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Belief Systems and Patient Care: An Examination of the Relationship between Nurse Religiosity and End-of-Life Care

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Belief Systems and Patient Care: An Examination of the Relationship between Nurse Religiosity and End-of-Life Care

by

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Dedication

This dissertation is dedicated to my mother, Ann McFarlane Bjarnason

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Belief Systems and Patient Care: An Examination of the Relationship between Nurse Religiosity and End of Life

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Much has been written about nurses' responsibility to support patients' spiritual needs. A plethora of literature explores patient religiosity and its effect on their approach and/or response to health care issues. Interestingly, there is little literature that explores the influence that healthcare providers' religiosity has on the care they deliver to patients. This dissertation examines the relationship between nurses' religiosity, their perceived self-efficacy, and the importance they place on aspects of care provided to patients at the end of life. This research was intended to provide a foundation for the future exploration of the importance of understanding the relationship of healthcare providers' religiosity on other aspects of patient-centered care. This study further supports the body of literature that suggests that end-of-life care is complex and multidimensional. It presents findings that show significant relationships between religiosity, self-efficacy, and the importance that nurses' report regarding end-of-life care and raises questions about the relationships between religiosity and perceived self-efficacy, and importance that nurses' report regarding end-of-life care. The study has shown that there are differences in nurses' self-efficacy and the importance they place on aspects of end-of-life care that are based on years of nursing experience and belief systems. Finally, it shows the need for ongoing research that investigates aspects of nursing and end-of-life care.

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CHAPTER 1

INTRODUCTION

This chapter introduces ideas of the relationship of various belief systems on approaches to end-of-life care as experienced by nurses. It begins with a brief synopsis of the development of monotheism and illustrates several end-of-life tenets associated with the three main monotheistic belief systems practiced in the United States. It explores the relevance, incidence, and significance of the role of religion in the United States and makes a distinction between the concepts of religiosity and spirituality. Finally, the hypotheses associated with the purpose of this study are presented.

Historical Background

Humankind has long tried to explain the complexities of nature and of humanity. Through legend, myth, and history, we have some understanding of how our ancestors dealt with the unknown or the unseen. Most ancient cultures were polytheistic and the pagan religions identified gods with nature (Armstrong, 1993). For example, the Vikings explained the mysteries of foul weather, giving us Thor, the god of thunder and the sky. The legacy of Thor remains with us today as, many cultures, including our own, name the fifth day of the week after him (Gay, 2003).

It was not only awesome and fearsome natural phenomenon such as thunder and lightning that were explained through the supernatural. Indeed, even love and desire were ascribed to the gods. One example is the Greek god Eros, considered one of the oldest gods. Eros was depicted as a young winged boy and today is perhaps better known as Cupid (the Roman god he became) and who is still widely recognized in Eros' original form in association with Valentine's Day (Leadbetter, 2003).

One last example from Greek mythology is that of Hades who is known as the lord of the dead and ruler of the nether world. Still as well known today are his brothers, Zeus (ruler of the upper world) and Poseidon (ruler of the sea). As the ruler of the dead, Hades was the most reviled of all gods. History tells us that people avoided speaking his name in order to avert his unwanted attention (Lindemans, 2004).

Clearly, a basic question raised by human beings has been about their origins and their purpose. How were the earth, the sun, the stars, and people created? Where do we go at the end of our mortal life? As human beings became more introspective, they began increasingly to question their relationships with the world and with each other. As these questions became more complex, they progressed beyond a conception of god as nature, but as something that existed beyond it, such as truth or higher power.

Scholarly Inquiry – The Need to Know

About 25 centuries ago, Socrates became the first philosopher to venture beyond a preoccupation with the physical world, beginning to explore more esoteric subtleties such as truth and wisdom. Mythology-based thinking underpinned the very fabric of life for the majority of Socrates' fellow citizens' beliefs. As a result, Socrates' use of logic to uncover truth by exposing false beliefs was controversial. According to Socrates' student, Plato, Socrates' controversial ideas became his undoing as he was put to death for "being an evil doer and a curious person, searching into things under the earth and above the heaven; and making the worse appear the better, and teaching all this to others" (Kreis, 2000).

Although Plato continued to hone intellectual analysis and the development of logic, he failed to recognize the value of empirical observations, relying more on myth

and the poetic imagination (Tarnas, 1991). Plato's student Aristotle supplied what is considered to be a "necessary modification of Plato's idealism [providing] a language and logic, a foundation and structure . . . without which the philosophy, theology, and science of the West could not have developed as they did" (Tarnas, p. 55).

Because of the questions raised by Aristotle and pursued by others after him, the question of multiple deities became more and more controversial. It was Aristotle's depiction of God as a pure being, eternal, immobile, and spiritual that had great influence on later monotheists (Armstrong, 1993). Thus, monotheism holds that there is only one God.

Monotheism Develops

Within the 200 years after Aristotle's death, the first accounts of monotheistic beliefs began to emerge as the Hebrew people came to consider that they existed in a unique and direct relationship to the one absolute God who stood beyond all other things as both creator of the world and director of its history. Within another two centuries, a second monotheistic religion began to spread rapidly through Asia Minor, Egypt, Greece, and Rome as the life, teachings, and apparent resurrection after crucifixion of a Jew, Jesus of Nazareth, revealed him as the world's Lord and Savior. The role of Christianity was cemented by the early fourth century with the conversion of the Roman emperor Constantine. As a result, Christianity became the major faith of the Roman Empire (Tarnas, 1991).

Finally, in about 610, the last monotheistic religion to exert great influence over modern-day civilization was born. The prophet, Muhammad, received his vision from God, thus allowing the Arabs of the Meccan tribes to overcome the taunting that they had

suffered at the hands of Jews and Christians who accused the Arabs of being barbarous as they had not received any revelation from God (Armstrong, 1993).

Belief Systems and End of Life

Many studies have examined the nurse's role related to care of the patient, and more recently have focused on the nurses' participation in end-of-life care. Little literature exists that examines how nurses' personal belief systems affect the care they provide to patients. The possible consequences of nurses' religious beliefs and the effect on their approach to the care of patients are broad. Tied to religious doctrines are issues related to a nurses' personal sense of mastery, the questions that death might pose, and, ultimately, the comfort that one might have based on personal feelings and beliefs. The following provides a brief exploration of beliefs about death from the perspective of Judaism, Christianity, and Islam, as well as a brief discussion about the possible implications of each perspective for end-of-life care. Clearly, this synopsis is not meant to fully explicate the dynamic nature nor the inherent variability that exists within these traditions. It merely serves as a backdrop to provide insight into the enduring themes that are associated with belief systems, including a commitment to saving and extending life, caring for dying people, and the sacredness of life (Vanderpool, 1995).

Judaism

In traditional Judaism, death is not seen as a tragedy, but the natural and expected end of life (The Jewish Life Cycle, n.d.) and although Jews are commanded to cure, they are not commanded to perpetuate life beyond its natural bounds (Dorff, 1986). A thirteenth-century Jewish source actually prohibited any action that might lengthen the patient's agony by preventing his quick death, and forbade those who attended at the

moment of death to cry lest the noise restore the soul to the deceased (Dorff). Judaism's answers to medical questions have been based on its fundamental theory of the body as the creation and property of God, on loan for the duration of life. Active means of euthanasia have been classified as murder, and although death may not be hastened, the dying process should not be prolonged (Dorff, 2005).

Understanding these traditional Jewish beliefs promotes the proposition that Jewish nurses would respect the importance of self-determination. Moreover, a sense of control over personal and professional feelings related to end-of-life decision making and death and dying seems highly likely. The implication is that based on theological premises, it is reasonable to consider that Jewish nurses would actively support a patient's decisions related to healthcare, including withholding or withdrawing treatment at the end of life when the patient refuses treatment because no cure is available.

Christianity

Christianity offers its followers the hope of life after death and a better life to come. Scriptures stress that although troubles and difficulties are expected in this world, good faith will offer the reward of life after death (Koenig, 1994). Conversely, the prospects of hell might produce anxiety in those who worry about whether they have lived up to Christian ideals. There thus exists a tension between fearing death and welcoming it as the door to eternal life and joy (Booty, 1986). While church fathers have held that death should not be sought, physical death also should not be feared, since physical death permits entry to the delights of heaven. The Christian imperative of respect for life, based on the concept of the *imago Dei* (every human being is formed in the image of God), is the foundation for the condemnation of contraception, abortion,

infanticide, murder, suicide, and active euthanasia (Amundsen, 1995). The imperative of respect for life, as well as the tension that exists between hopeful afterlife versus the prospect of eternal damnation, might result in Christian nurses possessing a sense of ambiguity related to discussing and teaching about end-of-life care. Furthermore, the doctrine that death should not be sought has implications for withholding or withdrawing treatment decisions. The fact that death should not be feared might mitigate some issues, especially for those who believe that a life lived within the bounds of faith offers the satisfaction of life after death.

Islam

When considering end-of-life care related to Muslims, it is important to consider the etiology of illness, which in Islam has important spiritual functions including a purgative role, a punishment for sins, and/or a positive reward (Rahman, 1989). There is a belief that God sends illness in order to protect those with certain shortcomings, or to compensate them with a reward in future life. Thus, whatever the gravity of the illness, Islam expressly forbids a Muslim from praying for death – in fact, the prolongation of life is highly desirable (Sachedina, 2005). Another important aspect of Islam is that death is considered passage to another life and not the end of life. However, the sacredness of life is of great importance because God is its origin and its destiny (Sachedina). Rahman cites Arabic proverbs and sayings that these lines of the sign of faith remain the ideal:

> When you were born, everybody was smiling but you were crying.
> Live such a life that, when you depart, everyone is weeping but
> you are smiling.

Considering these doctrines, the religiously oriented Muslim nurse's approach toward end-of-life care might include beliefs about the importance of preserving life, balanced by the idea that death should not necessarily be feared.

Relevance

The purpose of this abbreviated history of the development of monotheism and the major religions (Judaism, Christianity, and Islam) in the United States today is to underscore the time immemorial quest for understanding through belief systems that have been a source of comfort and inspiration to people dealing with the vagaries of life. It is important to note that individually and collectively these faith systems have intrinsic similarities and variations that affect the religious experience, including beliefs about the end of life.

Religion in the United States

The significance of religion in American life is evident in the findings of a survey of religious congregations and memberships released in September 2002 (Glenmary Research Center, 2002). This survey revealed that 140 million Americans were associated with the 149 religious bodies participating in the study. According to the U. S. Census Bureau, the *United States Census 2000* showed the population of the United States as 281,421,906; (U.S. Census Bureau, 2003).Therefore, the *Religious Congregations & Membership in the United States: 2000* report published by the Glenmary Research Center represents fully half of the population. The Glenmary report suggests that in the United States, Christianity comprises the largest faith system with approximately 133 million people claiming affiliation with Christian religions. About 6 million Americans maintain adherence to Judaism and about 1.6 million affiliate with

Islam. The remainder of the U. S. faith-based population practices Eastern religions or are congregants of the Unitarian Universalist Association (Glenmary Research Center). More recently, a survey released by Baylor University suggests that the United States, already one of the most religious nations in the developed world – may be even less secular than previously suspected (Baylor University, 2006).

Those who remain skeptical about the influence of religious beliefs, particularly as it relates to end of life, may find the results of a recent survey in the United States of interest. Of 1000 adults surveyed in the continental United States (sampling error plus or minus three percentage points), an overwhelming majority believe there is life after death and that heaven (76%) and hell (71%) exist. Nearly two-thirds of the respondents believed they were going to heaven; while only one-half of 1 percent believed they were hell-bound (Kang, 2003).

Religiosity and Spirituality: The Difference

Despite a plethora of multidisciplinary literature, there is little understanding of the distinction between terminology that is associated with the concept of religiosity such as spirituality, hope, coping, or belief. There are many who believe that spirituality is a larger phenomenon and that religion is reserved to describe the subset of spiritual phenomenon that involves organized religious activity (Baldacchino & Draper, 2001; Benzein, Norberg, et al., 1998; Koenig, George, et al., 2004; Steffen, Hinderliter, et al., 2001). Interestingly, this may be a recent shift and many believe that in the near past spirituality was subsumed under religiosity instead of the reverse (Levin, 2001).

Currently, there is general agreement that spirituality is a basic human phenomenon that helps create meaning in the world and that spirituality is characterized

by certain identifiable values in regard to self, other, nature, life, and whatever one considers to be the Ultimate (Highfield & Cason, 1983; Koenig, et al., 2004). Spirituality is considered quite different from religion and is experienced long before one is aware of religion. Thus, spirituality can be a part of institutionalized religion, although it is not necessarily related to institutionalized religion.

There is considerable consensus relative to the features that characterize the term religiosity. In its broadest sense, religiosity refers to aspects of organized religious activity such as church going and bible study and non-organized religious activity consisting of activities such as private prayer or bible reading (Baldacchino & Draper, 2001; Benzein, et al., 1998; Koenig, et al., 2004; McCurdy, Spangler, et al., 2003; Miller & Gur, 2002). Furthermore, religiosity is described as organized activities that are public, extrinsic, or external, such as church-going; and non-organized activities that are private, intrinsic, or internal, such as praying (Baldacchino & Draper, 2001; Benzein, et al., 1998; Koenig, et al., 2004; McCurdy, et al., 2003; Miller & Gur, 2002). Finally, religiosity is acknowledged as encompassing three foci: (a) identifying with a religious affiliation, (e.g. Protestant, Catholic); (b) religious activities (e.g. praying, church attendance); and (c) religious beliefs (e.g. relationship with a higher power, believing in the religious scriptures of their belief, or the degree to which religion is important (Baldacchino & Draper, 2001; Benzein, et al., 1998; Chen, Dormitzer, et al., 2004; Kendler, Gardner, et al., 1997; Koenig, et al., 2004; Miller, Warner, et al., 1997; Oyama & Koenig, 1998).

While some have used the terms religiosity and spirituality interchangeably, for the purpose of this study, religiosity is defined as a set of beliefs regarding faith-based activities that are both visible (e.g. church going or bible-study as well as discrete (e.g.

silent prayer, believing in a higher power). It measures the degree to which a person is "religious" and can be contrasted with "spirituality" which will be confined more to dimensions of the spirit.

Significance

A long-held value in nursing relates to supporting the spiritual needs of patients and their families – needs that are exacerbated by the emotional burdens that may accompany the end of life. This type of spiritual support differs from discussions about value-laden subjects such as the meaning of suffering or end-of-life beliefs that may be clouded by disparities between nurse-patient belief systems. The influence religious beliefs and practices have upon nursing practice when caring for patients at the end of life is under-investigated. Clearly nurses hold a position of power in the nurse-patient relationship, therefore it is vital that nurses recognize and respond to the myriad ways that personal and professional perspectives may influence patient and provider discourse.

Given nursing's advocacy role and the intimate and personal nature of the dimensions of both religiosity and the end of life, exploring how nurses' religious beliefs affect the interaction and conversations they have with patients at the end of life is a significant aspect of patient care that must be better understood. A clearer understanding of the implications associated with religiosity and end-of-life care will provide insight and direction for nurses who are involved in challenging discussions with patients about care and treatment.

Specific Aims

Considering the increasing breadth of denominational, cultural, and ethnic diversity of both the care-receiving and care-providing segments of society in the United

States, it seems more important than ever to focus on understanding the multidimensional interplay of religiosity and the effect it may have on nurses who are providing care to patients at the end of life. Therefore, the aim of this study will be to explore the relationship between nurses' religiosity, their perceived self-efficacy, and the importance they place on aspects of care provided to patients at the end of life. The following hypotheses will address this aim:

H1
There will be a significant positive relationship between degree of religiosity and perceived self-efficacy regarding three subdomains of care (communication, education, and allowing to die) at the end of life.

H2
There will be no significant relationship between degree of religiosity and importance regarding three subdomains of care (communication, education, and allowing to die) at the end of life.

H3
There are differences in degree of religiosity and perceived self-efficacy related to years of nursing experience.

H4
There are differences in degrees of religiosity and perceived self-efficacy related to the belief systems of the nurse.

Summary

Accomplishing the aims of this study will provide a foundation upon which to further explore the embodiment of the scientific and humanistic models of professional nursing care that help or enable patients to maintain a healthy condition for life or death (Leininger, 1998). In addition to the inherent value of the self-reflection on nursing practice this research may provoke, it is intended to provide a foundation for the future exploration of the importance of understanding the relationship of healthcare providers' religiosity on other aspects of patient-centered care.

CHAPTER 2

LITERATURE REVIEW

This chapter provides a brief overview of the challenges that technology, mobility, and the information age have introduced to end-of-life care in the United States. Concerns that nurses have raised regarding their role in end-of-life care are discussed. Additionally, this chapter explores patient behavior and the influence of religion, as well as provides an overview of the principles of self-efficacy. Lastly, it reviews current literature that examines religiosity, end-of-life care, and self-efficacy.

End-of-Life Care: New Challenges

Extraordinary changes in health care in the United States in the late twentieth and early twenty-first centuries have resulted in increasingly difficult challenges related to end-of-life care. Unparalleled technological advances, legislative attempts to humanize end-of-life care, and increasing public demands for health-care interventions have complicated an already complex issue. Increasingly mobile populations, as well as the proliferation of approaches to the provision of health care have compounded difficulties by creating impersonal relationships between health-care providers and patients (Bjarnason, 2000). Added to these complexities are unanswered questions about the consequences of the increasing cultural and ethnic diversity between care providers and the recipients of end-of-life care, particularly as it relates to the resultant divergence in religiosity as defined by religious affiliation, religious practices, and religious beliefs.

Nursing and End-of-Life Care

Overt controversy about end-of-life care in healthcare facilities in the United States traces back to 1976 when Karen Ann Quinlan was a patient in a persistent

vegetative state whose case was brought forward to the New Jersey Supreme Court (Pence, 1995). Her case was the first to recognize that incompetent dying patients' implied right of privacy and self-determination could be, based on the standard of substituted judgment, exercised by surrogates (*In re Quinlan*, 1976). A similar case (*In re Conroy*, 1985) as well as the first decision by the United States Supreme Court to explicitly recognize the rights of dying patients (*Cruzan v. Director, Missouri Department of Health*, 1990), spurred Congress to enact the Patient Self-Determination Act of 1990 (PSDA). Among other things, the PSDA required hospitals receiving Medicare funds to implement advance directive policies and to provide education to staff and communities about the PSDA.

It was cases like these, as well as issues regarding knowledge about the PSDA from the perspective of patients and healthcare providers that led to increasing concern amongst nurses regarding their role in end-of-life discussions (Hague & Moody, 1993; Hassmiller, 1991; Jezewski, & Finnell, 1998; Johns, 1996; Mezey, Evans, et al., 1994). Since that time, nurses have continued to express concern about their role in the discussion of end-of-life care and decision-making (Forbes, Bern-Klug, et al., 2000; Levy, et al., 2005; Rushton, Spencer, & Johanson, 2004; Wilkie, Judge, Wells & Berkley, 2001).

Studies have examined the nurse's role related to care of the patient, and more recently have focused on the nurse's participation in discussions about decision-making and end-of-life care (Levy, et al., 2005; Rushton, et al., 2004; Wilkie, et al., 2001). Further complicating end-of-life care issues are appropriate questions that nurses and others have raised including concerns about whether end-of-life care accurately reflects

the patient's desires and if the consequences of specific choices or options have been taken into consideration by the patient, especially before the implementation of advance directives. Additionally, when patients are unable to make decisions, there are concerns about whether proxy decision makers are appropriate (Institute of Medicine [IOM], 1997, 2003; The SUPPORT Principal Investigators, 1995).

Framed by the questions that nurses were raising and recognizing the importance of a consistent and deliberate approach to end-of-life care, the American Nurses Association (ANA) produced a compendium of landmark documents. In addition to a directive regarding the management of pain in dying patients, the *Compendium of Position Statements on the Nurse's Role in End-of-Life Decisions* (1992) provided nurses with directives that were adopted by the ANA Board of Directors including: *Nursing and the Patient Self-Determination Act, Foregoing Artificial Nutrition and Hydration,* and *Nursing Care and Do-not-Resuscitate Decisions*. Preceding the compendium was a position statement that was released in October 1991 entitled *Cultural Diversity in Nursing Practice*. This document offered guidance regarding the need to understand, among other things, the influence of the cultural background of the nurse on care delivery.

In addition to these important documents, nurses have added substantially to the end-of-life care dialogue and have been instrumental in establishing and participating in programs such as the End-of-Life Nursing Education Consortium (Sherman, Matzo, et al., 2005) and the nation-wide development and implementation of hospice care (National Hospice Foundation, n.d.).

Religion and Patient Care

Although the historic ties between health care and religion are well recognized, it has only been in recent years that interest in understanding the importance of religious values and their effect on patient outcomes has received increasing attention in the healthcare literature (Ang, Ibrahim, et al., 2002; Kendler, et al., 1997; Kendler, et al., 2003; Oyama & Koenig, 1998; Steffen, et al., 2001). Interestingly, it was over 20 years ago that Foster (1982), a distinguished internist and professor of medicine, asserted that there were four reasons why physicians must deal with religion in the routine care of patients. He postulated that: (a) religion influences the feelings and actions of a significant number of people, (b) patients often place the physician in the role of secular priest, (c) illness induces serious religious questions, and (d) physicians' own belief systems impinge on and influence patient care. Despite the provocative nature of these assertions, relatively little research evaluates religiosity from the perspective of the healthcare provider. The following section provides a more detailed description of Foster's theses, as well as examples and literature that support these ideas.

Patient Behavior and the Influence of Religion.

Foster's (1982) first thesis asserts that there is evidence to suggest that patient behavior may be influenced by religion, describing examples wherein care and treatment are enhanced or compromised due to strongly held religious beliefs on the part of the patient and/or family. This is one aspect of religiosity that has been well explored in the literature. For example, research has shown that high degrees of religiosity have a protective mechanism for suicide (Hilton, Fellingham, et al., 2002), depression (Miller, et al., 1997), hypertension (Steffen, et al., 2001), and drug involvement (Miller, Davies, et

al., 2000). Additionally, high religiosity is associated with improved coping during stressful life events (Kendler, et al., 1997), times of stress related to illness such as chronic joint pain (Ang, et al., 2002), depression (Horowitz & Garber, 2003; Miller & Gur, 2002), and stress associated with psychopathology related to substance use and abuse (Kendler, et al., 2003).

One research study documented that very religious families were more likely to use complementary and alternative medicine (McCurdy, et al., 2003). Another study explored the way in which physicians interpret and respond when there is conflict between medical recommendations and the patient's religious beliefs (Curlin, Roach, et al., 2005). In this study, 21 one-to-one interviews were conducted with physicians from a variety of religious affiliations and practice settings. The researchers found that conflict introduced by religious beliefs was common and occurred in three situations: (a) when religious doctrines directly conflict with medical recommendations (e.g., the refusal of blood transfusions by Jehovah's Witnesses); (b) when there is controversy within society (e.g. end-of-life decisions where conflict arises between the sacredness of life and medically futile treatment); and (c) when there is medical uncertainty and patients choose faith over medicine (e.g. it is in God's hands or God will provide).

Exemplifying the issue of conflicts between religiosity and medicine are nationally publicized cases wherein parents, based on their religious convictions, have refused to permit interventions such as chemotherapy or blood transfusions for their children (Hickey & Lyckholm, 2004). In many of these cases, not only health care teams but also the state becomes involved due to concerns about the endangerment of a child based on religious beliefs. These situations illustrate the influence that religion can have

on health care and obviate the need for nurses to recognize, as Foster (1982) emphasizes, that although healthcare providers are not necessarily required to believe themselves, they need to know that others believe, sometimes intensely.

The Nurse as Secular Priest(ess).

Paraphrasing Foster's (1982) second thesis (which metaphorically compares the role of the physician to that of a secular priest) is relevant to nursing as well. As with religious and medical roles, the role of religion in nursing has been separated professionally. The original version of the Florence Nightingale Pledge required the nurse to pledge before God to pass life in purity and to practice the profession faithfully. This pledge to God is no longer a requirement of nursing's code of ethics.

Changes in society and the role of the professional nurse have greatly diminished the significance of religiosity as a requisite for nursing. However, as the role of the nurse developed significantly in the direction of patient advocacy, the importance of hearing "confession" and providing interpretation for patients has become increasingly important. It is common to hear nurses say that patients have failed to report troubling symptoms to the physician, despite having described and discussed concerns during the nursing assessment.

Interesting to this discussion are studies that explored religious involvement from the perspective of the patient and identified that the more religious the patient, the more likely they are to desire information about the religiosity of their physicians, as well as the opportunity to pray with them (Monroe, et al., 2003; Oyama & Koenig, 1998; Post, Puchalski, et al., 2000). Research has shown, however, that many physicians have disparate backgrounds relative to beliefs and religious practices, raising questions about

their ability to effect the patient's request for religious support, particularly at the end of life (Curlin, Chin, et al., 2006; Wenger & Carmel, 2004). Additionally, Cavendish, et al., (2006) challenges a commonly held belief about nursing and the spiritual care of patients, noting that patients do not perceive this aspect of care within the role of professional nursing.

The confessional patient to nurse role may also be manifested in other ways. An often-heard example relates to conversations about code status when a physician discusses end-of-life interventions with a terminally ill patient. Patients often request resuscitation, and then subsequently query the nurse concerning what this means. When informed that the treatment for "starting your heart" consists of cardiac compressions, artificial respiration, and defibrillation, as well as possible intubation requiring transfer to a medical intensive care unit, many patients respond in horror. They "don't want to be on a breathing machine" or consider themselves "too old and sick" or are concerned about dying without dignity. Clarification often leads to reassessment and to subsequent changes to the goals of patient care.

Illness and the Serious Questions.

Foster's (1982) third thesis has profound implications for the study of health-care decision making, particularly as it relates to end-of-life care. He states, "it is probably safe to say that most people spend relatively little time contemplating philosophical matters, and certainly not life or death" and that "a presumption of personal immunity is not unusual, even in scholars whose job it is to think, speak, and write about finitude-mortality (philosophers, theologians) or by professionals regularly exposed to death (physicians, nurses, and their colleagues)" (1982, p. 253). For the most part, these

statements ring true, for it is only when our own mortality or the mortality of those who are close to us are in question that we begin seriously, as Foster says, to divert our focus from the ordinary to the extraordinary.

Related to coping strategies, religiosity has been identified and described as the seeking of meaning, purpose, and hope through religion that occurs when patients are confronted with illness or crisis (Baldacchino & Draper, 2001; Miller & Gur, 2002; Theis, Biordi, et al., 2003). An example of the relationship between religiosity, serious illness, and coping includes research that suggests that black patients rely more heavily on religiosity as a coping strategy. In a study that examined male veterans with moderate to severe chronic hip or knee pain, black patients were more likely to have tried prayer as a form of therapy and to perceive prayer as helpful in their treatment (Ang, et al, 2002). Another study showed significant use of religious coping strategies among African-Americans with panic disorders (Smith, Friedman, et al., 1999).

Additional implications relative to religiosity and patient care are revealed by a study that found a significant association between ethnicity and religion in a study population comparing people of Western European and Italian extraction to those of Eastern European descent. The people of Western European descent were more likely to consider religion more highly important than were those of Eastern European descent (Miller, et al., 1997). This finding is even more interesting considering regional religiosity within the United States which is described in the literature and discusses the impact of predominant regional religious affiliations such as Utah where a considerable proportion of the population consists of members of the Church of Jesus Christ of Latter-

day Saints (Hilton, et al., 2002) and the "Bible belt" of the southeastern United States (Koenig, et al., 2004).

The Nurse's Belief and Patient Care.

As previously discussed, Foster cautions about problems that may arise when the patient has strong religious beliefs and the doctor has none (or different ones) or, conversely, when the physician is highly religious and the patient is not. This same warning could be applied to the nurse-patient relationship; however, a paucity of literature examines the relationship between nurse religiosity and patient care. Although this is an aspect of care largely missing from the nursing literature, physician researchers have begun to explore the implications of physician religiosity and patient care. One such study looked at the association of physicians' religious characteristics with their attitudes and self-reported behaviors regarding religion and spirituality in their encounters with patients (Curlin, et al., 2006). The response rate of 63% (from 2000 surveys mailed to a stratified random sample of practicing physicians) suggests a high degree of interest in the topic. The majority of physicians in the study (91%) felt it was appropriate to discuss religious and spirituality issues if the patient desired. Results were more divided on issues of physicians talking about their own religious beliefs or experiences (14% responded never, while 43% said only when the patient asks). Fifty-three percent of the sample felt it was appropriate to pray with patients when they ask, while 17% thought that physicians should never pray with their patients. The researchers found that physicians who are more religious and spiritual (particularly Protestants) were significantly more apt to address religion and spirituality with the patient.

Another study conducted with the same sample examined an issue that recently has been a focus of media attention – that is the issue of health professionals who refuse to provide treatments based on moral grounds (Curlin, Lawrence, Chin, et al., 2007). This research examined physicians' in regard to their perceptions of their ethical rights and obligations to patients who request legal medical procedures, e. g. terminal sedation in dying patients, abortions for failed contraception, and birth control for adolescents without parental consent. The study results showed a significant association between physicians' judgments about their obligations and religious characteristics, sex, and beliefs about these controversial medical practices, concluding that physicians who were more religious were less likely to offer and/or provide legal but contentious interventions. The authors of the article acknowledged that perhaps the most important aspect of these findings pointed to the need for patients to know that many physicians do not feel obligated to provide information or referrals for legal but controversial care.

Luckhaupt, et al. (2005) conducted a study to assess beliefs regarding primary care residents, spirituality, and religion in clinical encounters. Approximately half of the 227 respondents felt that they should take part in their patients' religious or spiritual lives. This belief was more highly associated with the resident's frequency of participation in organized religious activities, higher levels of spirituality, and older age (Luckhaupt, et al.).

One last example was Wenger & Carmel's (2004) study that explored end-of-life care issues and practices among 443 Jewish physicians working at four hospitals in Israel. The researchers found that very religious physicians (as compared to moderately religious or secular physicians) were less likely to believe in withdrawing life-sustaining

treatments or to approve the use of pain medication if it would hasten death. Interestingly, there was no significance regarding findings for withholding life-sustaining treatments, although the authors noted that when caring for a suffering terminally ill patient, very religious physicians were much less likely to stop life-sustaining treatments. The researchers found that there was no relationship between physicians' religiosity and physician-patient communication. Physicians' desire for support handling issues regarding end-of-life care was universal (Wenger & Carmel, 2004).

Although physicians have begun to explore the more subtle complexities of physician religiosity and its impact on the care of patients, the majority of nursing literature focuses on the importance of being aware of and understanding the patient's spiritual or religious beliefs and/or needs. For example, Musgrave, Allen, & Allen (2002) explored research data that supports a relationship between spirituality and health, particularly among women of color. The authors conclude that spirituality and religiosity were of significant benefit to the study patients, having implications related to prevention, health-promoting behaviors, and coping with health problems. Wright (1998) highlights the professional, ethical, and legal implications for spiritual care in nursing. The author cites professional standards (such as the Joint Commission and the International Council of Nurses' Code for Nurses), ethical values (such as fidelity, advocacy, autonomy, and self-determination), as well as the legal issue of privileged communication to explicate the obligations that nurses have to support the spiritual care of patients.

In an attempt understand spirituality in the caregiving and care-receiving dynamic, a qualitative study conducted by Theis, et al. (2003) examined spirituality in 60 caregivers and receivers. Data from the study suggests two overarching themes: (a)

coping (with subthemes related to formal religion and social support) and (b) meaning (with subthemes of positive attitude, retribution, or reward). The authors suggest that holistic care could be provided to patients by assessing spirituality, then supporting it and enhancing it. Collaboration with clergy and parish nurse programs also was recommended.

Taylor (2003) explored the spiritual needs of patients and family caregivers in a study that was undertaken wherein 28 African American and Euro-American patients with cancer and their family caregivers were interviewed. The findings of this study identified similar results for both patients and their caregivers, including needs associated with: (a) relating to an Ultimate Other; (b) the need for positivity, hope, and gratitude; (c) the need to give and receive love; (d) the need to review beliefs; (e) the need to have meaning; and (f) needs related to religiosity and preparation for death. The importance of understanding the manifestation of spiritual needs and how to talk to patients about these needs was seen as integral to providing spiritual care to patients. Understanding patient needs was the focus of a tool Warner (2005) developed for spiritual assessment. Created in an attempt to provide nurses with information needed to holistically support care provided in emergency situations, the tool presents specific details about beliefs and practices (some relative to end-of-life care) based on religious affiliation.

End-of-Life Care in the United States

In 1995, a landmark study about a controlled trial to improve care for seriously ill, hospitalized patients stirred the state of inquiry and research into end-of-life care in the United States. The *Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment* (SUPPORT) principal investigators identified that there were

substantial problems in caring for seriously ill, hospitalized patients. They cited such things as poor communication, overly aggressive treatment, and issues surrounding death of the patient which included not knowing when patients preferred to avoid CPR (47%), do-not-resuscitate orders that were written within two days of death (46%), patients dying after spending at least ten days in the intensive care unit (38%), and moderate to severe pain experienced by 50% of conscious patients who died in the hospital (The SUPPORT Principal Investigators, 1995).

In 1997, the IOM released its first breakthrough document about end-of-life care in the United States. The *Approaching Death: Improving Care at the End of Life* report urged the healthcare community to build a greater understanding of what constituted good care at the end of life. The report offered specific recommendations to improve end-of-life care including determining diagnosis and prognosis and communicating them to the patient and family, establishing clinical and personal goals, and matching physical, psychological, spiritual and practical care strategies to the patient's values and circumstances.

The IOM issued a subsequent report in 2003 entitled *Describing Death in America: What We Need to Know.* The report examined data that was available to track and evaluate the quality of life and care experienced by Americans during the months immediately preceding death. The IOM uncovered wide gaps between what was known and what should be known. In addition to important tenets regarding provider accountability for quality care, the projection of future needs, and the importance of the evaluation and improvement of approaches to dying patients, the report called for the

advancement of research for clinical, organizational, and financing options for care at the end of life.

Healthcare providers have risen to the challenges spurred by the publication of the SUPPORT article and the IOM reports. A demonstration project conducted in Alabama provided a comprehensive approach to end-of-life care for safety-net populations. The researchers were able to demonstrate success at changing the location of death for terminally ill hospital patients from acute care and intensive care units to palliative care settings (Kvale, Williams, et al., 2004). Other studies have explored the influence of culture on communication at the end of life (Musgrave, et al., 2002; Taylor, 2003). A focus group study conducted by Shrank, et al., (2005) found that non-Hispanic white and African American groups differed broadly in the preferred content and structure of end-of-life discussions, as well as the values that influenced their preferences.

One small but intriguing study examined the effects of religiosity on patients' perceptions of do-not-resuscitate (DNR) status. Of the forty-eight oncology inpatients in the study, 75% said that they understood the meaning of DNR, but only 32% were able to accurately define it. Although certain religious practices such as meditation and thinking about God predicted the belief that DNR decisions were morally wrong, no association was found between religious denomination and the morality of DNR (Sullivan, Muskin, et al., 2005).

Recent studies (Sullivan, et al., 2004; Robinson, 2004) have begun to explore end-of-life care in the national curricula of both medical schools and schools of nursing. These studies have found wide support among deans and healthcare educators regarding integrating end-of-life education into the curricula.

Self-Efficacy, Control, and Power

An area of concern within the nursing profession and ultimately to the care-receiving public is whether nurses are able to teach and support patients and families with end-of-life care if they lack confidence to do so. Albert Bandura's (1977), exploration of self-efficacy proposes that people's actions are influenced by their sense of personal mastery (confidence in themselves) in a particular area. He suggests that when people are fearful, they avoid threatening situations they believe exceed their ability to cope. He further states that continuing to participate in activities that are subjectively threatening (e.g., discussing end-of-life issues) but are in fact relatively safe, produces, through experiences of mastery, further enhancement of self-efficacy and thus reductions in defensive behavior (Bandura).

Few would argue that providing end-of-life care is both physically and emotionally stressful. Bandura (1977) states that the strength of people's convictions in their own effectiveness (e.g. beliefs about end of life and the ability to provide care to patients at the end of life) determines whether they will even try to cope with difficult situations. He states that people fear and avoid threatening situations (e.g. death) that they believe they are unable to handle whereas they behave affirmatively when they judge themselves capable of successfully handling situations that would otherwise intimidate them. He posits that perceived self-efficacy reduces anticipatory fears and inhibitions.

Bandura's seminal work, *Social Learning Theory* (1977), discusses self-reinforcement. Bandura asserts that behavior is commonly performed in the absence of immediate external reinforcement and that some activities are sustained by anticipated consequences. He further states that behavior is regulated by the interplay of self-

generated (intrinsic) and external (extrinsic) sources of influence, including purposive behavior. A functional explanation of purposive behavior includes that once having adopted a certain goal (e.g. caring for patients and families at the end of life) people then act for the sake of realizing it. Through the exercise of forethought, individuals form beliefs about what they can do; they anticipate likely positive and negative outcomes of different pursuits, then set goals for themselves and plan courses of action (Bandura, 1997).

Self-efficacy scales have been developed that focus on patients and aspects of achieving health based on such things as taking medications, avoiding smoking, health related outcomes, and achieving behavior change (Jensen, Banwart, et al., 1993; Martinelli, 1999; Resnick, Wehren, et al., 2003; Strecher, Devillis, et al., 1986). For example, an extensive review of twenty-one self-efficacy and health-behavior studies that included such things as weight loss, smoking cessation, contraceptive use, alcohol abuse, and exercise (Strecher, et al.) consistently revealed that positive enhancement of health behavior changes occurred when tasks were arranged so that less complex skills preceded aspects of change that were more difficult. Strecher, et al. noted at the time that available research tended to focus more on efficacy expectations than outcome expectations.

A thorough assessment of both efficacy and outcomes expectations was discussed in research that measured self-efficacy and outcome expectations of adherence to taking osteoporosis medication (Resnick, et al., 2003). The study was comprised of two scales, one which measured confidence regarding taking medications under specific circumstances (e.g. “you are feeling sick to your stomach” or “the drug is expensive”), while the other scale measured outcome expectations by exploring questions such as

"taking medications for osteoporosis will help to maintain my independence and function." The researchers were able to demonstrate reliability and validity for both scales and found that higher self-efficacy and outcome expectations were significantly related to taking osteoporosis medication. Research conducted with coronary angioplasty surgery patients (Jensen, et al, 1993) showed a relationship between pre-procedure self-efficacy and outcome expectations. In this study, patients with higher self-efficacy and outcomes expectations were more successful at performing cardiac recovery behaviors.

In addition to patient efficacy and outcomes research, self-efficacy scales have been developed to measure specific aspects of clinical nursing practice including such things as perinatal nursing (Murphy & Kraft, 1993), inserting peripheral catheters (Ngo & Murphy, 2005), and cultural competency (Coffman, Shellman, et al., 2004). The tool to measure self-efficacy concerning perinatal nursing (Murphy & Kraft, 1993) used national provider guidelines and expert review to develop a set of knowledge and skill items. Respondents assessed their level of confidence in response to a series of statements on a 5-point Likert scale wherein high scores reflected a higher degree of confidence or self-efficacy. The researchers were able to demonstrate that nurses judged their ability to perform skills within their current practice area more efficaciously than those who were not commonly employed in the area. Unfortunately, this research did not include an outcome expectations parameter, although the authors did use the data to identify and assist low self-efficacy respondents by providing learning objectives and opportunities for skill acquisition and competency development.

Other self-efficacy scales in nursing have addressed such things as caring in baccalaureate nursing students (Sadler, 2003), leadership strategies (Manojilovich, 2005),

and nursing education and career progress (Harvey & McMurray, 1994). An established scale (the *Caring Efficacy Scale* or CES) was used by nurse researchers to explore caring behaviors in baccalaureate nursing students. Interestingly, the researchers found that there was no statistical significance between the caring-efficacy of pre-nursing students and graduating seniors. A review of the student's written responses provided further support for the finding that it was something other than the nursing curriculum that was attributing to the development of caring efficacy.

The CES also was used in a unique study that attempted to explain variation in professional nursing practice (Manojlovich, 2005). This study showed promise for creating understanding about the role of self-efficacy in professional nursing practice. Manojlovich used three instruments to measure structural empowerment (opportunity, information, support, and resources) in the work environment. The CES measured self-efficacy in relation to caring orientation, attitude, and behavior as well as ability to establish relationships with patients. Nursing leadership was measured using a scale designed to represent behaviors of powerful managers, while professional nursing practice was measured using a nursing activity scale. The significant finding of a strong relationship between self-efficacy and professional practice behaviors was linked to both environmental and personal factors.

A concept analysis of self-efficacy written by Kear (2000) is important to the discussion of perceived self-efficacy and religiosity in nursing. She notes that efficacy is synonymous with the terms effective, efficacious, and control; and that self is defined as the identity of a person. She therefore claims that the literal definition of self-efficacy implies a conscious awareness of one's ability to be effective to control actions, or

outcomes, and that "the individual believes that outcomes occur either by chance, an external locus of control, or as a direct result of personal effort, an internal locus of control" (Kear, Control section, para. 1). Kear noted that according to Bandura (1997), actual ability or the result of the action is secondary to the perceived ability to effect the behavior.

Summary

The influence religious beliefs and practices have upon nursing practice with patients at the end of life is under-investigated. A clearer understanding of the problems associated with dialogue about end-of-life care will provide insight and direction for nurses who are involved in difficult discussions with patients about care and treatment. Nurses hold a position of power in the nurse-patient relationship, therefore it is vital that nurses understand and respond to the myriad ways that personal and professional perspectives may influence patient and provider discourse. A long-held value in nursing relates to supporting the spiritual needs of patients and their families – a need which is exacerbated by the emotional burdens that may accompany the end of life. This type of spiritual support differs from discussions about value-laden subjects such as the meaning of suffering or the end-of-life beliefs that may be clouded by disparities between the nurse-patient belief systems. To paraphrase Foster (1982), the problems of concern that arise are when the nurse has strong religious beliefs and the patient has none (or different ones) or conversely, when the patient is highly religious and the nurse is not. The questions that ultimately must be wrestled with are whether nurses' own belief systems impinge on and/or influence patient care, especially for patients who are at the end of life.

This research study will not identify the potential for conflict, or determine whether religion should ever be overtly discussed in the nurse-patient relationship. The study will examine the possible relationships between nurse religiosity, perceived self-efficacy and the importance that nurses' place on aspects of end-of-life care.

In addition to determining whether religiosity results in any significant end-of-life care opportunities or obstacles, implications for further study include not only questions about the significance of religious beliefs, but also an examination of how spirituality and religiosity might affect the nurse-patient relationship.

CHAPTER 3

METHODS

This chapter presents the methods that were used to explore the relationship between nurses' religiosity, their perceived self-efficacy, and the importance they place on aspects of care provided to patients at the end of life.

Design

This exploratory quantitative research study was conducted to discover whether there is a relationship between nurses' religiosity, their perceived self-efficacy and the importance they place on aspects of care provided to patients who are at the end of life. An exploratory study investigates the dimensions of a phenomenon or develops and refines hypotheses about relationships between phenomena; it does not determine causality, but provides a foundation upon which to build future studies. This study examines relationships between the variables of religiosity, perceived self-efficacy, and the importance of aspects of end-of-life care to determine if they occur together. The survey was voluntary and anonymous and was conducted by mailing out three paper questionnaires to medical surgical nurses licensed by the Board of Nurse Examiners in the State of Texas.

To examine the differences in the groups based on years of experience, two groups were formed. Group 1 was nurses with more than 2 years of experience but less than or equal to 15 years of experience. The second group was comprised of nurses with greater than 15 years experience. This grouping was chosen because of the generally accepted rule affecting compensation tables that do not reflect credit for experience after fifteen years as a registered nurse.

The examination of differences in belief systems was conducted by forming two groups according to belief systems. Group 1 consisted of respondents who indicated connectedness with agnosticism, atheism, spiritualism, or any other belief system. Group 2 were those registered nurses who claimed affiliation with one of three monotheistic belief systems: Judaism, Christianity, or Islam. These groupings were chosen based on the evidence-based concept of religiosity that has found that there is considerable consistency related to a definition of religiosity that includes religious affiliation, religious activity, and religious belief (Baldacchino & Draper, 2001; Benzein, et al, 1998, Chen, et al, 2004, Kendler, et al, 1997; Koenig, et al, 2004; Miller, et al, 1997; Oyama & Koenig, 1998).

Sample

Registered nurses practicing full-time in medical-surgical nursing in acute care hospitals with two or more years of experience constituted the randomized sample. Medical surgical nurses working in acute care settings were recruited because the situations where the nurse must respond and act with end-of-life care patients are not occurring in an intensive care environment. A minimum level of experience was established because although it is generally agreed that there are no specific time frames associated with development of nursing competence, it does take time to develop what Benner (1984) calls the "know how" that is acquired through experience. Indeed, many nurse administrators echo the words of Verklan (2002) who states that the first two years of general experience are irreplaceable in a nurse's repertoire of skills related to assessment, prioritizing, triaging, (and) responding to sudden changes.

The nurses for this study were identified by utilizing a database provided by the University of Texas Medical Branch nursing doctoral program. This list was obtained from the Board of Nurse Examiners for the State of Texas (BNE) and represented data that was collected from registered nurses during the license renewal process. The list was limited to nurses who held a minimum of a bachelor's degree in nursing or a master's degree in nursing as the highest level of education. The BNE data contained information including employment status, educational background, practice area, employment field, gender, race, and position for 23,512 registered nurses in the State of Texas. This number was reduced to 4802 by selecting only nurses who worked full-time in acute care hospitals in general duty medical surgical areas. Data regarding each nurse's years of experience was not available in the database, therefore this information was collected on the demographic data survey.

Power analysis was used to determine that a minimum target sample size of 2000 registered nurses was required for the study. Since little previous research has been done on religiosity and perceived self-efficacy dimensions, the power analysis used a "least relevant size" scenario. Several minimal relevant effect sizes were tested with alpha = 0.05 and power = 0.80. A correlation of at least 0.20 (accounting for only 4% of the variance) required 194 subjects; while a correlation of 0.30 (9% of variance) required a minimum of 85 subjects. Alternatively, using a confidence level of 95% and a confidence interval of 5% needed a sample size of 331.

Although standard survey protocol is to expect about a 20% return rate in general surveys, the pilot study for this project had produced a 41% return rate from a similar population, indicating high motivation and responsiveness. Therefore, it was proposed to

contact 2000 randomly drawn (via random number generator) from the pool of 4802 with an expected sample size of 350 (18%) to 800 (40%) based on the pilot study return rate.

Inclusion and Exclusion Criteria

Registered nurses licensed in Texas with at least two years experience who work in medical surgical services in acute care hospitals were included in the study. Nurses who did not meet these criteria were excluded.

Instruments

This research was conducted using the Nurse Religiosity and Self-Efficacy (NRSEI) Measure. The NRSEI includes scales to measure self-efficacy and importance regarding aspects of end-of-life care (developed and pilot tested by the investigator) as well as an established scale to measure religiosity that was developed and tested by Rohrbaugh & Jessor in 1975. A demographic form was developed to collect socio-demographic and nursing demographic data. The following section details the development and testing of the NRSEI.

Self-Efficacy and Importance Scale Development

As discussed in the review of literature, Bandura (1977) proposes that people's actions are influenced by their sense of personal mastery in a particular area and that the strength of people's convictions regarding their own effectiveness determines whether they will even try to cope with difficult situations. Measures to determine the relationship between self-efficacy and other aspects of nursing care exist, however no scales were found that examined the relationship between self-efficacy and the importance of aspects of end-of-life care. Therefore, these constructs were measured using a scale developed by the investigator.

DeVillis (2003) cautions that detailed knowledge about a specific phenomenon is one of the most important aspects of the relationship of theory to measurement. It is this investigator's belief that educational preparation, an abiding interest in end-of-life care, and a thesis entitled *End-of-Life Care: Enhancing the Nurse-Patient Dialogue* (2000) represent examples of the expertise and background necessary for scale development relative to this study. Content validity was verified by nursing experts in the fields of ethics, self-efficacy, and end-of-life care who reviewed items and concurred with their relevance to the domain of interest.

After receiving Institutional Review Board approval, a pilot study was conducted in which 300 NRSEI surveys (including the self-efficacy and importance subscales, the religiosity scale, and demographic forms) were distributed to licensed registered nurses at three large acute care hospitals. A total of 123 usable surveys were returned. This sample size was determined to be adequate based on the general guideline that suggests that there should be at least five completed surveys for each question on the scale. The pilot survey consisted of twenty-three questions; therefore, a minimum of 115 completed surveys was required.

The pilot study surveys were entered into an SPSS data management program. Reliabilities indicated a Cronbach's alpha of 0.90 for the self-efficacy subscale and 0.85 for the importance subscale. The reliability of a scale refers to the proportion of the variance attributable to the true score of the latent variable. Although Devillis (2003) emphasizes that his groupings are personal and subjective, he uses the following values to determine the reliability of a scale: < 0.60 = unacceptable, 0.60-0.65 = undesirable, 0.65-0.70 = minimally acceptable, 0.70-0.80 = respectable, 0.80-0.90 = very good, and > 0.90

= consider shortening. Therefore, the reliabilities for the pilot study were considered more than adequate for a newly developed scale.

To validate criterion, factor analyses were conducted using factor analysis varimax and oblim as well as principal component analysis varimax and oblim. The initial findings yielded seven factors. This resulted in dropping eight items from the scale. One was a duplicate item. Additionally, items with multiple loadings, factors less than 0.30 and any factors with only two items were eliminated, leaving 15 items.

Following elimination of the eight items, the data were rerun using the procedures described above, limiting the number of factors to three, four, and five solutions. Following review, it was determined that the best fit for both the self-efficacy and importance subscales was principal axis factoring with forced factor held to three using the varimax factor rotation with Kaiser normalization. This yielded factors for both subscales including (a) communication about end-of-life care, (b) educating about and using advance directives, and (c) allowing the patient to die.

The Nurse Religiosity and Self-Efficacy Measure

Self-Efficacy and Importance Subscales.

The self-efficacy and importance subscales of the Nurse Religiosity and Self-Efficacy Measure (NRSEI) consist of 15 items designed to determine nurses' perceived self-efficacy and the importance they place on aspects of end-of-life care. In the pilot study, the self-efficacy subscale yielded Cronbach's alpha reliability statistics of 0.88 for communication about end-of-life care, 0.83 for educating about and using advance directives, and 0.79 for allowing the patient to die. For importance, the reliability for the first loaded factor, educating about and using advance directives was 0.84, the second

loading factor; communication about end-of-life care demonstrated a Cronbach's alpha of 0.87 and allowing the patient to die yielded a reliability statistic of 0.79.

The self-efficacy subscale is administered by asking respondents to circle a score which best represents their ability to perform a particular end-of-life activity from 1 (not at all sure) to 7 (very sure). Concomitantly, respondents are asked to rate themselves on the same activity by circling a score that best represents how important the activity is to them, from 1 (not very important) to 7 (very important).

Religiosity Measure.

As previously discussed, the literature reveals that there is substantial agreement regarding the features that characterize religiosity. Religiosity is widely described as encompassing important foci including (a) religious activities, (b) religious beliefs, and (c) religious affiliation (McCurdy, et al., 2003; Miller, et al., 2002). Relevant literature widely acknowledges that religiosity is implicated by devotion and belief and that expressions of religiosity are personal (i.e. intrinsic or internal) and public (i.e. extrinsic or external; Baldacchino & Draper, 2001; Benzein, et al., 1998).

Despite congruence in the attributes of religiosity, measuring religiosity remains highly variable as evidenced by the sheer volume of scales that have been developed to quantify it. According to Hill and Hood (1999), before attempting to construct a psychometric scale, investigators should check for existing measures so that a body of empirical research can be established that has been derived from the uniform measurement of theoretically meaningful constructs. An existing measure of religiosity was identified in their text, *Measures of Religiosity* (1999) which contains over one

hundred and twenty measurement and scales in the psychology of religion. The following provides an overview of the measure used.

Rohrbaugh and Jessor developed the Religiosity Measure (RM) in 1975. It was deemed appropriate for this study because it was developed to evaluate the impact of religion on the respondent's daily, secular life as well as to determine the extent of individual participation in ritual practices. The emphasis is on one's cognitive orientation concerning a transcendent reality and is intended to be applicable to religiosity in general. No particular religious affiliation or denominational creed is assumed; therefore, information about religious affiliation was collected on the investigator-developed demographic data form.

The RM was written at a level to be understandable at the high school education level and was considered appropriate as a scale for registered nurses as it has been used to assess religiosity of both high school students and college students. The Cronbach coefficient alphas reported by the scale developers for the RM were over 0.90, indicating high internal consistency for the instrument. Females who took the RM were consistently found to be more religious than males and high school-age students were more religious than college-age students were. These findings indicated good construct validity with other consistent findings in the field (Rohrbaugh & Jessor, 1975).

As a further test of the measure, subjects were asked to rate their overall religiosity on a 10-point linear rating scale. This self-rating was correlated to the overall religiosity on the RM score (college males $r = 0.78$, college females $r = 0.81$, high school males $r = 0.83$, high school females $r = 0.84$). An overall average correlation matrix coefficient value of 0.69 for the four subscales in the 4 student groups indicated strong

internal validity. A discriminant validity analysis conducted by Rohrbaugh and Jessor (1975) showed that the RM instrument measured the personal religious orientation of the individual and was not a result of identification with external religious networks or social structures.

The RM is an 8-item multiple-choice instrument that encompasses the definition of religiosity including extrinsic and intrinsic factors (ritual, consequential, theological, and experiential). Semantically, items are differentiated between those of an ideological nature using the verb “believe”. Experientially focused items are “feelings” oriented. Ritual participation items are behavioral.

An analysis by Hill and Hood (1999) indicated that the RM instrument was easy to administer, short, and easy to score. In addition to reverse wording, the order of the items may be randomized in order to reduce any kind of systematic structure. Item scores for reversed items are recoded so that all item scores are consistent from 1 (least religiosity) to 4 or 5 (depending on the number of responses available) indicating greater religiosity. A total score for the scale is obtained by examining the data to determine natural breaking points for the first question (which explores church attendance), then creating a numeric value scored from least attendance to most attendance. A higher score corresponds with greater religiosity.

Analysis of pilot study data collected during development of the NRSEI revealed reliability for the RM of 0.85 with one factor loading. As with the self-efficacy measure, it was determined that principal axis factoring yielded the best solution.

Demographic Data Form.

The demographic data form collected standard information including gender, age, and ethnicity. Other potentially relevant information such as years of experience as a nurse, highest nursing degree, country of origin, country of nursing education, type of institute where nurse training was received (secular or religious), and belief system was also collected. The key reason for collecting and assessing these variables was to ensure that conclusions were not compromised by failing to test whether they made a difference. Any demographic variable that might be expected to have a systemic effect on individual responses on study variables was collected so the demographic variables could be tested for their impact on the data.

Data Collection Procedures

Following Institutional Review Board approval (IRB), the study was conducted by mailing a cover letter (Appendix A), along with the demographic data form (Appendix B), and the Nurse Religiosity and Self-Efficacy Measure (Appendix C & D) to the subjects using addresses provided by the BNE. A self-addressed, stamped envelope was enclosed for return of the surveys. A cover letter explained that no identifying information would be collected and that no identifying information should be included on the returned surveys or envelopes in order to assure respondent anonymity.

The printed data collection plan had included a second mailing of a postcard to remind respondents to complete and return the survey. However, since more surveys had been received than required by the power analysis, a reminder was not sent.

Data Analysis

Data from the surveys were entered into an SPSS data analysis program. Preliminary analyses examined the distribution of responses using descriptive statistics. Frequencies and percentages were generated for categorical data and means, standard deviations, skewness, and kurtosis were run for continuous variables. Means, modes, and percentages were used to describe the sample. Additional preliminary analyses included factor analyses to validate the factor structure of the perceived self-efficacy and importance subscales and to establish the reliabilities of the instrument in this population. Summated scores were calculated for the NRSEI subdomains of communication, education, and allowing to die and for the religiosity index.

The strength of the relationship between the random variables in hypothesis one: "there will be a significant positive relationship between degree of religiosity and perceived self-efficacy regarding the three subdomains of care at the end of life," was determined using Pearson's Correlations.

Hypothesis 2, "there will be no relationship between degree of religiosity and importance regarding the three subdomains of care at the end of life," was also tested by using Pearson's Correlations.

Due to problems with homogeneity of the sample, the significance of hypothesis three, "there are differences in the degree of religiosity, perceived self-efficacy, and importance related to years of nursing experience", and hypothesis four "there are differences in the degrees of religiosity, perceived self-efficacy, and importance related to the belief systems of the nurse," were measured using Mann Whitney U, instead of the planned ANOVA.

Summary

This chapter discussed the process used to collect and analyze the study data. It provided an overview of the instruments used to collect the data, including information about the reliability and validity of the scales. It also explained data analysis changes that were necessary due to problems associated with variation in the groups and subsequent violations of homogeneity. The following chapter provides the results of the data analysis.

CHAPTER 4

RESULTS

This dissertation research explored the relationship between nurses' religiosity, their perceived self-efficacy, and the importance they place on aspects of care provided to patients at the end of life. Additionally, differences in religiosity and perceived self-efficacy and importance regarding aspects of end-of-life care related to years of nursing experience and the belief system of the nurse were investigated. This chapter provides information about the sample and compares the results of the factor analysis of study data to data collected during the pilot study that was conducted to develop the NRSEI. Additionally, this chapter explains data transformations and decisions that were made in order to analyze the results. Finally, results of the analyses of the hypotheses are presented.

Sample

Survey Return Rate

During the month of March 2007, 2000 NRSEI surveys were mailed out to randomly selected registered nurses identified by a list provided by the Board of Nurse Examiners for the State of Texas (BNE). A minimum of 331 surveys was required by the power analysis. By May 31, 2007, this number had been exceeded with 632 (31.6%) surveys returned. Of these, 494 (24.7% of the initial sample) were usable. Fifty-eight surveys (2.9%) were deemed to be unusable for one of three reasons: (a) education was less than a minimum of bachelor's degree, (b) the respondent did not indicate his or her years of experience (minimum of two years experience required), and/or (c) the respondent did not complete an entire scale. Scales completed but missing data points

were included in the analysis; however, scores were dropped from the analysis of any dimension that was explored if not all questions were answered. Eighty surveys (4.0%) were returned as they were undeliverable at the address provided by the BNE. Overall, 68.4% of the surveys were unreturned. Figure 1 illustrates the survey return rate.

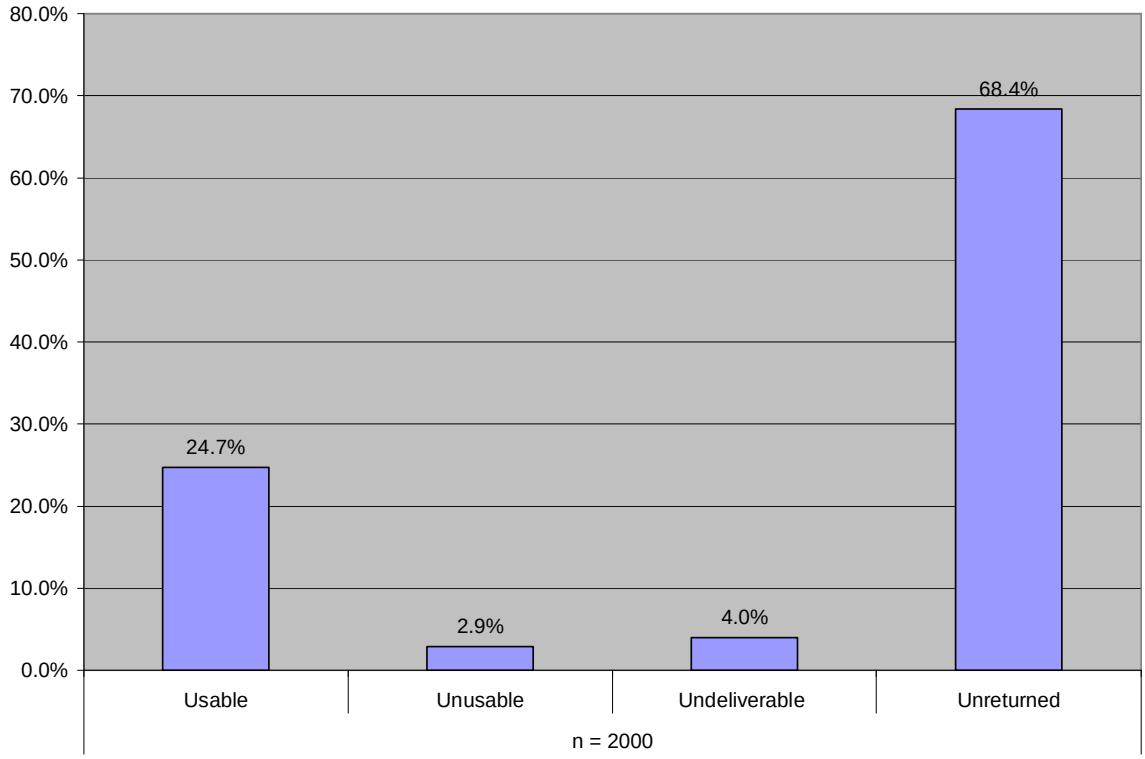

Figure 1. NRSEI Survey Return Rate

NRSEI Factor Analysis

In order to validate the scale structure of the NRSEI instrument, an initial examination of the response data was conducted by performing factor analysis that was compared to the pilot data. An exploratory analysis of the perceived self-efficacy data using principal axis factoring produced a three-factor result that was highly similar (see Table 1) to the result obtained in the pilot study including perceived ability to: (a)

communicate with a patient about end-of-life care, (b) educate a patient about end of life, and (c) allow a patient to die.

Table 1

Comparison of Factor Structure for the NRSEI Self-Efficacy Domain for Current and Pilot Studies

	Communicate	Educate	Allow to die
Talk to a patient about end of life care.	Current Pilot		
Discuss death and dying with a patient.	Current Pilot		
Communicate with a terminally ill patient.	Current Pilot		
Talk to a patient about end-of life care when they are acutely ill.	Current Pilot	(Pilot)	
Discuss end-of-life care early in the patient's treatment plan.	Current Pilot		
Take care of a patient when they are dying.	Current (Pilot)	Pilot	
Talk to a patient about end-of-life care when they are well.	Current Pilot		
Educate a patient about advance directives.		Current Pilot	
Use advance directives to direct end-of-life care.		Current Pilot	
Educate a patient about resuscitation.		Current Pilot	
Ask a patient if they have any advance directive.		Current Pilot	
Use a surrogate decision maker when a patient is incapacitated.	Pilot	Current (Pilot)	
Withdraw treatment when recovery is not expected.			Current Pilot
Withhold treatment when recovery is not expected.			Current Pilot
Allow a patient to die.			Current Pilot

Note. Current = factor assignment this study, Pilot = factor assignment pilot study. Items in parentheses differed in primary loadings for the sample pilot, but displayed significant secondary loadings for the larger current sample.

Two items, “take care of a patient when they are dying” and “use a surrogate decision maker when a patient is incapacitated” differed in their primary loadings for the pilot sample on the communicate and educate dimensions, but displayed significant secondary loadings for these items on the primary scales for the larger current sample. Because of the larger sampling in the current study, in all cases where there was a discrepancy between the pilot and current sample factor analyses, the decision was to weigh the factor results of the larger sample more heavily in assigning item membership between dimensions.

Similarly, an exploratory analysis of the importance subscale data initially produced a four-factor result in which the communication subscale for importance split into two subdimensions. Since these subdimensions were composed of items from the larger communication dimension, the data was rerun forcing the factors to three to verify a global communication dimension (see Table 2).

The forced factor solution verified that the two communication subsets composed a global communication factor for the importance dimension. In comparing the results with pilot data, two items (talk to a patient about end-of-life care and discuss death and dying with a patient) were different on primary loadings between the educate and communicate dimensions. Items were assigned to the primary dimensions as determined by the factor analyses on the larger current sample as per the decisional protocol previously described.

At this point, a comparison across the item membership for the self-efficacy and importance assessments indicated that item membership was not the same, which had implications for subsequent comparisons across dimensions (see Table 3).

Table 2

Comparison of Factor Structure for the NRSEI Importance Domain for Current and Pilot Studies

	Communicate	Educate	Allow to die
Ask a patient if they have an advance directive.		Current Pilot	
Communicate with a terminally ill patient.		Current Pilot	
Educate a patient about advance directives.		Current Pilot	
Use advance directives to direct end-of-life care.		Current Pilot	
Talk to a patient about end-of-life care.	Pilot	Current	
Take care of a patient when they are dying.		Current Pilot	
Educate a patient about resuscitation.		Current Pilot	
Use a surrogate decision maker when a patient is incapacitated.		Current Pilot	
Discuss d & d with a patient	Pilot	Current	
Withdraw treatment when recovery is not expected.			Current Pilot
Withhold treatment when recovery is not expected.			Current Pilot
Allow a patient to die.			Current Pilot
Discuss end-of-life care early in the patient's treatment plan.	Current Pilot		
Talk to a patient about end-of-life care when they are well.	Current Pilot		
Talk to a patient about end-of-life care when they are acutely ill.	Current Pilot		

Three items differed on whether they loaded as communication items or education items. In all cases, the three items were consistent within each dimension, i.e. they were all consistently communication items for the self-efficacy dimension or all consistently education items for the importance assessment. An examination of their factor loadings indicated that they were more strongly associated with the communication dimension.

Table 3

Factor Loadings for NRSEI Scale

	Communicate	Educate	Allow to die
Ask a patient if they have an advance directive.		SE I	
Communicate with a terminally ill patient.	*SE*.734	*I*.674	
Educate a patient about advance directives.		SE I	
Use advance directives to direct end-of-life care.		SE I	
Talk to a patient about end-of-life care.	*SE*.814	*I*.628* Comm in pilot	
Take care of a patient when they are dying.	SE	I	
Educate a patient about resuscitation.		SE I	
Use a surrogate decision maker when a patient is incapacitated.		SE I	
Discuss death and dying with a patient	*SE*.799	*I*.533* Comm in pilot	
Withdraw treatment when recovery is not expected.			SE I
Withhold treatment when recovery is not expected.			SE I
Allow a patient to die.			SE I
Discuss end-of-life care early in the patient's treatment plan.	SE I		
Talk to a patient about end-of-life care when they are well.	SE I		
Talk to a patient about end-of-life care when they are acutely ill.	SE I		

Note. SE = Self-Efficacy Domain; I = Importance Domain.

Additionally, two of the items had shown primary loadings with communication in the pilot study. Given the need for item membership consistency, the larger factor loads for the communication dimension and the previous pilot sample primary loadings, the decision was to harmonize the item membership by assigning these discrepant items

to the communicate subscale. Item compositions for the self-efficacy and performance assessments are displayed in Table 4.

Table 4

Item Composition for NRSEI Self-Efficacy and Importance Subdomains

Subdomain	Item
Communicate	Communicate with a terminally ill patient.
	Talk to a patient about end-of-life care.
	Take care of a patient when they are dying.
	Discuss death and dying with a patient.
	Discuss end-of-life care early in the patient's treatment plan.
	Talk to a patient about end-of-life care when they are well.
	Talk to a patient about end-of life care when they are acutely ill.
Educate	Ask a patient if they have an advance directive.
	Educate a patient about advance directives.
	Use advance directives to direct end-of-life care.
	Educate a patient about resuscitation.
	Use a surrogate decision maker when a patient is incapacitated.
Allow to die	Withdraw treatment when recovery is not expected.
	Withhold treatment when recovery is not expected.
	Allow a patient to die.

Subsequent subscale score computations based on item composition for the self-efficacy and performance assessments are displayed in Table 5.

Principal axis factor analysis on the Religiosity Measure produced a one-factor solution indicating a homogeneous set of items (Table 6).

In order to compute a total score for the religiosity scale, it was necessary to convert the first question in the scale regarding the number of times the respondent had attended church services in the past year to match the scale used for the rest of the items on the Religiosity Measure (that is, from most to least). Utilizing natural breakpoints (e.g.

equal to or more than once per week = 52 times per year versus less than once per month = less than 12 times per year, the frequencies were grouped according to the schema outlined in Table 7.

Table 5

NRSEI Subscale Score Computations

	N	Minimum	Maximum	Sum	Mean	*SD*
Self-Efficacy						
Communicate	482	7	49	18461	38.30	8.105
Educate	486	5	35	15193	31.26	4.347
Allow to die	479	3	21	7247	15.13	5.107
Importance						
Communicate	478	15	49	20569	43.03	6.078
Educate	485	12	35	15864	32.71	3.365
Allow to die	484	3	21	8218	16.98	4.269

Table 6

Factor Loadings for NRSEI Religiosity Scale

	Factor
During the past year, how often have you experienced a feeling of religious reverence or devotion?	838
How much influence would you say that religion has on the way you choose to act and the way you choose to spend your time each day?	.824
Which of the following comes closest to your belief about God?	.817
When you have a serious personal problem, how often do you take religious advice or teaching into consideration?	.752
Which of the following best describes your practice of prayer or religious meditation?	.739
Which one of the following statements comes closest to your belief about life after death (immortality)?	.582
Do you agree with the following statement: “Religion gives me a great amount of comfort and security in my life?”	.446

Extraction method: Principal axis factoring

Table 7

Computation Schema to Obtain Religiosity Measure Score for Church Attendance

Score	Church attendance
1	> = 52 times per year
2	> = 25 but < 52 times per year
3	> = 12 but < 25 times per year
4	> = 0 but < 12 times per year

To obtain a total religiosity score that was congruent with the scores for self-efficacy and importance (i.e. from least to most), six items were recoded to reverse score them. A total religiosity score was then obtained by adding the score from question one (church attendance) to the total obtained for questions two through eight. A score of 37 is considered the highest score and seven is considered the lowest score. A high score indicates greater religiosity, while a lower score indicates lower religiosity.

Characteristics of the sample

Table 8 describes general socio-demographic characteristics of the sample. These characteristics were compared to data compiled by the Texas Board of Nurse Examiners (BNE) for information collected in 2005 (BNE, 2006).

Figure 2 represents the 451 usable surveys (91.3%) returned by women and the 43 surveys (8.7%) returned by men. This gender demographic compares favorably to the make-up of the registered nurse population in the state (see Figure 3) which is reported to be 90.5% female and 9.5% male.

The average age of study participants was 42.6 years with a standard deviation of 10.9 and a range from 24-years-old to 68-years-old. This compares to an average of 45.7 years of age for Texas RNs. Figure 3 further breaks down the age of the sample,

Table 8

Socio-Demographic Characteristics of Study Participants

Variable	*n*	%
Sex		
Women	451	91.3
Men	43	8.7
Race		
Asian/Pacific Islander	158	32.0
Black	61	12.3
White	227	46.0
Hispanic	40	8.1
Other	7	1.4
Country of origin		
United States	305	61.7
Canada	3	0.6
Philippines	129	26.1
Nigeria	8	1.6
China	4	0.8
India	10	2.0
Other	35	7.1
Belief System		
Agnosticism	11	2.2
Atheism	3	0.6
Christianity	455	92.3
Islam	2	0.4
Judaism	2	0.4
Spiritualism	7	1.4
Other	13	2.6

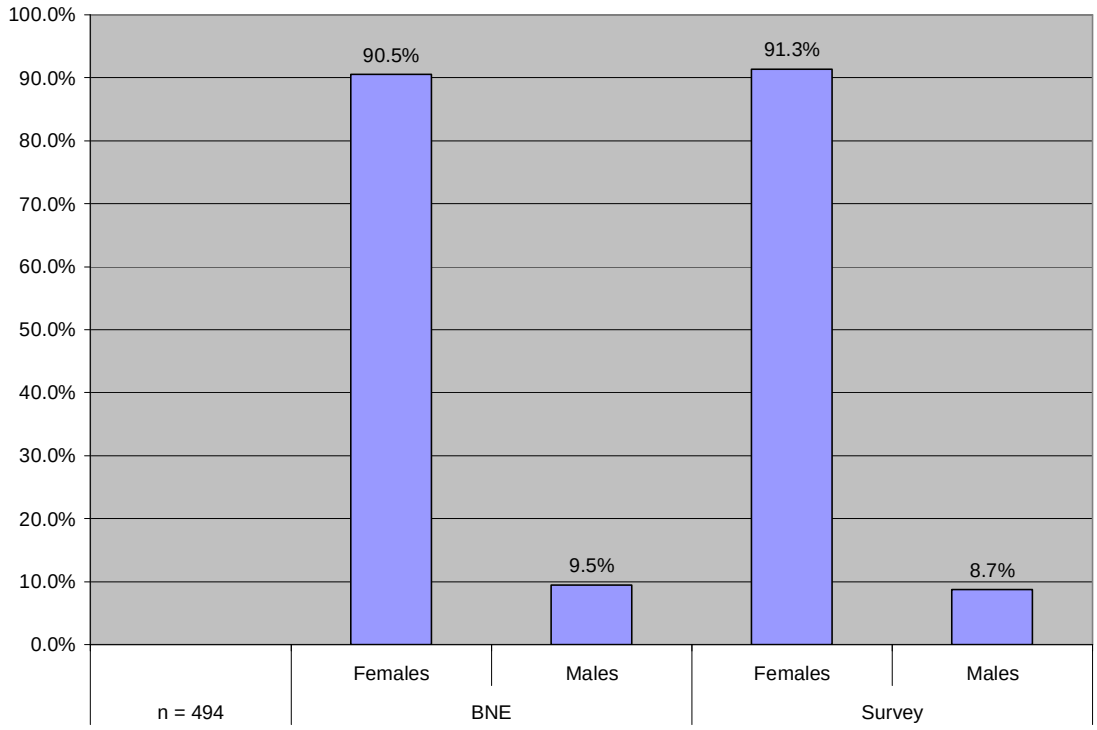

Figure 2. Gender Comparison BNE to NRSEI Survey

comparing it to BNE data over ten year periods beginning at less than 25 years of age up to greater than 65 years old (BNE, 2006). There is a considerable discrepancy in the response rate for those less than 25 (statewide 18.8% of the registered nurse population versus 1.7% of the sample) and over 65 (5% statewide versus 1.1% in the sample).

Ethnicity of the sample is depicted in Figure 4. This sample is notable for the higher response rate of Asian/Pacific Islanders in the sample compared to the BNE rates, as well as lower participation of white nurses.

Table 9 provides information regarding the nursing preparation, country of nursing education, as well as the type of program (public or private) and/or religious or non-religious and years of experience of the sample. The percentage of respondents prepared at the master's degree level is representative of data available from the BNE

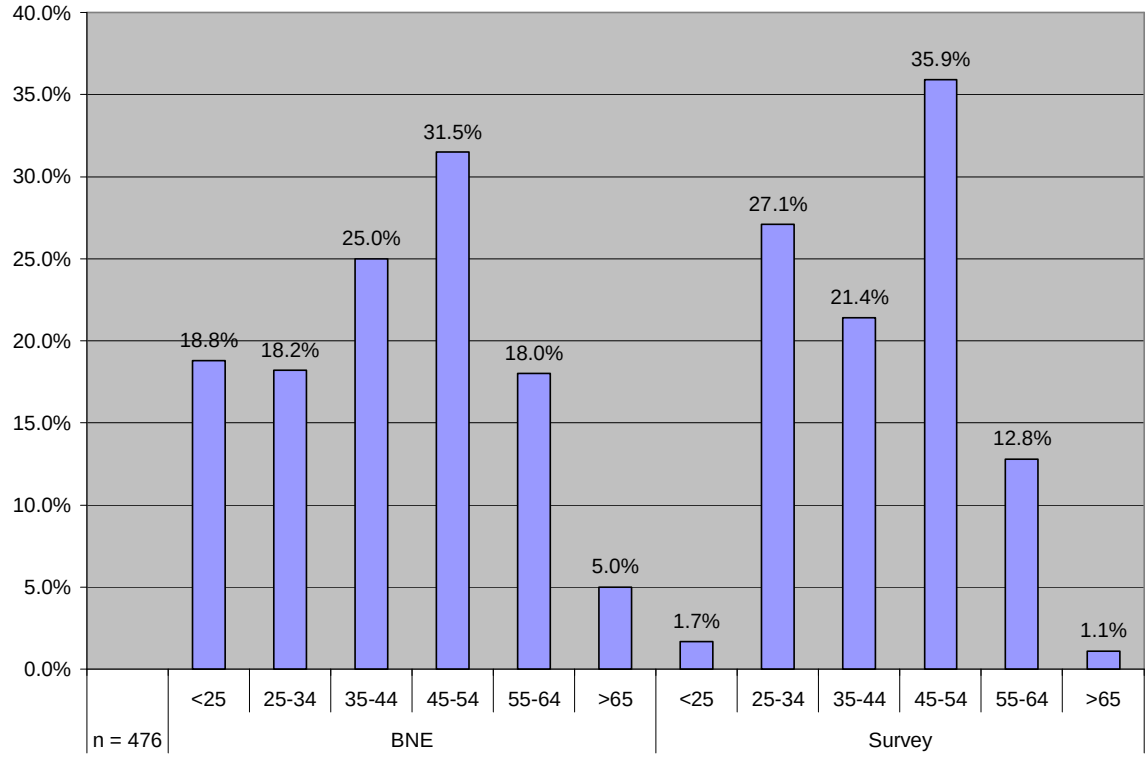

Figure 3. Age Comparison BNE to NRSEI Survey

while nurses prepared at the baccalaureate level reflect the rest of the population that the sample was drawn from. The majority of nurses in the sample were educated in the United States or the Philippines. A large amount of data was missing regarding the type of program attended. The sample had a mean of 15.4 years of experience with a standard deviation of 10.0 and a range of between 2 – 45 years experience.

Figure 5 represents a comparison between the sample's country of origin and the country of education and reveals that the majority of the nurses in the sample were educated in their country of origin.

Preliminary Analysis

Preliminary analysis of the data for all two-level independent variables included calculating t-tests to ascertain whether issues of heterogeneity and nonnormality were present. This was necessary in order to determine the type of data analysis to be used.

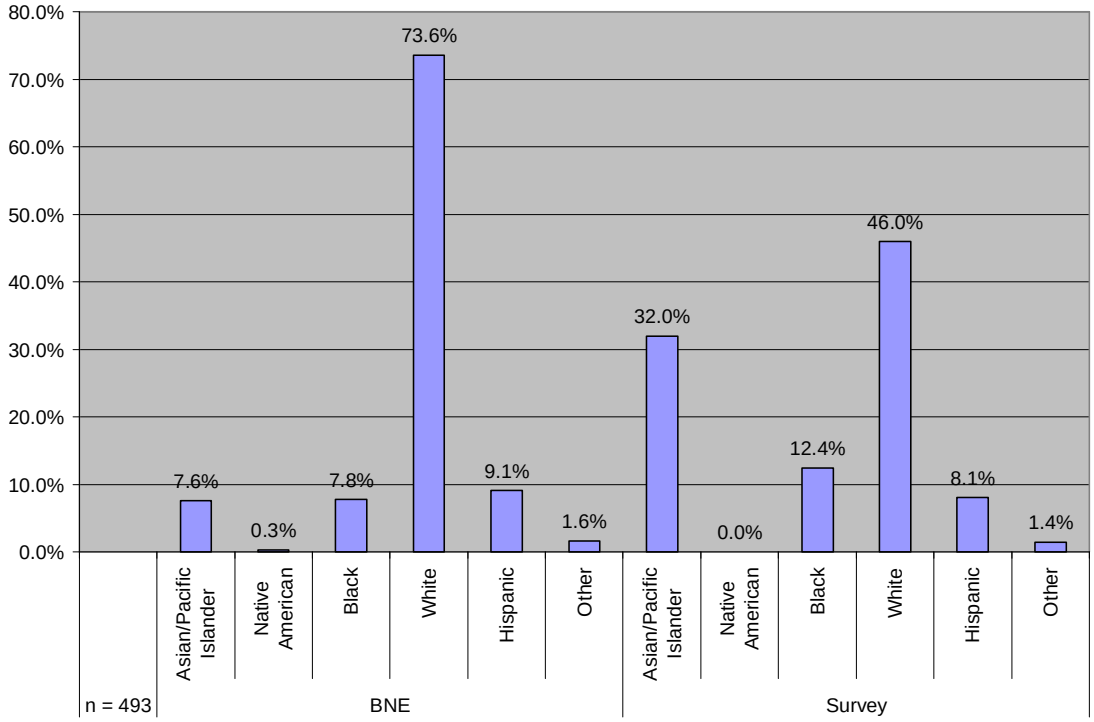

Figure 4. Ethnicity Comparison BNE to NRSEI Survey

Analyses of the six two-level independent variables (a) gender, (b) education [BSN or MSN], (c) type of institution [public or private], (d) type of program [religious or nonreligious], (e) years experience [less than 15 years versus 15 plus year], and (e) belief system [monotheistic versus all others] revealed violations of homogeneity were present on five of the six dependent variables in the study (see Table 10).

Because the homogeneity of variance was not met, an examination of the independent variable by dependent variable comparisons for outliers was necessary, followed by attempts to transform data elements by eliminating outliers. Figure 6 represents outliers.

Table 9

Nursing Demographic Sample Characteristics

Variable	*n*	%
Highest nursing education (*N* = 494)		
Bachelors Degree in Nursing	459	92.9
Masters Degree in Nursing	35	7.1
Country of nursing education (n = 494)		
United States	341	69.0
Canada	2	0.4
Philippines	128	25.9
Nigeria	1	0.2
China	3	0.6
India	8	1.6
Other	11	2.2
Type of institution (*N* = 481)		
Public	327	66.2
Private	154	31.2
Missing	13	2.6
Type of program (*N* = 339)		
Religious	112	22.7
Non-religious	227	46.0
Missing	155	31.4

Given the persistent heterogeneity even after elimination of outliers, a log10 transformation was conducted on a selection variables, but also failed to resolve the problem with heterogeneity. Due to the unresolvable heterogeneity and unequal sample sizes within the levels of the independent variables of interest across all of the dependent variables, the decision was made to utilize two group nonparametric analyses, i.e. Mann

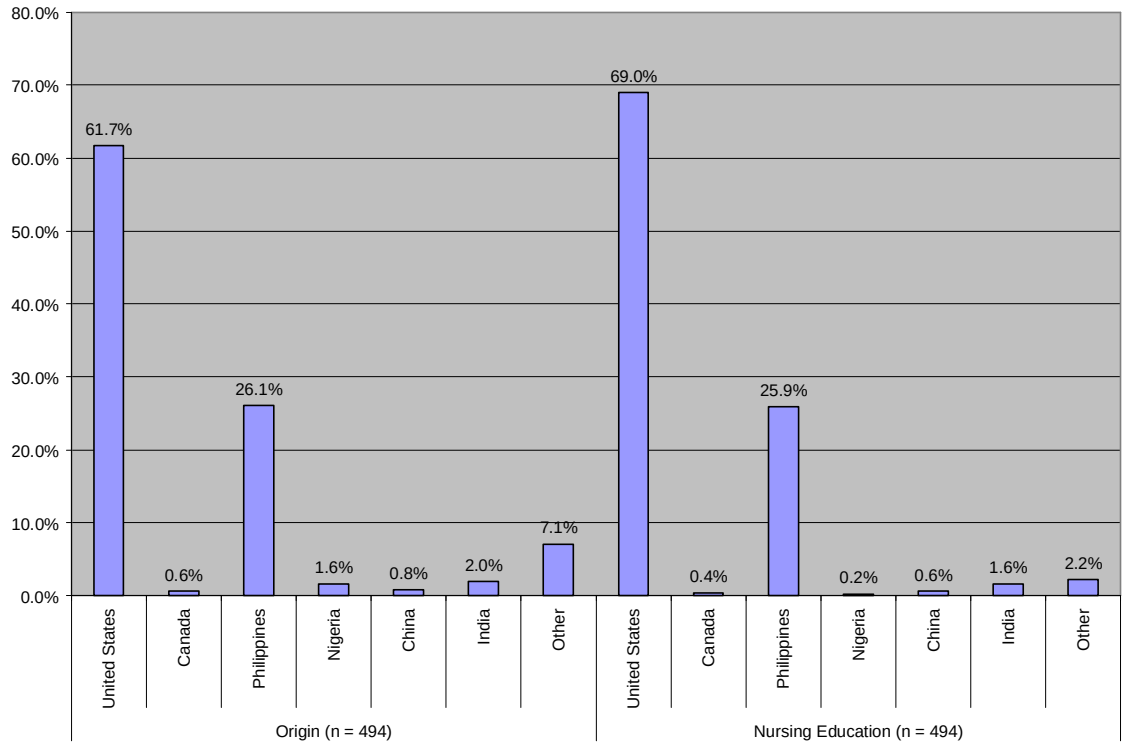

Figure 5. Comparison of Country of Origin and Nursing Education

Whitney U, across all independent variable by dependent variable combinations to test hypotheses three and four, rather than the planned ANOVA.

Religiosity and Perceived Self-Efficacy

Hypothesis 1: There will be a significant positive relationship between degree of religiosity and perceived self-efficacy regarding the three subdomains of care (communication, education, and allow to die) at the end of life.

Table 10

Levene's Test of Homogeneity Values for Two-level Independent Variables

	Gender	Education	Institution	Program	Yrs. Exp.	Belief
Self-Efficacy						
Communicate		.029				.025
Educate					.029	.007
Allow to die					.006	
Importance						
Communicate						
Educate			.000	.000		
Allow to die			.009	.037	.001	.005

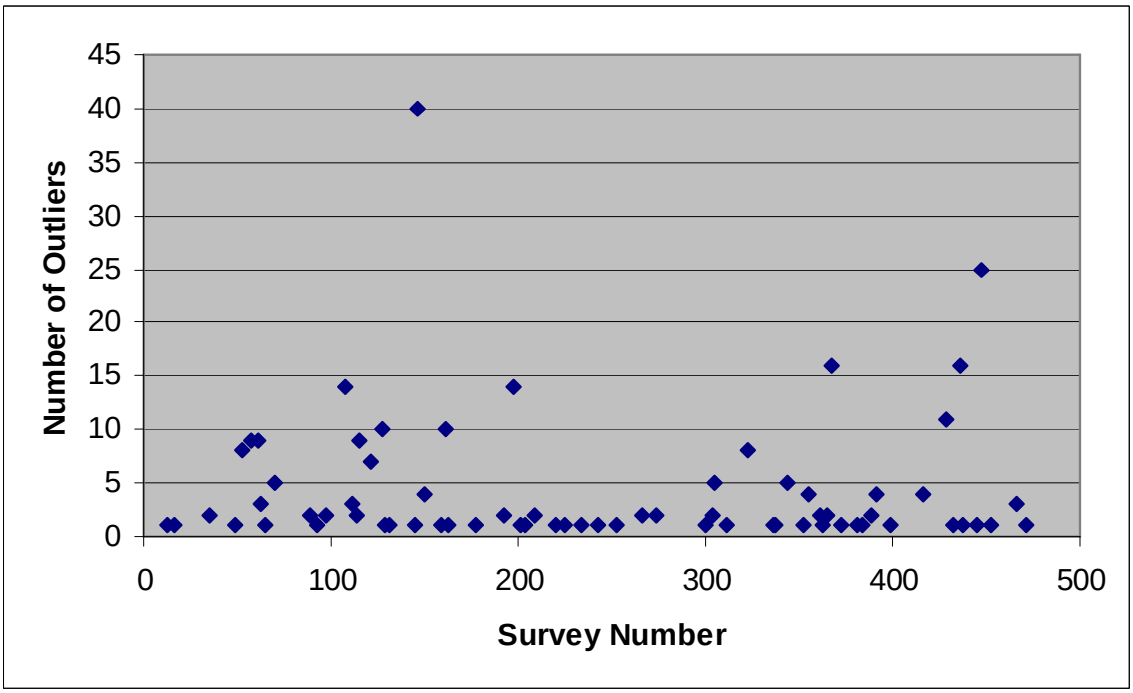

Figure 6. Two-Level Independent Variable Outliers

Pearson's correlations were conducted to analyze the first hypothesis. Descriptive statistics for religiosity and the perceived self-efficacy subdomains (communicate, educate, and allow to die) scores are presented in Table 11.

No relationship was found between the self-efficacy and communicate subdomain of care (r = .052, p = .271). A significant positive correlation (r = .168, p = 0.01) was found between religiosity and self-efficacy regarding educating the patient about aspects of end-of-life care. A significant negative correlation (r = -.201, p = 0.01) was found between religiosity and perceived self-efficacy regarding allowing a patient to die (see Table 12).

Table 11

Descriptive Statistics: Religiosity and the Three Subdomains of Perceived Self-Efficacy

	Mean	*SD*	*N*
Religiosity	30.7	5.8	464
Communicate	38.3	8.1	482
Educate	31.3	4.3	486
Allow to die	15.1	5.1	479

Table 12

Pearson's Correlations: Religiosity and the Three Subdomains of Perceived Self-Efficacy

	Communicate	Educate	Allow to die
Religiosity	.052	.168(**)	-.201(**)
N	453	459	453

** p = 0.01

Thus, the data supports the hypothesis for a positive relationship between religiosity and the self-efficacy/education subdomain of care at the end of life. However, the data do not support the hypothesis for religiosity and the self-efficacy/communication or the self-efficacy/allow to die subdomains of care at the end of life. The negative correlation between the self-efficacy/allow to die subdomain and religiosity implies that as self-efficacy regarding the allow to die subdomain increases, religiosity decreases, suggesting that there is a relationship between lower religiosity and higher perceived self-efficacy in the allowing the patient to die subdomain of care at the end of life.

Religiosity and Importance

Hypothesis 2: There will be no significant relationship between degree of religiosity and importance regarding the three subdomains of care at the end of life.

Descriptive statistics for religiosity and the importance subdomains (communicate, educate, and allow to die) scores are presented in Table 13.

Table 13

Descriptive Statistics: Religiosity and the Three Subdomains of Importance

	Mean	*SD*	*N*
Religiosity	30.7	5.8	464
Communicate	43.0	6.1	478
Educate	32.7	3.4	485
Allow to die	17.0	4.3	484

Correlational analyses between the three importance subdomains showed no significant relationships between religiosity and the importance/communicate and importance/educate subdomains (see Table 14).

Table 14

Pearson's Correlations: Religiosity and the Three Subdomains of Importance

	Communicate	Educate	Allow to die
Religiosity Pearson's Correlation	.033	.057	-.176(**)
N	451	458	455

** $p = 0.01$

There was a significant negative relationship ($r = -.176$, $p = 0.01$) between religiosity and the importance/allow to die subdomain, implying that as importance regarding the allow to die subdomain increases, religiosity decreases. This suggests a relationship between lower religiosity and higher importance in the allowing the patient to die subdomain of care at the end of life.

Religiosity, Perceived Self-Efficacy, and Years of Experience

Hypothesis 3: There are differences in degree of religiosity and perceived self-efficacy related to years of nursing experience.

In order to analyze this hypothesis three subhypotheses were written.

Subhypothesis 3a: There are differences in religiosity related to years of nursing experience.

Subhypothesis 3b: There are differences in perceived self-efficacy (communicate, educate, and allow to die) related to years of nursing experience.

Subhypothesis 3c: There are differences in importance (communicate, educate, and allow to die) related to years of nursing experience.

To investigate hypothesis 3, years of nursing experience was dichotomized into two groups with Group 1 representing nurses with between 2 and 15 years experience. Group 2 was comprised of nurses with greater than 15 years experience. Due to the

aforementioned heterogeneity issues within the sample, a Mann Whitney U test was utilized to analyze the data.

For subhypothesis 3a, results indicated there was a significant difference in the religiosity based on years of experience. Nurses with more experience (> 15 years) scored higher for religiosity while nurses with > = 2 years experience or < = 15 years experience scored lower for religiosity (see Table 15).

Subhypothesis 3b demonstrated significant differences between the groups on the subdomain of perceived self-efficacy and educate, again with more experienced nurses scoring higher on self-efficacy on the self-efficacy/educate subdomain (see Table 15). There were no significant differences between groups on years of experience for self-efficacy/communicate (*N* = Group 1/284, Group 2/198, *U* = 27149, *p* = .520) or for self-efficacy/allow to die were (*N* = Group 1/283, Group 2/196, *U* = 25045, *p* = .069).

There were no significant differences found between the groups for subhypothesis 3c regarding years of experience and importance/communicate (*N* = Group 1/284, Group 2/194, *U* = 26120, *p* = .330), importance/educate (*N* = Group 1/286, Group 2/199, *U* = 26990, *p* = .306); or importance/allow to die (*N* = Group 1/284, Group 2/200, *U* = 26389, *p* = .178).

These results for years of experience indicated that that nurses with more than 15 years experience have higher religiosity and a higher perceived self-efficacy regarding educating patients about aspects of end-of-life care.

Religiosity, Perceived Self-Efficacy, and Belief System

Hypothesis 4: There are differences in degrees of religiosity and perceived self-efficacy related to the belief systems of the nurse.

Table 15

Mann Whitney U Results for Significant Differences Between Years of Experience, Religiosity, and Perceived Self-Efficacy/Educate

	Religiosity		Perceived Self Efficacy/Educate	
	Group 1	Group 2	Group 1	Group 2
Number of cases	270	194	284	198
R	218	253	231	261
U	22270		25053	
z	-2.8		-2.4	
p	.006		.018	

Note. Group 1 were nurses with > = 2 and < = 15 years experience, Group 2 were nurses with experience > 15 years

Similar to hypothesis 3, subhypotheses were written in order to analyze hypothesis 4.

Subhypothesis 4a: There are differences in religiosity related to the belief systems of the nurse.

Subhypothesis 4b: There are differences in perceived self-efficacy (communicate, educate, and allow to die) related to the belief systems of the nurse.

Subhypothesis 4c: There are differences in importance (communicate, educate, and allow to die) related to the belief systems of the nurse.

Hypothesis 4 was investigated by dividing the sample into two groups according to belief systems. Group 1 was comprised of "all other" respondents (who described their belief system as agnosticism, atheism, spiritualism, or other). Group 2 was comprised of all respondents claiming affiliation with a monotheistic belief system (including Judaism, Christianity, or Islam). A Mann Whitney U test was utilized to analyze the data.

Results for subhypothesis 4a indicated there was a significant difference in religiosity based on belief systems. Nurses in the monotheistic belief system group scored higher for religiosity than nurses in the non-monotheistic group (see Table 16).

Subhypothesis 4b showed significant differences between the groups on the subdomain of perceived self-efficacy/allow to die (see Table 16) with higher self-efficacy scores seen in the Group 1, the "all other" belief system group. No significant differences were found between the groups on self-efficacy/communicate subdomain scores (*N* = Group 1/32, Group 2/449, *U* = 6469, *p* = .346) or for the self-efficacy/educate subdomain scores (*N* = Group 1/33, Group 2/452, *U* = 6547, *p* = .232).

Similarly, results for subhypothesis 4c indicated a significant difference between the groups on the importance/allow to die subdomain scores (see Table 16) with higher importance scores in Group 1, the "all other" belief system group. No significant differences were found between the groups for the importance/communicate subdomain scores (*N* = Group 1/33, Group 2/444, *U* = 6708, *p* = .413) or for the importance/educate subdomain scores (*N* = Group 1/33, Group 2/451, *U* = 7382, *p* = .935).

Table 16

Mann Whitney U Results for Significant Differences Between Belief System, Religiosity, Perceived Self-Efficacy/Allow to Die, and Importance/Allow to Die

	Religiosity		Perceived Self-Efficacy/Allow to die		Importance/ Allow to die	
	Group 1	Group 2	Group 1	Group 2	Group 1	Group 2
Number of cases	30	434	33	445	34	449
R	49	245	309	234	300	237
U	1010		5019		5646	
z	-7.8		-3.1		-2.6	
p	.000		.002		.010	

Note. Group 1 = Belief system all others (agnosticism, atheism, spiritualism or other), Group 2 = Belief system monotheistic (Judaism, Christianity or Islam.)

The results for belief system showed that nurses claiming affiliation to monotheistic belief systems have higher religiosity. Nurses who report their belief system as agnosticism, atheism, spiritualism, or other score higher on their perceived self-efficacy regarding aspects of end-of life care for self-efficacy/allow to die and importance/allow to die.

Summary

Comparisons between the factor analysis of study sample data versus pilot sample data revealed differences in factor loading with the communicate and educate subdomains for both the perceived self-efficacy and importance domains. Based on secondary loading scores and fit, a decision was made to assign the outlying items to the communicate subdomain in all cases. This resulted in both the perceived self-efficacy and communication domains containing identical items.

Preliminary analysis of the data revealed substantial violations of homogeneity within the sample and across the dependent variables when compared to the independent variables. After multiple attempts to remedy the problem of variation between the groups without success, a decision was made to pursue nonparametric analyses for hypotheses three and four.

Hypotheses 1 and 2 were analyzed using Pearson's correlations, resulting in the rejection of hypothesis one. Data analysis revealed that there were no significant positive relationships between religiosity and the subdomains of perceived self-efficacy regarding communication and education aspects of care at the end of life. A significant negative relationship was found between religiosity and perceived self-efficacy regarding the

allow to die subdomain, indicating that as religiosity in this sample decreased, perceived self-efficacy increased.

Analysis of hypothesis two resulted in partial rejection. Although no relationship was established between religiosity and the subdomains of self-efficacy for communication and education, a significant negative relationship between religiosity and perceived self-efficacy regarding the allow to die subdomain was found. This finding suggests that as the religiosity of the sample decreased, the importance of aspects of the allow to die subdomain increased.

Hypotheses 3 and 4 consisted of two-level independent variables that were tested for differences against the dependent variables using the aforementioned Mann Whitney U test for nonparametric analyses of independent groups. The results again showed partial rejection of the hypotheses. No differences were found when years of experience were analyzed relative to self-efficacy/communicate, self-efficacy/allow to die, importance/communicate, importance/educate, and importance/allow to die. Significance was found for years of nursing experience regarding religiosity and self/efficacy/educate for nurses with greater than fifteen years experience resulting in higher scores on both of these dimensions.

The analysis for belief system resulted in statistically significant differences for religiosity and the self-efficacy/allow to die and importance/allow to die subdomains for nurses whose belief system was atheism, agnosticism, spiritualism, or other. No differences were found for self-efficacy/communicate, self-efficacy/educate, importance/communicate or importance/educate within this sample.

CHAPTER 5

DISCUSSION

This chapter brings the presentation of this study to closure by further explicating the findings. It offers some insights into the strengths and weaknesses of the study and provides thoughts about future opportunities to research relationships between nurses' religiosity and patient care.

Although dying at home is a commonly held desire, death in America has moved out of homes and into institutions (Robinson, 2004). In 1949, 49.5% of Americans died in hospitals and nursing homes. This number increased steadily until the early 1980s, with estimates that now indicate that approximately 80% of the population will die in a hospital or other healthcare facility (Edmondson, 1997). This trend has been countered by extraordinary efforts not only to improve the care of patients who are dying in healthcare facilities (IOM, 1997, 2003; The SUPPORT Principal Investigators, 1995), but also to establish programs that help Americans deal with the increasingly complicated choices they face both as individuals, and as a society about the end of life.

Nurses have added substantially to the end-of-life care dialogue and have been instrumental in establishing and participating in programs to improve end-of-life care such as the End-of-Life Nursing Education Consortium (Sherman, et al., 2005). Nurses also have been instrumental in the implementation and proliferation of hospice care in the United States (NHPCO, n.d.). Finally yet importantly, nurses have added considerably to the ongoing body of research that seeks better understanding of end-of-life care (Levy, et al., 2005; Rushton, et al., 2004; Wilkie, et al., 2001).

In 2000, at a cost of over $6 million, Bill and Judith Davidson Moyers presented an astounding six hours of documentary television based on two years of research that looked at dying in America (Stein, 2000). The program discussed the fact that death in America is complex for many reasons, not the least of which is that patients are not always clear as to their own wishes for treatment. Additionally, the Moyers' noted that understanding and responding to patients' preferences is especially challenging because of American's multi-cultural society and the different ethnic, religious, and personal values of patients.

This last statement has been clearly explicated by the data collected for this research project. Data from the Texas Board of Nurse Examiners (BNE) indicates that in 2005, 21,751 nurses worked in medical surgical nursing, therefore the sample for this survey represents approximately 10% of the registered nurses working in that specialty (BNE, 2006). In addition to overwhelming consistency in the level of preparation, (92.9% reported a bachelor's degree in nursing), this sample shared a common belief system (92.3% reported affiliation with Christianity). However, examination of the data was complicated due to the problems of heterogeneity that were encountered within the sample. This is extraordinary considering that the sample was drawn from a population that represented over 23,000 registered nurses in the state of Texas, who are baccalaureate or master's level prepared, and who work in the medical surgical nursing specialty. Despite the aforementioned similarities, differences within the groups when analyzed across the dependent variables made parametric analysis impossible.

Socio-Demographic Characteristics

Some of the differences noted in the sample as compared to the socio-demographic make-up of nurses in Texas are logically explained. The under-representation of white respondents (46.0% as compared to 73.6% reported in state statistics for registered nurses) and the preponderance of Asian/Pacific Islander respondents (32.0% of the sample, compared to 7.8% in the State of Texas) is most likely due to the fact that the basic level of preparation in the Philippines (25.9% of the respondents) is the baccalaureate degree (BNE, 2006). Although the American Nurses Association proposed a baccalaureate as the minimum entry into practice level more than forty years ago (ANA Committee on Education, 1965), the preponderance of nurses in the United States are prepared at the diploma or associate degree level (U. S. Department of Health and Human Services [DHHS], 2004).

Educational preparation of nurses at the master's degree levels is congruent with state statistics, which report 6.3% versus the 7.1% in this sample. Statewide, 35.6% of registered nurses (BNE, 2006) hold a baccalaureate versus the 92.9% represented in this sample. Again, these findings are related to the BNE list used for this survey, which specified nurses prepared at the masters or baccalaureate level in nursing.

Less understandable is the difference in age distribution between the sample and the BNE data. Although registered nurses less than 25 years of age make up 18.8% of the population (BNE, 2006), this sample was represented by only 1.7% of nurses in that demographic. The nursing shortage may be implicated as the practice of hiring new graduates directly into intensive care unit settings has, for the most part, eliminated the past requisite for medical surgical experience. Additionally, there may be some

generational influence as evidenced by literature suggesting that this age group may not be as eager or willing to participate in professional nursing activities such as research and other professional undertakings (Wieck, 2002). Additionally, the "mail back" survey is not congruent with the communication media (internet and e-mail) of this generation (Hammill, 2005). Lastly, a lack of experience related to end-of-life care may have led the younger and newer nurse to feel that the content of this survey did not apply to them.

The U.S. Department of Health and Human Services estimates that approximately 3.1% of registered nurses in this country are of Asian/Pacific Islander ethnicity; therefore, the tenfold representation in this sample (32%) is remarkable (DHHS, 2004). This may be related to the previously mentioned effect of baccalaureate educational preparation, as it does not appear to be a pattern associated with immigration. Minority nursing statistics indicate that in addition to the likelihood of preparation at the baccalaureate level, Asian/Pacific Islander nurses are more likely to be employed in the Pacific, Middle Atlantic, and West South Central areas of the country (Minority Nurse.com, n.d.).

Foreign-born nurse representation also differed from national statistics reported in March 2004 that indicate that nurses educated in the Philippines make up 50.2% of the foreign-nurse population, while in this sample they comprise 84.6% of the respondents. Nurses from Canada (0.1%), the United Kingdom (0%), and Nigeria (0.06%), are all underrepresented in this sample as compared to national statistics. Nurses educated in India represent 5.2% of this sample, while nationally they represent 1.3% of foreign-educated nurses (DHHS, 2004).

In general, the respondent's country of origin was also the country of their nursing education. Data to compare the type of institution (private or public) and type of program

(religious or non-religious) is not available for comparison, and the large amount of missing data for type of program (31.4%) renders speculation on the variable moot. It was noted that 54% of those who attended a religious program were of Asian/Pacific Islander ethnicity.

Religiosity and Perceived Self-Efficacy

A positive correlation was found between religiosity and the self-efficacy/educate subdomain of care at the end of life, suggesting that nurses with more religious backgrounds were more confident asking patients if they have an advance directive, educating patients about advance directives, and educating patients about resuscitation.

This positive correlation between religiosity and educating patients about aspects of end-of-life care is supported by nursing literature that discusses holistic assessment, support, and enhancement of the spiritual care of patients (Theis, et al., 2003; Taylor, 2003). The literature also supports the study's finding of higher religiosity with increased self-efficacy regarding educating patients about end of life. Nurses with more than 15 years of experience had higher religiosity scores, and these nurses are among the cohort of nurses who were practicing in 1991. Interestingly, it was during this time that the Patient Self-Determination Act (PSDA) was introduced. In many institutions, nurses were responsible for not only implementing the PSDA, but also for educating patients about the PSDA. During implementation of the PSDA, numerous nursing studies examined the subsequent issues that were encountered. Substantial nursing education and recommendations for addressing patient self-determination was provided for nurses (Hague & Moody, 1993; Hassmiller, 1991; Jezewski & Finnell, 1998; Johns, 1996; Mezey, et al., 1994). Nurses with less than 15 years experience would not have

experienced the sociological phenomena of legislated end-of-life care interventions in the same way.

The connection between the experience, education, and support received by nurses practicing during the implementation of the PSDA to personal mastery and enhancement of self-efficacy is clear (Bandura, 1977). In addition, more experienced (and therefore, older) nurses may have had more experience dealing with patients at the end of life and may be more personally motivated by life experiences, thereby enhancing their self-efficacy.

The negative correlation between religiosity and self-efficacy concerning the allow to die subdomain of care at the end of life suggests that nurses with higher religiosity were less likely to consider themselves able to provide aspects of care at the end of life such as withholding or withdrawing treatment or allowing patients to die. No health care literature was found that examines precisely the same constructs in nursing regarding religiosity, self-efficacy, and allowing a patient to die. There has been, however, some exploration about end-of-life care and physician religiosity that suggests that there is a relationship between religiosity and strong feelings about aspects of end-of-life care. For example, one study found a significant association between religious characteristics and refusal by physicians to provide treatments based on moral grounds, including such things as terminal sedation in dying patients (Curlin, et al., 2007). This suggests a possible connection between the findings in this sample of nurses regarding aspects of care at the end of life that include withholding and withdrawing treatment when recovery is not expected, as well as allowing a patient to die.

The relationship between aspects of end-of-life care and religiosity among physicians also is congruent with another study that reported that very religious (as opposed to moderately religious or secular) Jewish physicians were less likely to believe in withdrawing life-sustaining treatment or approving pain medication if it would hasten death (Wenger & Carmel, 2004). One difference in the study of Jewish physicians was the finding that there was no significance related to withholding treatment; however, the authors of the study noted that very religious physicians were less likely to stop life-sustaining treatments.

Clearly, one of the important findings relative to the present study's significant finding regarding self-efficacy and the allow to die subdomain of care is the research that acknowledges the need for and supports the inclusion of end-of-life care in the national curricula of training programs for nurses and physicians (Sullivan, et al., 2004; Robinson, 2004).

Interestingly there was no relationship between religiosity and the subdomain of perceived self-efficacy that included communicating with patients about end of life. This suggests that the religiosity of nurses does not relate to their ability to talk to patients about end-of-life care when they are well or when they are acutely ill, or to discuss death and dying with their patients. This finding mirrors the findings related to the study of Jewish physicians (Wenger & Carmel, 2004), in that no significant relationship was found between religiosity and communication or a desire for support regarding end-of-life care suggesting the possibility that there is no relationship because communicating with patients is a strong value in both nursing and medicine. The importance of

communication in nursing is supported by models of care that promote holistic patient care (Taylor, 2003; Theis, et al., 2003; Warner, 2005).

Religiosity and Importance

Interpretation of the data for the second hypothesis in the study indicates that for this sample there was no difference on the religiosity measure for the importance subdomains of communication and education. Again, this finding is supported by literature that discusses nursing's holistic approach to patients needs (Taylor, 2003; Theis, et al., 2003; Warner, 2005) and may also be implicated by the broad public knowledge regarding issues that surround the state of end-of-life care in the United States (IOM, 1997, 2003; Stein, 2000). Additionally, the relationship to wide understanding within the nursing community regarding their ethical, professional, and legal responsibilities relative to end-of-life care is suggested (ANA, 2001, 2003; Wright, 1998).

In contrast to the findings for self-efficacy which found greater self-efficacy on the education subdomain among Group 2 (i.e. nurses with more experience), it is interesting to consider the recent experience of the generation represented by Group 1 (i.e. nurses with greater than 2 years, but less than 15 years) and the case of Terry Schiavo. In 2005, national attention brought the controversy regarding her end-of-life care to the forefront of healthcare for some of the same issues that more experienced nurses dealt with a generation ago. A case can be made that these controversial, nationally publicized end-of-life cases have a connection to universal importance regarding communicating and educating about end-of-life care.

The negative relationship between religiosity and the importance of allowing the patient to die is more than likely the result of the same phenomenon that were addressed in the discussion of self-efficacy and the allow to die subdomain of care at the end of life. That is, the previously mentioned research conducted by physicians that suggests that there is a relationship between religiosity and strong feelings about aspects of end-of-life care, particularly regarding the withholding or withdrawal of treatment (Curlin, et al., 2007; Wenger & Carmel, 2004).

Religiosity, Perceived Self-Efficacy, Importance, and Years of Experience

The third hypothesis in this research study suggested that there would be differences in religiosity, perceived self-efficacy, and importance of aspects of end-of-life care related to years of nursing experience. The subhypothesis regarding years of experience was significant for religiosity and the self-efficacy/educate subdomain of end-of-life care, with more experienced nurses scoring higher. The differences associated with religiosity and years of experience that indicate that more experienced nurses are more religious may be related to broader sociological phenomena that reveal increased religiosity in older Americans (Butler, Koenig, et al., 2003). In addition to data that suggests that religiosity increases with age (Argue, Johnson, et al., 1999), are findings that suggest a relationship between people who are already religious who then turn to religion for comfort, hope, and support when they are ill (Butler, et al., 2003).

Findings related to higher scores on the self-efficacy/educate subdomain based on years of nursing experience are most likely related to the previously discussed experience during the implementation of the Patient Self-Determination Act, which resulted in increased awareness and education about this aspect of end-of-life care. Similarly, the

fact that there were no differences between years of experience on the self-efficacy/communicate dimension may be related to the fact that nursing education has focused on a holistic approach to the care of patients (Taylor, 2003; Theis, et al., 2003; Warner, 2005).

No differences between groups were found regarding perceived self-efficacy and communicating with patients or allowing patients to die. The finding that there was no significant difference in the groups regarding years of experience and self-efficacy/allow to die is more complex. Based on the self-efficacy literature, one would expect that experience would count. Obviously, this lack of difference between the groups is confounded by the previously discussed relationship between increased experience and higher religiosity. A possible explanation may mirror published research regarding the Caring Efficacy Scale (CES). The CES assesses belief in one's ability to express a caring orientation and to develop caring relationships with patients (Coates, 1997). In one of the two studies reviewed (Sadler, 2003), the researcher found that there were no statistical differences in caring-efficacy between pre-nursing students and graduate nursing students, leading to the postulation that something other than the nursing curricula was responsible for the development of caring-efficacy. Sadler noted that written comments provided by the students attributed their caring behaviors to things such as parental influences and life experiences. The possible relationship between caring efficacy and self-efficacy regarding the allow to die subdomain could support that allowing the patient to die is influenced by similar mediators, therefore the finding that years of experience are not significant would make sense. The second CES study reviewed (Manojlovich, 2005) supports this conjecture in that it found a strong relationship between self-efficacy

and professional practice behaviors that were linked not only to environmental factors, but also to personal factors.

Religiosity, Perceived Self-Efficacy, Importance and Belief Systems

The fourth hypothesis in this study suggested that there would be differences in religiosity, perceived self-efficacy, and importance related to the belief systems of the nurse. For the purposes of this study, belief systems were defined as "all other" (i.e. agnosticism, atheism, spiritualism, or other) and monotheistic (i.e. Judaism, Christianity, or Islam). The subhypothesis regarding belief systems was significant for religiosity and the self-efficacy/allow to die and importance/allow to die subdomains. No differences between belief system groups were found regarding the self-efficacy/communicate, importance/communicate, self-efficacy/educate, and importance/educate subdomains of end-of-life care.

The significant finding regarding differences in religiosity and belief systems with monotheistic nurses scoring higher in regard to religiosity illuminates the findings in the literature, which suggest that religiosity is comprised of attributes that can be measured by examining religious affiliation, religious beliefs, and religious practices. This finding further supports the concept of religiosity which suggests that there is considerable consistency related to a definition of religiosity that includes (a) religious affiliation (e.g., Protestant, Catholic, Jewish), (b) religious beliefs (e.g., relationship with a higher power, believing in the religious scriptures of a belief system), and (c) religious activities (e.g., praying or church attendance; Baldacchino & Draper, 2001; Benzein, et al, 1998, Chen, et al, 2004, Kendler, et al, 1997; Koenig, et al, 2004; Miller, et al, 1997; Oyama & Koenig, 1998).

The differences found between perceived self-efficacy/allow to die and importance/allow to die belief systems with higher self-efficacy and importance scores for the "all other" belief system group further supports the previous discussion regarding associations between higher religiosity and strong feelings about certain aspects of end of life. The lack of difference between the belief system groups for the self-efficacy/communicate and self-efficacy/educate draws again on the self-efficacy literature, specifically the aforementioned study (Coates, 1997) that examined self-efficacy concerning caring orientation, attitude, behavior, and ability to establish relationships with patients. Studies conducted using a caring-efficacy tool showed no differences between pre-nursing students and graduating students, suggesting that other elements affected caring behaviors (Sadler, 2003). This may well be the case in regard to aspects of belief systems and self-efficacy regarding communicating and educating patients about aspects of end-of-life care.

Findings of no difference between belief systems and the importance/communicate and importance/educate subdomains of end-of-life care mirror those that have been discussed previously in this chapter. It appears that belief systems do not make a difference regarding recognition of the importance of communicating with and educating patients about aspects of care at the end of life. These are aspects of care that reflect both the nursing community and the community at large and can be influenced by a nursing's approach to patients that focuses on holistic care. Additionally, national standards (ANA, 2001, 2003) and media-related publicity (IOM, 1997, 2003; The SUPPORT Principal Investigators, 1995) about these issues may be reflected here.

Summary

The final chapter of this dissertation discussed the results of the study in the context of the literature presented. A possible explanation was provided for all findings, regardless of their significance. The discussion revealed the pertinence of the assertion in the introduction to this dissertation about the complexities that surround end-of-life care in the United States. It added further to the still unanswered questions about the consequences of the diverse cultural, ethnic, and religious experiences between health care providers and health care receivers and end-of-life care.

This study has added to the healthcare research that explores aspects of patient care, finding striking relationships between aspects of end-of-life care and religiosity. Furthermore, it found that there were differences between groups of nurses based on years of experience and belief systems. In addition to significant positive findings regarding perceived self-efficacy and the importance of aspects of end-of-life care were troubling significant findings regarding the allow to die subdomain of care at the end of life that indicated a significant relationship between religiosity and a decreased perceived self-efficacy and decreased importance placed on aspects of end-of life care.

Strengths and Weaknesses

The overarching strength of this research is that it attempts to fill a largely unexplored facet of the nurse-patient relationship. It is provocative in that it raises more questions than it answers, particularly related to whether the inherent differences within belief systems (e.g. differences between Christians who are Catholic versus Baptist) as it applies to religiosity make a difference. As suggested in the literature review section of this chapter, there is a large body of evidence that suggests that from the societal,

healthcare, and personal perspectives, we have not yet gotten end-of-life care right. Continued exploration of end-of-life issues by nurses and other healthcare providers is a societal obligation.

The weaknesses of the study started with the fact that no instrument existed to measure nursing self-efficacy and the importance of aspects of end-of-life care. Furthermore, there are a large number of instruments that measure many aspects of religiosity. Diversity within the sample that does not reflect nurses practicing in Texas is an additional flaw. In addition to perhaps the most overwhelming issue, that is the lack of religious diversity among the respondents, is the question that is raised regarding diversity within belief systems that may have affected participant responses. Individual interpretation of the items in the survey is also a weakness.

Recommendations for Future Research and Nursing Implications

Although future research must certainly focus on the issue explored in this dissertation, there are a number of other questions that were raised as this study progressed. One question was in regard to the preparation that nurses have regarding cultural end-of-life norms for the population they serve: a heady question given not only the increasing levels of immigration and foreign-born nurses, but also issues of regionalization within the United States (e.g., the Bible Belt of the south and the Church of Jesus Christ of Latter-day Saints in Utah).

Another aspect of patient care that must surely be addressed is the issue of nurse proselitization. While conducting this research there were overwhelming concerns raised by colleagues and lay people who reported that they or someone they knew were the

unwilling recipients of religiously based interventions performed by nurses such as prayer, performing last rites, and baptism.

Implications for nursing include not only the obvious need for further research about the opportunities and obstacles that religiosity presents relative to end-of-life care. Although exploration of issues of regarding assessment, intervention, and understanding the patient's goals regarding end-of-life care have been well articulated, both in the literature and in national reports, it not yet clear that headway has been made regarding actualizing them. Highly important is the continued drive to include meaningful programs in both schools and healthcare facilities, addressing not only the education but also the ongoing orientation of nurses who will be involved in the care of patients at the end of life.

Lastly, but perhaps more importantly are questions that are raised and must be answered regarding whether findings such as those outlined in this dissertation actually affect the experience of the dying patient.

Conclusion

This study has further supported the body of literature that suggests that end-of-life care is complex and multidimensional. It has provided findings that show significant relationships between religiosity, self-efficacy and the importance that nurses' report regarding end-of-life care – as well, it has raised questions about the relationships between religiosity and perceived self-efficacy and importance that nurses in this sample report regarding end-of-life care. It has demonstrated that there are differences in nurses based on years of nursing experience and belief systems. Finally, it has shown the need for ongoing research that investigates aspects of nursing and end-of-life care.

Appendix A

Belief Systems and Patient Care: An Examination of the Relationship between Nurse Religiosity and End-of-Life Care

Dear Registered Nurse:

I am a Nursing PhD student at the University of Texas Medical Branch in Galveston. I am conducting a research study for my dissertation entitled, *Belief Systems and Patient Care: An Examination of the Relationship between Nurse Religiosity and End-of-Life* Care. The purpose of the study is to determine if there are any relationships between nurse religiosity, perceived self-efficacy, and the importance placed on aspects of care provided to patients at the end of life.

I have enclosed two surveys and a demographic data form that I hope you will take the time to complete and return to me. It should take approximately fifteen to twenty minutes to complete both forms. In my experience, I have seen nurses express their concern about factors that affect the care that we provide to patients at the end of life. I hope that information generated about religiosity and end-of-life care will reveal valuable details that will enhance nursing practice.

Returning the completed surveys to me will constitute consent to participate in the research project. Your replies will be anonymous and only you will know how you have answered the surveys, so please be candid and honest.

I have enclosed a self-addressed, stamped envelope. When you have completed the surveys, simply seal them in the envelope and place it in a mailbox. Please do not put any identifying information on the survey or the envelope.

I sincerely appreciate your assistance with this project.

Yours truly,

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Appendix B

NRSEI – Demographic Data

1. Gender _____ F _____ M

2. Age _____

3. Highest Nursing Education (choose only one)
   _____ Diploma in Nursing
   _____ Associate Degree in Nursing
   _____ Bachelors Degree in Nursing
   _____ Masters Degree in Nursing
   _____ Doctorate in Nursing

4. Years experience as a registered nurse _____

5. Race (choose only one, if more than one, use other to describe)
   _____ Asian/Pacific Islander
   _____ Native American
   _____ Black
   _____ White
   _____ Hispanic
   _____ Other (describe) _____

6. Country of origin (choose only one)
   _____ United States
   _____ Canada
   _____ Philippines
   _____ Nigeria
   _____ China
   _____ India
   _____ Other (name) _____

7. Belief System (choose only one):
   _____ Agnosticism
   _____ Atheism
   _____ Christianity
   _____ Islam
   _____ Judaism
   _____ Spiritualism
   _____ Other (describe) _____

Appendix C

NRSEI Survey #1 – This survey evaluates your perceptions about end-of-life care.
Directions:

To the left of each statement circle the number that best represents how confident you are about your ability to perform the activity.
To the right of each statement circle the number that best represents how important it is to you.

How sure are you that you can perform the following activities?		How much do the following activities matter?
Not at all sure → very sure		Not very important → very important
1 ... *7*		*1* ... *7*
1 2 3 4 5 6 7	1. Discuss death and dying with a patient.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**2. Communicate with a terminally ill patient.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	3. Talk to a patient about end-of-life care.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**4. Take care of a patient when they are dying.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	5. Withhold treatment when recovery is not expected.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**6. Educate a patient about advance directives.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	7. Educate a patient about resuscitation.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**8. Ask a patient if they have advance directives.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	9. Use advance directives to direct end-of-life care.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**10. Use a surrogate decision maker when a patient is incapacitated.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	11. Talk to a patient about end-of-life care when they are acutely ill.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**12. Talk to a patient about end-of-life care when they are well.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	13. Discuss end-of-life care early in a patient's treatment plan.	1 2 3 4 5 6 7
1 2 3 4 5 6 7	**14. Withdraw treatment when recovery is not expected.**	**1 2 3 4 5 6 7**
1 2 3 4 5 6 7	15. Allow a patient to die.	1 2 3 4 5 6 7

Appendix D

NRSEI Survey #2 – This scale is a measure of your religious beliefs and practices.

Please write in the space provided your response to this question.

1. How many times have you attended religious services during the past year?

   _____times

Please check the box that best describes your response to the following questions.

2. Which of the following best describes your practice of prayer or religious meditation?

   ☐ Prayer is a regular part of my daily life.
   ☐ I usually pray in times of stress or need but rarely at any other time.
   ☐ I pray only during formal ceremonies.
   ☐ I never pray.

3. When you have a serious personal problem, how often do you take religious advice or teaching into consideration?

   ☐ Almost always
   ☐ Usually
   ☐ Sometimes
   ☐ Never

4. How much influence would you say that religion has on the way you choose to act and the way that you choose to spend your time each day?

   ☐ No influence
   ☐ A small influence
   ☐ Some influence
   ☐ A fair amount of influence
   ☐ A large influence

5. Which of the following comes closest to your belief about God?

   ☐ I am sure that God really exists and that He is active in my life.
   ☐ Although I sometimes question His existence, I do believe in God and believe He knows of me as a person.
   ☐ I don't know if there is a personal God, but I do believe in a higher power of some kind.
   ☐ I don't know if there is a personal God or a higher power of some kind, and I don't know if I ever will.
   ☐ I don't believe in a personal God or in a higher power.

6. Which one of the following statements comes closest to your belief about life after death (immortality)?

   ☐ I believe in a personal life after death, a soul existing as a specific individual spirit.
   ☐ I believe in a soul existing after death as a part of a universal spirit.
   ☐ I believe in a life after death of some kind, but I really don't know what it would be like.
   ☐ I don't know whether there is any kind of life after death, and I don't know if I will ever know.
   ☐ I don't believe in any kind of life after death.

7. During the past year, how often have you experienced a feeling of religious reverence or devotion?

   ☐ Almost daily
   ☐ Frequently
   ☐ Sometimes
   ☐ Rarely
   ☐ Never

8. Do you agree with the following statement? "Religion gives me a great amount of comfort and security in my life."

   ☐ Strongly disagree
   ☐ Disagree
   ☐ Uncertain
   ☐ Agree
   ☐ Strongly Agree

   Thank you for completing these two surveys.
   Please put them in the self-addressed stamped enveloped that was provided and place in the mail.

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