation have yet to be identified.

Ethical issues have been examined in several areas of nursing including community health, acute care and hospital-based care, mental health, critical care, home care, oncology, diabetes care, nephrology, rehabilitation, pediatric, administration and managed care. Multiple studies have examined ethical issues experienced by nurses in a variety of settings. These studies reveal particular ethical issues encountered by specific specialties within nursing. (See Table 2-1 for Ethical Issues by Nursing Specialty.) However, the ethical issues faced by each specialty differ, most likely due to the nature of the patients' illnesses, social commitment to treatment, technology, the organization, and the relationship of professionals delivering care (Redman & Fry, 2000).

While many ethical issues for nurses and healthcare professionals are increasingly explicated, ethical issues arising for ED nurses during resuscitation of severely injured patients have not been explored. Therefore, it is important to identify these issues as they might differ greatly from those of other specialty areas. Quantitative instruments such as the Ethical Issues Scale (Fry & Duffy, 2001) and the Moral Conflict Questionnaire (Redman & Fry, 1998a) have been used to study the ethical issues experience by nurses. However, data do not exist to support the use of these instruments in an ED nurse population, as these instruments fail to capture the actions and experiences of ED nurses during the resuscitation of severely injured patients. Thus, a foundational study using

qualitative methods to understand more clearly the ED nurses' perceptions of ethical issues is needed.

Table 2-1.

Ethical Issues by Nursing Specialty

Nursing Specialty	Ethical Issues
Critical Care (Redman & Fry, 2000)	-Life prolonging aggressive therapies and their good or harm to the patient
Diabetes Care (Redman & Fry, 1996, 1998b)	-Quality of medical care patients receive
Leadership Roles (Redman & Fry, 2003)	-Protecting patient rights and human dignity -Respecting or not respecting informed consent for treatment -Use or nonuse of physical or chemical restraints -Providing care with possible risks to nurses' health -Following or not following advance directives -Staffing patterns that limit patient access to nursing care
Mental Health (Severinsson & Hummelvoll, 2001)	-Patient autonomy -How to approach the patient -Providing care against the patient's will -Deciding the ethically correct action for a patient -What is right and what should be done -Recognizing own values and norms that influence actions -Creating a good relationship with the patient
Nephrology (Redman, Hill, & Fry, 1997)	-Discontinuation or initiation of dialysis, particularly with regard to terminally ill patients
Nurse Practitioners in Managed Care (Ulrich, Soeken, & Miller, 2003)	-Compromised personal values and ethics -Patient care needs being overridden by business decisions -Concern over becoming agents for the health plan rather than patient advocates
Oncology (Ferrell & Rivera, 1995)	-Under treatment of pain -Right to refuse treatment -Do not resuscitate orders

	-Informed consent
Pediatric Ambulatory Care (Nurse Practitioners) (Butz, Redman, Fry, & Kolodner, 1998)	-Child/parent/practitioner relationship -Protecting the child's rights
Perioperative (Killen, Fry, & Damrosch, 1996)	-Providing care with risk to self -Nurse-physician relationships -Staffing patterns -Informed consent -Patient advocacy
Rehabilitation (Redman & Fry, 1998a)	-Medical or institutional practice -Patients' rights -Payment issues -Over or under treatment of patients

The Effects of Ethical Issues

Ethical issues may lead to moral distress and are negatively correlated with job satisfaction (Severinsson & Hummelvoll, 2001); however, how ethical issues affect nurses has largely been understudied. Jameton (1984) first described moral distress as feelings and experiences that occur when the moral agent knows the ethically correct action, but institutional constraints prohibit that action. Wilkinson (1987/1988) added that moral distress initially leads to feelings of anger, frustration, and guilt, and has further been shown to cause nurse burnout, turnover, and nurses to leave the profession altogether (Corley, 1995; Corley et al., 2001; Elpern et al., 2005; Kelly, 1998; Sundin-Huard & Fahy, 1999; Wilkinson, 1987/1988). Moral distress is a critical problem in healthcare work environments that needs to be addressed (American Association of Critical Care Nurses, 2004); if unaddressed, it "restricts nurses' ability to provide optimal patient care and to find job satisfaction" (American Association of Critical Care Nurses, 2004, p. 1).

Many studies confirm that nurses experience moderate to high levels of moral distress (Corley et al., 2001; Corley, Minick, Elswick, & Jacobs, 2005; Elpern et al., 2005). For example, 15-25% of nurses leave a position due to moral distress (Corley et al., 2001; Corley et al., 2005). As coping mechanisms for moral distress, graduate nurses have been shown to leave the unit to find better working conditions, work fewer hours, leave the nursing profession, blame administration and the hospital system, and avoid patient interaction (Kelly, 1998). Primary causes of moral distress have been identified as treatment of patients as objects in order to meet institutional requirements (Malahan Holly, 1993; Wilkinson, 1987/1988), harm to patients in the form of pain and suffering (Raines, 2000; Sundin-Huard & Fahy, 1999), withdrawal of treatment without nurse participation in the decision (Fry, Harvey, Hurley, & Foley, 2002; Viney, 1996), poor pain management, and disregard for patients' choices about accepting or refusing treatment or the failure to fully inform patients and their families about treatment options, leaving nurses' feeling powerless (Malahan Holly, 1993; Viney, 1996). Many of these situations involve nurses' inability to change care given to patients due to physicians or other healthcare providers dictating treatment goals. During trauma resuscitations, a team leader takes primary control of the situation (ACSCOT, 2006). This may set up a power differential between the team leader and other team members. If treatment goals are not the same for various team members, this may create situations fostering distress.

While an abundance of research exists on moral distress and its effects, the effect that ethical issues have on nurses has not been fully explored. While ethical issues may lead to moral distress, it is imperative to examine how ethical issues affect ED nurses.

Determining these effects in the specific area of trauma will help hone efforts in assisting nurses to cope with the ethical issues they encounter. It may also assist in decreasing nursing turnover rates and addressing nursing retention.

Factors Affecting Resuscitation Decisions

Many of the decisions made during resuscitation of severely injured patients are ethical in nature. Four main factors contributing to resuscitation decisions have been extracted from the literature - ethical, legal, societal, and physiological (Zeitzer, 2008). Each factor contains aspects that influence resuscitation decisions. Within the ethical realm, aspects related to beneficence, nonmaleficence, autonomy, and justice play a large role (Beauchamp & Childress, 2001). These issues include questions such as: when is resuscitation beneficial or when is it inflicting undue harm, and who makes decisions for the unconscious or incompetent injured patient on arrival to the ED. The legal realm becomes problematic when disparities exist between counties, states, and the federal level, thus making resuscitation decisions from a legal perspective difficult especially with the increasing legal repercussions and liability weighing heavily on the healthcare provider (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006d; Kizer-Bell, 1990). The societal realm poses issues related to cost-benefit, economics, and limited resources leading to justice concerns regarding appropriate allocation of resources. This is of particular concern in trauma resuscitation where a large array of resources is used at high cost. Expensive resources are of particular concern during resuscitation. For example, when a patient has a 5% chance of survival, 20 patients would have to be resuscitated in order to actually save one

life, making the cost of saving one life $764,478 (Nirula & Gentilello, 2004). Perceived prognosis and quality-of-life for the patient are highlighted as the main concerns when considering costs and benefits (Ivy, 1996; Kite & Wilkinson, 2002; Larkin, 2002; Levy et al., 1996). A plethora of literature describes the physiologic realm including the signs and symptoms that assist in resuscitation decision making and predicting the likelihood of recovery. Information including the presence of a pulse and respirations, pupil reactivity, electrocardiogram (EKG) rhythm, and a Glasgow Coma Scale (GCS) often factor into resuscitation decision making (Battistella, Nugent, Owings, & Anderson, 1999; Cera et al., 2003; Eckstein, 2001; Levy et al., 1996; Lieberman et al., 2003; Pickens et al., 2005; Stockinger & McSwain Jr., 2004). While these four factors have been extracted from the literature as contributing to resuscitation decisions, they have yet to be studied empirically. Thus a study capturing factors ED nurses perceive as contributing to resuscitation decisions may validate these findings, identify additional factors not already highlighted in the literature, and further increase understanding of how decisions are made.

Interdisciplinary Collaboration in Decision Making

Interdisciplinary collaboration is "an effective interpersonal process that facilitates the achievement of goals that cannot be reached when individual professionals act on their own" (Bronstein, 2003, p.299). Collaboration between nurses and physicians has been shown to directly influence patient outcomes such as mortality rates in intensive care units (ICUs), where ICUs with more collaboration had lower mortality rates (Knaus, Draper, Wagner, & Zimmerman, 1986). Additionally, negative outcomes (including

readmission to the ICU and death) occurred in 16% of patients when nurses reported no collaboration with physicians in decision making (Baggs, Ryan, Phelps, Richeson, & Johnson, 1992). This decreased to 5% when these nurses reported full collaboration in different patient situations (Baggs et al., 1992).

A reason for lack of collaboration can be due to nurse-physician conflict. One projected reason contributing to nurse-physician conflict may be divergent views concerning availability of resources (Frederich, Strong, & von Gunten, 2002). Nurses often view resources as scarce where physicians sense an overabundance of resources (Frederich et al., 2002). Additionally, nurses often have a more holistic view of the patient and set different goals for the patient than physicians (Blickensderfer, 1996). Nurses and physicians also often differ in their beliefs about actual decisions, the decision-making processes during end-of-life care, and ethical issues that occur (Baggs, 1993; Eliasson, Howard, Torrington, Dillard, & Phillips, 1997; Solomon et al., 1993; The Society of Critical Care Medicine Ethics Committee, 1994). These types of nurse-physician conflicts may decrease interdisciplinary collaboration due to lack of common treatment goals and in turn, result in higher patient mortality or poor outcomes.

Interdisciplinary collaboration has also been associated with nurse job satisfaction (Adams & Bond, 2000; Blegen, 1993; Rafferty, Ball, & Aiken, 2001). Nurses reporting higher levels of collaboration were significantly more likely to be satisfied with their job and planned to stay in them ($p<0.001$) (Rafferty et al., 2001). Collaboration has been shown to have benefits including: reduced staff turnover and absenteeism (Murphy, 1999; Shortell et al., 1994), higher quality of care (Shortell et al., 1994; Wood, Farrow, &

Elliot, 1994), increased staff motivation (Wood et al., 1994), reduced conflict (Murphy, 1999), and better patient outcomes (Shortell et al., 1994). Furthermore, collaboration has a positive affect on psychological health and well being of the team members (Carter & West, 1999), is associated with lower levels of stress, and leads to greater effectiveness and innovations in patient care (Borrill, West, Shapiro, & Rees, 2000).

Interdisciplinary collaboration in decision making is important to both patient outcomes including mortality, and nurse outcomes such as job satisfaction. If ED nurses perceive that they have substantial involvement in resuscitation decision making, this may increase their perceptions of interdisciplinary collaboration. Examining interdisciplinary collaboration and the extent to which ED nurses are involved in resuscitation decisions for severely injured patients can help shed light on the process of decision making about resuscitation. Understanding situations where nurses perceive poor collaboration and those in which ED nurses collaborate with the trauma team well can help illuminate aspects that nurses feel contribute to both good and poor interdisciplinary collaboration. These aspects can then be extracted to improve interdisciplinary collaboration within the trauma team during resuscitation, and perhaps improve patient outcomes and nurse job satisfaction.

ED Nurses Care for Trauma Patients - Injury, Costs, and Outcomes of Severe Injury

The ACS defines injury as "physical damage produced by the transfer of energy, such as kinetic, thermal, chemical, electrical, or radiant. It can also be due to the absence of oxygen or heat" (ACSCOT, 1999, p. 1). Physical injury treated in the ED is frequently classified by severity using the Injury Severity Score (ISS) (Baker & O'Neill, 1976;

Baker, O'Neill, Haddon, & Long, 1974). The ISS is an anatomical scoring system that calculates an overall score for patients with multiple injuries. The score ranges from 0-75 (0=no injury; 75=fatal injury). The ACS classifies the scoring of the ISS into groups of injury severity: 1-9 = Minor injury, 10-15 = Moderate injury, 16-24 = Severe injury, and >24 = Very severe injury (ACS, 2006).

Severely and very severely injured patients are ideally transported to and resuscitated in Level-I trauma centers which have been certified in their ability to care for these patients. Level-I trauma centers are defined by the ACS as those centers providing comprehensive trauma care serving as a regional resource, and providing education, research, and system planning leadership (ACSCOT, 2006). They must also have immediate availability of trauma surgeons, anesthesiologists, physician specialists, nurses, and resuscitation equipment (ACSCOT, 2006). Level-I trauma centers must also meet volume criteria consisting of 1,200 admissions per year or 240 admissions with an ISS >15 or an average of 35 admissions with an ISS >15 per trauma surgeon (ACSCOT, 2006).

Level-I trauma centers are typically where major trauma resuscitation takes place. Major trauma resuscitation is defined by the ACS as meeting the following criteria: 1) confirmed systolic blood pressure <90 at anytime in adults and age-specific hypotension in children, 2) gunshot wounds to the neck, chest, or abdomen, 3) Glasgow Coma Score (GCS) <8 with mechanism attributed to trauma, 4) transfer patients from other hospitals receiving blood to maintain vital signs, 5) respiratory compromise/obstruction and/or

intubation in a patient who is not transferred from another facility, or 6) at the emergency physician's discretion (ACS, 2009).

In Pennsylvania, trauma centers are accredited by the Pennsylvania Trauma Systems Foundation. Currently, there are 14 Level-I accredited hospitals in Pennsylvania - 10 adult Level-I hospitals, one adult Level-I additionally meeting pediatric Level-I requirements, and three pediatric Level-I hospitals (Pennsylvania Trauma Systems Foundation, 2009b). Pennsylvania uses similar criteria for accrediting trauma centers as do the ACS, basing their standards on ACS trauma certification criteria (Pennsylvania Trauma Systems Foundation, 2009a).

In 2007, 29.7 million non-fatal injuries occurred in the U.S., with 2.1 million being transferred for definitive care and/or hospitalized (National Center for Injury Prevention and Control, 2008). Nineteen percent of patients reported to the National Trauma Data Bank between in 2007, sustained severe and very severe injuries, of which 13.6% were fatal (ACS, 2008). Injury in the U.S. currently kills 59 per 100,000 people of all ages on an annual basis, resulting in a total of 179,065 deaths in 2006 (National Center for Injury Prevention and Control, 2009a). It also accounts for 3.8 million years of potential life lost before the age of 65 in the U.S. (National Center for Injury Prevention and Control, 2009c). On a daily basis, ED nurses in Level-I trauma centers care for injured patients and participate in trauma resuscitations of this special and unique patient population.

The cost of care related to trauma has become the second most expensive healthcare problem in the U.S. totaling $68.1 billion each year (Agency for Healthcare

Research and Quality: MEPS, 2009). Although, the cost of injury to society (through lost productivity, repairing damage caused by trauma, etc.) is much greater and was estimated to approach $260 billion dollars each year (National Center for Injury Prevention and Control, 2002).

A large proportion of healthcare dollars spent on injury and trauma are used to reduce mortality for injured patients. Only 0.6% of all 30 million injuries were fatal in 2007 (National Center for Injury Prevention and Control, 2008, 2009a), and 13.8% of severe and very severe injuries were fatal in 2008 (ACS, 2008). However, various types of injury carry differing statistics. For example, studies show a 43% survival rate after severe blunt traumatic injury (Brenneman et al., 1995), while only a 7.6% survival rate after traumatic cardiopulmonary arrest (Pickens et al., 2005).

Recovery after severe traumatic injury is variable. As many as 91% of surviving trauma patients with severe blunt injuries incur significant residual disability including impaired physical and emotional role functioning, impaired vitality and mental health, and intense pain (Brenneman et al., 1995). Richmond and colleagues (1998) reported that average disability three months after discharge was severe for patients who reported good health prior to the traumatic injury. Furthermore, moderate posttraumatic psychological distress, high levels of intrusive thoughts, injury to extremities, and educational level were predictive of severe disability three months after injury (Richmond et al., 1998). At two and half years after injury, patients still experienced a significant disability as compared to before their injury (Richmond, Kauder, Hinkle, & Shults, 2003). At hospital discharge after injury, functional status has been shown to be

low with only moderate improvements at six-month follow-up (11% equate their functional status to that of the healthy adult population) (Holbrook, Anderson, Sieber, Browner, & Hoyt, 1998). Twelve months after discharge, functional well-being was only slightly improved while no improvement was shown at 18 months after discharge (Holbrook, Anderson, Sieber, Browner, & Hoyt, 1999).

A plethora of trauma scoring systems exist and several are good predictors of outcomes, including the GCS, Trauma Score, Revised Trauma Score, ISS, and others (Senkowski & McKenney, 1999). Besides the GCS, however, other trauma scales have not been shown to be adequate field triage systems, nor can they be completed adequately in the ED without fully knowing the extent of the patient's injuries (Senkowski & McKenney, 1999). Most of these scores are typically used to evaluate patient care retrospectively and for quality control/analysis (Senkowski & McKenney, 1999). Furthermore, these scales and triage systems are based on the evaluation of large trauma databases and cannot be used to determine the care or particular outcome of an individual patient, but rather strictly quality assurance of a population (Senkowski & McKenney, 1999). Therefore, while these tools exist to help evaluate outcomes in trauma patients, they do not provide adequate prediction of survival or outcome for individual trauma patients in the ED. Providers are thus left to make decisions based on other criteria.

In summary, post-injury outcomes are variable and likely create ethical issues for ED nurses and the trauma team when making resuscitation decisions in the best interests of the patients, particularly when outcomes are viewed differently by various patients and families. This combination of factors including, epidemiology, costs, and outcomes of

injured patients, as well as the inability to predict outcomes and working with limited resources as revealed by the recent IOM reports (2006a, 2006b, 2006c), often leaves healthcare providers torn in multiple directions. In light of these difficult aspects of care, ED nurses very likely face a multitude of ethical issues.

Summary and Gaps in Knowledge

Nurses caring for severely injured patients face several issues unique to this population including uninformed decision making, high costs, and variable outcomes as well as issues affecting ED care (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006d). These factors may create ethical issues for ED nurses who participate in resuscitation of severely injured patients. While ethical issues have been studied in various nursing populations, they have never been studied in ED nurses who participate in resuscitation of severely injured patients. Much of the data generated about ethical issues in nursing has been done using quantitative instruments whose content may not be pertinent to ED nurses and their participation in trauma resuscitation. This lack of information regarding the ethical issues encountered by ED nurses necessitates this study using qualitative methods.

As ED nurses face several issues that vary from other specialties in nursing, it is important to determine which issues affect these nurses most. Ethical issues may lead to personal and professional consequences and moral distress which has repercussions such as anger, frustration, guilt, and leaving the profession. Describing the ethical issues ED nurses encounter and how nurses are affected can address issues important to the nursing shortage and nursing turnover, and the first step can be taken toward helping nurses cope

with these issues. This will ultimately address problems encountered by nurses and can improve the clinical setting in which nurses provide care.

Four factors have been established as influencing resuscitation decision making - physiological, ethical, legal, and societal. These factors have not been studied empirically, however, nor have the specifics within each of these factors or how these factors are considered during resuscitation decision making. Additionally, how nurses are involved during resuscitation decision making has never been studied. Since nurses and physicians often have differing goals for patients, and effective nurse-physician collaboration decreases negative outcomes, examining nurse involvement may help shed light on ways to empower nurses and increase job satisfaction thereby decreasing nursing turnover. Examining ways in which nurses interact with the trauma team to make resuscitation decisions can help increase awareness about how nurses are involved and can continue to be involved in influencing resuscitation decisions in the best interests of their patients.

CHAPTER 3: RESEARCH DESIGN & METHODS

This chapter discusses the research design and methods used to implement this study. The design of the study will be discussed followed by a detailed discussion of the setting and sample, measures, data collection, and data management. Finally, maintenance of scientific adequacy will be discussed, and the plan for human subjects' protection will be summarized.

Design

This study used a qualitative descriptive design with semi-structured, in-depth, face-to-face interviews. Participants were recruited using a maximum variation purposeful sampling technique to obtain a sample of ED nurses who participated in resuscitation of severely injured patients. This design is primarily used to describe a particular phenomenon that "entails the presentation of the facts of the case in everyday language" (Sandelowski, 2000, p. 336). Data were collected to capture ED nurses' perceptions of ethical issues, how these issues affect ED nurses, factors considered in resuscitation decisions, and how ED nurses are involved in these decisions.

Qualitative description was particularly beneficial in obtaining the perception of ED nurses, describing the phenomena of interest from an emic standpoint (from the nurses' perspective) and the elements of the phenomena in the nurses' own words as qualitative description is particularly "amenable to obtaining straight and largely unadorned ... answers to questions" (Sandelowski, 2000, p. 337). While the researcher adopted theoretical frameworks and conducted an extensive literature review, as much as possible, this information was bracketed during data collection and analysis. This was

done to limit bias imposed by the researcher through her knowledge of the framework and existing literature. Bracketing, or putting aside the understanding of these frameworks and existing literature, allows the researcher to obtain pure description from the participants and allows themes to emerge from the data without preconceived notions about the concepts being studied (Streubert Speziale & Carpenter, 2003). The researcher then returned to this information for confirmation of findings after data analysis was completed.

As the concepts of interest in this study had not been previously examined and/or had not been previously examined in ED nurses participating in the resuscitation of severely injured patients, alternative approaches to the purpose and research questions were limited. This was primarily due to the fact that quantitative instruments do not exist to study these concepts in this population. Therefore, a qualitative descriptive design was the best option to achieve the purpose of this study.

Hospital Setting and Sample

The population of interest consisted of ED nurses currently working in urban Level-I trauma centers who participate in trauma resuscitations of severely injured ED patients. Two sites were used for this study, hospitals A and B. Both hospitals are Level-I Regional Resource Trauma Centers and are located in an urban setting in Pennsylvania. Hospital A is a 700-bed tertiary care teaching hospital. Its ED has a three-bed trauma receiving area that sees over 4,000 injured patients and admits 1,500 per year. Hospital B is a 700-bed tertiary care teaching hospital. Its ED has three trauma bays used to

resuscitate injured patients. While seeing a large amount of injured patients every year, Hospital B admits over 1,000 injured annually.

The sample was recruited using a maximum variation purposeful technique. The investigator recruited and interviewed participants until data saturation was achieved. Saturation, or repetition of data obtained during the course of a qualitative study, is evident by recurring themes from interviews (Streubert Speziale & Carpenter, 2003). Saturation was reached and data collection ended after 22 participants were interviewed.

Purposeful sampling allowed participants to be selected based on their particular knowledge of the phenomena of interest (Streubert Speziale & Carpenter, 2003). Maximum variation sampling is a purposeful sampling technique that allows for the recruitment of a heterogeneous sample (Patton, 1990). This technique was used to obtain various perspectives of individuals with different backgrounds such as gender, racial/ethnic background, and years of nursing experience, and to examine themes across these variations (Patton, 1990). Patterns that emerge from a sample with variation capture core experiences and centrally shared aspects (Patton, 1990). The basis for choosing the sample with diverse characteristics was to represent the demographics of the ED nurse population and thus discover common themes across these variations. These various backgrounds allowed the investigator to capture common perceptions and themes from ED nurses related to ethical issues, factors contributing to resuscitation decisions, and how nurses are involved in these decisions.

Recruitment included both males and females with varied racial and ethnic backgrounds to obtain the richest set of data. While the majority of nurses working in the

ED is white-non Hispanic (88.5%) (U.S. Department of Health & Human Services HRSA, 2004), an attempt to include nurses of various ethnic and racial backgrounds was made. It was expected that a minimum of one Hispanic nurse, one Asian nurse, and one Black/African American nurse meeting the inclusion criteria would be recruited as these minorities comprise the next largest percentages of ED nurses following White, non-Hispanic (McGinnis, Moore, & Armstrong, 2006; U.S. Department of Health & Human Services, 2000). This attempt was challenging as the population of ED nurses is comprised of 88.5% white, non-Hispanic, 3.8% Black, non-Hispanic, 2% Asian/Pacific Islander, 0.6% Native American/Alaskan Native, and 3.2% Hispanic (McGinnis et al., 2006; U.S. Department of Health & Human Services, 2000). Recruitment was not limited to the expected numbers, however, and if nurses from other racial/ethnic backgrounds were able to be recruited and met inclusion criteria, they were also included.

Additionally, recruitment aimed to include a minimum of three males, and two nurses with less than five years experience, two with five to ten years experience, and two with greater than 10 years experience with resuscitation of severely injured patients. Experiences regarding nurse burnout and perceptions may differ among cultures as shown through research within multiple cultures with various nationalities and languages (Hwang, Scherer, & Ainina, 2003; Maslach, Shaufeli, & Leiter, 2001). Perceptions of interdisciplinary collaboration and involvement in decision making may also differ based on characteristics such as nursing experience (Adams & Bond, 2000; Ho, English, & Bell, 2005). The background characteristics on which the sample was recruited may influence individual nurses' perceptions of ethical issues, how they are affected, how they

perceive factors contributing to resuscitation decisions, and their involvement in these decisions, and thus allowed for the richest set of data.

Inclusion criteria for this study included nurses who: 1) were currently employed as an ED nurse, 2) were currently working at Hospital A or B, 3) participated in resuscitation of severely injured patients immediately on arrival to the ED, 4) were currently working at least part-time (two 8-12 hour shifts per week), 5) spoke English as a first language, and 6) were committed to the project for a 45 to 90 minute interview session and additional contact for member checks. The first, second, and third criteria were selected because ED nurses participating in resuscitation of severely injured patients on arrival to the ED were the population of interest. Only nurses working in urban, Level-I trauma centers, such as Hospitals A and B, were included in order to capture the most extreme experiences of the phenomenon. Only nurses working in an urban setting were included as types of injury vary greatly from urban to rural settings and may create different ethical issues. This study focused on those issues created from urban trauma. The fourth criterion was to ensure that the participants had adequate involvement with trauma resuscitation to be able to fully answer questions related to the phenomena of interest. The fifth criterion was to help ensure that participants were able to fully participate in an English interview and understand the concepts being studied. The sixth criterion was to ensure that the participants were committed to the study.

Measures

Semi-structured, in-depth, face-to-face interviews were conducted with each participant. The interviews were conducted by the principal investigator. The

interviewer used an interview guide with open-ended questions and probes to conduct the interview. (See Appendix A for Interview Guide.) The interview guide and questions were developed based on the research questions, a review of the literature, and the theoretical frameworks guiding this study, and was reviewed by qualitative, ethics, and trauma experts. As recommended by May (1989), the interview guide used a funnel approach to the sequence of questions, contained questions to elucidate the experiences and stories of the participants, and contained probes to further promote sharing of experiences. The interviews were audio-recorded and the interviewer took field notes during the interview process. After each interview and field note was coded, the interview guide was assessed for needed changes to obtain the richest data. Questions were added to the interview guide after the eighth interview (2/12/08) and after the twelfth interview (3/19/08). Additionally, after the third interview, it appeared that participants did not quite conceptually understand "ethical issues." Therefore, the interviewer stopped referring to the problems they were discussing as "ethical issues" and began using phrases such as "troubling situations," "difficult problems," or "situations that were difficult for you." After this terminology change, participants seemed to understand the questions better and spoke more freely of specific situations.

Interview length ranged from approximately 45 minutes to 2 hours. Additionally, participants were asked if they had additional data sources they would like to share that would contribute to knowledge on the phenomena. These could have included journals, poems, songs, diaries, or letters, unfortunately, none of the nurses had such data to share; most of the nurses explained that they do not vent through writing. One participant had

written a school paper on a specific situation and others discussed letters they had written to administration, but none knew the whereabouts of those documents. Participants were also given a demographic questionnaire to complete which was used to report the characteristics of the sample. (See Appendix B for Demographic Questionnaire).

Data Collection

Recruitment

Approval from the Institutional Review Board (IRB) at the University of Pennsylvania was obtained and encompassed recruitment from both hospitals. Recruitment and data collection from both hospitals occurred simultaneously. Recruitment began using IRB approved flyers, personal contact, and word of mouth. After discussions with the nurse manager at both EDs, flyers were hung in the nurses' lounge, break rooms, and kitchen. The flyers were also emailed to the nurses in the ED at Hospital A by their nurse manager. Additionally, the researcher attended staff meetings and in-services to meet nurses and explain the study for recruitment. Many nurses stated their interest in the study immediately while others contacted the researcher at another time, either by email or phone. Once potential participants stated their interest, they were asked to answer preliminary questions to determine eligibility for the study based on inclusion and variation criteria. (See Appendix C for Preliminary Questions to Determine Participant Eligibility.) All but two of the nurses who were interested in participating met inclusion criteria. One physician even expressed interest in the study, but was not a nurse and therefore did not meet inclusion criteria. When eligibility was determined, a date, time, and location were established to conduct the interview.

Interview Settings

Interviews took place at a time and location convenient for the participant. It was important that the participant felt that the location of the interview was neutral; if the participants felt that the location was not neutral, the richness of the data may have been limited. For this reason, most interviews were conducted in a private office or room either before or after the participants' shift. These seemed to be the most convenient times and places for the participants. None of the participants seemed too harried after their shift or in a hurry to get to work. One interview was conducted in the break room in the ED at Hospital A. The nurse informed the researcher that this would be a quiet place. However, several people were coming and going and the intercom to the ED was loud (Field Note 8). None of these seemed to distract the participant; the interviewer, however, was distracted by thinking that the participant would be distracted. Despite this distraction, the interview flowed smoothly. Two interviews were conducted in participants' homes, both quiet locations with few distractions.

All of the interviews took place in a face-to-face manner. Two chairs were typically set-up facing each other with nothing in between the interviewer and participant. The audio-recorder was off to the side between the interviewer and the participant. The participants all seemed comfortable in the chairs and comfortable in their discussion.

Data Collection Procedures

The researcher began the interview by introducing herself, and describing the study and reasons for the investigation. This introduction was intended to establish

comfort and trust of the participants. It was important to build rapport and trust with the participants to obtain the richest data. Thus, the investigator was respectful at every interaction with the participants and made every attempt to ensure that the participants were comfortable physically and mentally before beginning the interview. The full purpose of the study and the steps involved were thoroughly explained so participants were aware of what to expect. Risks and benefits of the study were explained, and both verbal and written consent to interview and digitally record the interview were obtained. The researcher then proceeded with the recorded interview using the interview guide. The interview guide included a semi-structured format with open-ended questions and questions asking the participants to recall stories related to particular events. The interview began with broad general questions to allow the participant to become comfortable with the investigator before continuing with more personal questions.

As the interview was concluding, the researcher asked for any further information the participant would like to include, asked the participant to complete the demographic questionnaire, thanked the participant, and terminated the interview. Two participants were contacted at a later date for member checks of the findings; after this point, the relationship was terminated.

During and after each interview, the researcher took field notes describing the participants' non-verbal communication, the environment, the interaction, and descriptions of any deviations from the planned interview guide. The field notes were used for reflexivity notations (interviewer biases, suppositions, and presuppositions of the area of research) before and after each interview, ensuring interviewer-imposed

assumptions did not take precedent over the participants' described experience. ATLAS.TI software was used to manage the data after the individual interviews and subsequently for data analysis.

Data Management

Data Preparation

Data preparation and preliminary analysis occurred in four steps as described by Sandelowski (1995): 1) verbatim interview transcription, 2) transcript proofing and reviewing, 3) rudimentary highlighting and note taking of initial impressions of the data, and 4) forming an overall impression of the data. The interviews were transcribed by a paid, qualified transcriptionist with access to the audio file only. After each interview was transcribed verbatim, the investigator proofed the transcripts against the audio files of the interview. All names, dates, places, and identifying information were changed in the transcript. This proofing allowed for an introduction and orientation of the investigator to the raw data, beginning the preliminary analysis. These files were then loaded into ATLAS.TI , a data analysis program. This program allowed the investigator to electronically manage the data, code the interviews, and store notes and memos. The program was housed on a password protected computer in a locked office. After the transcripts were loaded into ATLAS.TI, the investigator began highlighting and taking notes on initial thoughts of the data to identify key phrases and extract central topics within each interview. These central topics allowed the investigator to form an overall impression of the data. The investigator consulted regularly with her dissertation committee and peer consultants to examine the data for content and rigor.

Data Analysis

Data were analyzed using content analysis for each interview, or case, and for all field notes. These data were then compared across cases to identify key elements, or themes that emerged from the data. Data analysis and collection occurred simultaneously and until saturation of the data was reached. The first interview was conducted, reviewed, and coded which subsequently shaped the second interview, and so on. This occurred by adjusting the interview guide (adjusting the questions asked, the order of the questions or the wording of questions) as necessary to elicit the richest data on topics related to the research questions.

Content analysis is a process by which data are described and codes are systematically generated directly from the data (Hsieh & Shannon, 2005; Sandelowski, 2000); it allows for the categorization of verbal, behavioral, or recorded data in order to classify, summarize, and tabulate. Content analysis is used to describe a phenomenon when existing theory or research on the phenomenon is limited (Hsieh & Shannon, 2005). After data from each interview were preliminarily read to understand their essential features (Sandelowski, 1995), data analysis began.

Data analysis included coding, abstracting codes into categories, and categories into themes to reveal substantive, categorical, and conceptual constructs that underlie the ethical issues and factors contributing to resuscitation decisions. Coding is performed to capture the commonalities of individual experiences across cases/interviews (Ayers, Kavanaugh, & Knafl, 2003); they are labels given to units of data with meaning (Graneheim & Lundman, 2004). Coding entails examining the data line by line to

identify the processes in the data (Hsieh & Shannon, 2005; Streubert Speziale & Carpenter, 2003). Each sentence or thought is coded with substantive codes because the individual codes describe the substance of the data often using the words of the participant or implied concepts (Hsieh & Shannon, 2005; Streubert Speziale & Carpenter, 2003). A consistent set of codes were assigned to data segments that contained similar material. After coding, across-case analysis was performed. Across-case analysis allows for important key elements within each case to be compared across cases to identify commonalities (Ayers et al., 2003). Once codes were given to each data unit, codes were compared for similarities and differences. These codes were sorted and abstracted into categories. Categories are groups of content or codes that share an obvious commonality (Krippendorff, 1980). Once categories were formed, the categories were formulated and abstracted into themes. This was done by combining previous categories into a smaller number of categories (Hsieh & Shannon, 2005). Themes are a way to link the underlying meaning in data units, codes, and categories (Graneheim & Lundman, 2004), and label the primary concepts or processes that occur in the data (Streubert Speziale & Carpenter, 2003). Themes are the key elements found in the data in qualitative analysis, and may present themselves across individuals in the sample or may apply to all participants in the sample (Ayers et al., 2003).

Each individual case was coded; when all interviews and field notes were completed and initially coded, across-case analysis took place identify patterns and themes. Data is represented in its own terms through themes to describe the phenomena;

across-case matrices are presented. Data analysis produced idiographic generalizations, generalizations based on particulars of individual experiences (Ayers et al., 2003).

Additional data collected included the demographic questionnaire completed by the participants. These data were entered into a database and analyzed using Microsoft Excel. These data are reported as descriptive statistics of the aggregated participants to describe the sample.

Scientific Adequacy

Scientific rigor was maintained through the investigator's attention to and confirmation of information discovery and use of every attempt to accurately represent the participants' experiences. Scientific adequacy in qualitative research is maintained through credibility, dependability, confirmability, and transferability (Lincoln & Guba, 1985).

Credibility, or the truth value of the findings, is established when the investigator is able to show that the findings are accurate constructions from the participants' experiences (Lincoln & Guba, 1985). Credibility was established by using five strategies as explained by Sandelowski (1986): 1) checking the data to make sure it is representative of the whole and representative of coding categories and examples used to present the data, 2) comparing data sources and data collection procedures to determine the similarity of findings among them, 3) checking to determine that descriptions, explanations, and theories contain typical and atypical elements of the data, 4) attempting to disprove or discount the conclusions drawn from the data, and 5) obtaining validation from the participants through member checks. The investigator spent a prolonged time

with the data completing the above strategies. Member checks were performed with two participants who agreed with and confirmed the findings. Member checks are particularly useful in determining whether the participants agree that the findings are true to their experience (Streubert Speziale & Carpenter, 2003). Additionally, while three types of data were desired for triangulation (interview, field notes, and additional participant contributed data), only two types of data were used as no participants had additional data such as letters, poems, or diary entries to contribute. However, the interviews and observations (through field notes) provided cross-data validity checks and helped strengthen credibility (Patton, 1990). Furthermore, peer debriefing, as Lincoln and Guba (1985) suggest, was used for feedback on the analysis and findings - coding schemes, and category and theme formation. Additionally, peers reviewed audit trails during data analysis and made suggestions to help continue through analysis and for maintenance of scientific validity

Dependability is showing that the process of the study, analysis, and findings were consistent and stable over time. To establish dependability, the sample consisted of participants with demographic characteristics similar to the national demographics of ED nurses (Miles & Huberman, 1994). The investigator also used the same interview format and guide for each interview. The interviews and field notes were transcribed and initially reviewed in a timely manner, within one to two weeks of the interview. Additionally, the findings sustained peer review to confirm consistency (Miles & Huberman, 1994).

Confirmability is accomplished by maintaining neutrality throughout the study, data analysis, and reporting (Miles & Huberman, 1994). Confirmability was established by creating an audit trail to record the activities and thought processes that led to the conclusions of the study (Sandelowski, 1986; Streubert Speziale & Carpenter, 2003). This took place by creating memos in the data to track thoughts and clearly defining codes, categories, and themes. The audit trail includes the raw data of the audio files, field notes taken during the interviews, and products of data analysis such as theoretical memos, summaries, and notes (Lincoln & Guba, 1985). Furthermore, to limit bias throughout the interviews, analysis, and interpretation processes, the investigator made every attempt to bracket her beliefs, judgments, and experiences (Streubert Speziale & Carpenter, 2003). Member checks and review by other qualified researchers also helped to limit bias. Additional bias may have been imposed by the participants' relationship with the investigator's husband. While the investigator did not have an established relationship with the potential participants, the investigator's husband was a physician working in the ED at Hospital B which may have potentially biased the participants' responses. To help avoid this bias, the participants were reassured that the interviews were confidential and all identifying information would be removed from the data and transcripts.

Transferability is dependent on whether the findings of the study can be used by others (Streubert Speziale & Carpenter, 2003). For example, findings from this study will be transferred in an attempt to develop quantitative instruments to measure these phenomena in a larger sample. To aid in transferability, the investigator provided thick

descriptions and direct quotes from the participants when presenting the findings (Lincoln & Guba, 1985; Miles & Huberman, 1994). Additionally, characteristics of the sample and setting are thoroughly described to assist future investigators in determining whether the findings are transferrable to or "fit" their populations or contexts (Lincoln & Guba, 1985).

Considerations for Human Subjects

Prior to conducting this research, IRB approval from the University of Pennsylvania was obtained; it was received on October 31, 2007. (See Appendix D for the IRB Approval Letter.) This approval covered participant recruitment from both Hospital A and Hospital B. Additionally, a Certificate of Confidentiality was granted from the National Institutes of Health (NIH) on November 5, 2007 to protect the identity and privacy of all participants in this study. (See Appendix E for the Certificate of Confidentiality.) Protected health information was not disclosed or linked to the participants and no children were included in the study. Deception of participants, sensitive behavioral information, and research involving prisoners, cognitively impaired people and other participant populations determined to be vulnerable were not included in this study.

Possible risks and benefits of participating in this study were described to the participants during the consent process and prior to the conduction of the interviews. Consent was obtained via verbal consent and a signature on the consent form. (See Appendix F for Consent Form.) Possible risks to the participants were minimal, but included emergence of emotional distress and confidentiality issues when discussing past

events. A possible risk to the participants' reputation also existed, as the participants were sharing clinical scenarios which they viewed as problematic and with ethical and legal issues involved. Participants were assured their information and information revealed about other providers or patients would remain confidential and any identifying information about the participants or individuals in the participants' stories were omitted or changed on the transcripts. The Certificate of Confidentiality further protects participants from confidentiality issues. When distress occurred during the interview, such as crying, participants were informed that they could withdraw from the study at any time. No risks of physical harm existed from participating in the study. No procedures, situations, or materials were harmful or hazardous to participants or personnel. There were no direct benefits for the participants, but participants may have benefitted from sharing about the identified issues and feeling as though their perceptions of the issues were important for nurses and future strategies to address concerns and issues in ED care.

Participants were protected from possible risks via several methods. Interviews were confidential; no names or identifying information was attached to the recorded or transcribed interviews; numbers were assigned to each interview and all accompanying data. The issue of privacy was considered; the Certificate of Confidentiality obtained from the NIH assisted in protecting participants from confidentiality and privacy issues. When the data are presented, they are described in an accurate manner without revealing the participants' identity. Any identifying information revealed in the transcript (e.g., names or identifying information of other providers the nurses work with, patients they have cared for, dates of events) are changed. If the interviewer noticed the participant

feeling uncomfortable discussing the questions or appeared to be distressed, she reminded the participant of the voluntary nature of participation and his/her option to withdraw from the study and/or asked if he/she wished to reschedule the interview for another time. No participants withdrew from the study.

Human Subjects Involvement and Characteristics

Twenty-two individuals were selected and interviewed for this study; this is when saturation of the data had been reached. The individuals participated in a single face-to-face interview ranging from 45 minutes to 2 hours. The interview was audio recorded. Participants were compensated $20 for their time and effort which was in accordance with the wage-payment model as an ethical justification of payment for participants who completed the interview. This model suggests paying participants an amount similar to what they would receive for an unskilled job for their time and associated burden in research participation (Dickert & Grady, 1999).

Both women and men meeting the inclusion criteria were included in participant selection. Because the sampling strategy was maximum variation purposeful sampling, the investigator recruited participants to obtain the richest data from a variety of backgrounds. Approximately one Hispanic nurse, one Black/African American nurse, one Asian nurse, and three male nurses meeting the inclusion criteria were expected to be recruited. If nurses from other racial/ethnic backgrounds were able to be recruited and met inclusion criteria, they were also included. It was assumed that the sample would be primarily female, as 86% of ED nurses are female (McGinnis et al., 2006; U.S. Department of Health & Human Services, 2000). Additionally, age ranges included

nurses 21 years old and greater including practicing nurses who met the inclusion criteria as explained in the Setting and Sample section. These nurses were relatively healthy as demonstrated by their ability to currently practice emergency nursing. Pregnant women were not intentionally included or excluded. Vulnerable populations such as fetuses, neonates, children and institutionalized individuals were not included in the sample as the purpose of this research is not directed toward them. Participants were recruited from the EDs of Hospital A and Hospital B. Theses institutions did not play an active role in the human subjects research; participants were merely recruited from their EDs using flyers, researcher recruitment, and snowballing technique.

Sources of Materials

Data were obtained directly from individuals participating in the interviews. Information regarding the sample was obtained through demographic questions which participants answered on a voluntary basis. Each interview was assigned a number which was placed on field notes and transcripts associated with each participant. Identifying information such as names, addresses, and phone numbers were not attached to any research information such as recordings, transcripts, or field notes. All identifying information was kept separate from the interview data and transcripts and held on a password protected computer or in a locked cabinet, accessible by the principal investigator only. Previous data had not been collected on this population for this research, and thus new information was obtained from the sample in the form of interviews.

CHAPTER 4: FINDINGS

This chapter discusses the findings of the research. The chapter begins with a description of the sample. Next, each of the four research questions are individually addressed through explanation of the themes and categories that emerged from the data. Supporting evidence from interviews and field notes are included. (See Appendix G for a list of abbreviations and terms used within the quotes.) **Themes** are in bold font and underlined, **categories** are in bold font, *sub-categories* are italicized and underlined, sub-sub-categories are underlined, and *components* from which the categories, sub-categories, or sub-sub-categories were derived are simply italicized.

Description of the Sample

A total of 22 interviews were completed with participants who met inclusion criteria. After the 22nd interview, saturation of the data had been reached, and data collection stopped. Seven interviews (32%) were completed with nurse participants from Hospital A while 15 interviews (68%) were completed with nurse participants from Hospital B.

Maximum variation sampling was used to obtain the richest set of data. Seventy-three percent of the participants were female (n =16). The majority were of White, non-Hispanic background (n=19; 86%); one participant was Hispanic (4.5%), one was Asian (4.5%), and one was Black/African American (4.5%). The sample's gender, racial, and ethnic backgrounds are consistent with the national demographics of nurses working in the ED (McGinnis et al., 2006; U.S. Department of Health & Human Services, 2000; U.S. Department of Health & Human Services HRSA, 2004)

Additional participant characteristics included a broad range of age, experience, and education. The mean age was 36.2 years, with the youngest participant being 22 years and the eldest being 51 years. The mean number of years working as a nurse was 10.9 (range 2 – 31). On average, participants worked with severely injured ED patients for 8 years with two participants (9%) having less than one year of experience and one (4.5%) working with this population for 30 years. Seven participants (32%) had less than five years of experience resuscitating severely injured patients on arrival to the ED, 10 (45%) had 5 to 10 years of experience, and 5 (23%) had greater than 10 years of experience. The majority of participants' highest level of education was a bachelor's degree in nursing (n =13; 59%). In addition to the participants who currently held masters' and doctoral degrees (as noted in Table 4-1), two participants were enrolled in masters' in nursing programs and one participant was currently working toward a doctoral degree. Additionally, the majority of the participants classified themselves as Roman Catholic (n=15, 68%) with the next largest number of participants denying religious affiliation (n=4, 18%). (See Table 4-1 for Demographic Characteristics.)

Table 4-1

Demographic Characteristics of Participants

Characteristic	Participants (N = 22)
Age (years)	36 +/- 7.9 (range 22-51)
Gender (% male)	27% (*n* = 6)
Racial Background (%)	
White/Caucasian	86% (*n* = 19)
Black/African American	4.5% (*n* = 1)
Asian	4.5% (*n* = 1)
Other	4.5% (*n* = 1)
Nursing Education (%)	
Diploma	14% (*n* = 3)
ADN	14% (*n* = 3)
BSN	59% (*n* = 13)
MSN	9% (*n* = 2)
PhD	4% (*n* = 1)
Religion (%)	
Protestant	9% (*n* = 2)
Roman Catholic	64% (*n* = 14)
Muslim	4% (*n* = 1)
None	18% (*n* = 4)
Mixed (Jewish/Catholic)	4% (*n* = 1)

Note. ADN = Associate degree in nursing; BSN = Bachelor of science in nursing; MSN = Master of science in nursing; PhD = Doctor of philosophy

Research Question One: What Ethical Issues Arise During the Initial Resuscitation of Severely Injured Patients?

"Ethical issues? Oh, we have TONS of ethical issues. We just ignore them!" (Field Note 23). This quote, expressed by a non-participating nurse during the recruitment

phase, is quite exemplary and problematic. As participants discussed the issues they encounter while resuscitating severely injured patients, it became apparent that ethical issues nurses encounter are numerous. Thus, **Ethical Issues** became the overarching theme answering research question one. Under this theme, four prominent categories emerged: **'Respect for Persons' Issues, Justice/Resource Issues, Patient Care Issues,** and **Job/Role Related Issues.** (See Table 4-2 for Ethical Issues matrix.) The first two categories are consistent with the bioethical principles as explained by Beauchamp and Childress (2001). While the two additional bioethical principles are not specifically labeled, **Patient Care Issues** encompasses participants' concern for both beneficence and nonmaleficence. **Job/Role Related Issues** remains an additional category not frequently discussed in bioethics, but rather discussed by Jameton (1984) as a cause for ethical issues. Each of these categories will subsequently be discussed.

Table 4-2

Matrix for Research Question One: Ethical Issues

Theme	Ethical Issues				
Category	'Respect for Persons' Issues			Justice/Resources Issues	
Sub-category	Autonomy & consent often not respected	Patient often degraded or disrespected	Making decisions for the patient	Allocation issues	Systems issues
Codes	-Difficulty adhering to religious beliefs of the patient -Informed consent not obtained -DNR/DNI not followed -Organ donations without consent/ presuming consent -Patient's autonomy could be wasting time -Not respecting patient's wishes or autonomy	-Lack of patient privacy -Prolonging patient suffering -Psychological damage to the patient -Patients barely look human -Patients don't know their rights -Research studies/ teaching cases -Talking about/to patients inappropriately -Not telling the truth to patients	-Not knowing patient/family wishes/no family with injured patient -Patient-family disagreement	-How to make decisions outside the scope of the protocol -Resources used inappropriately -Using a lot of resources with questionable survival -Overusing/duplicating use of resources	-Lack of support -Lack of resources -Lack of time
				Leads to: Poor patient care	

Theme	Ethical Issues (continued)		
Category	Patient Care Issues		Job Role Related Issues
Sub-category	Inappropriate care	Antecedents to Inappropriate care	
Codes	-Could have done more -Pain control – over or under medicating -Overexposing patients to radiation -Unequal treatment of patients -Causing more harm than good	-Differing goals/difference of opinion -Egos get in the way -Lack of decision making time -Legal issues cause patients to wait longer -No way to ID the patient -Sometimes personal feelings get in the way -Frequent flyers/distracting injuries -Language barrier interferes with care	-Being asked or expected to practice outside your scope of practice -Caring for the victim and perpetrator simultaneously -Nurses in danger -Physician won't talk to the family -Triaging with multiple patients

'Respect for Persons' Issues

'Respect for Persons' Issues encompasses three sub-categories. These include *Autonomy and consent often not respected, Patient often degraded or disrespected,* and *Making decisions for the patient.*

The sub-category of *Autonomy and consent often not respected* includes issues related to respecting patients' autonomy and consent, decision making capacity, and beliefs. As participants discussed the ethical issues they encounter, they frequently mentioned issues including: *difficulty adhering to the religious beliefs of patients, not obtaining informed consent, not following a patient's do-not-resuscitate (DNR) or do-not-intubate (DNI) order, continuing a resuscitation for the purposes of organ donation without first obtaining consent from the family* or *acting under presumed consent.* They also encountered problems related to *not respecting patient's wishes or autonomy* and feelings that re*specting patient's autonomy could be wasting valuable time* particularly because the trauma team's 'job' is to save lives, "stabilize and transfer" (Participant 16). When asked if patient autonomy is considered when making decisions during a resuscitation, Participant 19 explained:

> I would bet my bile duct, no. I've seen them, no matter what the patient says, they have their check off list and we're going down it. "You need this. You have to have this." And any attempt to deviate comes with the response of leaving against medical advice. Very little wiggle room at all...I had brought the doctor to the bedside and said, "listen the patient doesn't want this, da, da, da. They're claustrophobic" or whatever. And the doctor will go in and say, "oh, I'll talk to them." But it's more talk at them and then walk away. And when I say, "well, what happened," having heard the whole conversation, then they say "well, you're doing it anyway." [Autonomy is] not [considered] at all in the trauma situation.

Participant 6 explains:

> Well, I mean I always think it's interesting when you say patient autonomy because we do a lot of things TO people without their consent, without their, I should say without an informed consent that we don't ever really, we sort of put that as last over, you know... I guess we value more their life than their ability to make decisions on their own, which I guess is not a bad thing. But I think at times we maybe sometimes go too far and when we probably should take the time to really get their informed consent. Get them on our side, you know, or at least let them make the choice and we don't.

Many participants discussed issues and occurrences where the *Patient was often degraded or disrespected*. Issues in this sub-category pertain to not respecting the patient as a person or regarding him/her as an object and behaviors that go along with it. Participant 6 was particularly bothered when an elderly man had been hit by a car. "[His] leg has been torn off, [his] chest doesn't have any ability to push back against compressions and [he's] got probably brain coming out of [his] head, there's probably not much we're going to be able to do" (Participant 6), but the resuscitation continued. Participant 6 wanted the trauma team to think about "if this was your father would you want us doing this?" He and many others were concerned about *prolonging patient suffering*.

Other participants were also bothered by issues related to *lack of privacy* by patients being naked in the middle of the trauma bay where anybody was able to walk by and watch what was happening. Participants were also concerned about causing *psychological damage to the patient* by witnessing or overhearing horrific resuscitations taking place right next to them without any barrier or simply a curtain separating them from the patient one trauma bay over.

In other situations, participants expressed concern that providers are *not telling the truth to patients* and that often *patients don't know their rights.* Participant 7 described a situation where a chest tube was being inserted without proper pain medication. She explains:

> **Participant:** Yeah, yeah, 'cause I really think like patients have rights. Like, if I was that patient, I would've said "Stop right now. I do not want that chest tube in." And patients really don't realize their rights, so that's why sometimes I feel like I have to step in. **Interviewer:** ...I'm sure, especially when you come in as a trauma patient and you have like a hundred people around you. **Participant:** Oh, yeah. They never really know. They think they have to go along with everything. Sometimes they don't realize.

Participants also described situations where providers degrade the patient or *talk about/to patients inappropriately.* For example:

> ... the way that some patients are treated, like, I've seen doctors come in and like slap people on the belly and completely forget that that's someone's, like, loved one. Some of the things that I see, if I knew that they happened, as the patient, I would never go to a hospital at all. (Participant 2)

Another key example of patients being disrespected or degraded is when patients are kept alive to be enrolled in *research studies* or become *teaching cases.* Participant 14 discusses her concern with patients becoming teaching cases:

> But sometimes, I mean on the ethical part, sometimes I see, when working in a teaching hospital...and you see things that are done that are kind of like maybe with somebody that's already expired and then you see things, like it becomes an anatomy lesson for residents. That becomes a little unsettling to me because I think if that was my family member and they were already dead, I wouldn't want someone, and I understand the teaching aspect involved with it too, so it's kind of like, but, that's...I've seen a couple of those situations where someone is throwing in chest tubes and things like that or internally shocking somebody or they crack the chest and this person's and there is obviously no saving them.

Another sub-category under '**Respect for Persons' Issues** is *Making decisions for the patient.* Ethical issues that participants encountered were related to trying to treat the

patient when *not knowing the patient's or family's wishes or no family with the injured patient*. Also issues related to *patient-family disagreement* arise. Participant 13 and Participant 1 describe these situations:

> We realized he didn't have a pulse... that was when he lost, so it was kind of cool because we saw him lose his pulse. But this guy really had like, I started CPR and I could hear a rib crack and it was just terrible. And that was another situation, like someone finally... no family was with him for like three hours and no family was still there. They had to like search really hard to find a family member to make sure they really wanted to keep going. So we brought him back and then did a CT scan and did a couple of tests. He came back from the CT scan and we're getting him on the monitor and he was in PEA again. And again I had to do CPR, now he had all these broken ribs because it was huge men doing CPR and I was just like, you know, we're sending him back to the nursing home, his family isn't even here with him, he can't talk, he's so dry, like his lips were all dry. (Participant 13)

The following is another example of the problem:

> [I]f the patient has some kind of "Do Not Resuscitate" order or something like that. For some other reason they are ill anyway or they are older...I think there is always, for me there is always a little bit of an ethical issue if family doesn't agree with maybe that. I think sometimes in any resuscitation trauma or not, but sometimes the wishes of the family because they can speak and they are the ones that have legal control sometimes, are, they are the ones you listen to sometimes regardless of what paperwork the patient might have. Because if the patient is out of it they are not the ones that can, that have...there's like an unspoken legal threat with every patient we take care of. (Participant 1)

Justice/Resource Issues

The second category that emerged under **Ethical Issues** is **Justice/Resource Issues**. This category contains issues primarily related to an unjust healthcare system both for those receiving care and for those working within the healthcare system. Participants frequently identified that issues related to justice and resources lead to *poor patient care*. Two main sub-categories emerged from the data, *Allocation Issues* and *Systems Issues*.

As participants discussed their concerns with resources, it became clear that allocation of resources is an issue. This sub-category contains issues pertaining to the allocation of resources and appropriate use of resources. The protocols for resuscitation of injured patients are fairly specific about how to treat a patient; however, participants experience issues related to *how to make decisions outside the scope of the protocol* and what resources to use. Many of these issues were related to uncertainties about the patient, his/her situation, and issues that did not have clear answers. For example, Participant 6 described a situation in which a patient (estranged from his family) was thought to be brain dead but had a severe abdominal injury that required surgery. The providers were confronted with choosing what type of treatment to provide – take the patient to the operating room and expend a multitude of resources where the patient probably would not survive or allow the patient to expire and terminate resuscitation efforts.

Other issues participants described included when *resources were used inappropriately*, when *a lot of resources were used with questionable survival*, and *overusing or duplicating use of resources*. Participants frequently discussed situations in which the trauma team would inappropriately use resources for patients that did not need them when they could instead be saved for those patients who do. Further, participants were concerned about allocating resources to patients who probably would not survive. They often felt this was a waste of resources. Participant 16 discusses her concerns:

> **Participant:** We knew he had a gunshot wound on the right side, and we had thought, "Ok, well it's probably some kind of major vessel issue. We're not going to be able to repair it here in this setting, and he's not going to make it upstairs." We came to that conclusion, I felt, and then, at that point, that is when

> we went and opened the right side of his chest. We visualized the injury to the subclavian artery, but they still went along and put a foley...I've never seen this done...in his neck, in his IJ, and tried to float it down to inflate the balloon and tapenade the bleed but...it just kept going and we kept giving blood and kept giving meds. And we kept opening more packages and opening more lines and opening...you know what I mean. And at the end of it all there's however many gallons of blood on the floor, and it's the blood that I put in...you know what I mean...that I put in him. And I think about that...I mean that's a waste of...**Interviewer:** It went in one hole and out the other...**Participant:** Exactly. And I'm the kind of person...like I have been in that situation so many times where, upstairs in the ICU, where I can think of people who really need that blood...who were going to benefit from it...and I feel like we're wasting it on them. I mean, everyone deserves the million-dollar work there when you come into there, but it's kind of like, if we've decided that this is a non-survivable injury that we're not going to be able to repair here or upstairs...what are we doing? You know it gets a little frustrating.

Additionally, participants were frequently confronted with issues related to *overusing or duplicating resources*. Resources were often overused or duplicated because providers felt a legal threat and were attempting to legally cover themselves. Providers also inadvertently ordered tests multiple times and often re-ordered tests (particularly radiologic imaging) when injured patients were transferred to their hospital from another hospital as Participant 4 describes:

> And the other thing is like when a patient comes in they order, when there's a spinal cord injury they order a full set of x-rays for the spine and then they go and they do a full set of CT scans for the spine and then they send them upstairs and they do a full thing of MRIs for the spine. I'm like okay the patient is going to glow tonight, because they are so radiated. And the thing is if they come from another hospital they've already had all this and you know, they come from another hospital and none of that stuff is any good but they have to have the stuff from the other hospital but then they go and they do it all again.

The second sub-category under **Justice/Resource Issues** is <u>*Systems issues*</u>. Within <u>*Systems issues*</u> participants explain ethical problems related to the system (the healthcare system or the hospital) inhibiting the resources that patients need or the resources nurses need to function to provide care. Issues discussed by participants include *lack of support*,

lack of resources, and *lack of time to appropriately care for patients*. Often participants felt that they did not receive support from administration, physicians, or the trauma team. This made it even more difficult for them to provide the care they felt was necessary. Additionally, many participants felt that there was a lack of resources needed to provide care; these resources included items such as pumps or dopplers, as well as available space for ED patients needing hospital admission. Participants often explained that patients were kept in the trauma bay rather than going to the ICU or floor because no beds were available. Also, physicians would accept patients or keep the trauma bay open when no beds were available to put the patients. Typically, after the injured patients' acute issues had been addressed, the patient would be cared for in the trauma bay rather than the ICU or medical or surgical floor, using the already over expended resources in the ED/trauma bay. Not having available beds was problematic for the participants because they would have to care for the critically injured patient in the trauma bay for the duration of their shift while also caring for other sick patients and having to be prepared for the injured patient that had yet to arrive.

Most participants mentioned issues with obtaining blood from the blood bank in a timely manner and finding physicians when they needed them. In addition, most participants noted the lack of available nurse staffing due to the inadequate pay, poor scheduling, overwhelming patient load and general sense of frustration. Participant 20 discusses many of these issues:

> I'm just really frustrated with the management. There have been multiple letters written by myself and also other nurses that are in trauma with some of the demands they're asking that are unrealistic. I mean, we have five patients; there's only one nurse as of...Up until February, we only had one trauma nurse and a

backup but the backup had an area of her own. So that nurse would leave their area to cover you long enough to stabilize the patient and then leave. So you may have up to five patients and they start requesting that we do q one-hour urine outputs on certain patients and we're holding the ICU admissions. So you have these people that are in beds. Or you have someone on a Rota-rest bed and you have all these other patients that are calling out for pain medication or that are drunk. 'Cause I mean, like I said, I'm mostly on night shift so I get all these...a lot of drunk people that come in. You get elderly patients with sundowners. You get a lot of confused patients, Alzheimer patients that fall frequently. And you just get no support. You're asking for resources. I know this was a question you asked earlier. At one point, we had one rectal thermometer in our entire department and we would get these transfers and anyone that was intubated you had to get a rectal temperature on or someone that was not giving you an accurate read. You would have to run up to our triage office to get the pediatric rectal thermometer and run it back. We had one Doppler in the whole department, like a pedal Doppler and it looks like something from a museum. It's 1980; it's brown. It's got wheels on it. I mean, it's ancient. So resources like that. We actually sat down and had a little meeting with a bunch of nurses on nights that work trauma with things that we thought would make improvements, just the way things were organized in the trauma bay, the clutter on the tables. Just the way things look. Just extra resources that we thought would help the way things were supplied. We have these nursing carts at the bedside that are never used. Well, we have patients getting antibiotics and we don't have 50 [ml] bags. We have to run back to the med room to get the bags to run them. So just things that we thought would be more convenient. The whole concept of spinal cord team. E.R. sees them; trauma sees them and then a spinal cord is called. Well, orthopedics and neurosurgery never come to see the patient together. The patient's getting rolled at least four times, getting at least four rectal exams and if they could coordinate so that they came down together or they had a certain timeframe that they had to be down there to do their assessment together, it would be to the patient's benefit. And I'm getting to the point now where I don't feel like the changes that are being made, if any changes are being made, are to benefit the patient at all. It doesn't seem like it's for the patient. A lot of times, I get resistance. I get...I call the doctors at 5:30 in the morning to have family members speak to them 'cause they have questions. They can't come down 'cause they're doing their rounds or they have to have this one thing done because they need to be somewhere else at a certain time. And a lot of the things that are taking place are not for the patient's sake. So I'm getting really frustrated. I'm to the point where I don't feel like anyone's listening to us. They're expecting us to do more with less. So it's getting to the point where my...I don't know how greener the grass is going to be on the other side but I'd like to take a look.

Many participants also discussed that they did not have adequate time to give their patients the care they needed and deserved. They explained that they were required to spend too much time on paperwork, the ED was too busy, and that they were being pulled in too many directions.

> Probably yeah, the patients aren't getting as much attention because we are so busy doing the paperwork and you have the other nurse that's there then they're checking your paperwork also, so you're spending a lot of time just doing paperwork, paperwork, paperwork. And there's a lot of nurses that come from other hospitals that do trauma and they're like, what's with all the paperwork? Why do we have six pages worth of paperwork here when it could be cut down? So I do, yeah, I can't spend the time with my patients that I would like to because I am so focused on the paperwork. (Participant 4)

Patient Care Issues

Another category that emerged under **Ethical Issues** was **Patient Care Issues** encompassing two sub-categories, *Inappropriate care* and *Antecedents to inappropriate care*. Issues falling under the sub-category of *Inappropriate care* relate to the patient not receiving what the participant would consider appropriate care. Participants particularly felt that in certain situations the level of care was inadequate, and that they *could have done more.* Many situations were discussed in which participants experienced problems with *pain control* such as *over or under medicating.* For example, Participant 7 describes:

> And I can remember specifically one... they had a woman who needed a chest tube, and her pressure was low so he didn't want to give her any pain medicine, and he was having a young resident put the chest tube in, and she wasn't numbed up properly, I could tell, and it was SO painful, and I was like trying to get medication, asking for medication and he was like yelling at me about, you know, her pressure's too low, and I was like saying like this is inhumane, so we had kinda like a little bit of an argument. So I've noticed he's had a couple of problems with other nurses too. So, not that he's not a good doctor, and I know why he's doing what he's doing, but you know, if she's that severe, then slow down a little

bit, like make sure she's properly numbed up, or run some fluids and get her pressure up a little bit. Give her some medication. I mean, to inflict severe pain on someone, I just think like there was another way to go, I felt like, and I felt like I wasn't respected when I said something about it. Instead, I got yelled at, stuff like that.

Participants often encountered situations in which providers were *overexposing patients to radiation* by ordering more radiology tests than was necessary or by re-ordering radio-imaging that had already been obtained. Furthermore, participants discussed witnessing and participating in the *unequal treatment of patients.* They explained that the actual care the patient received may not have differed, but the personal interaction with patients and the social treatment of patients differed based on characteristics such as social background, appearance, drug or alcohol use, and criminal action. For example:

> **Participant:** I think that I've experienced that some patients will get treated a little bit differently than other patients in particular if that, the patient is an attorney or there are attorneys present. I think that people in the medical field or in a legal field get different treatment than the average person. **Interviewer:** What do you mean by different? **Participant:** I would say that you see better documentation on their charts... And then more frequent, like, they're more frequently informed by physicians and by staff about what's going on. **Interviewer:** Okay. But do you think that there's any, in the ways that they're, like, medically or nursing treated, other than the documentation or the types of treatments that they receive? Do you think that that has any bearing? **Participant:** I think that or it's been my experience that patients that would be suspected I.V. drug users get less pain medication when, in theory, they probably should get more. And I think that the way that people are talked to, it seems like if you are, if you appear, like, a well-dressed Caucasian person that you get better treatment than if you were, like, a suspected homeless person... And alcohol on the breath. If the patient has alcohol on the breath, they're treated differently... Almost like they deserved whatever happened. **Interviewer:** So when you say treated, are you talking more about, like, personal interaction? **Participant:** Spoken to... Spoken to or in terms of comfort measures... It seems like if, now this is just my impression, but it seems like if the staff feels that the person is intelligent enough to be able to contact a nursing supervisor or... the head of the

hospital or patient services to complain then they will get more attention, be spoken to in a better manner. (Participant 2)

Participants also discussed ethical problems and often questioned their resuscitative efforts. They wondered whether they were *causing more harm than good* as Participant 1 discusses:

> And so I asked for them to hold CPR, and the physician...I asked for the physician to look at the monitor with me and it looked like he was in V-tach. So we had a decision to make at that point though. I mean we had a...we were kind of already in the progress of CPR, but we all kind of felt like he had been hypoxic for a while. But we did go ahead and shock him, and I had some mixed feelings about that because we got him back, and we got a pulse. And it was a good pulse. It was really good. And we...and we transferred him out to another hospital. And when he left the hospital, I felt like...I mean you just kind of knew that he was so hypoxic that there wasn't...he probably wasn't going to have any brain activity or anything. But that was at a really tiny hospital. We couldn't really assess that there...other...like there was no EEG. You know, there was nothing there to assess. He had to be transferred out. So for me that was like I kind of struggled with that being my first...that was kind of the first code that I was on that was an injury and not with him when he was just sick and to check his status. But I do remember...so initially I felt uncomfortable about not anything that we really did, but just the fact that I knew I was shocking someone and we gave them their pulse again, and they were probably, you know, who knows, be on a ventilator for who knows how long... So I felt bad about it initially, not that necessarily anything was done wrong, but just you felt like "what did I bring back."

The second sub-category that emerged under **Patient Care Issues** was <u>*Antecedents to inappropriate care.*</u> This sub-category is a compilation of problems that caused patients to receive inappropriate care, for example, these problems either prevented patients from receiving appropriate care or caused them to receive too much care. Specifically when physicians on the trauma team had *differing goals or a difference of opinion* the patient did not receive optimal care. Moreover, *egos get in the way* which further impedes patient care. For example:

> When there's too many physicians trying to manage the patient's care or they are Monday morning quarterbacking each other. When there's dissension among the team leaders and they're haggling back and forth as to what to do, it's hard to - you're trying to manage the patient and say, "Listen. No one's listening to me and this guy's heading down the crapper." (Participant 3)

A few problems that participants discussed were problems due to the nature of emergency trauma care, such as *lack of decision making time* and *not being able to identify the patient.* Participants, however, explained that these problems led to patients not receiving the care that they deserved or would have received if the team had more time to think about the problems, knew who the patient and/or family was, or what the patient and/or family's needs or goals were.

Characteristics of the patient such as *language barriers,* being *frequent flyers,* or presenting with a *distracting injury* may also lead to inappropriate care. For example:

> The only thing I can think of was just one time, where this guy was drunk, and he was one of our...like he was there often for intoxication, but he had fallen at the time and hit his head. And because of him always being drunk, we were like slow to get the CT scan, and then he ended up to be, had like a major bleed. Like a mid-line shift and everything, and I was his nurse and I kinda felt like "Oh, shoot" like I was like not farting around but I wasn't just...it was like "Oh he's here, he's drunk again, we'll get a CT scan when we get around to it. I'm doing something else" kinda thing, you know what I mean? And I remember getting to CT scan and they're like, "This guy's, you know, got a mid-line shift already" and I'm like "Oh, shit" you know, that like, I called back down to the ER real quick, I'm not running back down, like, please get this ready, this ready, you know I knew what, like, [the] neurosurgeon was going to meet me down there, and, you know, they would need these medications, anti-seizure, Mannitol, you know, things like that, like for brain swelling. So, but I don't know if I would blame that on the doctors more than just, well, partly the patient's fault too, because I mean how many times are you going to come into [the] ER intoxicated and you know, but really we should have foreseen that. Although after that happened, I have to say I always remembered. That happened kinda like when I was kinda new. I always remembered after that, like because of, like when they talk about a distracting injury, that's exactly what they're talking about. So I always remembered that later, you know, and even when people complain, when I hear other nurses

> complain "Oh, he's just drunk" and I'm like, I always remind them this happened to me once, so you know, keep it in mind. You never know. (Participant 7)

Finally, *legal issues cause patients to wait longer than necessary* or cause them to lay flat and uncomfortable for longer periods of time. Participants described situations in which patients were waiting long periods of time so a second or third physician could read the radiological image or had multiple consults to help the primary physician legally cover all of his bases. Furthermore, many participants revealed that *sometimes personal feelings get in the way;* for example, knowing the injured patient they were treating (a co-worker or friend) may have led to the patient receiving care that other patients in the same situation may not have received.

Job Related Issues

The final category under **Ethical Issues** is **Job Related Issues**. Particularly in relation to trauma, some participants felt they were *in danger* at their job and when leaving their job (or going home). Examples include perpetrators trying to come into the ED to kill a patient, or "finish the job" they had started (Participant 19). Many described upset family members becoming destructive. Participant 10 described a family that became so destructive after hearing that their loved one had died from multiple gunshot wounds that they completely destroyed the waiting area, smashing fish tanks, throwing chairs, and rioting. Furthermore, participants experience more difficulty doing their job and caring for the patient when the *physicians refuse to talk to the family* to keep them abreast of the situation. This puts the participants in an awkward position when the family wants to speak to the physician.

Many participants also described situations in which they were *asked or expected to practice outside their scope of practice.* This troubling response describes a situation in which Participant 11 was worried about losing his license:

> **Participant:** I have had one experience that I was very, very shocked with, almost to the point to where I thought I could lose my license... We had a patient come in who was a victim of a [high speed MVC]... [The patient] basically came in with a [multiple, serious fractures]..., I mean in very bad shape... Well in the process of all this, we had a trauma attending that... the bottom line is that we wound up in the OR, with an unready OR should I say with ... And [the surgeon] went and [started surgery cutting the patient open] with just two ER nurses and a respiratory therapist in the OR... It was a sentinel event, the patient did expire. Patient would've probably expired either way; but the way it was conducted was just way over the top. And I think myself and the other nurse documented very well. But it was just ... the things that we did were just very unethical. And I know there was ... they did a trauma M&M on it. I was invited to that.... And I think there's still a lot of stuff going on about that. But that was probably one of the worst ones that I've been involved in where I thought that I was going to lose my license because of what we did. **Interviewer:** Because you were an ER nurse acting as a surgical nurse? **Participant:** Yes, basically. The patient wasn't ... At that time, the patient was still alive, still had a pulse, was only paralyzed, was not sedated, was not on [an] anesthesia machine, anything, and this surgeon basically did [started surgery] on [the patient]... And started opening [the patient] up and just ... As much as myself and the other nurse was trying to be a patient advocate for her, saying, "She's only paralyzed. She's not sedated. There's no anesthesia. What are we doing?" the surgeon went ahead and did what they had to do. **Interviewer:** Wow. That must've been tough. **Participant:** It was ... yes. They still talk about that case till today. It was just where all our checks and balances and everything ... like everything fell apart. And why that happened, I have no idea.

Participants also discussed the problematic situations of *caring for the victim and the perpetrator simultaneously* and *triaging with multiple patients* where the participants could not triage appropriately because they had so many patients that they could not think about and prepare for what would be coming through the door next.

All of the categories discussed above, **'Respect for Persons' Issues**, **Justice/Resource Issues**, **Patient Care Issues**, and **Job/Role Related Issues** posed

difficult **Ethical Issues** and problems for participants. These issues made it difficult for participants to function in addition to the many effects addressed in the following section.

Research Question Two: How Are ED Nurses Affected by the Ethical Issues that Arise During Initial Resuscitation of Severely Injured Patients?

Two primary themes emerged with regard to research question two. These are, 1.) the **Effect(s) of Ethical Issues** on the nurses with overarching categories including the **Degree of the Effect** and **Post-Resuscitation Reflection**, and 2.) the nurses' **Response(s) to Ethical Issues**. (See Table 4-3 for Effect(s) of Ethical Issues matrix and Table 4-4 for Response(s) to Ethical Issues matrix.)

Table 4-3

Matrix for Research Question Two: Effect(s) of Ethical Issues

Theme	Effect(s) of Ethical Issues					
Category	Ontological Threat					
Sub-Category	Emotive			Physical	Life	Professional Role
Sub-Sub-category	Personal/Emotional Angst/Anguish	Powerless	Emotional Avoidance			
Codes	-Anger -Ashamed/ disappointed -Crying -Emotionally distressed/drained -Feeling 'bad' -Frustration -It disturbs me -Sad	-Could have done more -I have lost some control over… -What good did I do today really	-Focused on doing your job -Emotional detachment/ compartmentalizing -Patients come first, what I feel doesn't matter as much -You've got to move on b/c other people need you	-Headache -Stress	-More safety conscious -Nervous to receive care as a patient -Religious -Social concerns	-Burnout -Conscientious -Encourage advanced directives -Lack of job satisfaction -Wants to leave current position

Theme	Effect(s) of Ethical Issues (continued)			*Degree of the Effect [a] -Relating to the patient & Relating to the family/ survivors, relates to the effect of the trauma *Post-Resuscitation Reflection [b] -Reflection only occurs after resuscitation
Category	Epistemological Threat			
Sub-Category	Realizations	Authoritative Dissonance	Cognitive Dissonance	
Codes	-Realize that insurance is a major problem -Realize that life changes quickly -Realize the healthcare system is bad	-Hierarchy -It's just a job -It's not my decision	-Moral distress -Moral/internal conflict -Torn about providing care	

[a,b] Degree of the Effect and Post-Resuscitation Reflection are categories that overarch the Effect(s) of Ethical Issues

Effect(s) of the Ethical Issues

Participants were affected by the ethical issues they encountered in many ways. Grouped together they included an **Ontological Threat**, or threat to the individual's being, and an **Epistemological Threat**, or threat to their mind or the way in which they know the world around them.

Ontological Threat

As participants encountered ethical issues, an obvious threat to their 'being' became evident. The issues affected various aspects of their lives including: *Emotive*, *Physical*, *Life*, and *Professional role* aspects. These effects manifested themselves through various means.

Emotive. One manifestation of the effects that ethical issues had on the participants' 'being' was an emotional effect. These emotions included feelings of Personal/emotional angst/anguish, feeling Powerless, and Emotional avoidance.

Most participants discussed negative feelings elicited by ethical issues and trauma situations, categorized as Personal/emotional angst/anguish. Participants described feelings of *anger*, *sadness*, and *frustration*. They discussed situations that left them feeling *ashamed or disappointed*, *emotionally distressed or drained*. They *felt 'bad'*, *disturbed*, and some even *cried*. For example:

> **Participant:** I just I feel internally feel pretty bad about them. You know, not that it affects my daily life but, you know, it makes me think about is it really worth like having to help this guy? I guess I have like a little moral internal conflict. I used to talk to my mom about it, my mom is a nurse too, and maybe, you know, I guess I talk to people close to me about things that really bothered me and sometimes, you know, other nurses I think a lot of the nurses cry and they know who, like they have other nurses they can go and talk to or even other nurses that are there seeing patients which is very helpful, someone to kind of talk

> it and, you know, know that you're not alone in feeling bad for the guy. (Participant 13)

Many expressed stories relating to feeling Powerless or their inability to control the situation. Sometimes they felt they *could have done more*, or that they *had lost control over* the situation or their ability to advocate for the patient when they did not agree with the physician's decisions. Participants reflected on these situations and questioned '*what good did I do today really?*' Participant 1 explains she *lost control over* the situation:

> That day I did feel the sense of, like I have lost some control over my patient's comfort level, which I feel like is a very strong nursing point, is to make sure that your patient is comfortable and to make sure that their pain is taken care of and to do everything you can and to do that. And when you feel like that's taken away from you, then there is a sense of, "If I can't make this patient comfortable, at least and keep them safe and when they can't speak for themselves, maybe be a voice..." That situation I felt very uncomfortable in, felt uneasy about and [so] did several of the nurses that were there. I can't really speak for them, but I know we talked about it afterwards. And so in a scenario like that, I think you feel like if...and that doesn't happen often. It's not something I have experienced often but I can say in that particular scenario I felt very much like I couldn't do what I'm supposed to do to keep that patient comfortable, so.

Emotional avoidance was a very prominent finding and entailed not allowing themselves to 'feel' or become emotionally involved and staying disconnected from their patients. Participants discussed how they were simply *focused on doing their job* and did not take the time to deal with any emotions. Participant 1 explained she "take[s] a deep breath and [does her] job." Furthermore:

> I mean you don't think about that really at the time because all your job is is to do it. But I guess that someone could say, "How many resources do you use on a patient with compared to what they're chances are of survival?" And for some that may be an issue, for me it's just take care of the patient... (Participant 1)

Many talked about *emotional detachment* or *compartmentalizing* their feelings to function in their roles.

> **Participant:** It depends from case to case and I think that you definitely isolate yourself and that you are almost like somebody else in that the things that you're doing don't really affect you, in order for you to do your job. (Participant 2)

Some participants justified their emotional avoidance, or not allowing themselves an emotional outlet, by telling themselves *patients come first,* and *what I feel doesn't matter as much.* They also justified this avoidance through the duties of their jobs by explaining that *you've got to move on because other people need you.* Participant 6 describes a situation:

> And I can think of a time too where I've actually taken care of a co-worker who was critically injured and didn't make it and that was heart wrenching. But for the amount that you want to cry in that moment, there are a waiting room full of people who need care and you've got to move on, because other people need you.

Participant 22 makes this powerful statement about Emotional avoidance and how it affects him both at home and at work:

> I guess there's a sense of insensitivity, and that's probably a bad word to use, but it's probably the one of the closest thing I can think of. When I say insensitive, I don't mean in a sense of "Hey, how you doing? You all right? No? Whatever." Not insensitive in that sense. Insensitive where you're almost like a rock; where when it comes in, you don't even . . . you just feel like, "Okay, I'm just working here." You don't see the patient. You know what I mean? And unfortunately, that stays with you. So, job satisfaction . . . I don't think you even let it get to that point. You just go to work anyway. You're numb. That's probably the best word to use. You are truly numb, you know. And that makes you hard. That stinks, because when it comes to your family, you're still numb. And they see it. And when they tell you like, "What's going on?" You know what I mean, like there's no.... "Alright, relax. You left work; let it go." It's not that easy; it really isn't. It's tough; it really is.

Physical. Some participants showed effects of ethical issues through *Physical* manifestations. One participant described that she gets *headaches* and many participants explained the *stress* they feel from the pressures and issues they encounter.

> **Participant:** It didn't effect me at work because, you know, I've had experiences from not traumatic situations, but from working with patients that if I get emotional at work then I can't really function and I have a headache all day. And...I know that and I can just kind of not...feel those emotions until a later time. (Participant 2)

Life. Almost every participant described how the situations they encountered affected their personal *Life*. Most participants described how they had become *more safety conscious*. This safety consciousness was for themselves as well as for their extended family and particularly for their children. It included behaviors such as wearing seatbelts, making sure to always have identification with them, staying out of bad situations, wearing helmets, and not riding motorcycles. Participants described how this was an effect of the trauma situations in their entirety, witnessing the traumatic life altering events as well as the ethical issues that arise. The entire situation made them live life more carefully so as to not end up in a traumatic situation having to be resuscitated.

Some had become *nervous to receive care as a patient*, while others felt they would never go to the hospital if they did not absolutely need to. Participant 15 describes a lack of trust for the system:

> Yeah, for me, I think that it's definitely jaded my opinion of the healthcare system. Trusting issues, HUGE issue with me. Trusting who would take care of me or my family members, because of all the things I am just amazed with that people just disregard. I would say just if I didn't ever have to come to a hospital, I probably wouldn't, which I think most people would feel the same way, but just the time, just I think it's the care I think is slowly getting better, in the traumas at least. I think that it's getting better here. I think that being in other trauma centers, I think seeing how things are, I think that things can be done better and

> faster and I think that that's a huge thing. It's really, here I feel that there are a lot of things that are done very slowly. That seems to be a big problem for me. So, I don't know. I think that there's, sometimes, I keep saying that I want to move to Europe to go through...even though you have to wait for certain things, it seems to go a little more smooth. And just the wait, I feel bad for the...you know, I have to remind myself that if it's my family member, oh my God, I can't imagine having them laying on their back for 14 hours in a trauma bay stretcher. That's horrible. And those are the things, the big thing, if I didn't ever have to come to a hospital, I wouldn't. Where would I go and where would I want to take my family members to if I have to? But the biggest thing, I would say, would be definitely would be the trust issue. Who can you trust and who can you not trust. That would be my biggest thing, trust.

A few participants became *religious*, frequently thanking God for their own health, safety, family, and their current situation. They sometimes prayed before going to work to give them the strength to get through the day and help save people's lives. Finally, a few participants developed true *social concerns*, for example, how money and efforts were allocated for treatment as well as prevention of trauma and crime. Some expressed a desire to be more involved in helping the situation as Participant 10 describes below, while another even had future aspirations of getting involved with healthcare policy to try to change the system.

> **Participant:** I mean I do feel sad. I thought about that guy with the tattoo for a while because I felt that it's kinda sad that we should step back and, and "My goodness, we're going in..." You know, it's different probably if you work in like rural Idaho, and you work in a trauma center. You're going to get you MVAs or you're going to get the tractor accident. You're going to get things that are "accidents." A lot of the trauma that we get here are not accidents. They're intentional. So that's kinda sad to think that that's how our job is, and that's how the city is. I think, I think about it. I think of crime a lot in [this city] when I think of that, and I guess it makes me feel sad that we are in this kind of state and I wish there was something I could do about it.

Professional role. Finally, the last **Ontological Threat** was to nurses'

Professional Role. Some participants took action within their roles to help alleviate the

problems they saw. This included becoming more *conscientious* related to their work and double checking and questioning their duties and roles. Others explained that they *encouraged their patients to complete advanced directives*:

> I guess I, you know, become I mean, myself more aware of all those things and I feel like I would like to think I could teach others in my life, like ones that might not necessarily want to know, but you know, I definitely in my own practice try to make it... explain, every time we send a patient to the OR we have to ask "Do you have a living will?" and I always, I try to explain what it is, encourage them to get one. (Participant 13)

Some participants mentioned negative effects on their professional role such as *burnout*, *lack of job satisfaction*, and *wanting to leave their current position*. In fact, 9 out of the 22 participants discussed wanting to leave their current position (within the hospital and/or the specialty), and some even talked about wanting to leave the nursing profession, including one who was already enrolled to start classes in another discipline. Participant 13 put it this way:

> Another thing that I guess does kind of... I would say it's a little bit of a slight job dissatisfier is with all the gunshots that we're saving constantly. I mean it's a good experience and we're learning a lot and we're saving a lot of lives and making a lot of people happy, but I also think it's just a revolving cycle, you know, so many patients that have been affected by, you know, a gunshot and they're in the trauma bay again being shot again and going right back to their behavior and, you know, you see them for urosepsis, for septic fever in general, obstruction, all the sorts of complications as result of their gunshot wounds. They come in even though they were shot five years ago. And they're so young... it really kind of bothers me that, you know, our team is revolving this cycle.

Participant 22 also explains that he "asked for a career. [He] didn't ask for nightmares."

Epistemological Threat

Epistemological Threat is divided into three categories. These include <u>*Realizations*</u>, <u>*Authoritative Dissonance*</u>, and <u>*Cognitive Dissonance*</u>.

Realizations. Working in trauma and dealing with the ethical issues they encounter made participants realize *that insurance is a major problem* for patients and families, *that life changes quickly*, and *that the healthcare system is bad.* The following example highlights Participant 16's realization that the healthcare system is bad and how her view of healthcare has changed:

> **Participant:** It has, working down here, in general, has. There are, I mean think about, just...it's a whole completely different world. I think nurses even in the rest of this hospital have no idea. And then you come down here and you think of...you don't know...you can't imagine how many people don't have insurance, don't have a primary care doctor, don't have the resources to get health care. It's really sad because you think...you know, you come from a place where you think, "Oh, everybody has that." You know what I mean? You think of yourself, "I have that. If I had a cold I'd go to my primary doctor. I wouldn't come to the emergency department." And I think also it gets you thinking about costs, and the community. Because, especially here, we see so many people come into trauma who...especially during the summer when more and more people are getting injured and things like that...it makes you think about, "What's going on in the community?" You know what I mean? It just kind of all ties in together. You know, cost is definitely another thing...like with the blood and the medications and things like that. It kind of just makes you think, "Well, maybe we could take some of that blood that we...or that medication...that money that we wasted on that patient who we know is going to die, and put it towards someone who doesn't have insurance...who is definitely sick in another part of the hospital," or something like that. It just, kind of...working down here gets you to think about the picture, the whole picture a little bit more as opposed to just what's going on at that point in time...the illness, the disease, the whatever. So it kind of makes you think of the whole picture...finances and everything. You know like, I'm not good at math or anything...that's why I became a, you know, a nurse...so I don't have to think about numbers and, you know...so it kind of makes you just think about the system a little bit more.

Authoritative dissonance. A second **Epistemological Threat** involved <u>*Authoritative Dissonance*</u> in which participants discussed feeling conflicted over who had the authority to be making decisions. They often expressed sentiments including *it's just a job* and *it's not my decision.* However, participants clearly felt strongly about certain

issues, and often the issues would go unresolved due to the *hierarchy* in the system; decisions were thought to be *not my decision* to make and brushed off or not confronted because it was someone else's responsibility. Participant 3 and Participant 13 describe this:

> Have I made comments like, "Oh, I'm so glad we saved Mama because she's only gonna go into ARDS (sarcastically)," or, "She's only going to be jacking up the bills and putting her family in. . ."? That's not my decision to make. In my care, my resuscitation, I do everything I can and however it falls out, it falls out. (Participant 3)

and

> The fact that I'm really not the one to make the decision, it's the doctor's decision. I know that I can stress all I want but I'm not the one that's making that end decision and I guess in the long run he's the one that has to set down the limit. He has to say "I was the one that called the code and this is why or this patient is still living..." (Participant 13)

Cognitive dissonance. Finally, *Cognitive dissonance* includes participants' feelings of being uncomfortable or conflicted about two ideas or thoughts. Participants discussed problems with having *a moral/internal conflict* as Participant 1 describes:

> I think in the one where I had a patient who...the suicidal attempt...I think that one because I kind of knew that even though I was doing my job and doing what I was supposed to do, I kind of knew that what we were going to bring back, if we brought him back, his quality of life was not going to be good, and that was kind of troublesome for me.

Participants also discussed signs of *moral distress* where they knew the correct action to take but felt restricted in doing so:

> It makes me feel like...like those are the type of things where you go home and you're, "I can't believe what I do for a living." I can't believe...you know, what I walked through today or what I, you know, what I saw today. And I kind of just...I mean it's, it's shocking. I think we, as like...working back there I don't think we give ourselves enough credit and time off and mental breaks and all. Because, really, it's a lot and it's stressful. And I think sometimes, when you're

> involved in stuff like that...like, last week with that guy, I just...the whole rest...it was like at this time, like 11:00 in the morning when this happened...the whole rest of my day I just ran through it in my head and I'm like, "Why did we do that?" Why did we use 75 lines, you know, cordises, because, you know, half of them didn't go in right, you know what I mean? And like, "Why did we use all that blood? Why did we use ten units of blood and it was just back on the floor a couple minutes later?" You know what I mean? Why did we use ten doses of epi? Why did we use all this stuff? And, kind of, you think about...maybe it's just me...but you think about other people that could have used that. I mean it seems, it just seems like a lot, and it can be overwhelming to think about. Just, that's the main thing. It just is overwhelming. (Participant 13)

Many participants further discussed problems with being tor*n about providing care* to their patients.

> I would probably say sometimes the hardest, from sort of that ethical standpoint, sometimes the hardest one to take care of, the hardest patient to take care of is somebody who has gotten critically injured while they've been committing a crime. You know and sometimes you're thinking, okay, this person's going to, like they're going to get the death penalty for this and when we're working hard to save them. (Participant 6)

Degree of the Effect

As participants discussed the effects of the ethical issues they encountered a category, the **Degree of the Effect,** overarched the theme, **Effect(s) of Ethical Issues.** Through discussion, it became evident that the more the participants *related to the patient* or *related to the family or survivors,* the more they were affected by the difficult ethical issues and situations they encountered surrounding that patient. When recalling a particular situation with ethical problems, one participant began crying (Field Note 3). She remembered a patient, his situation, and the problems associated with it so vividly because she had recently experienced a similar situation. She had been particularly affected by the issues involved with the patient because her father had recently died; she

was relating to the situation and the difficult issues with which the family was dealing.

Participant 1 explains that she was affected more because she related to the patient:

> I remember her the most because I remember struggling very, very hard to save her life, and I remember...and the reason I remember her so much is, I think, because she did very similar things of what I did that day, just like I was saying before. Like, I connected with her. She was single, in her thirties, went to the gym that morning before work, exact same thing that I did, was walking to work, the exact same thing that I did that day, and was hit by a school bus.

Post-Resuscitation Reflection

All of the participants were affected in some way from the issues they encounter. A second overarching category, though, became apparent, **Post-Resuscitation Reflection**. Most participants noted that *reflection only occurs after the resuscitation.* Participants revealed that during the resuscitation they are simply doing their jobs due to lack of time to think or too much chaos. Therefore, the issues they encounter are not thought about until the resuscitation is over or when they are on their way home from work:

> **Participant:** I don't think about it until I am driving home and I am winding down from my day, whether it was a harder day than others, it may...as I am reflecting it probably becomes more upsetting than it was while I was there. Your emotions are pretty much in check while you are at work and you are in that work mode. There's just a different mode that goes into when you leave there and when you are doing things. For the most part, there is a lot that goes on at work that is upsetting. There's enough good things too that make you feel good about your job. (Participant 14)

Table 4-4

Matrix for Research Question Three: Response(s) to Ethical Issues

Theme	Response(s) to Ethical Issues				
Category	Coping		Strategies Attempted for Improvement	Improvements Needed	
Sub-Category	External mechanisms	Internal mechanisms		Desired strategies for improvement	Problems that need to be addressed
Codes	-Verbal discussions -Patient follow up -Alcohol -Teaching -Physical exercise	-Positive out of something bad -With nursing you have rewards -Spirituality -Emotionally detached/ compartmentalize -Experience brings a different perspective -Patients barely look human	-Grief counseling for children, not for adults -Letter writing -Meetings	-Debriefings -Need more ethics education	-Lack of respect for nurses -Nurses lack autonomy -Lack of appreciation for nurses and work -Nurses not listened to -No follow up -Lack of communication

Response(s) to Ethical Issues

In answering the second research question, a secondary theme became evident, **Response(s) to Ethical Issues**. The categories under this theme are **Coping, Strategies Attempted for Improvement**, and **Improvements Needed**. Initially, participants commented on this even without a question specifically regarding this in the semi-structured interview. The information was voluntarily divulged without being provoked. Ultimately, a question was added to the interview guide addressing possible improvements the participants thought were needed and would be helpful.

Coping

The category of **Coping** includes mechanisms participants used in the difficult situations they encounter. Some of these were *External mechanisms*. Three participants discussed drinking *alcohol*. None talked about binge drinking, but merely stated behaviors such as grabbing a drink with their friends, or going home and having a beer or a glass of wine. Three participants also discussed *teaching* others as a coping mechanism. This often helped them feel as though they were attempting to improve the system and helping others. Others talked about how *verbal discussions* were beneficial. Debriefing by talking with family, friends, and co-workers, or engaging in "bitch sessions" as some like to call them (Participant 4), allowed participants to vent and seek support. Additionally, participants explained that *following-up with patients* to see how they were recovering helped them deal with certain situations. Yet others used *physical exercise*, going "to the gym 'cause it's a stress release, it's an energy release" (Participant 18).

Participants also discussed several *Internal mechanisms* they used to help themselves cope. Some attempted to find *something positive out of something bad* to make themselves feel better about the situation. They told themselves that *with nursing you have other rewards.*

Some participants used *spirituality* as a coping mechanism. They went to church, prayed, and read spiritual books. Participant 18 explains that "I go to church. I pray. You know, on Sunday." Others *detached* themselves from their patients and *compartmentalized* so as not to become emotionally involved, and explained that the fact that some *patients barely look human* helped them accomplish this. Furthermore, participants noted that *experience brings a different perspective*, most notably, by increasing their ability to *emotionally detach/compartmentalize*. For example:

> **Participant**: I have trouble from my own standpoint and my own beliefs and what I would do if it was my mother or my family member. I've learned that. That's something that's come through ten years of doing this. If you'd asked me eight years ago, I would probably be angrier and sadder, but with age comes wisdom and you lose that judgment factor. You lose that whole predisposition of how things should be because you don't know. You don't know what anybody's life is like. So I come from a more very mellow, laidback. Eight years I would have been like, "You people are horrible. They're horrible people to keep this woman alive." And they should just feel so horrible. I would be much angrier. Eight years ago I would have been much angrier. **Interviewer:** When you would have a resuscitation eight years ago, you would leave feeling angry? **Participant:** I would leave feeling angry and frustrated and hating on that family for doing that to them. Just having seen that, like I said, I know I keep saying ten years, but it's because of the time and experience that I'm here to do a job. (Participant 3)

Strategies Attempted for Improvement

Many participants discussed strategies they tried in an attempt to improve problematic situations or the "system;" most of these strategies, however, were thought to be ineffective. Many participants were involved in, attended, or tried to organize

meetings to help develop and implement solutions. Often they left the meetings on a positive note, but then felt as if no action was taken after the meeting. Some felt that the meetings simply included nurses, but could have benefited from including representatives from the entire trauma team. Participant 4 explains:

> We have tried to, you know, discuss these things and at this point we're just like give up. They try to do, you know, get us having meetings and things like that and I think it's just to pacify us because nothing ever changes. And unfortunately, you know, the unfortunate part about it is a lot of it could change easily if somebody would just have the guts to say, "Look, this is the way we're going to do it and that's all there is to it. This is, you know, where people are going to be and this is what your role is and this is how it's going to be run." But nobody really wants to take the authority and do anything about it, so it just continues.

Two participants also attempted to *write letters*, which they also found to be ineffective.

> **Participant**: So I just started going through all of my stuff in my locker. I can try and find some of it but I mean, there was a list of suggestions that we made. I gave a copy to my boss and a copy to my trauma coordinator. There was a letter I wrote in response to some of the changes that they were making. It was like a page and a half, not double-spaced... About the accreditation and maybe we don't deserve to get accredited if it's that important that our documentation be q one-hour vital signs and a minute late it's going to take our accreditation away, then maybe we don't deserve it. I've written tons of letters to my boss and they've all been like "Oh, this is really good." Never hear anything back about it. There's no response. There's no one else coming up to me saying we got your letter and we're going to try and make these changes. There's no feedback like that. (Participant 20)

Additionally, participants explained that they had previously attended *grief counseling* provided for situations involving injured children. They explained, however, that this counseling was not regularly available and was not provided for situations involving adults. Participants felt they had benefited from these counseling sessions in the past and thought they would be effective for situations involving their adult patients.

Improvements Needed

Desired strategies for improvement. Several participants talked about *Desired Strategies for Improvement,* or strategies they think should be employed or offered to help them deal with the difficult ethical situations they encounter. Many discussed how *debriefings* would be helpful to them for dealing with and talking through difficult situations. A few participants also commented on the fact that nurses and physicians *need more ethics education.* Participant 13 discussed both of these strategies:

> I really think ethics needs to be beefed up a little bit more too and talked about more. I don't think we talk about issues like, you know, we don't have debriefing sessions and I think we should. You know, you do it on your own. There's no, I think formal ones might be awkward but, or I don't really know, but it just seems like the culture is kind of like, okay, when the trauma's over, you know, either the code's called or this patient goes to the OR you know it's just all of sudden everyone walks away.

Problems that need to be addressed. Many participants discussed *Problems that Need to be Addressed* including a perceived *lack of respect for nurses*, *lack of appreciation for nurses and their work*, and a general *lack of communication* among the team. When asked what changes need to be made, Participant 14 said:

> **Participant:** I think the respect across the board. I think there's not enough. I think there's a lack of respect between different services. I don't know if I have seen it as much. I have seen it over the years, but I think it actually has gotten better, but that's just it. I think that I try to treat everybody with respect be it a paramedic, an ED tech, a nursing student or a trauma attending. I had one trauma attending, I had a drunk guy, and I do respect this trauma attending by the way. He was actually the one that worked the trauma with the guy I knew, the motorcycle, and he did a wonderful job. But his attitude, I can do without most days. Like, he is the type of guy that you will see him on the street and you will say "hi" to him and he won't even acknowledge you. Yeah, it's whatever. I mean, I know you know who I am. But he...this drunk guy who wanted to take his neck brace off. He said, "This neck brace is bothering me." The trauma attending decided to say...he goes to my tech who is on orientation; he has worked there for like two weeks, he said, "Just take that guy's neck brace off."

> When he started down there I said, "[John] don't take that guy's neck brace off." And then he looked at me and said, "Well, I just told him to take that neck brace off." I looked at him and I said, "I just told him not to take the neck brace off. We can't clear the C-spine." He said, "Right, you, you a nurse cannot clear a C-spine." So he was trying to put me in my place at this point. "But me, a trauma attending, can clear a C-spine. I am telling him to take that neck brace off." I said, "[John], get out of the room. If you want that C-spine cleared, you get one of your residents over there and take it off yourself." Of course, he's drunk; you can't clear a neck when the guy's drunk. And I was, it was like to me I think he's a great doctor and I think that it is bizarre to me that I am even having this argument with him. **Interviewer:** It was a battle of the wills. **Participant:** Right, sure enough, they took the neck brace off and then our ER attending came rushing over and said, "Why is that neck brace off?" And I told him the story. He called the doctor up, he called the trauma attending and they were fine with putting the neck brace on. So, I still don't understand what that episode was about. **Interviewer:** Hierarchy or something. **Participant:** Right. And it's just that again, I challenged him and I said if that guy ends up paralyzed or has a C-spine injury, what are they going to do? They are going to say the nurse took it off. They are not going to say they authorized that.

Other problems participants talked about were that *nurses lack autonomy*, *nurses are not listened to*, and that there is *no follow-up* with patients. Participant 10 describes a resuscitation when she felt a lack of autonomy and ability to speak up:

> I guess sometimes, a lot of times our codes maybe have kinda untraditional ATLS protocol. You know, things are supposed to be, you know, we're going to do this, we're going to do that, and part of it I think is because we're a teaching facility and sometimes things go a little bit, you're like, "You want give WHAT?" And you know a lot of times things are given and you don't really, you're like, you're just giving it, you're just the monkey pushing the meds, basically. I guess sometimes I feel, because especially if it's an attending a lot of times. You know, it's not like some resident where you're saying "Really? You're gonna give that?" It's an attending, and saying "We're giving this." So I mean, especially in a code situation, like I wouldn't give anything that I felt was going to adversely affect the patient, but sometimes I think they try every ditch effort. If they go according to ACLS, we can only give one dose of vasopressin. So I guess sometimes you kinda feel like you're ....you're just a monkey pushing meds.

Many participants thought that if these problems were addressed, nurses might have an easier time dealing with, confronting, or being involved in the discussion of ethical issues.

Ethical issues had many affects that these nurse participants discussed. Along with the affects of the ethical issues, participants spoke freely about their response to the ethical issues they encountered. They discussed mechanisms they use to help cope, methods for and areas in need of improvement.

Research Question Three: What Factors Contribute to the Decisions Made during the Initial Resuscitation of Severely Injured Patients?

Decision Making is comprised of two categories. These include **Factors in Decision Making** and **To Resuscitate or Not to Resuscitate: There's no decision to make**. (See Table 4-5 for Decision Making matrix.)

Table 4-5

Matrix for Research Question Three: Decision Making

Theme	Decision Making					
Category	Factors in Decision Making					
Sub-category	Concrete factors				Intangible factors	Putting the factors together
Sub-sub Category	Presenting signs and symptoms	Future care	Patient information	Wishes		
Codes	-ABCs/ Physiologic criteria	-Long term care -Quality of life	-Patient's age -Patient's medical history	-Patient's wishes -Family's wishes	-Best interests of the patient -Do no harm -Social background -Legal environment -Focused on doing your job	-Factors are considered in steps -Factors are a 3D map

Theme	Decision Making (continued)		
Category	To resuscitate or not to resuscitate-There's no decision to make		
Sub-category	Deontological approach: The algorithm		Egalitarian approach: Do everything you can
Sub-sub Category	Following the algorithm	Falling outside of the algorithm	
Codes	-Decisions are protocol driven -Resuscitation algorithm is dictatorial -Initial resuscitation is just done, no room for input	-Decisions hardest after algorithm, no cookbook to follow -Decisions shouldn't rest on one person but often do -Not following protocols -Patients should be PART of the decisions -Veering from algorithm	-Families have to come to terms with it -Go all out ask questions later -Have to do everything until we know what the family wants -Keep them alive so the family can say goodbye -Use all the resources you can

Factors in Decision Making

When asked what the nurses and trauma team consider when making decisions during the resuscitation three sub-categories emerged. These **Factors** include: the *Concrete factors* considered, the *Intangible factors* considered, and *Putting the factors together*.

Concrete Factors

Concrete factors were easy for participants to pinpoint and encompass those factors which providers consider when making medical decisions. These include: the Presenting signs and symptoms, the patient's Future care needs, Patient information, and Wishes.

Presenting signs and symptoms. All participants explained that the Presenting signs and symptoms are the first and primary factors considered when making decisions. This includes the assessment of the patient's airway, breathing, and circulation *(ABCs)* or *physiologic criteria*. When discussing these factors participants noted factors such as type of injury, mechanism of injury, patient acuity, ABCs, and following the protocols for the primary and secondary survey as described in Advanced Trauma Life Support (ATLS) protocols (American College of Surgeons Committee on Trauma, 1997). Participant 12 describes several signs and symptoms that affect decision making:

> **Participant:** Well I mean initially with airway, breathing, circulation type of a thing, so we pretty much just go through the systems and stuff and focus on the mechanisms I guess of what happened. So go through the vital signs, blood pressure, heart rate, oxygen level, get access IV-wise and... fluids or blood or depending on their vital signs depends on the fluid. And pretty much it's trying to get the CT scan as quickly as possible unless there are any like obvious injuries that they can see. But our biggest concern is the ... well not the biggest concern, but the main concern is like their head injury. So we would do CT scan and x-rays

> of anything like that. It really just the OR diagnostic stuff that we go over, "Did they get a tetanus shot? Do they need antibiotics? What x-rays, fluids, etc?" Just monitoring the patient and reacting to the patients ...**Interviewer:** Find the symptoms. **Participant:** Pretty much. Yes.

Future care. Participants also revealed that sometimes the Future Care needs of the patient are considered. These included factors such as *long term care* the patient might require or the *quality of life* the patient might have. While some participants explained that quality of life was a consideration, many participants described situations in which they were distraught because the trauma team did not considered the quality of life of the patient. Participant 11 talks about the long-term care considerations:

> I think the physiological thing comes first. What are the patient's immediate priorities? After we take care of the immediate priorities, okay now what are our next priorities? Now we need to think long term, three days out, two days out. And now they're in the unit. How are we getting this patient discharged? Did we start discharge planning on this patient already? (which hopefully we did.) So those are things.

Patient information. Participants also explained that factors such as Patient information are considered. These are not factors related to the injury but other factors such as the *patient's age* and the *patient's medical history*. Several participants described that the trauma team often puts more effort forward and uses more resources on younger patients:

> **Participant:** I think probably if it were a young person they would work on them, that had been down for the same amount of time as someone who was 80, they would work on the younger patient a lot longer and provide a lot more resources than a person that's, you know, older or the person that had that sad... history or terminal history, terminal disease. I guess that would affect their decision. (Participant 13)

Participants also explained that these factors often contributed to decisions such as whether the patient should undergo surgery or not, as Participant 9 describes:

> It's more the quality of life and the age, depends on the, them, you know, I have had situations where, for example, you fell, broke your neck or had a bleed and it depends on how old you are whether they're gonna do surgery or not. Or depends on how, your medical issues also, you know, like old people with tons of cardiac history, they need a hip surgery or not, you know, I don't know if they're going to take you or not, you know, stuff like that. It does affect the plan of care.

Wishes. Wishes are another consideration during resuscitations. While some participants explain that *patient's wishes* are considered, many observed that patient's wishes are disregarded, not paid attention to, or that Do Not Resuscitate (DNR) or Do Not Intubate (DNI) orders are over-ridden or ignored. Although oftentimes, the team is not made aware of the DNR or DNI orders until after the resuscitation.

> **Participant:** And it's kind of like, at that point, you're kind of just like, "Oh," looking through the nursing record, "Oh, this person was a DNI, woops...woops." You know what I mean? We had to do what we had to do...kind of thing. And it can be a little frustrating...especially for someone like me where I came from the ICU where I've taken care of that patient, you know what I mean? So it's like, I think sometimes we let the assessment, the whole...the care of that patient get in the way of, "Ok, what would this person want?" Which is just the nature, I think, of this area. (Participant 16)

Family wishes are also considered in that the trauma team needs to consider what the family wants. For example, if the family wants the team to continue they will continue; if the family wants them to terminate resuscitative efforts, they stop.

> **Participant:**... there's definitely a level of respect for the wishes of the family. So there are times when the family will say that they want something done and...we had a patient that was transferred-in that was a fall...a bleed, and...he was a massive bleed. And they weren't going to intubate him, initially. And then the family kind of waivered on the decision making, and had the patient intubated and shipped to us. And we all knew his outcome was going to be very poor, and they were even having second thoughts about their decision, and that's unfortunate. But you can kind of see that from both perspectives...their perspective, and them kind of being unsure. And I think, unfortunately, that's kind of, hopefully, the job of the physician and the consultants to be able to say to them, "This is it." And I think that they need to understand that. But you also have to respect their decisions in those things. **Interviewer:** So you end up doing more because the family, sort of, wanted that? **Participant:** Absolutely, and I

> think that's what we're there for. I mean you're not just treating the patient at that point, you're treating their family. And even though it may seem like the resources of the hospital...or the resources are...probably could have been used elsewhere, you also know that those resources are pretty small in comparison to what, you know, you would end-up giving to that family later on because then they're sure. Do you know what I mean? When they've come to grips with what's going on. So I guess that's...that's all part of it. (Participant 17)

Intangible Factors

In addition to *Concrete factors* several *Intangible factors* are considered as well. These factors are often more subjective than the *Concrete factors* such as the *best interests of the patient.* Participant 14 explains, "I mean everyone's goal is the same, the best interest of the patient." This also includes nurses' duty to *do no harm,* or nonmaleficence, which involves patient advocacy, a factor considered by participants, but not necessarily the entire trauma team. Participant 6 described a situation in which he had to voice his concern about continuing a resuscitation when he felt merely prolonging the patient's suffering was causing him more harm.

The *legal environment* is also a consideration. When a potential legal threat is perceived, resuscitative efforts and the use of resources may increase, which often involves ordering more tests. Participant 19 explains that "I've been there when the only reason we're scanning somebody is because [the physicians are] afraid of a lawsuit." Others noted that in some cases, patients' wishes are not considered because of the legal environment. For example, the wishes of the family may override the unconscious patient's wishes because of the "unspoken legal threat" (Participant 1), and:

> I think that that's always been at the back of doctors' minds, yes. I just think that you have to, you gotta be in this world because people just sue in our country, you know, it's what's the word? Litigious society. You just really, you know, I think especially an ER doctor, has to keep that in mind. I think some doctors are more

> conscious of it than others. I think they tend to over-order probably for that reason. (Participant 7)

Social background is a factor that some participants explained as being in the back of their minds while others found that the trauma team did not consider social background when making decisions about medical treatment during resuscitation. Other participants mentioned that all that is considered is *saving the patient* and nothing else. Participant 16 explains that "...you get that adrenaline rush when that patient comes in, and you just want to do everything and stabilize...that's your goal...stabilize and transfer" and Participant 1 describes, "I mean for me, as a nurse, your job is to try to save the patient, and you just keep doing that."

Putting the Factors Together

Ultimately, multiple factors come together; at times, *factors are considered in steps*, but may also be understood as *factors are a 3D map.*

> **Participant:** I think it's kind of like steps. The first step is to do the physiological part, to resuscitate. Once that first hour, that critical hour is over, then that's when the societal - that's when the story comes in. That's when you get the story. Then the next step, I think, would be - you get the story, the family comes in, and how that all falls out. So it kind of crescendos to - and then that patient goes wherever or they hold in the ER and you interact with the family. You involve pastoral care or the police are involved or Homicide's there. That's when it kind of builds itself up and once you kind of have a full picture, then it's the post-briefing of when we all talk about it. "Can you believe (his mother?) acted like that?" "What do you think? Should we have given them another liter?" "Do you think the pain medicine knocked out their drive or do you think they really crumped?" "Did I give them too much pain medicine or did I give them not enough?" I think that's kind of where that all comes into play, but the first critical hour is totally physiological, hands-on, instinctive, what you do. Then I think all those other things build themselves up into the whole picture. (Participant 3)

and

> **Participant:** Oh. Gees well it would definitely be like a 3D map because, you know, part of it like goes, you know, one element is time and then there's the element of resources and, you know, personal feelings about the case and regardless the physiological aspects of it, that ATLS algorithm runs the show for the first 15 minutes and it's really after that that the you start heading down the slope where you get to veer off to things where you have to think then about, you know, well, if this was my father what would I do, if this was, you know, how do I feel about this guy whose probably a murderer or, you know, can I take one more patient if I have this? You know, I have these three critically ill patients now what happens if I, you know, I've been arguing with the surgeon to try to get us to close to ambulances and, you know, I can't get him to do it? You know, he thinks I can handle it. It's after, you know, it's after that initial 15-minute period that all those things start to play in. (Participant 6)

To Resuscitate or Not to Resuscitate: There's No Decision to Make

The second category under the theme of **Decision Making** is **To Resuscitate or Not to Resuscitate: There's no decision to make**. When discussing decision making during trauma resuscitations, almost all the participants explained that there is never a decision to make about whether or not to resuscitate a patient; the trauma team will always attempt to save the patient's life. Sub-categories include a Deontological approach and an Egalitarian approach to resuscitation.

Deontological Approach: The Algorithm

When discussing decision making, participants frequently explained that the trauma algorithm instructs and guides the decisions. Often times, the trauma team (including the nurses) follow ATLS guidelines because it is the right thing to do regardless of the consequences to the patient, family, or themselves. These thoughts are parallel to a *Deontological approach* to moral reasoning which follows that consequences do not make an action right or wrong, and one should do their duty/actions regardless of

the consequences (Beauchamp & Childress, 2001). Thus, as nurses involved in the resuscitations, participants Follow the algorithm because that is their duty. Occasionally, decisions Fall outside the algorithm.

Following the algorithm. Generally, the trauma team's decisions are guided by Following the algorithm, and as such, decision making is minimized because the algorithm provides specific instructions. Thus, *decisions are protocol driven.* Participant 20 said her "experience has been everything is a protocol and I don't think everything is always for the best interest of the patient." Participants also explain that the *initial resuscitation is just done, there's no room for input,* and the *resuscitation is dictatorial* in that one person should be following the algorithm and telling others what to do:

> Sort of the, I guess the nice part about, well, you know, again algorithmic that first 15 minutes algorithmic, run by one person, everybody should be, should shut up and just follow [the] leader. It's not teamwork oriented at all it's totally dictatorial but you should absolutely know what you're place is and I'm okay I'm good with that. Like you know, I know what my job is and that's fine and as long as we stick to that algorithm we're okay getting to the next step. (Participant 6)

Participant 6 further explains:

> I guess one of the benefits to the whole trauma resuscitation program or core curriculum or, you know however it's set up is that it really is that it's so algorithmic and that there really shouldn't be, you know, at least in the initial phase there are no decisions to be made. You follow the guidelines and that's it...

Falling outside the algorithm. While most decisions are protocol driven, sometimes decisions are made that Fall outside the algorithm. For example, some situations require decisions that the protocol does not address. In these situations, some participants raised concern that *decisions were hardest after the algorithm because there was no cookbook to follow.* Sometimes, however, the team intentionally *veered from the*

algorithm. Some participants felt that veering from the algorithm only caused problems, while others felt that experience allowed one to veer, seeing it more as a privilege. Yet others noted that often the protocols are not adhered to because the resuscitations happen so quickly. During these situations participants expressed concern over the fact that *decisions shouldn't rest on one person but often do* and they felt that *patients should be PART of the decisions*. One example highlights several of these issues:

> ... the only time I ever say to people, you know, the only time you ever really get in trouble is when you veer from the algorithm. So it's probably less about the initial, well, I would say, you know, in the initial phase, the initial resuscitation phase it again, the only time I really ever have a problem is when people veer from that. And they veer from that for a variety of reasons like they have some sort of prejudice against the patient, you know, oh they're drunk, they're a drug user, they're, you know, a street person, they are whatever, you know, some sort of negatively connotated thing. And nowhere in the algorithm does it say take any of those things into account. And that's the initial phase so then it's always like the, you know, after the first 15 minutes that initial algorithmic part, that's all, it's the next part that's always the hardest part about decision making, because if you follow the algorithm then you have to make decisions based on the results that you've found and now you are less, there's not a cookbook to follow anymore and now you are by yourself having to make those decisions. And you know I think in that time too there is time to stop and think have I been prejudiced toward this patient in any way? Has anything that I've learned about the patient prejudiced me against them? Am I missing something because they don't speak English, because they don't, because they live on the street, because they're a drug dealer? (Participant 6)

Egalitarian Approach: Do Everything You Can

Several participants talked about doing everything to help save the patient. This thought process is sub-categorized as the *Egalitarian approach* encompassing a justice framework for decision making. An *Egalitarian approach* touts that all individuals should receive equal goods (Beauchamp & Childress, 2001). In the case of trauma resuscitations, many participants felt that all patients deserve the same efforts, and everyone deserved the same chance. Thus many explained that when an injured patient

arrives at the ED the trauma team will *go all out, ask questions later,* and *use all the resources you can.* Participant 18 explained adamantly that "it's our job to do everything to give them the gold standard of care that we can give them." She further describes that no matter what the patient's situation:

> The doctor's still going to treat her and we're going to agree with it 'cause you do agree with. Maybe she'll surprise us. You are still going to do everything you can do. You're not just...We are not there just to decide for them. If she decides to give up in a month, that's up to her but we are going to give her every antibiotic that we think will work to fix her. We're going to take her to the operating room 'cause it's the right thing to do. And if she decides in a few months that "I don't want to go on," then that's up to her. (Participant 18)

Some participants discussed families as the reason behind doing everything they can to save a patient. They explained that the trauma team's job is to *keep the patient alive so the family can say goodbye,* and that the trauma team's responsibility is *to do everything until we know what the family wants* because many felt that the *families have to come to terms with it* ("it" being the patient's imminent demise). Participant 7 describes the necessity to do everything they can for the sake of the family:

> Well, I think that they sometimes...I don't want to say they go overboard because a lot of times, I mean it's the right thing to do sometimes and then a lot of times the families would want that done anyway. I think sometimes, like until we find out what the family wants, we have to kind of be aggressive, so it's kind of like you have to. It's really like the law, but then, like I said, mostly...you know as far as outcomes go, it really depends on when the family shows up and we get some idea of what their wishes are, and it's mostly with elderly and, you know, depends when the doctors, the admitting team decides, talks to them. Now, and they kind of go with what the family wants, and then sometimes I think they, you know, it's everything's new until they get more of what's going on, you know, more test results back, like they kind of are on the side of, you know, let's do as much as we can and then, unless like the picture's real obvious, then they'll talk to the family early on, but until they kinda know something, they usually wait.

When asked about the factors that are considered during the resuscitation of severely injured patients, participants described several factors including concrete factors, intangible factors, and how the factors are put together. They also explained that the decision of whether to resuscitate a patient or not is not a decision to be made – all patients are resuscitated.

Research Question Four: How Are Nurses Involved in Making Decisions during Resuscitation of Severely Injured Patients?

When participants were asked about their involvement in decision making during the resuscitation of injured patients two themes became evident. These themes are **Feelings of Involvement in Decision Making** and **Nurse Involvement.** (See Table 4-6 for Feelings of Involvement in Decision Making matrix and Table 4-7 for Nurse Involvement matrix.)

Table 4-6

Matrix for Research Question Four: Nurse Feelings of Involvement in Decision Making

Theme	Nurse Feelings of Involvement in Decision Making		
Category	Nurses feel involved	Nurses do not feel involved	Nurses' Involvement is dependent
Codes	-Nurses' concerns are acted upon -Nurses feel involved in decision making	-Initial resuscitation is just done, no room for input -Disregard for nursing priorities -Listening but not acting -Nurses not involved in decisions	-Involvement is situation dependent -Involvement depends on physician trust/comfort with the nurse -Whether issues are addressed is experience dependent -Whether issues are addressed is personality dependent -Presentation determines whether you're listened to -Age brings respect -Comfort with speaking up

Table 4-7

Matrix for Research Question Four: Nurse Involvement

Theme	Nurse Involvement			
Category	Who concerns are brought to	Nurses' role		Nurses' method of bringing up concerns
Sub-category		Patient care related	Team related	
Codes	-Nurses bring concerns to attendings -Nurses bring concerns to the residents first -Issues brought to nurse manager	-Nurses' role is patient comfort -Nurses' role is patient safety -Nurses' role is patient advocacy	-Nurses' role is to support the physician's decision -Nurses set the tone -Nurses are the co-captains -Nurses keep team on track	-Nurses lovingly question/remind -Nurses add observations in the trauma bay -Nurses make suggestions -Circumventing/manipulating to get things done -Issues discussed after resuscitation

Nurse Feelings of Involvement in Decision Making

Nurse Feelings of Involvement in Decision Making describes how participants felt about their involvement. Participants had a range of feelings about whether they were involved in decision making during resuscitation. Some **Nurses Feel Involved**, some **Nurses do not Feel Involved**, while other **Nurses Feel Involvement is Dependent**.

Nurses Feel Involved

Nurses Feel Involved is described by participants in two ways. First, participants explained that they simply *feel involved in decision making*. Second, participants gave examples that they felt involved because their *concerns were acted upon*. For example:

> **Participant:** Because they trust us. They know that we are right next to the patient, we are right at the bedside. So a lot of times they'll trust our opinion and trust what we're saying, "I'm kind of concerned about this..." "Did we do this?" and things like that. So, yeah, I think it's a good environment for that. (Participant 16)

She also explains that nurses are listened to:

> I think the nurses have a pretty good...I mean we pretty much get...have our say heard. I think probably the more experienced nurses they'd be a little more inclined to listen to you as opposed to...you know I think they would listen to [Judy] more than they would listen to me. You know what I mean? I think it really is a whole team effort and they always will ask, "Is there anything else we can do?" Things like that, it's...maybe it's sometimes it's just a staged question that any doctor who ever is about the end of resuscitation would say. But it's still kind of like, you scan your brain for a second to think, "Ok, no I don't know any...I don't know." But it's still...I think this whole institution is very...I think I've had great team experiences here. So I think if you, if I ever did have an idea, it would be probably at least thought about...talked around a little bit. I don't think anyone would be like, "No, you're wrong," and shoot it down. So, yeah, I think that we're good about that here. (Participant 16)

Nurses Do Not Feel Involved

Eight participants felt they are not involved in decision making. Some simply explained that *nurses are not involved in decisions* during trauma resuscitations. Because resuscitations are protocol driven, the *initial resuscitation is just done, there's no room for input*, as Participant 11 explains:

> Well...basically for on the nursing end, we don't really make a whole lot of decisions. It's pretty much the physicians. We know what's going to happen. We know what they're going to order pretty much as far as films and CTs and whatever what have you. But we don't really make a whole lot of decisions. Basically the trauma surgeon and his team, ER residents and ER physicians basically physicians and nursing staff, we're pretty much the documenters and the "do-ees." We do what they pretty much tell us to do.

Participants also expressed that there was a general *disregard for nursing priorities* excluding them from being involved. Participant 4 explained a situation where the team "sabotages" her effort to improve the patient's hypothermia. Participant 15, a sexual assault nurse examiner (SANE), was attempting to complete the sexual assault kit and was "disregarded." Participants explain that the team or physicians might *listen* to the nurses' concerns or input, *but would not act* on them, which ultimately discouraged the participants from voicing concerns or being involved with future issues.

Nurse Involvement is Dependent

Many participants, regardless of whether they felt involved or not involved, explained that for nurses, the level of involvement was **Dependent**. Participants discussed several of these factors in which involvement was dependent. For some, *nurse involvement is situation dependent.* For example, when "people are frantic and screaming that you stop suggesting things" (Participant 2) versus a calm situation where the nurse would be more involved and more likely to make suggestions. For others,

involvement is dependent on nurse *experience*, nurse and physician *personality,* or age of the nurse as *age brings respect*. Participant 6, for example, felt that his age and experience increased his ability to be involved. Moreover, he feels involved, thinks his concerns are listened to, and "part of the reason why would be I've been doing this for so long, a lot of times I'm older than most of the people in the room, including the attending."

Finally, for some, involvement depends on the *physician's level of trust or comfort with the nurse*. Many felt that the *nurse's presentation determines whether you are listened to* and that involvement frequently depends on the nurse's *comfort with speaking up*. Participant 10 noted:

> But usually they're pretty good with collaborating. I think you have a lot of input, and I think it's all about too how you present it. You know, I think once they trust you and once they trust your judgment, you can go and say, "Well, what about this?" and they're pretty good with even teaching.

Nurse Involvement

Nurse Involvement is the second theme that emerged as participants discussed how they were involved in making decisions. This theme includes three categories: **Who Concerns are Brought to**, **Nurses' Role**, and Nurses' **Method of Bringing up Concerns**.

Who Concerns Are Brought To

When participants had concerns or issues or felt as though they needed to speak up or be involved, they made their issues known to one or more persons. Some participants *bring their concerns directly to the attendings*, while others *bring concerns to the residents first*. Sometimes, if a concern was dismissed or the issue was a broader issue,

outside of one specific resuscitation, the *issue or concern was brought to the nurse manager*. Participant 16 describes how she is involved by making her concerns known to the attending:

> It's kind of...it's, I think it's pretty easy to make concerns and things known back there because you have access to like...the attending is usually sitting there behind the desk there, so you don't have to go through all the little scut people...the med[ical] student, the junior resident, the senior resident...a lot of times you can address your concern directly to the attending.

Participant 9 descries how she goes to the residents first:

> I do speak with the trauma residents a lot and talk to them about the situation and what do they think, and you know, and ask them questions and kinda steer them where I'm thinking. You know, I'm like "Hey, what about this?" or "What do you think about that?" We do collaborate a lot, but not, I barely talk to the attendings. So, it's more of the resident. But it depends on who the resident is, too, 'cause sometimes the residents are assholes, you know, when the person told me to go look it up, so okay, so depends really on who's on that day. And I do tell them what I'm thinking. If I'm wrong, I'm wrong. Hey, tell me, you know. I'm here and I'm on alert, so I do ask a lot of questions.

Nurses' Role

Participants often discussed their **Role** or actions related to their role when asked about their involvement in decision making. Some of the manners in which participants were involved were related to *Patient Care*, and others were related to the *Team*.

Patient Care Related. When participants spoke about how they were involved, many began to explain key aspects of their roles as nurses related to *Patient Care*. Many described that their involvement in decision making was related to these key aspects of their roles. One very prominent area in which participants were involved was *patient comfort*. Decision making related to patient comfort included methods to obtain more

pain medication for a patient in pain, or starting a discussion with the team about determining cervical spine stability so the patient could sit up.

> **Participant:** Sometimes, as the nurse, thinking of the little things that people don't think of, like the pain medicine, like how are they going to get home, like this is great, what about getting them on a bed? So they don't get bed sores. And how about physical therapy? And how about speech therapy? So, I mean maybe not so much in the...maybe so much in the initial, but I think also in the long run in the end sometimes. It all depends. At least me, the nurse's role. I think that they do. And I think that some of the doctors ask like, "Okay, we've done all of these things, what else can we do?" "How 'bout this?" So I think that, yeah, we play a pretty good part at least in the decision making I think. (Participant 15)

Participants were also involved in decisions related to *patient safety*. They often were involved in making sure the patients had the proper medications, such as sedatives, so patients did not make their injuries worse. Particularly, participants believed that *patient advocacy* was a large role, and participants frequently were involved with advocating for their patients. This includes "going to bat" for patients:

> **Participant:** I think going to bat for your patients, you know, making sure that their pain and anticipating and now you know when right before they're going to put the chest tube, one of the [Quality Improvement] things is to make sure they get their Unasyn. So like, "You want that Unasyn?" You know, a lot of "Thanks for reminding me." You know, so it is good because you feel like you are a part, you know. It's good because you're doing things for the patient. You're all kind of collaborating, so if somebody does forget that one piece, you know, and you're like, "Oh, what about that?" "Oh, yeah" and it all fits together and that's basically how a team is supposed to work. You know, you're supposed to kind of feed off each other, or kind of contribute to each other to have a good outcome. I mean, I think everybody's very receptive, for the most part. This is the only trauma place I've worked, so I don't have much to compare. (Participant 10)

Team Related. Some participants felt that they were involved in decision making by playing key roles as a member of the <u>*Team*</u>. They explained that their role was to *keep the team on track* and *set the tone* of the resuscitation. Setting the tone included actions

to try to decrease the chaos in the room. Participant 6 explains how he *keeps the team on track*:

> Oh, I mean if the algorithm is not being following to the tee I make sure it's followed and that can be either and I can think of a couple incidents where I've had to say to, you know, like it could be a resident whose running the assessment portion and had to turn to the attending and say "he's off track", you know, can, "you need to get him, your job is to get him back on track; it's not my job."

Participant 3 describes how she *sets the tone*:

> I find that's the most effective, is how I set the tone as whether I'm caring for the patient or I'm the charge nurse in charge of multiple traumas or I'm the one going with - I set the tone. My position sets the tone. I think that's for any nurse. I think that's for any person that cares for patients. They're the person that sets the tone and until they can recognize that, I think that's only through experience and education and seeing other people do it.

Participant 7 described that her *role is to support the physician's decision*, taking a more passive outlook on involvement.

> It's mostly the doctors making the decision, not the nurses. And we're just basically trying to be supportive and trying to, if it's going to be, if you see that this is going to be happening, you try to like just get the chaplain there and social work there and you know as many family members around, and stuff like that.

Participant 3 explained that *nurses are the co-captains* and help the team with patient specific information:

> You know, there's the team leader of course, the person that takes all of this and that would be the trauma doc or the ER doc, but you're kind of the co-captain in the fact that you're the one handling the patient. You're the one who's going to recognize the smallest change in them. They look to you. This guy's been tach'ing away at 130 and now he's down to seventy. Sometimes not right.

Method of Bringing up Concerns

The final category under **Nurse Involvement** is the **Nurses' Method of Bringing up Concerns.** This category contains methods that participants invoked in order to be

involved in decision making or raise concerns. Almost all participants mentioned *lovingly questioning or reminding, adding observations,* and *making suggestions.* For example, when participants felt that a treatment, sign, or symptom had been overlooked or forgotten, they would gently remind the physician or the team. Or they would gently question the physician if they did not agree with the step they were taking. In doing so, the participant would offer his/her observations of the patient and often make suggestions of what he/she thought would be appropriate or what the patient needed.

> **Participant:** I would say by we kind of lovingly question things like, the patient has, a big facial grimace and their, vital signs are stable but their tachycardic and do you think you can give them something for their pain 'cause the doctors do forget about pain a lot so the nurses kind of lovingly remind them that, that they do have a lot of pain and we should address it. We can suggest medications to give. Like, one example would be if it's, a head injury, we give Lidocaine and, sometimes before they intubate, they haven't ordered it so we can ask them, would you like us to give Lidocaine? (Participant 2)

Others indentified the need to *circumvent or be manipulative to get things done.* Or they may choose not to be actively involved in the decision, but rather *discuss issues after the resuscitation.* Participant 5 and Participant 19 describe how they have to circumvent and manipulate:

> We just wait for them to leave and then we do it, because they're not going to be any help. If they're not going to do it then, then they're of no use, so we try to wait until they leave and then we deal with it ourself, because trying to talk to them or anything like that is just like a waste of breath. (Participant 5)

and

> I may have to suggest something 20, 30 times before they're open to the idea. I may have to...kind of hard to say that you're manipulating because they're such hard personalities but you have to sometimes see what their priority is with this patient and get it to something that's on their term too. The patient wants more pain medicine. They want to keep the neuro[logic] exam intact for neurology but the patient requires them to get a phone call every couple of minutes for pain

medicine. They may be more inclined to give the pain medicine, that kind of scenario. (Participant 19)

Summary

Each of the four research questions was answered through responses from the 22 trauma nurse participants. Participants readily spoke about the ethical issues they encounter and how they were affected by these issues. Their individual beings were threatened and affected along with their knowing and their minds. These discussions answered the first two research questions. While these questions were very personal, all of the participants discussed these topics readily and openly. None of them appeared uncomfortable during the interviews; on the contrary they seemed eager to discuss and share the problems they were having. Most were thankful that the research was being done.

The last two questions were related to decision making in the trauma bay. Participants again readily and willingly spoke about how decisions were made and how they were involved in decisions. These portions of the interview, however, were much shorter than the previous ones. Participants were much more interested in discussing the ethical issues and problems they encountered and describing the situations they have experienced than discussing how decisions are made and how they are involved.

CHAPTER 5: DISCUSSION

The purpose of this study was to assess ED nurses' perceptions of ethical issues and decision making during resuscitation of severely injured patients. This was the first study to specifically address these issues in ED nurses practicing in Level-I trauma centers in the state of Pennsylvania. The findings suggest that nurses experience a plethora of **Ethical Issues** related to the resuscitation of severely injured patients. These issues include: **'Respect for Persons' Issues**, **Justice** concerns (i.e., resource allocation), **Patient Care Issues**, and issues related to the nurses' **Job/Role**. Furthermore, issues affect ED nurses in many ways including an **Ontological Threat** (i.e., threat to one's being) with *Emotional*, *Physical*, *Life*, and *Professional Role* effects and an **Epistemological Threat** (i.e., threat to one's knowing) where participants experienced *Realizations*, *Authoritative Dissonance*, and *Cognitive Dissonance*. The study also highlights the multiple **Factors** that are considered when making decisions during a resuscitation including *Concrete Factors* as well as *Intangible Factors*. Participants also explained that often *There's No Decision to Make.* Finally, findings suggest ED nurses are involved in decision making at various levels; some **Feel Involved** while others **Do Not Feel Involved** and still others feel that **Involvement is Dependent**. The findings further explain how nurses are involved by showing **Who Concerns are Brought To**, the **Nurses' Role**, and the **Method of Bringing up Concerns**.

This chapter begins with a discussion of the research findings. The findings are discussed as they relate to each research question. Implications for practice, theory, and

health policy are then presented. Finally, considerations for future research and inquiry are discussed.

Discussion of Findings

Research Question One: What Ethical Issues Arise During the Initial Resuscitation of Severely Injured Patients?

Findings related to research question one identify the ethical issues that ED nurses encounter when resuscitating severely injured patients. While ethical issues have been examined in other nursing specialties, this is the first study to identify the specific ethical issues encountered by this important population. While some of the issues they encounter are similar to those of nurses in other specialty areas, many of the issues they encounter are unique. Redman and Fry (2000) explain that this is typical as the issues nurses encounter often differ for many reasons including the nature of the patients' illnesses, social commitment to treatment, technology, the organization, and the relationship of professionals delivering care. The resuscitation of a severely injured patient differs from nursing care in other populations in several ways. First, resuscitations are protocol driven; they demand immediacy with limited time for decision making. Second, a previous patient-provider relationship is often nonexistent, and finally, they are compounded by many other intricate issues discussed further herein.

Most of the major categories and themes of <u>*Ethical Issues*</u> that emerged were similar to those that nurses reported in other specialty areas. Nurses in this study as well as those in other studies reported issues related to **'Respect for Persons'**, **Justice** concerns, (particularly as they pertain to appropriate resources), **Patient Care**, and their

Job/Role (Ferrell & Rivera, 1995; Killen et al., 1996; Redman & Fry, 1996, 1998a, 1998b; Redman & Fry, 2000, 2003; Redman et al., 1997; Severinsson & Hummelvoll, 2001; Ulrich et al., 2003); however, many of the specific issues under those categories differed. For example, oncology nurses, as well as those nurses in this study, reported issues related to inadequately treating pain falling under the **Patient Care Issues** category (Ferrell & Rivera, 1995). In addition, both critical care nurses and these ED nurse participants related ethical issues with causing more harm than good to their patients (Redman & Fry, 2000).

ED nurse specific ethical issues include letting *personal feelings get in the way.* This often occurs when ED nurses are often confronted with caring for both the victim and the perpetrator in the trauma bay. Additionally, they are required to treat patients they know on a personal level. As trauma nurses, they are specifically qualified and trained to treat injured patients. They have no time to switch patient assignments because time is of the essence in treating trauma victims. Furthermore, issues related to lack of prior knowledge of the patient are unique to these ED nurses. They are often unable to identify the patients, and unable to contact family, and thus nurses do not know the patient's or the family's wishes especially in a timely manner.

Within **'Respect for Persons' Issues,** two issues were particularly salient concerns, *informed consent not obtained* and *organ donations without consent/presuming consent.* In some circumstances, however, performing procedures without first obtaining consent from the patient or family may be considered appropriate or the only option due to lack of time (American College of Emergency Physicians, 2008). Informed consent

represents the expressed treatment wishes and goals of any given patient. In a trauma resuscitation, time is not a luxury; actions are taken and decisions must be made quickly to stabilize and save the patient. The patient may also be unconscious or unable to make decisions for him/herself and frequently no family is present. Some could argue that even a patient with stable hemodynamics and oxygenation would be rendered unable to give consent due to the traumatic incident they experienced (Rosenstein, 2004). For these reasons, obtaining consent is often not a viable option but creates ethical angst for these nurse participants.

Similarly, many participants in this study felt that proceeding with a resuscitation for the sake of organ donation without previous consent was disturbing. In some European countries such as Spain, Austria, Belgium, and Greece, presumed consent is acceptable and laws are in existence to protect resuscitation procedures for the purpose of organ donation (Davis, 1999; Kennedy et al., 1998). Consent is "presumed" in that individuals must "opt-out" of organ donation rather than "opting-in" as individuals must do in the U.S. (Davis, 1999; Kennedy et al., 1998). Presumed consent has been shown to help increase the availability of cadaveric organs and, in turn, save many lives (Kennedy et al., 1998). Additionally, 75% of Americans in a Gallup pole said they would consent for organ donation if the circumstance arose (Berry Jr., 1999). In the U.S., however, presumed consent for organ donation is not yet an acceptable practice, even given the lack of time for decisions. While not obtaining consent for treatment or for continuing a resuscitation for the sake of organ procurement may be cause for distress at times, at other times, these may be considered appropriate actions to take. When these situations

are appropriate or in the best interests of the patient versus when they are inappropriate or perhaps harming the patient is an area in need of further discourse. This discourse, of course, needs to take place away from the bedside particularly because the luxury of time is not available to discuss these issues at the bedside during a trauma resuscitation, but are clearly causing some nurses distress.

In the category of **Justice/Resources Issues** participants pinpointed a lack of resources as a problem they encounter. While lack of resources affects nurses in many other settings (Kalvemark, Hoglund, Hansson, Westerholm, & Arnetz, 2004; Killen et al., 1996; Redman & Fry, 2003), it is particularly interesting that participants perceive a lack of resources at two large, academic Level-I trauma facilities. There is a public perception that these facilities provide the best available care because they have the biggest, best, and most expensive equipment available (Garber, 2004). In recent times, however, academic centers have been stricken with the challenges of managed care, decreases in medical reimbursement, declining reimbursement for medical education, and the growth of hospital chain competitors specializing in high-margin services (Garber, 2004). All of these challenges leave academic medical centers' financial status floundering, forcing them to adopt tighter financial management practices (Garber, 2004). Thus, even these large academic hospitals are being forced to make decisions about allocating limited resources and rationing care. Unfortunately, these large financial decisions are trickling down to healthcare professionals, such as these nurse participants, who perceive a lack of resources and feel as though they are unable to provide the care their patients need.

How do healthcare providers provide good, ethical care when faced with limited resources and the need for cost-containment? Hospitals are forced to make decisions about what resources to spend their money on; providers are faced with the decisions of which patients receive the resources that are available. While providers may not be overtly making these decisions, an implicit rationing of care must be taking place (Ulrich & Grady, 2009), particularly, because physicians report manipulating the system, bending the rules, misrepresenting information, and withholding resources to provide quality care when faced with financial constraints (Wynia, Cummins, VanGeest, & Wilson, 2000; Wynia, VanGeest, Cummins, & Wilson, 2003). Given these circumstances, sometimes all providers are able to do is "limited good" within the strict boundaries they are given (Fry, 2008).

Under **Patient Care Issues**, participants explained that often patients are not treated equally; this is also a matter of justice and what is considered fair. Many described that treatment differed in merely social or interpersonal means. However, as health disparities are a major issue in society today, it is alarming that participants report that a "well-dressed Caucasian" receives better care (Participant 2). Studies show that characteristics such as insurance and ethnicity are a cause of health disparities in trauma (Haas & Goldman, 1994; Haider et al., 2008; White, French, Zwemer, & Fairbanks, 2007) despite the federal laws protecting one's right to trauma care (i.e., the Emergency Medical Treatment and Active Labor Act) and specific ATLS guidelines. While some participants discussed that "**There's no decision to make**" because the algorithm dictates treatment, others felt that ethical problems arose when the trauma team veered from the

algorithm. The reasons the team veers from the algorithm, though, were not discussed by participants and is a situation we need to better understand. Does the team deviate because they feel that a particular patient does not fit within the prescribed algorithm; is there a conscious or subconscious prejudice associated with one's care; or are they, in fact, forced to implicitly ration their resources? One study reveals that some providers deviate from the protocols because they feel that their expertise relieves them from following the "rules" (Phipps et al., 2008). The fact that participants explain that the algorithm is not consistently followed begs the question of whether the algorithm is appropriate or adequately addresses all of the concerns the trauma team encounters. Perhaps, the algorithms need to be reassessed to meet the providers' needs.

Under the category of **Job Related Issues**, participants described that they often felt unsafe both at work (fear of a perpetrator coming to finish the job) as well as when they leave. This is a valid concern as violence in the ED is fairly common; one study showed that 74.9% of ED physicians had experienced a verbal threat in the past year, 28.1% had been victims to a physical assault, 11.7% had been confronted outside the ED, and 3.5% had experienced a stalking event (Kowalenko, Walters, Khare, & Compton, 2005). Furthermore, 20% of EDs report at least one threat with a weapon per month and this number continues to increase (Lavoie, Carter, Danzl, & Berg, 1988; Ordog, Wasserberger, Ordog, Ackroyd, & Atluri, 1995b). This threat of violence increases the stress of the employee (Ordog, Wasserberger, Ordog, Ackroyd, & Atluri, 1995a). In turn, this poses a problem for both nurses and for patients in the care that is provided. It seems plausible to think that healthcare providers cannot be fully focused on caring for the

patient if they are concerned or preoccupied with their own safety. Nurses should not have to choose between being concerned about their own safety and being concerned about their patient's.

As discussed in Chapter Three, participants were initially unable to conceptually understand what "ethical issues" they experienced when asked during the semi-structured interviews. This necessitated a change in language to probe subjects about the "troubling situations" and "difficult problems" they experienced in the ED. This change in language allowed participants to discuss what was most troubling to them in resuscitative decision-making and/or the symptoms they experienced related to those particular issues. However, they were unable to identify that the issues they were actually experiencing difficulty with were indeed ethical issues. Pendry (2007) explains that many nurses, for example, are unable to label the experience of moral distress. Similarly, this study found that nurses have a difficult time labeling ethical issues in clinical practice. At the same time, participants were able to clearly articulate the effects from these problems– emotional, physical, professional, life or social (as supported by (Pendry, 2007)). The fact that many of these nurses were unable to name their experiences as ethical issues may reflect their limited ethics education provided in both primary professional programs as well as continued education. Ethics education can help nurses identify the ethical issues they encounter, build confidence in their decision making related to these issues/problems, and develop strategies to address and overcome them. Further discussion on the role of ethics education in clinical practice is discussed in the "Implications for Practice" section below.

Research Question Two: How Are ED Nurses Affected by the Ethical Issues that Arise During the Initial Resuscitation of Severely Injured Patients?

Study findings are consistent with previous research related to the effects of ethical issues as well as adding new information. Indeed, as suggested in previous findings, these nurses encountered both moral distress and a lack of job satisfaction from the ethical issues they encountered (Severinsson & Hummelvoll, 2001). Moral distress occurs when nurses experience a contradiction in their morals or are prevented from acting on their morals (Jameton, 1984). Wilkinson (1987/1988) explained that moral distress can lead to feelings of anger and frustration, which are congruent with the feelings described by nurses in this study. Additionally, as described in other nursing specialties (Corley, 1995; Corley et al., 2001; Elpern et al., 2005; Kelly, 1998; Sundin-Huard & Fahy, 1999; Wilkinson, 1987/1988), these nurses also discussed that the issues they experience have led to burnout, and subsequently cause them to leave their specialty, job, and/or ultimately the profession. Unfortunately, this places further burden on the ongoing nursing shortage and concerns about retention of qualified healthcare providers.

Many of the situations causing the participants' ethical issues were derived from situations where the participants felt *Powerless*. They often felt that perhaps they could have done more for the patient or should have stopped the resuscitation earlier to end patient suffering, but because the physician was leading the trauma resuscitation, the nurse was unable to exert ultimate control. These types of situations causing the nurse to feel powerless are supported by Oberle and Hughes (2001) who showed that in ethical decision making, nurses felt powerless due to the hierarchical process. This

powerlessness left these nurses with the burden of having to live with the decisions that were made by someone else. Often nurses have more responsibility than authority and feel as though they are unable to fill their role as patient advocate due to constraints from the family, physicians, or institution (Pendry, 2007). Due to hierarchical constraints, a power differential is often created amongst the team where team members have different goals for the patient, putting the various members of the trauma team at odds and thus setting up some participants to experience the distress they describe. While some participants were affected by ethical issues they encountered and ultimately felt powerless in these situations, this was not the case for all of the participants in this study. Some did try to voice their concerns and become involved as they felt able to do so; their concerns are discussed in the section below addressing research question four.

Many of the participants discussed Emotional Avoidance as a means of "detaching themselves from the situation" or compartmentalizing events of the day. This seemed to increase as their time in trauma increased and was an effect of their experiences as well as a coping mechanism. It is not clear whether emotional avoidance as either an effect of the problems or as a coping mechanism impacts the type and quality of care nurses provide. Baker McCall (1998) explains that denial and avoidance are typical reactions when caregivers are stressed and overworked, and that these reactions make it difficult for caregivers to do their job. For example, oncology nurses, like these trauma nurses, often use avoidance as a defense mechanism to deal with their emotional responses (Bush, 2009). One participant in this study described her emotional avoidance as "numbing" while also explaining the devastating consequence of how this goes beyond

the work place and her patients, and extends to her family and home life (Participant 18). Another participant explained that this problem led to his eventual divorce (Participant 5). Clearly, the manner in which these nurses are affected can be devastating to them as individuals, but also to their personal lives. Thus, learning to effectively cope with these situations is imperative.

Another interesting aspect of the study findings was that when participants identified with a particular situation, family, or patient they were resuscitating, they tried harder and often used more resources. One must question, if nurses or providers are detached from the patients, does the quality of care or the efforts expended on the patients decrease? Does this result in better or worse care? Moreover, does this result in efficient or inefficient use of resources? Nurses are intimately involved with patients' caring needs and are taught to establish a therapeutic relationship (Slevin, 2003). In doing so, however, there is a fine balance between personal values and goals, and professional obligations (Slevin, 2003). Many of these participants explain, however, that they have become detached. One wonders if the daily rush and ethical struggles of trauma resuscitations have actually traumatized nurses themselves. Others express, though, that being emotionally involved causes nurses and providers to try harder; it is plausible to think that they might provide better care if they are emotionally involved. We, therefore, must find methods to emotionally support nurses so they can provide the best care, yet not become bogged down by their emotions and the issues they encounter. Larson and Bush (2006) suggest using "balanced empathy" where nurses empathize with patients while setting emotional boundaries and balancing what they give to others (e.g.,

compassion, understanding, and forgiveness) by giving to themselves. Using "balanced" empathy can help combat this defense mechanism of becoming detached while also avoiding becoming overly involved with patients (Larson & Bush, 2006).

Furthermore, participants found that they often were conflicted about who had the authority to make certain decisions, or *Authoritative Dissonance*. Some participants felt that certain decisions were not theirs to make. Since authoritative dissonance is an effect of the ethical issues, perhaps this is a way for nurses to detach themselves and relegate difficult decisions to others thereby possibly removing themselves from those particular patient-advocating and team-collaboration responsibilities. One must question, what types of effects would this yield on the trauma "team"? The word "team" connotes collaboration. Part of collaboration is having members of the team contribute in valuable ways to reach the best solutions (Lindeke & Sieckert, 2005). Joint problem solving is a key aspect of this collaboration particularly when the team is confronted with difficult problems (Lindeke & Sieckert, 2005). If some nurses feel that difficult decisions are not theirs to make, the notion of the "team" could be diminished, thus having detrimental effects on patient care (Rafferty et al., 2001).

Research Question Three: What Factors Contribute to the Decisions Made During the Initial Resuscitation of Severely Injured Patients?

Multiple factors are involved in making decisions during the resuscitation of severely injured patients. Primarily, those factors that are presented in trauma guidelines and the ATLS protocol were noted by nurse participants as Presenting Signs and Symptoms. Many factors not covered by the protocol, however, were also discussed.

These *Intangible Factors* included such things as the *best interests of the patient*, *legal environment*, and *do no harm*. Typically, when faced with these factors along with deviations to the protocol was when participants experienced most ethical issues and/or issues causing them distress.

In addition to explaining the factors that are considered when making decisions, most participants discussed some factors that were not considered during the resuscitation. For example, participants explained that while they may be thinking about the patient's background, they did not take into consideration the patient's background when making decisions. A recent study, however, showed that uninsured and minority patients who were severely injured had worse outcomes and increased mortality (Haider et al., 2008). Other studies have shown that uninsured trauma patients had less radiologic imaging ordered and were less likely to receive surgical interventions, inpatient rehabilitation, and were more likely to die in the hospital (Haas & Goldman, 1994; White et al., 2007). Thus, while these nurses explain that a patient's background is not considered outright, it is possible that a subconscious bias exists, which further research would need to bear out.

The literature identifies four primary factors that are considered during resuscitation – ethical, legal, societal, and physiologic (Zeitzer, 2008). As participants discussed the factors considered during resuscitations, they indeed identified issues from each of these primary factors. However, as the participants discussed these factors, it became clear that not all factors are given the same weight. For example, physiologic factors, such as the Presenting Signs and Symptoms, were clearly considered most

consistently, as these are the factors used in the ATLS protocols. Participants definitely discussed legal and societal factors, but described these as having a general presence broadly affecting decisions but not necessarily factors that are considered specifically. Finally, they discussed ethical factors, but discussed these in the sense of factors that lead to difficult ethical decisions outside of the protocols.

ATLS protocols were developed with three underlying concepts: 1) treat the greatest threat to life first, 2) indicated treatment should never be withheld even without a definitive diagnosis, and 3) evaluation of the patient can begin without a detailed history (American College of Surgeons Committee on Trauma, 1997). ATLS provides systematic protocols for providing early care to the patient with multiple injuries, and, thus, teaches that in the first hour of care after an injury, rapid assessment and resuscitation are essential (American College of Surgeons Committee on Trauma, 1997). Because assessment and treatment are essential within that first hour, actions are taken very quickly, often leaving little to no time for deliberation or discourse. For this reason, most likely, the protocols do not integrate room for ethical decision making, leaving the providers alone in dealing with difficult decisions. Often little information is known about the patients when they arrive to the ED, presenting issues related to not knowing the patient's wishes for treatment. But, because actions must be taken in a timely manner and protocols are followed, ethical uncertainty exists in the minds of participants as to whether or not the patients should be treated. Because of uncertain prognoses and because protocols are followed, however, as participants described, the trauma team does not question the resuscitation efforts; the resuscitation is done because the purpose is to

stabilize the patient. American societal values and practice within healthcare "lead us to err on the side of doing 'everything' rather than on the side of doing 'too little'" (Mosenthal & Murphy, 2003, p. 512). To this end, after the patient is stabilized, as the patient's information becomes available, treatment can be withdrawn if so desired; however, if treatment is not initially provided and the patient dies, no further action can be taken to correct the situation or meet the wishes of the patient or family. While this point supports the use of following strict protocols even in the face of ethical dilemmas, it does not consider the issue of resources. In some situations, a large amount of resources would most likely be expended to resuscitate the patient only to ultimately have treatment withdrawn. Some participants saw this as wasting resources, particularly as they believed these financial resources could be better spent on preventative measures such as prevention education or even such measures as vaccinations. Thus, with limited time and limited information about the patient, protocols for treatment seem the most appropriate manner in which to treat injured patients and explain why physiologic criteria is most consistently considered when making resuscitation decisions. Effective measures, though, must be developed to deal with the troubling ethical decisions that must be made as well.

Research Question Four: How Are Nurses Involved in Making Decisions During Resuscitation of Severely Injured Patients?

Interdisciplinary collaboration has been shown to improve job satisfaction, quality of care, and patient outcomes (Adams & Bond, 2000; Blegen, 1993; Rafferty et al., 2001; Shortell et al., 1994; Wood et al., 1994). While these results are well known,

unfortunately, not all participants in this study felt that they were involved in decision making. Many felt that the trauma resuscitation was dictatorial, and that they were merely "monkey[s] pushing meds" (Participant 10).

Previous research supports that nurses have difficulty speaking up, feel that disagreements are not resolved, and that their input is not well received (Thomas, Sexton, & Helmreich, 2003). Some participants noted, though, that their experience in nursing and their age assisted them in their involvement. While it was difficult to ascertain from these data whether education was also a factor in increasing involvement, this could be an interesting finding as currently many organizations including the National League of Nurses supports moving towards increasing education to promote interdisciplinary collaboration among nurses and physicians (Heller, Oros, & Durney-Crowley, 2000). Interestingly, research has shown that with increased ethics education, nurse confidence in moral involvement increases (Grady et al., 2008); moral action was significantly greater in those nurses and social workers who had ethics education as compared to those who did not ($p< 0.001$) (Grady et al., 2008). The impact that gender has on involvement and collaboration is also an important attribute to consider and further examine. This is particularly important given that nursing is a primarily female dominated profession, (95% female) (U.S. Department of Health & Human Services HRSA, 2004) and that nursing has a long history of subordination to the physician (Winslow, 1984).

While many did not feel involved in the actual decisions related to the resuscitation, many did feel involved by taking action through their nurse specific roles whether related to patient care or the team (e.g., controlling patients' pain and comfort

and decreasing chaos in the trauma bay). Even when acting in these roles, though, they often felt that they were not listened to. This lack of involvement and feeling not listened to due to medical hierarchy, lack of time, policies, or legal considerations can contribute to job dissatisfaction and moral distress (Adams & Bond, 2000; Blegen, 1993; Corley et al., 2001; Rafferty et al., 2001). It is therefore important to be aware of the manners in which nurses feel involved and able to contribute to help foster nurse involvement.

Methods in which nurses are able to participate and feel involved were also identified. Some participants felt that by gently questioning or reminding physicians they were able to make their case known without offending the physicians. By doing so they often felt that they were contributing to decision making rather than being simply a "do-er." Many, however, felt that involvement was physician-related and depended on how receptive the physician was. Nurses' involvement is not only important to nurses and their job satisfaction, but to the team and the patient as well, as patients have both medical and nursing needs (Martin & Coniglio, 1996). By explaining the methods of being involved through their patient care roles as well as their team roles, nurses can strengthen their involvement within these specific roles where they are known to be involved. This can aid in a higher perception of involvement and increase job satisfaction, patient outcomes, quality of care, and decrease moral distress.

Limitations

This study has several limitations. First, only nurses working in Level-I certified trauma centers were included and therefore the findings only represent the experiences of nurses within these facilities. Trauma care for severely injured patients is also provided

in hospitals without trauma certification as only 34 states actually have formal trauma systems (Mann, MacKenzie, Teitelbaum, Wright, & Anderson, 2005). Future studies should include nurses from uncertified trauma facilities as well as facilities that maintain various levels of trauma certification; the issues they encounter may greatly differ from those working in certified trauma centers. This difference may occur due to variation in state and financial support for trauma care. Although all states report that lack of support and finances for trauma care pose a threat to the trauma system and care of severely injured patients, the percentage of states reporting this is larger in the states with underdeveloped trauma systems or no formal trauma system (Mann et al., 2005). One-hundred percent of the states with well developed trauma systems report finance as a threat with 88% reporting it as a weakness (Mann et al., 2005). While 100% of states with underdeveloped systems and 93% of states with poor or no system report finance as a threat, 78% and 71% respectively report it as a weakness (Mann et al., 2005). Furthermore, 25% of states with well developed systems report support as a threat and 38% report it as a weakness compared to 63% and 52% respectively of underdeveloped states and 71% and 57% respectively of states with poor or no system (Mann et al., 2005). However, including only nurses in Level-I trauma centers for this study helped to capture the issues encountered by nurses resuscitating severely injured patients working in similar environments i.e., trauma center designation by the Pennsylvania trauma foundation.

Other limitations of the study are that participants often had difficulty discussing their experiences in isolation of other experiences. Participants seemed to have a difficult

time separating their adult trauma experiences from their experiences with children. Even though both trauma centers were in the vicinity of a large, well-known, pediatric hospital, many participants discussed cases that included children; often participants grouped their experiences together and discussed the issues they encountered and their effects collectively, even though most of the participants expressed that they saw relatively few pediatric trauma cases. Additionally, participants also had difficulty separating their experience in the main ED from their experience solely in the trauma bay. Participants seemed to have the most difficulty separating the effects they experienced specifically caused by the ethical issues they encounter from the effects they experience caused by simply working in trauma and experiencing horrifically injured patients and their situations. During data analysis, the researcher attempted to separate the stories the participants shared. To the best of her ability, the researcher presented data simply pertaining to the research questions - the stories related to adult injured patients and the ethical issues the participants experienced.

Furthermore, the sample may present limitations as well. First, the participants were primarily White, non-Hispanic. While the sample is representative of the ED nurse population, the stories and experiences shared by minorities may not have been adequately represented. Second, the sample consisted of only 22 participants. While this small number of participants limits the generalizability of the findings, saturation of the data had been reached which subsequently ended participant recruitment and is appropriate in qualitative analysis. To increase generalizability a larger quantitative

study should be conducted as discussed in the Future Research, Inquiry, and Directions section below.

Implications for Practice

These findings point to a number of implications and actions that should be invoked. Primarily, since the findings have shown the important ethical problems that nurses are encountering and the crippling effects they have, helping to improve the manner in which these issues are dealt is imperative and crucial. Particular attention needs to be paid to the ED nurse population who cares for severely injured patients, as many of the issues they encounter are unique.

Ethics education and debriefings are mechanisms that have proven to be effective in helping nurses work through the ethical problems they encounter (Burns & Harm, 1993). Nurses participating in this study also cited ethics education and debriefings as suggestions for improvement further substantiating the need and utility of such programs. Ensuring that nurses receive adequate ethics education in nursing school as well as in continuing education is important. While ethical issues are known to be a problem in healthcare, one study showed that only 57% of nurses reported getting education in their primary professional program and 23% reported having no ethics education including continued education and in-services (Grady et al., 2008). At the same time, this study showed that ethics education was effective in increasing one's confidence in making ethical decisions as well as increasing the knowledge of and confidence in taking appropriate action and using available resources when confronted with ethical problems (Grady et al., 2008). Another study showed that educating through lectures and case

conferences with an ethicist in attendance built more confidence in confronting ethical issues than no ethics education or lectures alone (Sulmasy, Geller, Levine, & Faden, 1993).

Because nurses who resuscitate severely injured patients encounter unique ethical issues, it is important to prepare trauma nurses for the special issues they confront. In addition to making sure that students in nursing school receive quality ethics education, upon being trained or oriented to work in the trauma bay, nurses should be required to attend ethics training specifically addressing these situations. As supported, this training should include lectures as well as case conferences (Sulmasy et al., 1993) or perhaps simulations where nurses can interact with others to learn how to effectively confront ethical concerns within the constraints of the trauma bay. Ethics education could even be incorporated into the ATLS or the Advanced Trauma Care for Nurses (ATCN) curriculum. These nurses should particularly be taught the specific avenues available to them within the hospital and hospital system, emotional and professional support available to them, as well as how to best make or confront ethical decisions within the ATLS protocol given the time constrictions. Nurses need to be confident and feel empowered to voice their concerns or act upon their concerns even within the boundaries of the protocol driven resuscitation.

To further increase ethical involvement, interdisciplinary ethics education is crucial. As patients have both medical and nursing issues, interdisciplinary collaboration in patient treatment is imperative (Martin & Coniglio, 1996), particularly when it comes

to ethical issues. The National League of Nurses recognizes this need for and supports interdisciplinary education to promote interdisciplinary collaboration (Heller et al., 2000).

Additionally, nurses need an outlet to discuss the problems they encounter; many suggested that debriefings after particularly troubling cases (in more than cases just involving children) would be helpful. Debriefings have been shown to be effective; in fact, 88% of those ED nurses who have participated in debriefings have indeed found them to be helpful (Burns & Harm, 1993). Furthermore, interventions such as timeouts (Richmond & Craig, 1985) or grief rounds (Abrahm, 2005) might be helpful in aiding nurses to deal with the difficult, constant death and troubling situations they experience. Timeouts allow a forum for the interdisciplinary team to meet within 24 hours after a patient's death to discuss feelings regarding the situation (Richmond & Craig, 1985), and grief rounds allow the interdisciplinary team to meet every couple weeks to discuss concerns in an open, inviting manner (Abrahm, 2005). Both timeouts and grief rounds help provide team members the support they need as well as helping to unifying the team (Abrahm, 2005; Richmond & Craig, 1985).

Action needs to be taken. Evidently, many nurses resuscitating injured patients are disgruntled, have issues with satisfaction to the point that many are leaving their current positions within the ED and even the nursing profession. While the nurses' role is to care for others, it is important for nurses, and the system, to care for themselves as well. Without happy, well adjusted, productive nurses, patients will not be receiving the care they need and deserve.

Participants in this study discussed that many of the issues arose when decisions were made outside of the trauma guidelines, either when veering from the guidelines or when the guidelines did not incorporate the decisions that needed to be made. Thus, guidelines should be developed to aid providers in more difficult, less structured decisions. This is particularly important when providers are confronted with challenging ethical decisions and they have little to no time for ethical discourse. For example, while assessing specific issues on individual patients may be difficult given time constraints and lack of information, a "population-based treatment indicator," such as the one described by Shalowitz, Garrett-Mayer, and Wendler (2007), could be developed to help trauma healthcare providers make difficult ethical decisions. In substitution of using surrogates to make decisions for incapacitated patients, an algorithm based on treatment decisions of the population could be developed. This algorithm would specify treatments for the patient that other individuals with similar background characteristics and circumstances would want done. A computer program would allow providers to enter known patient information into the system or computer; the program would then provide percentages of patients with those similar characteristics that would want the treatment done. An assessment of the injured patient by pre-hospital providers would have to be completed and communicated to medical command in the ED who could then input this preliminary information into the system to assist with preliminary decision making (Zeitzer & Ulrich, 2008). Shalowitz and colleagues (2007) found that patient treatment decisions were predicted as well, if not better, by this population indicator than by surrogates. While protocols such as this have not been created or perfected for injured

patients, it may offer healthcare providers a method of answering difficult ethical decisions in a timely manner.

Finally, while some participants felt involved and connected, others did not. Because of the well documented and ongoing nursing shortage, issues related to job satisfaction, and patient outcomes, it is important that healthcare providers work towards having more interdisciplinary collaboration. Ideally, all nurses would feel involved in the decisions regarding the patients for whom they care. Therefore, instituting interdisciplinary collaboration within professional programs such as medical schools and nursing schools to help foster interdisciplinary collaboration is suggested.

Implications for Theory

Ethical issues and decision making during the resuscitation of severely injured patients are complex and dynamic issues. The findings from this study add to the substantial theoretical investigation that is needed to advance theory in nursing ethics.

The findings from this study are congruent with and support the theoretical framework compiled from theory by Jameton (1984), Beauchamp & Childress (2001), and Bronstein (2003) and proposed for this study. Factors that the trauma team considered during resuscitation helped the trauma team make resuscitation decisions. Trauma resuscitations and decisions had tremendous ethical issues and tumultuous implications for nurses who sustained a plethora of effects from these job stressors. The manner in which these nurses act professionally certainly affects them personally as Jameton (1984) describes, and the issues they experienced stemmed from several factors including patients and their family or friends, the trauma team, physicians, supervisors

and more. As Jameton (1984) describes, participants experienced moral distress stemming from a contradiction in their morals and when the system does not allow them to act on their morals. Participants sometimes felt that they were involved in the resuscitation decisions, but often the problems that affected them the most were the ones where they felt powerless or where they felt the decisions were not theirs to make. Bronstein (2003) explains in her model that interdisciplinary collaboration occurs when team members work together toward collective goals. If nurses feel powerless in some situations, it is because collaboration is not achieved thereby contributing to and multiplying the effects of the ethical issues experienced by nurses. However, when participants did express involvement, felt comfortable voicing concerns, and those concerns were acted upon, interdisciplinary collaboration was enhanced. It appeared that participants in turn felt less negative effects from the issues they encountered.

The theoretical framework and findings from this study provide a greater understanding about decision making, ethical issues and their effects on nurses, and the collaboration and nurse involvement in the resuscitation of severely injured patients. While the findings support this framework, the framework should still be specifically tested to aid in the advancement of theory in nursing ethics.

Implications for Health Policy

Trauma care is now the second most expensive healthcare problem in the U.S. (Agency for Healthcare Research and Quality: MEPS, 2009), and many EDs have had to close from under-funding and lack of resources (Institute of Medicine Committee on the Future of Emergency Care in the United States Health System, 2006d). Furthermore,

trauma care requires the use of an exorbitant amount of expensive resources and raises a multitude of ethical issues, as participants explained. In the face of these problems society and governmental agencies should rethink how resources are allocated. Some participants expressed concern that resources were often overused or used with a patient's questionable survival and some even felt that sometimes resources were "wasted." Many felt that financial resources would be better allocated toward injury prevention, education, or towards patients who the resources would better serve. Instead of allocating financial resources toward patients with variable outcomes and survival rates (Brenneman et al., 1995; Pickens et al., 2005), policies should be developed to concentrate more on and advocate allocation more towards preventative resources rather than responsive or curative resources. Even with the creation of the National Center for Injury Prevention and Control at the Centers for Disease Control and Prevention in 1992, injury is still one of the leading causes of death (National Center for Injury Prevention and Control, 2009b). Since research has shown that prevention programs are effective and cost-beneficial (Durlak, 1997; Klassen, MacKay, Moher, Walker, & Jones, 2000; Rivara, Grossman, & Cummings, 1997; Schwarz, Grisso, Miles, Holmes, & Sutton, 1993), clearly the need for more prevention resources is indicated.

Additionally, while the Emergency Nurses Association (ENA) (2009) has an existing Code of Ethics, they do not provide additional ethics resources to assist nurses dealing with ethical issues. The ENA should strongly consider adopting policies to support and address ethical issues within emergency departments. The ENA could even adopt methods through their association and provide nurses with ethics resources, or at

least assist them in accessing resources. One such resource might include developing a page on their website addressing specific ethical issues emergency nurses identify. Another resource might be to provide nurses with various avenues they can consider when confronted with ethical issues, such as discussion with selected individuals or administrative personnel, consulting an ethics committee, social work, or even clergy.

Future Research, Inquiry, and Directions

While this study highlights important issues nurses encounter and their involvement in decision making regarding ethical issues during the resuscitation of severely injured patients, it also points to several areas for future research. First, examining how the ethical issues differ among trauma centers would be important. Looking at the location of the trauma center such as regional location as well as rural, suburban, and urban issues would be important. It is likely that location will factor into the types of issues nurses experience because the types and frequency of injuries vary based on the differing locale.

Second, examining these issues and their effects among different members of the healthcare team is important. Because different members, such as nurses, technicians, respiratory therapists, trauma surgeons and emergency physicians all experience different issues with different effects as they each have different roles, examining and supporting these various team members could potentially help the trauma team as well as the patient. In addition, researching the association between characteristics such as education, length of nursing experience, culture, ethnicity, religion and the findings may also yield important information.

Third, specifically and more completely examining the coping mechanisms that trauma nurses use and strategies that would be helpful to them in coping with and overcoming the difficult issues they encounter may prove to be beneficial. Improving the manner in which nurses cope and reducing the effects of the problems they encounter, may indeed improve job satisfaction. This in turn may assist in improving nurse retention and recruitment.

Fourth, as participants discussed, they often feel that they are not involved in decision making or that they are not listened to. Examining strategies to help nurses feel more involved or feel as though they contribute more would be helpful in two respects: 1) to help nurses feel less powerless helping them to feel less distress, and 2) to help patients receive more well rounded care, as nurses and physicians have different training they often are able to provide a different perspective into the care the patient receives.

Fifth, examining the interdisciplinary collaboration that takes place in the trauma bay would be helpful. Since, in other settings, positive views of interdisciplinary collaboration have shown to decrease patient mortality (Baggs et al., 1992; Knaus et al., 1986), it would be interesting to determine if involving nurses more in the actual resuscitation as well as the difficult ethical decisions would indeed improve patient mortality or even nurses perception of the problems they encounter.

Sixth, a follow-up study examining video-recorded trauma resuscitations could be done. These recordings could be studied to determine how members of the trauma team interact to make certain decisions or specifically how involved each discipline is. This would examine the behaviors of each member of the trauma team and the collaboration

efforts as a whole to further pinpoint and enhance collaborative efforts and the perception of involvement.

Finally, while quantitative measures exist to study nursing ethical issues (Fry & Duffy, 2001), the findings and unique ethical challenges from this study suggest that ED nurses require a specific instrument to further study the unique, complicated and time sensitive issues they encounter. Using the data revealed in this study can help develop a quantitative instrument to assess the ethical issues and their effects of those who resuscitate severely injured patients. This quantitative instrument will help assess these topics on a broader scale to determine the frequency that healthcare providers experience certain issues and the level of effect it has on them to then focus on the most salient issues.

Conclusion

This study sought to fill the void in understanding the ethical issues and their effects on decision making during the resuscitation of severely injured patients. Nurse participants revealed important issues that arise during these situations and the crippling effects they have on their lives. The factors that are considered in making decisions during the resuscitation of severely injured patients is a jumping point to help further streamline trauma patient care decisions. Additionally, nurse involvement and interdisciplinary collaboration are important issues to improve during trauma resuscitations.

To advance patient care for the severely injured patient and theory in nursing ethics as it relates to this unique patient population many actions need to be taken. These

actions will not only improve the work environment, job satisfaction, roles, and personal lives of the nurses that care for these critical patients, but it may help to improve the extant nursing shortage as well as the quality of care patients receive.

Appendix A

Interview Guide

1. What have your experiences with trauma resuscitation of severely injured patients been like?

a. Tell me about one experience with the resuscitation of a severely injured patient.
b. Describe an event/situation that stands out in your memory as particularly distressing or that made you feel uncertain about the situation
c. Do these experiences ever cause ethical issues or problems for you?

2. What types of ethical issues or problems do you encounter during the process of resuscitating a severely injured patient?

Probe: They can be related to things such as, but not limited to: the patient, family, friends, the healthcare team, the facility/institution, resources, pain control, patient outcomes

a. Can you give me an example of a time when you experienced an ethical issue?
c. Give me an example of a tough trauma resuscitation with ethical issues that was handled well.
d. Give me an example of a tough trauma resuscitation with ethical issues that was handled poorly.
e. What do you think was the reason for the difference between the situation that was handled well and the situation that was handled poorly?

3. When you experience ethical problems/issues such as these, how are you affected? (How did this issue or problem affect you?)

-Personally? *(probe)*
-Emotionally? *(probe)* - anger, frustration, distress, sad, apathetic, stoic
-Professionally? *(probe)* - job satisfaction, profession satisfaction
-changed jobs, specialties, careers, interaction w/ colleagues
-Has it changed the way you practice? Elaborate *(probe)*
-Has it changed the way think about health care? Elaborate *(probe)*
-Has it changed the way you live your life? Elaborate *(probe)*

4. When decisions are made regarding the resuscitation of a severely injured patient, what types of things do you or the trauma team consider when making these decisions?

Probes/examples: legal, ethical (beneficence, autonomy, maleficence, justice), societal (resource allocation), physiologic, individual factors (quality of life, age, occupation, personal character), family, institutional factors/rules/policies

a. How are these things considered?

Follow-up/clarifying question: Are some considered more or stronger than others when coming to a decision?

-Which ones?

5. Do you feel as though you are involved/contribute to the decisions that are made during the resuscitation of severely injured patients?

If Yes:

a. How are you, as a nurse, involved in making: (how do you interact with the trauma team to make these decisions?)
   i) Resuscitation decisions
   ii) Ethical decisions
b. Can you give me an example of a situation when you felt that you were involved in the decision making process?
c. Can you give me an example of situation when you felt that you were not involved/unable to influence/participate in the decision making process?

If No:

a. What do you feel stops you from being involved in the process? (Why do you think you are not involved?)
b. Can you give me an example of how the team, including you, interacts when these decisions are being made?

6. When you have a concern or a point to make during, before, or after the resuscitation, what do you do?

a. Do you feel as though your concerns are recognized/acted upon? How?

New questions:

7. What do you think needs to change?

8. What do you think would be helpful to you in dealing with these situations?/What do we need to do?

9. Why do you think you've stayed doing trauma despite the problems/issues? Can you pinpoint a few things? (probe: personality, system, etc)

10. Have you thought about leaving your position? (if haven't already asked)

11. Have you had any course work, seminars, education on ethics?

What type?

12. Is there anything else you would like to add or any information or topics you feel were left out?

Appendix B

Demographic Questionnaire

1) Which of the following best describes your ethnicity?
   Hispanic or Latino
   Not Hispanic or Latino

2) Which of the following best describes your racial background?
   American Indian or Alaskan Native
   Black or African American
   Native Hawaiian or Other Pacific Islander
   Asian
   White
   Other

3) What is your gender?
   Male
   Female

4) How long have you been involved as a nurse in the resuscitation of severely injured patients when they arrive to the ED?

5) Within the past year, approximately how many Level-I trauma patients have you cared for?
   Less than 10
   10 to 20
   20 to 30
   Greater than 30

6) What is your employment status as an ED nurse?
   Full time
   Part-time
   - How many hours a week do you work on average?

   Per diem
   - How many hours a week do you work on average?

   Not currently working as a nurse

7) How many years have you been at your current position?

8) How long have you been practicing as a nurse?

9) How long have you been an ED nurse?

10) How long have you cared for severely injured patients in the ED?

11) What was your age at your last birthday?

12) Please indicate the all of the following degrees or certifications you have obtained.

Diploma
ADN
BSN
Other bachelor's
- What field?

MSN
other master's
- What field?

Doctorate (PhD, DSN, DNP,etc)
- What degree?
- What concentration area?

13) What is your religion?

Roman Catholic
Protestant
Jewish
Muslim
Mormon
None
Other
- Please indicate

Appendix C

Preliminary Questions to Determine Participant Eligibility

Inclusion Criteria Questions (inclusion answers italicized):

1. Are you currently employed as an ED nurse? *(Yes)*

2. Are you involved in the resuscitation of severely injured patients when they arrive to the ED? *(Yes)*

3. Approximately how many hours do you work per week? *(at least part-time/2 8-12 hr shifts/week)*

4. Which hospital do you work at?

Maximum Variation Sampling Questions (desired characteristics italicized):

5. Which of the following best describes your ethnicity? *(want 1 Hispanic nurse)*
   Hispanic or Latino
   Not Hispanic or Latino

6. Which of the following best describes your racial background? *(want 1 Asian,1 Black/AA)*
   American Indian or Alaskan Native
   Black or African American
   Native Hawaiian or Other Pacific Islander
   Asian
   White
   Other

7. What is your gender? *(want 3 males)*
   Male
   Female

8. How long have you been involved as a nurse in the resuscitation of severely injured patients when they arrive to the ED? *(want two nurses < 5 yrs, two 5-10 yrs two > 10 yrs)*

Appendix D

IRB Approval Letter

University of Pennsylvania
Office of Regulatory Affairs
133 S. 36th Street, Mezzanine Level
Philadelphia, PA 19104-3246
Ph: 215-898-2614/ Fax: 215-573-9438
INSTITUTIONAL REVIEW BOARD
(Federalwide Assurance # 00004028)

31-Oct-2007

Connie M. Ulrich
Claire M. Fagin Hall
Room 357
Phila PA 191046096
Fax: 215-573-7496

PRINCIPAL INVESTIGATOR	: CONNIE M ULRICH
TITLE	: Ethical Issues and Decision Making Related to Resuscitation of Severely Injured Patients: Perceptions of Emergency Room Nurses [SPI: Mindy B. Zeitzer]
SPONSORING AGENCY	: National Institute of Nursing Research/NIH/DHHS
PROTOCOL #	: 806463
REVIEW BOARD	: IRB #8

Dear Dr. Ulrich:

The documents noted below, for the above-referenced protocol, were reviewed by Dr. Emma Meagher, Executive Chair of the IRB (or her authorized designee) using the expedited procedure set forth in 45 CFR 46.110 and approved on 31-Oct-2007.

Amendment to the Protocol

-- Consent form, version 2, dated 10/23/07

If you have any questions about the information in this letter, please contact the IRB administrative staff. Contact information is available at our website: http://www.upenn.edu/regulatoryaffairs/Contact.html.

Thank you for your cooperation.

Sincerely,

IRB Administrator

Appendix E

Certificate of Confidentiality

DEPARTMENT OF HEALTH & HUMAN SERVICES

National Institutes of Health
National Institute of Nursing Research
Building 31, Room 5B13
31 Center Drive, MSC 2490
Bethesda, Maryland 20892-2490

November 5, 2007

Mindy B. Zeitzer, MSN, CRNP
Principal Investigator
University of Pennsylvania
School of Nursing
1511 Kater Street
Philadelphia, PA 19146

Dear Ms. Zeitzer:

Enclosed is the Certificate of Confidentiality to protect the identity of research subjects in your project entitled, **"Ethical Issues for Emergency Nurses during Resuscitation of Injured Patients," NINR 07-12**. The Certificate expires on June 30, 2009.

The consent form given to research participants must accurately state the intended uses of personally identifiable information (including matters subject to reporting) and the confidentiality protections, including the protection provided by the Certificate of Confidentiality with its limits and exceptions.

If you determine that the research project will not be completed by June 30, 2009, you must submit a written request for an extension of the Certificate three (3) months prior to the expiration date. If you make any changes to the protocol for this study, you should contact Ms. Donna Jones regarding modification of this Certificate. Any request for modification must include the reason for the request, documentation of the most recent IRB approval, and the expected date for completion of the research project.

Please advise Ms. Jones of any situation in which the Certificate is employed to resist disclosure of information in legal proceedings. Should attorneys for the project wish to discuss the use of the Certificate, they may contact the National Institutes of Health, Office of the General Counsel 301-496-6043.

Correspondence should be sent to Ms. Jones, National Institutes of Health, National Heart, Lung, and Blood Institute (NHLBI), Building 31, Room 5A16, 9000 Rockville Pike, Bethesda, Maryland, 20892-2490, phone number 301-496-5931 and fax number 301-402-0299.

Sincerely,

Donna Jones
NINR Certificate of Confidentiality Coordinator

Mishyelle Croom
Certificate of Confidentiality
Program Manager

cc: Dr. Barbara Smothers

CERTIFICATE OF CONFIDENTIALITY

NINR 07-12

Issued to

University of Pennsylvania
School of Nursing

Conducting research known as

"Ethical Issues for Emergency Nurses during Resuscitation of Injured Patients"

In accordance with the provisions of section 301(d) of the Public Health Service Act 42 U.S.C. 241(d), this Certificate is issued in response to the request of the Principal Investigator (PI), Mindy B. Zeitzer, MSN, CRNP, to protect the privacy of research subjects by withholding their identities from all persons not connected with this research. Ms. Zeitzer, is primarily responsible for the conduct of this research.

Under the authority vested in the Secretary of Health and Human Services by section 301(d), all persons who:

1. are enrolled in, employed by, or associated with the University of Pennsylvania School of Nursing, and their contractors or cooperating agencies; and

2. have in the course of their employment or association access to information that would identify individuals who are the subjects of the research pertaining to the project known as **"Ethical Issues for Emergency Nurses during Resuscitation of Injured Patients,"**

are hereby authorized to protect the privacy of the individuals who are the subjects of that research by withholding their names and other identifying characteristics from all persons not connected with the conduct of that research.

Project Aims and Research Methods:

The purpose of this study is to explicate emergency department nurses' (EDN) perceptions of ethical issues and decisions during resuscitation of severely injured patients. A qualitative descriptive design using semi-structured, in-depth, face-to-face interviews of approximately 25 emergency department nurses who participate in the initial resuscitation of severely injured patients will be used to answer the following four research questions:

- What ethical issues arise during the initial resuscitation of severely injured patients?

- How are emergency department nurses affected by the ethical issues that arise during initial resuscitation of severely injured patients?

- What factors contribute to the decisions made during the initial resuscitation of severely injured patients?

- How are nurses involved in making decisions during resuscitation of severely injured patients?

Nurses will be recruited from [redacted] and the [redacted] using a maximum variation purposeful technique. Recruitment will include both males and females with varied racial and ethnic backgrounds to obtain the richest set of data. It is expected that a minimum of one Hispanic nurse, one Asian nurse, and one Black/African American nurse meeting the inclusion criteria will be recruited as these minorities comprise the next largest percentages of emergency department (ED) nurses following White, non Hispanic (McGinnis, Moore, & Armstrong, 2006; U.S. Department of Health and Human Services, 2000). Age ranges will include nurses 21 years old and greater including practicing nurses who meet the inclusion criteria. Data will be analyzed using content analysis.

Forty five to 90 minutes audio recorded interviews will be conducted. After transcription and completion of the study, the audio-files will be destroyed. Any identifiable information will subsequently be removed from the transcripts or changed to protect the participants and individuals discussed in the interviews. Identifying information including name, phone number, address, and email will be collected on participants for contact purposes only. This information will be kept separate from data collected from the participants with no traceable link between the two. All data will be stored on a password protected computer that only the PI and sponsor will have access to. All non-computerized data will be stored in a locked cabinet in a locked office.

Protection of Subjects' Identities:

The PI will interview each participant in an agreed upon private, quiet location. The interviews conducted will be confidential; no names or identifying information will be attached to the recorded or transcribed interviews; numbers will be assigned to each interview and all accompanying data. Immediately after each interview, the audio files will be transferred to a password protected computer and then deleted from the audio-recorder. The unidentified audio files will be sent to a qualified transcriptionist after signing a statement agreeing to protect the confidentiality of any identifiable information from the interview. After transcription and review of the transcripts, and completion of the study, the audio files will be destroyed. The transcribed interviews will also be stored on a password protected computer.

Any identifying information revealed in the transcript (e.g. names or identifying information of other providers the nurses work with, patients they have cared for, dates of events, etc.) will be changed to protect the participants and individuals discussed in the interviews. Although knowing exactly what will be discussed during the interview is impossible, when results are presented, they will be described in an accurate manner without revealing the participants' identity. All participant information including names and contact information will be kept in separate files with no linking information to the data.

All non-computerized data including print-outs of transcripts and any non-audio data contributed by the participants will be kept locked files in the PI office. All data files will be accessed only by the PI, the sponsor, Dr. Connie Ulrich, the co-sponsor, Dr. Therese Richmond, the transcriptionist, and a consultant, Dr. Christine Bradway.

At the conclusion of the study, all participant contact information will be destroyed and/or deleted. De-identified data will be kept and stored on the PI's password protected computer for future studies. No personal identifiers will be retained.

Reason for Requesting a Certificate of Confidentiality:

Researchers are requesting a Certificate of Confidentiality because a possible risk to the participant's reputation exists. During the course of the interviews, the participants will be sharing clinical scenarios they have experienced with the resuscitation of severely injured patients in the emergency department. Participants will be sharing scenarios which they view as problematic and with ethical (and possibly legal) issues possibly leading to moral distress. Although identifying information within the transcripts will be changed to protect the identity of the participants and the audio files will be deleted, the risk is still present.

The Certificate of Confidentiality will provide a means to assure subjects that the information they share on moral distress and the resuscitation of severely injured emergency room patients will be held strictly confidential. Identifying information including participants' names, phone numbers, address, and email address will be collected for contact purposes only and will be kept separate from the collected data. Also, since the interviews will be audio recorded participants may be able to be identified through voice recognition. However, these files will be deleted at the completion of the study.

This research is underway, and is expected to end on June 30, 2009.

As provided in section 301 (d) of the Public Health Service Act 42 U.S.C. 241(d):

> "Persons so authorized to protect the privacy of such individuals may not be compelled in any Federal, State, or local civil, criminal, administrative, legislative, or other proceedings to identify such individuals."

This Certificate does not protect you from being compelled to make disclosures that: (1) have been consented to in writing by the research subject or the subject's legally authorized representative; (2) are required by the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) or regulations issued under that Act; or (3) have been requested from a research project funded by NIH or DHHS by authorized representatives of those agencies for the purpose of audit or program review.

This Certificate does not represent an endorsement of the research project by the Department of Health and Human Services. This Certificate is now in effect and will expire on June 30, 2009. The protection afforded by this Certificate of Confidentiality is permanent with respect to any individual who participates as a research subject (i.e., about whom the investigator maintains identifying information) during any time the Certificate is in effect.

Date: 11/8/07

Cheryl Stevens
Executive Officer, NINR

Appendix F

Consent Form

Consent Form

Title: Ethical Issues and Decision Making Related to Resuscitation of Severely Injured Patients: Perceptions of Emergency Department Nurses

Primary Investigator: Connie M. Ulrich
Institution: University of Pennsylvania, School of Nursing
Contact Information: 215-898-0898

IRB APPROVAL DATE: 12/3/07
EXPIRATION DATE: 6/26/08

Co-Primary Investigator: Mindy B. Zeitzer
Institution: University of Pennsylvania, School of Nursing
Contact Information: 267-269-7723

Invitation to Participate
You are invited to participate in a research study investigating the ethical issues that arise during the resuscitation of severely injured patients, what factors are considered during resuscitation, and your involvement on decisions during resuscitation. You are being asked to participate because you are a nurse currently working in the emergency department at a Level-1 trauma center and participate in the resuscitation of severely injured patients.

You are being asked to take part in a research study. This is not a form of treatment or therapy. It is not supposed to detect a disease or find something wrong. Your participation is voluntary which means you can choose whether on not to participate. If you decide to participate or not to participate there will be no loss of benefits to which you are otherwise entitled. Before you make a decision, you will need to know the purpose of the study, the possible risks and benefits of being in the study and what you will have to do if you decide to participate. The research team is going to talk with you about the study and give you this consent document to read. You do not have to make a decision now; you can take the consent document home and share it with friends, family, and health care provider.

If you do not understand what you are reading, do not sign it. Please ask the researcher to explain anything you do not understand, including any language contained in this form. If you decide to participate, you will be asked to sign this form and a copy will be given to you. Keep this form, in it you will find contact information and answers to questions about the study. You may ask to have this form read to you.

Purpose
The researcher is conducting a study to learn more about nurses' perceptions of ethical issues and decisions during resuscitation of severely injured patients. This study is in partial fulfillment of the researcher's doctoral dissertation.

Procedure
The researcher will interview you once, for approximately 45 to 90 minutes, which will take place in a private location agreed upon by both you and the researcher. The interview will be audio recorded, and will subsequently be transcribed. You will be given the opportunity to review the transcript and will be asked if you agree with what has been transcribed.

The researcher may contact you after the interview is completed for up to 30 days with follow-up questions related to the interview, and up to two years after the interview to obtain feedback about the results of the study. Data obtained from this study may be used to answer future questions related to ethical issues and decision making during the resuscitation of severely injured patients. You will be one of approximately 25 people in the study.

Risks
There are minimal risks involved in this study. There are no physical risks to you. However, because you will be asked about situations related to your trauma resuscitation experiences, ethical issues, and patient care, you may possibly experience discomfort when discussing these topics. If at any time you feel uncomfortable about the questions and/or the interview, we can take breaks in the interview if needed. You are under no obligation to answer any question that may cause discomfort. You are also free to withdraw from the study at any time. The interview will remain confidential and all identifying information will be removed to protect your identify and those within the situations you discuss.

Benefits
No direct benefits exist from participating in this research. Hopefully, the information gained from this study will improve the knowledge regarding the ethical issues encountered by emergency department nurses and how they are involved in ethical resuscitation decisions. With this information, strategies can be developed help nurses deal with the ethical issues they encounter and improve ethical decision making in trauma resuscitation.

What happens if you do not choose to join the research study?
You may choose to join the study or you may choose not to join the study. Your participation is voluntary.
There is no penalty if you choose not to join the research study. You will loose no benefits or advantages that are now coming to you, or would come to you in the future. If you are currently receiving services and you choose not to volunteer in the research study, your services will continue.

Confidentiality
Every attempt will be made by the researcher to maintain all information collected in this study strictly confidential, unless required by court order or by law. No names or identifying information will be documented/associated with the interviews. All identifying information will be removed or changed; this includes identifying information about yourself and those you discuss in the interview. If any publications or presentations result from this research, no identifying information related to you will be revealed. The Institutional Review Board (IRB) at the University of Pennsylvania is responsible for protecting the rights and welfare of research volunteers like you. The IRB has access to study information. Any documents you sign, where you can be identified by name will be kept in a locked drawer. These documents will be kept confidential. All of these documents will be destroyed when the study is over.

To help us protect your privacy, we have obtained a Certificate of Confidentiality from the National Institutes of Health. With this Certificate, the researchers cannot be forced to disclose information that may identify you, even by a court subpoena, in any federal, state, or local civil, criminal, administrative, legislative, or other proceedings. The researchers will use the Certificate to resist any demands for information that would identify you, except as explained below.

The Certificate cannot be used to resist a demand for information from personnel of the United States Government that is used for auditing or evaluation of Federally funded projects or for information that must be disclosed in order to meet the requirements of the federal Food and Drug Administration (FDA).

You should understand that a Certificate of Confidentiality does not prevent you or a member of your family from voluntarily releasing information about yourself or your involvement in this research. If an insurer, employer, or other person obtains your written consent to receive research information, then the researchers may not use the Certificate to withhold that information.

The state of Pennsylvania has regulations that require the interviewee to report to the authorities any information related to serious or imminent plans to harm yourself or others, child neglect or abuse, and child sexual abuse. In the event this type of information is disclosed in the interview, it will be reported to the authorities.

Withdrawal
Your decision to take part in this study is voluntary. You may terminate your participation at any time. You have the right to drop out of the research study anytime during the study. There is no penalty or loss of benefits if you do so. If you no longer wish to be in the research study, please contact Mindy Zeitzer, at 267-269-7723 and inform her of wish to drop out of the study. Also, the study may be stopped without your consent for the following reasons:

- The researcher feels it is best for your safety and/or health-you will be informed of the reasons why.
- You have not followed the study instructions
- The researcher, the sponsor or the Office of Regulatory Affairs at the University of Pennsylvania can stop the study anytime

Will you have to pay for anything?
There are no costs associated with participating in the study. However, if the agreed upon location for the interview requires you to travel, you will be responsible for paying for your transportation to and from the study interview.

Will I be compensated for participating in the study?
To show our appreciation for your time, we will give you $20 at the completion of the interview. If you decide to withdraw from the study before the interview is completed you will not receive this compensation.

Participant's Rights
If you have questions about your rights and welfare as a volunteer in the research study please contact the Office of Regulatory Affairs at the University of Pennsylvania at 215-898-2614 and/or the primary investigator named on the first page of this document.
If you have questions about the research study please contact the primary investigator named on the first page of this document.

Conclusion
By signing below, you agree that you have read and understand the consent form and agree to participate in the study described above. If you have any questions or there is something you do not understand, please ask. You will receive a copy of this consent document.

Date	Participant's Signature	Participant's Name (Printed)
Date	Person Obtaining Consent's Signature	Person Obtaining Consent's Name (Printed)

Appendix G

Abbreviations and Terms within Quotations

Abbreviation/Term (in alphabetical order)	**Meaning/Definition**
ACLS	Advanced cardiac life support
ARDS	Acute respiratory distress syndrome
ATLS	Advanced trauma life support
C-spine	Cervical spine
Clearing a c-spine	Determining stability of the cervical spine
Code	A resuscitation
CPR	Cardio-pulmonary resuscitation
CT	Computerized tomography
EEG	Electroencephalogram
Epi	Epinephrine
ICU	Intensive care unit
IJ	Internal jugular
M&M	Morbidity and mortality meetings
Med room	Medication room
MVC	Motor vehicle collision
OR	Operating room
PEA	Pulseless electrical activity
q	Every
Tach'ing away	The patient is tachycardic
Tech	Technician
V-tach	Ventricular tachycardia

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