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Senior nursing students' knowledge, attitudes, and confidence with end-of-life care

Blanca E. Miller
Nova Southeastern University

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SENIOR NURSING STUDENTS' KNOWLEDGE, ATTITUDES, AND CONFIDENCE WITH END-OF-LIFE CARE

Presented in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy in Nursing Education

Nova Southeastern University

Blanca Miller
2016

NOVA SOUTHEASTERN UNIVERSITY
HEALTH PROFESSIONS DIVISION
COLLEGE OF NURSING

This dissertation, written by Blanca Miller under direction of her Dissertation Committee, and approved by all of its members, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF PHILOSOPHY IN NURSING EDUCATION

DISSERTATION COMMITTEE

12/09/2016

Cynthia Fletcher, PhD, RN Date

Chairperson of Dissertation Committee

12/09/2016

Blondel Martin, PhD, RN Date

Dissertation Committee Member

12/09/2016

Olcay Akman, PhD Date

Dissertation Committee Member

NOVA SOUTHEASTERN UNIVERSITY
HEALTH PROFESSIONS DIVISION
COLLEGE OF NURSING

Certification

We hereby certify that this dissertation, submitted by Blanca Miller, conforms to acceptable standards and is fully adequate in scope and quality to fulfill the dissertation requirement for the Doctor of Philosophy in Nursing Education degree.

Approved:

Eglintine Rigaud 12/19/16

Eglintine Rigaud, PhD, ARNP, WHNP-BC
Assistant Professor
Program Director PhD & DNP Programs
College of Nursing

Date

Marcella Rutherford 12/9/16

Marcella Rutherford, PhD, MBA, MSN
Dean, College of Nursing

Date

Abstract

Background: Advance directives allow patients to put in writing the type of health care they want if they are unable to make decisions due to their medical condition.

Purpose: The purpose of this study was to determine if there were differences in senior nursing students' knowledge, attitudes, and confidence based on when the information is positioned in the curriculum.

Theoretical: Social cognitive learning theory and Zimmerman's self-regulation model provided the theoretical framework.

Methods: This study reflected a non-experimental, exploratory design, with a convenience sample of senior nursing students from 2 different nursing programs in central Illinois. One program offers advance directive education in the first year and the other program offers the information in the second year. A total of 131 students participated in the study that used subscales of the Knowledge, Attitudinal, Experiential Survey on Advance Directives.

Results: The group that received the information the second year rated themselves as having more confidence with advance directives. However, both groups scored low in the area of knowledge of advance directives, the Patient Self-Determination Act, and Illinois law. Students who reported higher knowledge levels had higher attitudes about end-of-life care. There was no difference in attitudes between the two groups.

Conclusion: The results of this study highlight the need to review nursing curricula specifically relating to end-of-life care content and its placement in the curriculum.

Acknowledgements

This dissertation could not have been accomplished without the guidance of my Chair, Dr. Cynthia Fletcher, and Committee Members, Dr. Blondel Martin and Dr. Olcay Akman. Thank you for what you have taught me during this journey. To my wonderful husband, Eric, I could not have completed this without your love and support. Thank you for encouraging me, keeping me motivated, supporting me during my ups and downs in this journey, and taking on more at home and with the boys so that I could complete this. To my boys, Grant and Gavin, thank you for your love, support, encouragement, and understanding when I needed to work on my dissertation. To my wonderful colleague and friend, Dr. Elaine Hardy, thank you for lending your ear, being supportive, telling me to “just breathe” and motivating me to finish. I could not have done this without you. To my personal trainer, Mark Dick, thank you for keeping me in check and ensuring I continued to physically take care of myself during this dissertation journey, even though there were many times I didn’t feel like working out. I have never been in better shape. Thank you to my colleagues at Mennonite College of Nursing at Illinois State University for encouraging me to finish and asking how my dissertation was coming along.

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Chapter One

Every individual has the right to control his or her healthcare and end-of-life care. Individuals want autonomy when it comes to their healthcare and want to decide not to suffer or place an emotional burden on their loved ones (Hendry et al., 2012; Institute of Medicine [IOM], 2010). If a person becomes unable to make decisions, an advance directive may remove the burden from his or her family and/or significant others of having to make critical decisions on how and when life should end for their loved one. Even though advance directive forms are available, most people are unaware that completion of these forms allows them control over the type of healthcare and end-of-life care they wish to receive if they become incapacitated (del Pozo Puente et al., 2014).

Society may be able to contain the cost of rising healthcare due to technological and medical advancement, an aging population, and a rise of chronic illnesses if patients plan for unexpected healthcare situations or end-of-life care and have an advance directive completed that is followed by families and healthcare professionals (Brown & Vaughan, 2013; Gardner, 2012; Hendry et al., 2012, IOM, 2010; Steinberg, 2014).

Although healthcare providers and institutions give patients advance directive forms, completion rates are low. Advance directive completion rates currently range from 18% to 31% (Cohen & Nirenberg, 2011; Rao, Anderson, Lin, & Laux, 2014; Wenger, Asakura, Fink, & Oman, 2012). Barriers resulting in the low completion rates include (a) lack of knowledge regarding the role and content of advance directives; (b) the assumption family members know what kind of care an individual wants if a serious illness occurs at the end of life; (c) discomfort, sadness, or anxiety discussing dying; (d) the belief that if an individual is healthy, there is not a need for an advance directive; (e) a preference of letting nature decide what will happen; (f) difficulty with completing the advance directive forms; (g) the physician may elect not to talk about advance directives or may not have the time to talk about them; (i) if advance directives are discussed with loved ones or the physician, something bad might happen; (j) lack of knowledge about the process of completing an advance directive; (k) lack of knowledge about state law requirements; (l) difficulty deciding what type of healthcare and end-of-life care is wanted due to the various options and possibly complex situations that can occur; and (m) the fear that if an advance directive is executed, treatment may be withheld and aggressive treatment may not be done (House & Lach, 2014; Rao et al., 2014; Schickedanz, et al., 2009).

The Patient Self-Determination Act ([PSDA] 1990) requires all healthcare facilities and/or providers receiving Medicare and Medicaid to (a) ask patients about the existence of an advance directive; (b) provide written information to patients about the rights to accept or refuse medical or surgical treatments/procedures following state law; (c) give patients the option to complete an advance directive; (d) document advance directives in patients’ records; (e) educate staff, caregivers, patients, and communities on advance directives; (f) prevent discrimination of care for or against patients with an advance directive; and (g) establish and communicate policies about advance directives to staff, caregivers, and patients (Watson, 2010).

Although the PSDA allows patients to voice their right to accept or refuse medical treatment, because of the 1990 passage of the Patient Self-Determination Act H.R. 5067 bill, Congress has left it up to individual states to decide how to control this for patients who are incapable of making decisions (Clark, n.d.; Larson & Eaton, 1997). If advance directive state laws are stricter than the Centers for Medicare and Medicaid Services (CMS) laws, CMS expects facilities to follow their state laws (DeJohn, 2013).

The advance directive law of each state includes a definition of what is considered patient incapacitation in order to execute the advance directive. The definition of incapacitation varies among states. In addition, all state laws include statements of treatments individuals can refuse, protocols in place for ensuring a patient is truly incapacitated, and guidelines for who qualifies to make decisions on the patient’s behalf (Anderson, 2012; Clark, n.d.; Olick, 2013).

An advance directive provides individuals with a variety of medical care choices from which they can choose should they become unable to make their own medical decisions. Patients can also appoint someone in an advance directive to be their power of attorney for healthcare. Although people are concerned about end-of-life care and dying, public polls show people are uncomfortable with discussing end-of-life care and dying when it pertains specifically to them. Yet, when it comes to general questions to society, most people support legalizing euthanasia (Brown & Vaughan, 2013; Donley & Danis, 2011; Gardner, 2012). People want autonomy when it comes to quality of life, relief from pain and suffering, and relief for their loved ones from the financial stressors that may occur from the high cost of care, yet they find end-of-life care difficult to discuss when it pertains to them (Brown & Vaughan, 2013; Donley & Danis, 2011; Gardner, 2012).

Nurses are responsible for and consider patient education to be an important part of daily patient care (Friberg, Granum, & Bergh, 2012). The American Nurses Association ([ANA] 2015) expects nurses to encourage advance care planning among patients. The ANA code of ethics for nurses requires nurses to provide patient education on advance care planning and be knowledgeable to discuss the different types of advance directive forms. The ANA also expects nurses to perform interventions that focus on pain relief and symptom management when providing care to a dying patient. Physicians are usually the ones to begin the conversation with patients and families about advance directives and end-of-life decision making; however, the more in-depth conversation is often completed by nurses. Nurses are left to discuss this sensitive topic with patients and families, usually during less than ideal circumstances (Giovanni, 2012). Nurses must initiate and promote advance directive discussion and provide a comfortable environment for discussing advance directives with patients and their families. Barriers that keep patients from executing advance directives will be broken down because patients will be comfortable discussing advance directives, thus putting patients in charge of their own healthcare and end-of-life care (Gardner, 2012; Giovanni, 2012; Jezewski et al., 2005).

Advance Directives and End-of-Life Care in Nursing Education

The American Association of Colleges of Nursing ([AACN] 2008) *Essentials of Baccalaureate Education for Professional Nursing Practice* recommended improving end-of-life curriculum content. Curriculum changes must provide nursing students with the knowledge needed to improve end-of-life care, decrease futile care, and address shortcomings or inconsistencies in nursing curricula.

Connell and Mallory (2007) stressed the importance of nursing programs improving advance directive education to prepare students with the information needed to properly discuss this critical topic with patients and families. Connell and Mallory (2007) believed leaving healthcare organizations to provide advance directive education to practicing entry-level nurses comes much too late. Nursing education must be responsible for introducing advance directives early on in programs and building on the knowledge imparted in coursework regarding this topic learned each semester as students progress through their program (Connell & Mallory, 2007; Jezewski, Meeker, & Schrader, 2003). The ANA (2015) *Code of Ethics with Interpretive Statements*, Provision 1.4, “The Right to Self-Determination,” expects nurses to be engaged in education because of the experience and knowledge they have regarding end-of-life care.

The literature search showed that end-of-life care content is placed throughout curricula or at the end, with few stand-alone courses offered in nursing programs. Currently, there is no consistency among nursing programs when it comes to placement of end-of-life care information (Bosek, 2007).

Advance Directives in Nursing Practice

The ANA (2015) *Code of Ethics with Interpretative Statements* discusses provisions that nurses ought to use to guide them on formulating decisions that ensure safe, quality, and ethical care to patients. Provision 1.4 of the code addresses the right to self-determination and patient advocacy. The role of the nurse is to advocate for every individual to ensure that the right to self-determination is upheld, which includes cultural and spiritual beliefs. The nurse must be well informed about end-of-life care to ensure patients understand the decisions they make and the consequences of them. In order to accomplish patient understanding of decisions and their consequences, the nurse must be knowledgeable about moral and ethical rights and state and federal laws related to end-of-life care. Nurses must be able to answer questions asked by patients and family members and clarify confusing and/or conflicting information. If the patient becomes incapacitated and has appointed a healthcare surrogate to make decisions, the nurse must confer and support the healthcare surrogate with decision making. The nurse has a moral obligation to ensure the healthcare surrogate makes decisions based on the patient's wishes. In case the patient is incapacitated and there is no appointed surrogate, the nurse must advocate that decisions made are what is best for the patient and that their values are upheld (ANA, 2015).

Nurses must be knowledgeable about advance directives to fulfill the ANA (2015) *Code of Ethics with Interpretative Statements* and provide ethical care to patients. The ANA (2015) expects nurses to participate in improving end-of-life care practice for patients because of the knowledge and experience they have in this area. Without proper knowledge, nurses are unable to provide patients with the accurate information needed to make important healthcare decisions. Lack of knowledge about advance directives may lead to poor patient outcomes and unnecessary suffering (Duke, Yarbrough, & Pang, 2009; Walerius, Hill, & Anderson, 2009).

Advance Directives in Nursing Research

Research in nursing practice shows completion of an advance directive is important for patients to ensure individual autonomy. However, advance directive completion rates range from 18% to 31% (Cohen & Nirenberg, 2011; Rao et al., 2014; Wenger et al., 2012). Barriers found in nursing research practice that contribute to low advance directive completion rates among patients in relation to nurses include (a) inadequate preparation in nursing programs; (b) lack of knowledge about end-of life care or discomfort and fear discussing end-of-life care with patients; and (c) poor communication skills, lack of time, and poor cultural competency skills (Attia, Abd-Elaziz, & Kandeel, 2012; Clabots, 2012; Connell & Mallory, 2007; Duke et al., 2009; Jezewski et al., 2003; Walerius et al., 2009; Wenger et al., 2012). Duke et al. (2009) suggested that the purpose of advance directives is to provide patients with autonomy and decrease uncertainty at the end of life for families. Multiple studies in nursing research have been conducted to identify nurses' knowledge of advance directives (Attia et al., 2012; Clabots, 2012; Duke & Thompson, 2007; Flores, Mato, Rivero & Galán, 2013; Jezewski & Feng, 2007;Jezewski et al., 2005; Jezewski et al., 2003; Lipson, Hausman, Higgins, & Burant, 2004; Putnam-Casdorph, Drenning, Richards, & Messenger, 2009; Ryan & Jezewski, 2012; Walerius et al., 2009; White & Coyne, 2011). These studies showed mixed results. For example, Jezewski et al. (2005) found that the 794 oncology nurses surveyed from California, Illinois, Texas, and New York were most knowledgeable about advance directives, scoring 70%. Oncology nurses were less knowledgeable about their state laws, scoring 53%, and the Patient Self-Determination Act, scoring 51%.

Ryan and Jezewski (2012) conducted a systemic review that concentrated on registered nurses' knowledge, attitude, experience, and confidence with advance directives. They found four research articles that assessed registered nurses' knowledge, attitudes, experience, and confidence with advance directives. When they manually searched reference lists of all the studies, they found studies related to nurses and advance directives. The search showed Ryan and Jezewski's review did not identify nursing student knowledge or attitudes about advance directives and end-of-life care, nor did it show where end-of-life care information is placed in nursing curricula as this study identified. Nurses have multiple barriers related to advance directives that affect patient outcomes. The research in nursing practice shows barriers include lack of knowledge about advance directives, low confidence levels, poor communication about advance directives, discomfort discussing advance directives with patients and their families, and deficiency in cultural competency. In order to address these barriers supported by the literature, the nursing profession, nursing education, and nursing programs must provide nursing students with the knowledge needed about advance directives so they can educate patients and families to improve end-of-life care. By improving advance directive education, new graduates from nursing programs will be able to provide quality advance directive education to patients and families. This quality education will lead to improved patient autonomy and end-of-life care and outcomes. Because nurses provide empathetic care and have the knowledge and experience in providing end-of-life care to patients, the

ANA (2015) expects nurses to engage in research to improve end-of-life care and policy improvement.

Problem Statement

Advance care planning protects patient autonomy and can communicate patient preferences for care at the end of life (Fischer, Sauaia, Min, & Kutner, 2012, p. 86). Advance directives and the PSDA are components within end-of-life care and require patient education and information be given in hopes that patients will execute an advance directive before they develop a terminal illness or become incapacitated. Therefore, it is critical for nurses to be aware and be knowledgeable about these aspects of end-of-life care so patient education can be provided earlier. Although advance directives allow patients to put in writing their wishes for healthcare in case they become incapacitated and the PSDA mandates that all healthcare organizations and providers receiving Medicare and Medicaid funding provide patients with advance directive education and information, there is still a low level of completion rates (Duke et al., 2009; House & Lach, 2014; Johnson, Zhao, Newby, Granger, & Granger, 2012). In order to assist patients and families to make informed decisions about end of life, nurses must be knowledgeable about advance directives. Provision 1.4, the right to self-determination of the ANA (2015) code of ethics, states that nurses must be able to discuss advance directives with patients and be able to answer questions about the different types of advance directive forms so that patients and families can make informed decisions.

Due to lack of knowledge about advance directives, the responsibility of answering questions and helping patients complete advance directives may leave nurses feeling uncomfortable. Although the AACN (2008) has competencies to improve end-of-life care content in nursing curricula, there is no recommendation as to where end-of-life care education should be placed in nursing curricula. Placement is decided by nursing programs and is either integrated throughout curricula or at the end of the curricula. Few nursing programs have a stand-alone end-of-life care course. For the purpose of this study, the aspects of end-of-life care that were evaluated are advance directives and the PSDA. This study found out whether there is a difference in knowledge, attitudes, and confidence of end-of-life care based on when the students receive the information in their nursing program. A barrier that contributes to this knowledge deficit is the lack of discussion related to advance directives in nursing education. This knowledge deficit may lead to discomfort, low confidence, and poor communication while interacting with patients. Compounding factors related to advance directives that confront nurses include lack of time with patients to discuss advance directives in detail and cultural barriers. Cultural barriers include not being familiar with cultural backgrounds, customs, traditions, values, and attitudes that differ from the nurse caring for the patient (Bosek, 2007; Cohen & Nirenberg, 2011; Clabots, 2012; Connell & Mallory, 2007; Duke & Thompson, 2007; Jezewski et al., 2003; Putnam-Casdorph et al., 2009; White & Coyne, 2011).

Purpose of the Study

The purpose of this study was to determine if there are differences in senior nursing students’ knowledge and perception about end-of-life care based on when the information is positioned in the curriculum.

Research Questions

1. What are the perceived knowledge, attitudes, and confidence about end-of-life care of senior nursing students who participate in a curriculum that offers course content in end-of-life care based on when the information is provided in the curriculum?
2. Is there a significant relationship among knowledge, attitudes, and confidence about end-of-life care in senior nursing students?
3. Is there a significant relationship between demographic attributes and attitudes about end-of-life care?
4. Is there a significant relationship between knowledge and attitudes of senior nursing students who receive end-of-life care information?
5. Is there a significant relationship between knowledge and confidence of senior nursing students who receive end-of-life care information?

Research Hypotheses

1. There is a difference in the level of knowledge about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum.
2. There is a difference in the level of confidence about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum.

3. There is a difference in the attitudes about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum.
4. There is a significant relationship among knowledge, attitudes, and confidence about end-of-life care of senior nursing students who receive end-of-life care information.
5. There is a significant relationship between attitudes about end-of-life care and demographic attributes in senior nursing students who receive end-of-life care information.
6. There is a significant relationship between knowledge and attitudes about end-of-life care in senior nursing students who receive end-of-life care information.
7. There is a significant relationship between knowledge and confidence about end-of-life care in senior nursing students who receive end-of-life care information.

Significance of the Study

Nursing Education

With the IOM (2010) recommending changes in nursing education that include better preparation on advocacy and end-of-life care for nursing students, nursing programs must reassess end-of-life content in their curricula. Nursing programs that are accredited by the AACN provide some type of end-of-life education to students in their programs. The information provided is based on the end-of-life competencies from the AACN (2008) *Essentials of Baccalaureate Education for Professional Nursing Practice*. Although students are receiving end-of-life care information in their nursing programs, there is no consistency as to when the information is being presented. It was proposed that nursing students who receive end-of-life care information early in their program have the opportunity to build on previous knowledge each semester through lectures and clinical experiences. These students are better positioned to utilize this information and provide education to patients so that they can make informed decisions about their end-of-life care. The results of this study inform nursing educators about the most opportune time to include content related to end-of-life care in the curriculum.

Public Policy

People are living longer, with many living with at least one chronic illness. As the chronic illness progresses, the importance of discussing end-of-life care and executing an advance directive becomes very important. Otherwise, families and healthcare providers are left to decide what happens, potentially leading to complex patient and family situations (Lowey, Norton, Quinn, & Quill, 2013).

Approximately 27% of the $327 billion annual budget of Medicare goes towards caring for patients in their last year of their lives (Nakhoda, 2010). A requirement of the PSDA is that healthcare organizations receiving Medicare or Medicaid must ask a patient if they have an advance directive and provide information and education upon patient request. The results of this study highlight the graduates’ ability to comply with state laws, increase healthcare organization compliance with laws, and intercede with patients.

The results of this study identify the competence of graduates to provide accurate information to patients and their families so they can make informed decisions.

The information obtained from this study identifies factors that might guide curricular changes and allow better implementation of the PSDA and state laws. Changes in nursing education to improve preparation might guide curricular changes that may lead to increased knowledge, attitudes, and confidence regarding end-of-life care and advance directives for nursing students. The increase in knowledge, attitudes, and confidence might empower patients to take charge of their end-of-life care. Graduates from these programs may be more interested and become involved in policy changes at the local, state, and national levels to improve end-of-life care for patients and help to better implement the PSDA and state laws. Graduates who are more knowledgeable and comfortable about end-of-life care are able to better communicate with patients. Patients may be more empowered and more willing to complete an advance directive and discuss their end-of-life wishes.

The ANA (2015) code of ethics expects nurses to engage in policy development regarding end-of-life care because of the expertise they have when providing care to patients and their loved ones. Because nurses have the most contact with patients and their loved ones, especially when providing end-of-life care, they will be in the forefront to improve and develop new end-of-life care policies. These changes will lead to an improvement in patient autonomy and care.

Nursing Practice

The PSDA (1990) requires facilities receiving Medicare and Medicaid funding to (a) have policies and procedures in place, (b) provide patients information on advance directives, (c) help patients complete advance directives, and (d) document in a patient's chart when an advance directive has been completed (Pope, 2013). Advance care planning (ACP), which includes advance directives, is essential to ensure patients' wishes are honored should they become unable to express their wishes about decisions. Nurses must be able to provide adequate information in order for patients to make informed decisions regarding their ACP. Nurses need to have the knowledge, attitude, and confidence when caring for dying patients and assist them to experience a peaceful, dignified death (Moreland, Lemieux, & Myers, 2012).

The lack of knowledge practicing nurses demonstrate about end-of-life care and advance directives may be one reason for the low level of completion rates among patients (Cohen & Nirenberg, 2011; Duke & Thompson, 2007; Jezewski et al., 2003). This study identified how prepared and knowledgeable students are about end-of-life care. It is imperative graduate nurses are prepared to communicate end-of-life care information to patients and families. Graduate nurses' knowledge level about end-of-life care when they begin their nursing career has an impact on patient care outcomes. If graduate nurses are not knowledgeable about advance directives, state laws, and the PSDA, this lack of knowledge may have a negative impact on patient care and outcomes when dealing with patients at the end of life. The results can inform organizations so they are better able to determine orientation and continuing education requirements related to end-of-life care for new graduates.

Nursing Research

Studies identified the need for additional education on end-of-life care and communication of this sensitive topic for nurses (Aziz, Miller, & Curtis, 2012). No studies have been conducted about nursing students' knowledge, attitudes, and confidence about end-of-life care.

This study identified whether there is a difference in student knowledge, attitudes, and confidence based on when end-of-life care is presented in nursing curricula. The results of this study begin to address these concerns and provide information for further studies. This information could provide a foundation for intervention studies that will identify educational strategies faculty can use in curricula to improve knowledge, attitude, and confidence about end-of-life care and advance directives in nursing students before they graduate and begin practicing.

Philosophical Underpinnings

The philosophical underpinnings of postpositivism frame this study. The philosophical underpinnings of postpositivism aim to search for reasons of patterned phenomena (Tracy, 2013, p. 39). Creswell (2009) stated that postpositivists hold a deterministic philosophy, so causes more than likely determine effects or outcomes. These causes are what postpositivists attempt to identify and determine how they influence effects or outcomes. It is also reductionistic, so ideas are decreased into ideas that are small enough to test, such as hypotheses variables and research questions.

Postpositivists develop numeric measures of what they observe, so studying the behaviors of individuals is the priority in research. Research conducted by postpositivists begins with a theory, data are collected that support or disprove the theory, and are followed by required changes before additional tests are done (Creswell, 2009).

Creswell (2009) identified assumptions of postpositivism as follows: absolute knowledge is unattainable, so absolute truth can never be found. The research process makes claims, refines, or eliminates claims for others that are justified. Knowledge is shaped by data, evidence, and rational considerations. Research seeks to develop relevant, true statements that can explain the situation of concern or describe the causal relationships of interest. Finally, researchers must be objective and examine methods and conclusions for bias (Creswell, 2009, p. 7).

Theoretical Framework

Social cognitive learning theory was the theoretical framework that guided this study (Figure 1). In the 1940s, Miller and Dollard first researched how individuals learn through observation. Based on their findings, they concluded that individuals do not learn from observation alone, and that imitation and reinforcement of what has been observed also plays a role in learning. In the 1960s, Bandura focused on the cognitive processes that are involved in observation rather than the behavior that followed. Bandura said individuals can learn from observation without imitating the observed behavior and that an individual can control his or her own behavior to some degree by forming a mental image of potential consequences (Merriam, Caffarella, & Baumgartner, 2007). Zimmerman (1989) conducted research on an individual's self-efficacy. He combined the research findings into a model of self-regulation using students (Zimmerman, 1989). This theory emphasizes the importance of observing and modeling behaviors, attitudes, and emotional responses of others (Saylor, 2010, p. 54). In the social cognitive model of self-regulation, people are neither driven by inner forces nor controlled by external stimuli. Rather, human functioning is explained in terms of interaction among cognitive, behavioral, and environmental influences, stressing the idea that much learning occurs in a social environment. People learn rules, skills, beliefs, attitudes, and strategies by observation. They learn from models and act in accordance with beliefs about their skills and the possible result of their behaviors (Saylor, 2010, p. 54). The studying of these behaviors as identified influence outcomes; these student behaviors were captured on surveys.

Theoretical Assumptions

- The individual gains knowledge, skills, rules beliefs, strategies, and attitudes through observation of others in various environments (Merriam et al., 2007).
- Behaviors observed in the environment are imitated and reinforced by the individual (Merriam et al., 2007).
- Self-efficacy focuses on how capable the person feels in a certain environment (Merriam et al., 2007).
- The environment is influenced by the individual who influences behavior (Merriam et al., 2007).
- Relative strength and the temporal patterning of mutual causation among personal, environmental, and behavior can be altered through (a) personal

efforts to self-regulate, (b) outcomes of behavioral performance, and (c) changes in environmental context (Bandura, as cited in Zimmerman, 1989).

- Personal processes are assumed to be influenced by environmental and behavioral events in reciprocal fashion (Zimmerman, 1989).
- Self-efficacy is a key variable affecting self-regulated learning (Bandura, as cited in Zimmerman, 1989; Rosenthal & Bandura, as cited in Zimmerman, 1989; Schunk, as cited in Zimmerman, 1989; Zimmerman, as cited in Zimmerman, 1989).
- Individuals observe and model behaviors, attitudes, and emotional responses of others (Merriam et al., 2007).
- Learning occurs in a social environment (Merriam et al., 2007).

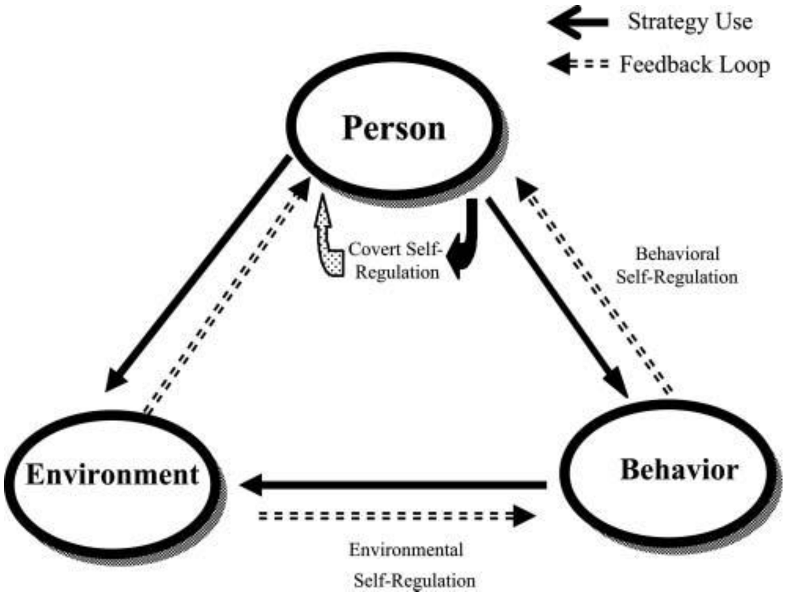

Figure 1. Three key forms of self-regulation. Adapted from “A Social Cognitive View of Self-Regulated Learning,” by B. J. Zimmerman, 1989, *Journal of Educational*

Psychology, 81, p. 330. Copyright by the American Psychological Association. Adapted with permission.

The social cognitive model of self-regulation learning consists of three variables: the person, environment, and behavior. The person is described as a student who is a self-regulated individual to the degree that he or she is a metacognitively, motivationally, and behaviorally active participant in his or her own learning process. Students do not depend on others such as teachers or parents, but on themselves to acquire the skills and knowledge needed. Self-regulated learning strategies, self-efficacy perceptions of performance skill, and commitment to academic goals make up self-regulation. Self-regulated learning is not decided only by personal processes but is also influenced by the environment and behavior occurrences. The environment can include goal setting, settings that have structured learning, and environmental manipulation strategies (Zimmerman, 1989).

In social cognitive learning theory, individuals learn from their interaction between cognitive, behavior and environment effects. This theory applies to this study because a nursing student's interaction between cognitive, what knowledge is obtained about end-of-life care from classroom and clinical experiences, what behaviors are observed about end-of-life care in the classroom and clinical settings, and what type of classroom and clinical environment the student is in will influence his or her learning about end-of-life care. Although nurses' knowledge, attitude, and confidence about advance directives have been studied, little is known about nursing students' knowledge, attitude, and confidence about end-of-life care and more specifically on when this content is provided in the curriculum. This study used the social cognitive learning theory to test the premise that there is a difference in senior nursing students’ knowledge, attitude, and confidence based on when end-of-life care is presented in curricula.

The person in the social cognitive learning theory for this study is represented by senior nursing students in the last year of their accredited Commission on Collegiate Nursing Education or Accreditation Commission for Education in Nursing program. The environment provides exposure to content about end-of-life care in the classroom and clinical setting. The behaviors are knowledge and attitudes about advance directives and the PSDA. Student behavior, which includes knowledge, confidence, and attitudes, is influenced by the interaction between his or her environment, which is end-of-life care content in the classroom, and clinical settings and experiences. The interaction between the behavior, which is knowledge, confidence, and attitudes and the environment, is determined by the environment factors. Factors are how and what information about end-of-life care is presented in the classroom and the exposure of providing care to patients at the end of life in the clinical setting. The environment is content about end-of-life care in the classroom and clinical settings. The environment affects student behavior, confidence, and attitudes about end-of-life care. The interaction between students and their behaviors of knowledge, confidence, and attitudes is influenced by student thoughts, actions, and skills.

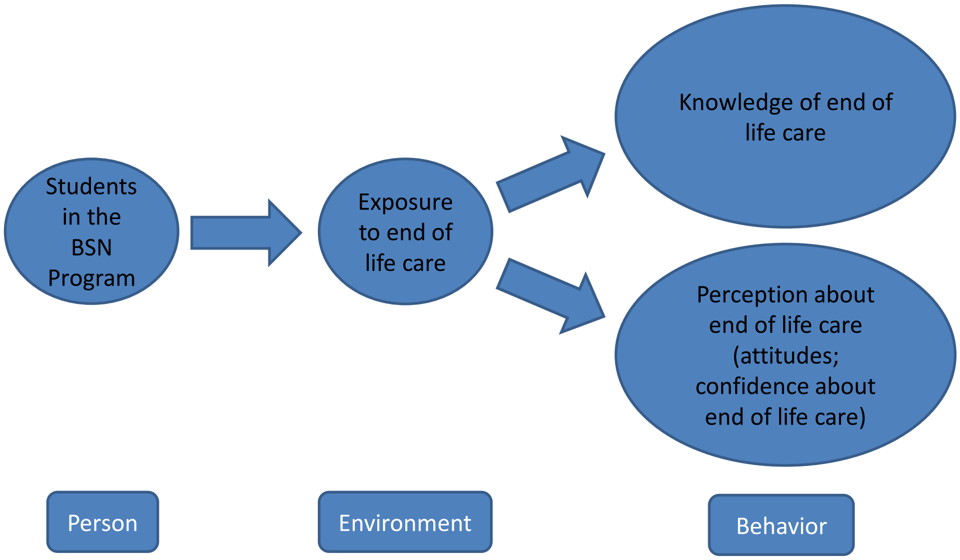

Figure 2. Application of social cognitive learning theory model to study.

Definition of Terms

Theoretical Definitions

End-of-life care. Care provided to patients at the end of their lives; this care includes relief from pain and other distressing symptoms with the goal of a peaceful death (World Health Organization [WHO], n.d.).

Environment. The environment is where learning happens and is influenced by the person who influences behavior (Merriam et al., 2007).

Knowledge. Knowledge is the essential content or body of information for a discipline that is acquired through traditions, authority, borrowing, trial and error, personal experience, role-modeling and mentorship, intuition, reasoning, and research (Grove, Burns, & Gray, 2013, p. 698).

Nursing students. Nursing students are individuals who are pursuing a bachelor of science in nursing degree.

Perception. Perception is an individual's attitudes and confidence to organize and implement actions necessary to attain designated performance of skill for specific tasks (Bandura, as cited in Zimmerman, 1989).

Operational Definitions

Attitudes. The student scores on the Knowledge, Attitudinal, and Experiential Survey on Advance Directives (KAESAD) questionnaire on the Attitude scale. Questions 31–50 focus on professional attitudes regarding end-of-life decision making.

Confidence. The student scores on the KAESAD questionnaire on the confidence scale. Questions 51-61 focus on confidence about the Patient Self-Determination Act, advance directives, knowledge of state laws, and mediating disagreements ("Confidence," n.d.).

End-of-life care. This refers to content in end-of-life care provided by schools that are accredited by Commission on Collegiate Nursing Education (CCNE) or Accreditation Commission for Education in Nursing (ACEN). In the model (Figure 2), the person is represented by students enrolled in a bachelor of science in nursing program. The environment is information about end-of-life care students receive in classrooms, clinical settings, and additional experiences such as attending an in-service. The behavior consists of three variables: knowledge, confidence and attitudes. The variables include student knowledge of advance directives, the PSDA (1990), and Illinois state laws; student confidence about advance directives and end-of-life care; and student attitudes about end-of-life decision making. Students interact with their environment in order to gain knowledge, confidence, and attitudes regarding end-of-life care. Students' knowledge, confidence, and attitudes about end-of-life care will be affected by what the environment is like, how the student reacts, their willingness to learn, self-directedness, and self-efficacy.

Knowledge. The student scores on the KAESAD questionnaire on the Knowledge scales. Questions 1–10 focus on knowledge of advance directives, questions 11–17 on knowledge of the PSDA, and questions 18–30 on knowledge of Illinois State laws regarding advance directives.

Nursing student. These are students in the senior year of their CCNE or ACEN accredited bachelor of science in nursing program.

Chapter Summary

This study aimed to find out whether there is a difference in senior nursing students' knowledge and perception based on when end-of-life care information is presented in the curriculum. Current studies have focused on nurses' knowledge, attitudes, and confidence levels of advance directives. Advance directives, state laws, specifically Illinois law, and the PSDA, which are concepts of end-of-life care, are the aspects this study assessed. Portions related to the concepts of advance directives, state laws, specifically Illinois law, and the PSDA of the KAESAD survey were used for this study. Postpositivism was the philosophical underpinning for this study. The social cognitive learning theory was the theoretical framework that guided this study. The results from the study will inform nursing education about the most opportune time to include end-of-life care information in the curriculum. The results of this study will help organizations determine orientation and continuing education requirements about end-of-life care for nurses. Information from this study will identify factors that will guide curricular changes to allow better implementation of the PSDA and state laws. The results of this study could provide a foundation for research that focuses on intervention studies that will identify educational strategies faculty can implement in curricula to improve end-of-life care education in nursing students.

Chapter Two

The purpose of this study was to determine if there are differences in senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on when in the curriculum end-of-life content is presented. This chapter presents the literature review that explored the concepts relating to end-of-life care, the nurses' role, and nurses' knowledge, attitudes, and confidence about end-of-life care. The literature review also explored nursing students' knowledge, attitudes, and confidence about end-of-life care and the current state of end-of-life care education in nursing curricula.

A search of the literature for research published between the years of 1990 and 2016 was performed. The electronic databases used for this literature review were ProQuest Nursing and Allied Health Source, ProQuest Dissertation and Theses, PubMed, and the Cumulative Index of Nursing and Allied Health Literature. The following keywords were used in this literature search: *knowledge*, *advance directives*, *nursing education*, *curriculum, program*, *registered nurses, nursing students*, *barriers, confidence, attitudes*, *nursing textbooks*, *end-of-life care, patients*, *hospice care,* and *palliative care*. Articles were included in this literature review if their topic addressed advance directives, end-of-life care, nursing education, nursing students, and registered nurses. Articles that addressed advance directives and advance practice nurses were excluded from the literature review because the population for this study was nursing students enrolled in the last year of their baccalaureate program.

There appeared to be little research available in the area of nursing students and advance directives. The search yielded two articles: one about advance directives and curriculum and one article about Korean nursing students' knowledge about advance directives.

End-of-Life Care

End-of-life care is defined as care provided to someone who has an irreversible terminal illness and death is imminent (Vandrevala, Samsi, & Manthorpe, 2015). End-of-life care is important because people are living longer, with 20% of the population being older than 65 years by the year 2030 (Robinson, 2004). End-of-life care is not only for the elderly; care of the dying occurs across the lifespan and in numerous practice settings, including critical care (Robinson, 2004, p. 89). Although today's medical technology allows people to live longer, sometimes quality of life is affected and improvement in health does not happen (Brown & Vaughn, 2013; Gardner, 2012; Hendry et al., 2012; IOM, 2001; Robinson, 2004; Steinberg, 2014).

Advance Directives

Advance directives are legal documents that allow individuals to put their medical wishes in writing and appoint someone to make decisions for them should they become incapacitated. However, less than one-third of people admitted to the hospital have an advance directive (Cohen & Nirenberg, 2011; Duke et al., 2009; Wenger et al., 2012).

Patients have various choices when executing an advance directive. Choices include (a) being a full code, which includes life-sustaining treatment; (b) do not resuscitate, which means that no resuscitation is to be done if the patient experiences cardiac arrest; (c) do not intubate, which means the patient is not to be put on life support; and (d) trial of treatment/best medical practice, when a patient receives aggressive treatment for a certain amount of time. If the patient does not improve, withdrawal of care is discussed with the power of attorney for healthcare or healthcare surrogate. Other options patients discuss with their healthcare provider when they have a chronic illness, poor prognosis, or terminal illness are palliative care, hospice care, and do not hospitalize. Palliative care is implemented when a patient has a terminal illness or poor prognosis. The goal is to keep the patient comfortable. Hospice care is provided to patients who have 6 months or less to live. The goal is to provide holistic patient care, including physical, emotional, social, and spiritual needs. Do not hospitalize is when patients with advanced chronic conditions choose not to be hospitalized, but rather be given comfort care if they should suffer an acute episode (Abdelmalek, Goyal, Narula, Paulino, & Thomas-Hemak, 2013).

Advance directives are beneficial for any person, regardless of their current health status. They become very important when a patient becomes incapacitated because of an accident, develops an acute illness, chronic illness, or terminal illness requiring end-of-life care. They provide individuals the opportunity to communicate their wishes in writing related to end-of-life care and allow individuals to identify someone to make decisions about their healthcare if they become mentally incapacitated, therefore ensuring their healthcare choices are honored (Watson, 2010).

The power of attorney for healthcare is a trusted individual who a person appoints to make legal medical decisions if he or she becomes incapacitated. If a patient has not appointed someone to be his or her power of attorney for healthcare in the advance directive, a healthcare surrogate will be appointed. A healthcare surrogate is someone who is not appointed by the patient, but makes medical decisions for the patient if he or she becomes incapacitated. The patient has no say who is appointed as the healthcare surrogate (Abdelmalek et al., 2013).

Role of the Nurse

According to Provision 1.4, the right to self-determination of the ANA (2015) code of ethics, nurses has a duty to ensure they have a proper understanding of patients' rights, uphold patient autonomy, and educate and assist patients with advance care planning and making informed decisions regarding the various life-sustaining treatments. Nurses must provide interventions to manage symptoms at the end of a patient's life. The ANA (2015) *Code of Ethics with Interpretive Statements* holds nurses accountable to practice ethically and morally. Because nurses are upheld to these standards, they must be knowledgeable and confident when providing education and talking about advance care planning to patients and their families. Nurses must also be able to provide end-of-life care to patients that give them a comfortable dignified death. Since nurses are the ones who have the most contact with patients, often they are left to discuss advance directives and end-of-life care with patients and families. To provide competent end-of-life care to patients, nurses must have a good understanding of advance directives and end-of-life care (Robinson, 2004; Wallace et al., 2009).

Nurses employed in facilities that receive Medicare or Medicaid funding are expected to provide, educate, and help patients complete advance directive forms, as mandated by the PSDA (Connell & Mallory, 2007; Jezewski et al., 2003; Walerius et al., 2009). Although nurses are held to the ANA (2015) code of ethics and the PSDA standards, the literature shows that nurses do not have a clear understanding about what their role is when it comes to end-of-life care.

In Jezewski et al.'s (2003) quantitative study, in that study, oncology nurses from California, Illinois, New York, and Texas who were members of the Oncology Nursing Society was surveyed using the KAESAD scales. Participants believed that nurses did not have a specific role related to advance directives, dying patients, and families. Nurses saw addressing advance directives as a multidisciplinary role, especially with the complexity that may occur with dying patients and families. Some nurses reported social workers or pastoral care providers as being the ones to address advance directives at their institutions, with nurses only referring patients; others reported a nurse functioning in a patient representative role that specifically addressed, educated, and helped patients with advance directives. Most respondents believed that part of a nurse's role is to educate and help patients complete an advance directive, counsel, and advocate for patient autonomy. Reinke et al.'s (2010) mixed method study showed nurses lacked knowledge of their roles and responsibilities and what other healthcare team members' roles are with end-of-life care. Nurses reported the lack of role clarification and poor communication among interprofessional team members as barriers to providing quality end-of-life care.

The ANA (2015) right to self-determination provision expects nurses to play an important role in ensuring patients receive quality end-of-life care and ensure they have a comfortable dignified death. The provision also expects the role of the nurse to include providing education and assistance to patients completing an advance directive. However, the literature shows nurses do not have a clear understanding of their role with end-of-life care. This lack of role clarity affects patient care and outcomes.

Knowledge of End-of-Life Care in Nursing Practice

The literature review on nurses' knowledge about end-of-life care showed nurses do not have the knowledge needed to provide the required end-of-life care or education that will result in positive outcomes for patients. The aim of the comparative descriptive study conducted by Thacker (2008) was to determine whether a difference between novice, experienced, and expert nurses regarding end-of-life care advocacy behaviors existed. Thacker administered the Ethics Advocacy Instrument, a 38-item self-administered survey, to 317 acute care nurses working on medical, surgical, and critical care units. An open-ended question at the end of the instrument allowed nurses to identify barriers that inhibited them from advocating for their patients at the end of life. A barrier all three groups identified was knowledge deficit. This knowledge deficit may hinder the nurses' ability to make a positive impact on the patients' quality and dignity at the end of life.

Jezewski et al. (2005) conducted a quantitative study regarding oncology nurses' knowledge about, attitudes in relation to, and experiences with advance directives. A total of 74 oncology nurses in California, Illinois, New York, and Texas were surveyed using the KAESAD. The results showed most were knowledgeable about advance directives in general (70%) and less knowledgeable about the PSDA (51%) and their state laws (53%). Walerius et al. (2009) similarly found a continued lack of knowledge concerning advance directives among participants in their study. One hundred ten nurses who worked on rehabilitation, oncology, medical, surgical, critical care, cardiac, transitional, and step-down units participated in this quantitative descriptive study. A modified version of the KAESAD was used, which addressed knowledge of Illinois law, advance directives, and the PSDA. Most participants reported not having an advance directive (*n* = 87, 79.1%). Several participants scored less than 70% on questions related to Illinois law and the PSDA, with most answering less than 50% correct. The PSDA portion consisted of seven items (mean = 3.2; *SD* = 1.7; mean correct = 46%). There were 10 items on general knowledge of advance directives (mean = 6.9; *SD* = 0.99; mean correct = 69%). Illinois state law had 13 items (mean = 4.4; *SD* = 1.9; mean correct = 34%). The total knowledge scores were lower (less than 70%) than similar studies with emergency, oncology, and critical care nurses; most of the nurses in the study would receive a letter grade of *D*. The total knowledge on the modified version (30 items) score (mean = 14.5; *SD* = 3.1; mean correct 48%).

Ryan and Jezewski (2012) reported findings in their systematic review of the literature of three studies that nurses admit lacking knowledge about advance directives. All three studies used the KAESAD, and nurses worked on oncology, critical care, and emergency units. Researchers for each study recruited participants through the professional organizations of the Oncology Nurse Society, the American Association of Critical Care Nurses, and the Emergency Nurses Association. Total knowledge scores of advance directives in all three studies ranged from 68% to 71% correct. The lack of knowledge about advance directives among nurses may lead to a decrease in patient education and completion of advance directives.

Duke and Thompson (2007) reported similar findings in their descriptive, cross-sectional quantitative study using the Update on Advance Directive questionnaire of nurses practicing in Texas. Seven licensed practical nurses and 101 registered nurses working in an acute care setting at two hospitals in Texas participated in the study. The study results showed the nurses in this study lacked knowledge and understanding of advance directives, the PSDA, and Texas law. Most nurses (81%) knew what an advance directive was, yet only 30% were knowledgeable about what was necessary for witnessing an advance directive. Respondents shared they wanted and needed to have more knowledge about advance directives to properly educate patients and families.

Iglesias and Vallejo (2013) conducted a mixed method study with 454 nurses working in hospitals and clinics in the principality of Asturias in northern Spain. One purpose of the study was to discover nurses' knowledge of living wills and laws. Areas nurses worked in were emergency units, geriatrics, critical care, surgery, and primary care. Fifty-five percent of nurses reported working in their area of practice for less than 10 years. Twenty-three percent reported receiving education about living wills. The nurses reported limited knowledge when it came to living wills. This limited knowledge made nurses believe they were delivering inadequate nursing care to patients. Only 7.5% knew when a living will became invalid, and 12.3% knew there could be several different living will formats. A large number of nurses, 80.75%, were knowledgeable about what a living will was, but 46% did not know how to implement it into practice. Themes that emerged from the interviews the researchers conducted with the nurses included (a) nurses feeling inadequate, (b) nurses' heightened awareness of their minimal knowledge about living wills, (3) nurses worried that being less knowledgeable about living wills affected the quality of their nursing care, and (4) nurses' identification of their lack of and need of training.

Sixty percent of critical care nurses who participated in Attia et al.'s (2012) quantitative study reported lack of knowledge about end-of-life care as a severe barrier to providing quality patient care. The participants were 70 nurses working in four critical care units at Mansoura University Hospitals, Egypt. Twenty nurses worked in an oncology critical care unit, 15 worked in a coronary care unit, 15 worked in a hepatic critical care unit, and 20 worked in a surgical intensive care unit. The researchers used a structured interview sheet that had three parts. The first part consisted of demographic information, the second part asked nurses to identify barriers that keep them from providing quality end-of-life care to patients and families, and the third part asked nurses to provide feedback on what would be helpful in meeting patients' and families' needs at the end of life. One main category that emerged from the study was lack of knowledge and skills regarding end-of-life care. Putnam-Casdorph et al.'s (2009) quantitative study assessed nurses' knowledge, attitudes, experience, and confidence in discussing advance directives with patients (p. 250). Participants were nurses from West Virginia working in inpatient (85%) and outpatient (15%) settings. Participants scored the highest on general knowledge questions about advance directives (95–100% correctly answered), but low on West Virginia state laws (21–56% answered incorrectly). Jezewski and Feng (2007) used the KAESAD in their quantitative study to survey emergency room nurses. The emergency room nurses scored low (68%) on general knowledge of advance directives. These nurses answered 51% correctly on knowledge of the PSDA and 56% correctly when it came to knowing their state laws and the legalities of pregnant patients. In Flores et al.'s (2013) descriptive cross-sectional study regarding nurses and physicians' knowledge and attitudes about advance directives, nurses and physicians (192) had low knowledge levels of advance directives. Aslakson et al. (2012) reported that surgical intensive care unit nurses felt uncomfortable discussing end-of-life care due to lack of knowledge in their qualitative study. The researchers developed a focus group guide that was specific to end-of-life care. Four focus groups were conducted with 32 nurses that worked in a surgical intensive care unit.

The literature review on knowledge revealed that oncology nurses were most knowledgeable in many studies about advance directives in general and less knowledgeable about the PSDA and their state laws. This lack of knowledge regarding end-of-life care significantly impacts their ability to provide end-of-life care to their patients, meet practice standards, and improve patient outcomes. The literature review showed nurses are not meeting practice standards set by the PSDA and the ANA (2015), and are not knowledgeable about end-of-life care.

Knowledge of End-of-Life Care in Nursing Students

The literature review shows practicing nurses lack knowledge about end-of-life care. Although students are being taught end-of-life care in their nursing programs, they report still needing more education. The lack of proper preparation in nursing programs can make it difficult for new nurses to provide end-of-life care to patients when entering the workforce. The literature review shows few studies in relation to nursing students and their knowledge of end-of-life care. Wallace et al. (2009) conducted a pretest on sophomore students prior to their first nursing courses using an end-of-life questionnaire developed from the End-of-Life Nursing Education Consortium modules. The students' pretest grade was a *D*. Students received integrated end-of-life care content in their program and were retested during their senior year using the same end-of-life questionnaire they had completed their sophomore year. The students' posttest grade was a *B*. Although Wallace et al. saw an improvement in student knowledge about end-of-life care, they felt improvement is still needed.

Kim and Ko (2013) surveyed 239 nursing students from four Korean nursing programs to find out their knowledge level about advance directives and withdrawal of life-sustaining treatments. The results showed students had little knowledge about advance directives and withdrawal of life-sustaining treatments. However, students who had an opportunity to provide care for a dying patient scored higher in advance directives and withdrawal of life-sustaining treatments.

The AACN (2008) provides an essential element for nursing programs to help them integrate end-of-life care in curricula. Even though some programs are integrating the information in their curriculum, studies have not addressed how well nursing students are being prepared. The literature shows that practicing nurses want more education and report receiving little education about advance directives in their nursing programs (Hall & Grant, 2014). Kim and Ko (2013) was the only study found specifically regarding students' knowledge about advance directives. Most studies focused on end-of-life care, which includes pain and symptom management. A gap in the literature exists regarding student knowledge about advance directives.

Attitudes about End-of-life Care in Nursing Practice

The ANA (2015) *Code of Ethics with Interpretive Statements* is a guide that nurses use to ensure they are carrying out nursing care so that quality care and ethical responsibilities are being met. Ethical responsibilities include upholding patient autonomy and self-determination, which are ethical attitudes. The literature review shows that nurses have mixed attitudes about end-of-life care. Oncology nurses in California, Illinois, New York, and Texas surveyed in Jezewski et al.'s (2003) study reported the importance of nurses understanding their own personal attitudes in order to help patients with advance directives. Putting aside personal attitudes and values so that there is a clear distinction of what patients want and respect for patient wishes were also reported in the study. Nurses also shared the importance of self-determination, respect for patient autonomy, and the need for direction and practice when it comes to advocacy.

In Putnam-Casdorph et al.'s (2009) study, 87 nurses working on medical, surgical, cardiac, and oncology acute care units reported having moderate to negative attitudes about advance directives. Reasons nurses gave were not approving the use of advance directives, not believing that having a form of an advance directive really mattered when a patient was unable to make decisions about treatment and that sustaining life was more important than respecting a patient's wishes.

Ryan and Jezewski’s (2012) systematic review of the literature revealed nurses had positive attitudes toward treatment options for patients, administering pain medication to ensure patient comfort even if it meant speeding up death, helping complete an advance directive, and honoring patient treatment choices. However, nurses had negative attitudes toward difficult ethical end-of-life issues, such as physicians not offering treatments to patients who were terminally ill.

Duke and Thompson (2007) reported nurses had positive attitudes toward advance directives being helpful for patients. Yet, nurses were unwilling to complete their own advance directive (16% had advance directives) because of the fear it might not be honored. Nurses in Jezewski et al.’s (2005) study reported positive attitudes toward patient advocacy with issues related to making end-of-life decisions, managing pain, and ensuring patients’ wishes are honored. Flores et al. (2013) reported that despite physicians and nurses in their study having low knowledge levels when it came to advance directives, 60.1% were knowledgeable about advance directives and state laws; 22.8% had read an advance directive. Participants had positive attitudes about advance directives and their usefulness.

Jezewski and Feng (2007) reported emergency room nurses had a positive attitude toward honoring a patient’s wishes even though the patient’s wishes conflicted with their own beliefs. Nurses had a negative attitude toward denying terminally ill patients treatment due to cost and keeping information from patients.

The literature review overall showed that nurses were positive about end-of-life care and the use of advance directives so patients have their wishes in writing should they become incapacitated. However, some nurses believed that advance directives were useless and that sustaining a patient's life was more important. Yet, the ANA (2015*)* *Code of Ethics with Interpretive Statements* expects nurses to uphold patient autonomy and self-determination. These nurses may not be putting patients' wishes first or carrying out their responsibilities as outlined in the ANA (2015) *Code of Ethics with Interpretive Statements.* This is a problem because nurses must put aside their own attitudes and biases, as reported by nurses in Jezewski et al.'s (2003) study.

Attitudes about End-of-Life Care in Nursing Students

The attitudes that nursing students have about end-of-life care while in their nursing program may provide clues to their attitude when they graduate. Their attitudes will have an impact on how they practice and provide end-of-life care to patients. The literature review reveals few studies that looked at nursing students' attitudes about end-of-life care. The studies that were found showed students had positive attitudes about end-of-life care if they had been provided with education or experiences. Barrere, Durkin, and LaCoursiere (2008) conducted a pretest and posttest on traditional and accelerated baccalaureate nursing students using the Frommelt Attitudes toward Care of the Dying (FATCOD) scale for nurses and found that students had a more positive attitude toward providing care to dying patients after ELNEC modules were incorporated into the curriculum.

Grubb and Arthur (2016) used the attitude subscale from the FATCOD scale to measure student attitudes toward caring for the dying in the United Kingdom. Five hundred sixty-seven students completed the questionnaire. The results showed students had a positive attitude toward caring for dying patients. Yet, the majority of students completing the questionnaire reported the need for additional end-of-life care and palliative education within their nursing program. The areas of specific concern for nursing students were the final hours of death, grief and bereavement, and pain management (Grubb & Arthur, 2016, p. 86). The results also showed that students in the later stage of their program had a more positive attitude toward caring for dying patients. Students who had experience in the clinical setting caring for a dying patient or preparing a dead body or who had provided care to a dying relative or friend reported a more positive attitude toward caring for dying patients. The results showed that experience was an important factor that affected attitudes toward caring for dying patients.

Jafari et al. (2015) administered the FATCOD scale as a pretest and posttest. Thirty Iranian students participated in the quasi-experimental study. The students received education about end-of-life care that consisted of a film, lecture, and group discussion. The results showed students did not have a positive attitude about providing care to dying patients, even though they had received education about end-of-life care. Student attitudes did not significantly improve after educational intervention. There was no correlation between religion and attitude about caring for dying patients. All students in the study were Muslim.

In Dobbins's (2011) study, associate degree nursing students had the opportunity to enroll in an elective course, Nursing Care at the End of Life, or a 3-credit medical-surgical course. Students who elected to enroll in Nursing Care at the End of Life received end-of-life care information through PowerPoint presentations, a textbook specific to end-of-life care and nursing, visit to a funeral home, visit to a hospice home, and the movie *Wit*. Students who enrolled in the medical-surgical course received end-of-life care information through PowerPoint presentations and the course medical-surgical book. Only 12 pages of the medical-surgical book contained information about end-of-life care. The results showed students enrolled in both the Nursing Care at the End of Life and the medical-surgical course found the end-of-life care information helpful. Students enrolled in the Nursing Care at the End of Life course reported less anxiety and fear about death and providing care to dying patients (Dobbins, 2011).

Hall and Grant (2014) used the subscales of Confidence and Experience from the KAESAD. Twenty-seven nurses enrolled in the registered nurse to bachelor of science in nursing completion program and 34 pre-licensure bachelor of science in nursing students were enrolled in the palliative course and received education about advance directives and ethical issues. Students completed the Honoring Choices Minnesota advance directive. The experience of completing the advance directive and sharing it with the person chosen to be the power of attorney for healthcare had a positive effect on the students. The students reported they were more likely to recommend and assist family members with advance directive completion.

The studies show that experience, especially personal and professional, affects attitude toward end-of-life care. Nurses and students with more experiences had positive attitudes about end-of-life care. Hall and Grant (2014) was the only study found in the literature specific to advance directives. The study revealed students had a positive attitude about advance directives after receiving education and completing their own advance directive (Hall & Grant, 2014).

Confidence in Providing End-of-Life Care Among Nurses

The literature review shows nurses have low to moderate levels of confidence about end-of-life care, with oncology nurses having the most confidence. Ryan and Jezewski (2012) reported in their systematic review of three studies involving oncology, emergency, and critical care nurses a recurring theme of nurses lacking confidence about advance directives that increased with more complex aspects of advance directives, including knowing state laws regarding advance directives, mediating disagreements between patients and their families about advance directives, teaching others about advance directives, and knowing PSDA provisions. Overall, nurses were moderately confident helping patients complete an advance directive. Oncology and emergency room nurses were most confident in advocating for patients and honoring advance directives when disagreements with families and a patient's advance directive occurred. When it came to knowledge of state laws, oncology and emergency room nurses had little confidence, while critical care nurses were more confident in knowing their state laws. Nurses overall knowledge level was 60%, which would be a failing grade in nursing programs. When asked to rate their confidence level about knowledge of the PSDA, all nurses in the study rated themselves as having little confidence. Areas in which nurses reported lacking confidence were state laws, provisions of the PSDA, educating others about advance directives, and mediating disagreements between patients and family members (Ryan & Jezewski, 2012, p. 137). These are all significant findings because all three studies in the systematic synthesis show nurses lack confidence in important areas of end-of-life care and may not be meeting the responsibilities of Provision 1.4, The Right to Self-Determination of the ANA (2015) *Code of Ethics with Interpretive Statements* in their practice.

Putnam-Casdorph et al. (2009) reported participants had slight to moderate confidence with advance directives in their quantitative study. The more experience nurses had with advance directives and discussions with patients and families, the more confident nurses felt. Nephrology nurses in Ceccarelli, Castner, and Haras's (2008) qualitative study reported lack of confidence educating and discussing advance directives with patients who have chronic kidney disease. Reasons for lack of confidence had to do with not knowing what to say or how to begin the conversation of advance directives with patients and families.

Emergency room nurses in Jezewski and Feng's (2007) study reported being able to ensure compliance with a patient's advance directive (74%). Sixty percent were confident advocating for patients if there was a disagreement between a patient's advance directive and family wishes. Nurses were less confident about advance directive state laws (79%). Sixty-three percent of nurses reported not feeling confident intervening between patients and families when disagreements occurred about end-of-life choices. Fifty-four percent of participants did not feel confident putting into action the advance directive/end-of-life care policies and procedures of their place of employment, and 56% were not confident educating others about advance directives. Overall, 83% of participants were the least confident about the PSDA. Participants also reported feeling confident with helping patients and families with advance directives. Jezewski and Feng (2007) believed, “These findings begin to explain the complexity of being able to expertly assist patients in completing advance directives” (p. 138).

Oncology nurses and physicians in Samara, Larkin, Chan, and Lopez’s (2013) mixed method study reported lack of confidence helping patients and families understand advance directives. Nurses and physicians reported this lack of confidence was due to low knowledge levels because there was no time to attend the face-to-face training or complete the online training that was offered. One nurse commented, “We do not have enough competence to do it even though we already have the education” (Samara et al., 2013, p. 112). When participants were asked to provide suggestions for better facilitation of advance care planning within the institution, suggestions included appointing healthcare professionals, such as social workers to assume responsibility, and having an interprofessional team begin advance care planning upon admission to the emergency before being admitted to a unit. Jezewski et al. (2005) reported in their quantitative study that although nurses reported having experience with helping patients with advance directives, they did not feel confident in their ability.

Reinke et al. (2010) used the Nurse Role in End-of-Life Care Questionnaire in their study and asked nurses how confident they felt discussing and providing end-of-life care to patients. Overall, nurses did not feel appropriately prepared or confident and shared that their lack of confidence was related to poor communication skills when discussing end-of-life care with patients, families, and other healthcare team members; their role and other healthcare team members’ role in end-of-life care; staffing issues; and lack of time. Duke and Thompson (2007) reported in their quantitative study that nurses did not feel confident providing patient education and assistance with the completion of an advance directive. Nurses shared that additional education on advance directives would increase confidence levels when educating and assisting patients in completion of an advance directive. The increase in education would also help them complete their own advance directive.

Confidence in Providing End-of-life Care Among Nursing Students

The literature review shows few studies that have explored nursing students' confidence with end-of-life care. Adesina, DeBellis, and Zannettino's (2014) study involved third-year nursing students enrolled in a baccalaureate nursing program in Australia. Third-year nursing students were chosen because it was likely they had some clinical experiences caring for dying patients. The questionnaire used was developed from two questionnaires, the FATCOD scale and the Death Attitude Profile-Revised (DAP-R) scale. The study revealed that older students were more confident in certain areas when it came to death and dying, which may be attributed to personal and professional experiences.

Hall and Grant (2014) used the subscales of Confidence and Experience from the KAESAD. Twenty-seven nurses enrolled in the registered nurse to bachelor of science in nursing (RN-BSN) completion program and 34 pre-licensure bachelor of science in nursing students were enrolled in the palliative course and received education about advance directives and ethical issues. Students completed the Honoring Choices Minnesota advance directive and had to share the information with the person they chose to be their power of attorney for healthcare. Confidence scores of students were compared before and after the learning activity by analyzing the confidence portion of the KAESAD. The results showed an increase in confidence about advance directives. There was a correlation between students who completed their own advance directive and an increase in confidence levels with advance directives.

Few studies have been conducted specifically with nursing students and their confidence with end-of-life care. The literature review produced a small number of studies. Nurses and students are more confident about providing care if they have the knowledge about end-of-life care and advance directives. Nursing students requested more education on end-of-life care, which can have an impact on confidence. The Hall and Grant (2014) study was the only one specific to advance directives and nursing students found. After receiving information about advance directives and completing their own advance directive form, students felt more confident assisting family members with completing their own advance directive.

End-of-Life Care in Nursing Education

The AACN (2008) *Essentials of Baccalaureate Education for Professional Nursing Practice* includes competencies about end-of-life care in preparing the nursing generalist. Essential IX, Baccalaureate Generalist Nursing Practice, recommends baccalaureate programs prepare graduate nurses to “implement patient and family care around resolution of end-of-life and palliative care issues, such as symptom management, support of rituals, and respect for patient and family preferences” (AACN, 2008, p. 31).

Education of nurses during their nursing education programs has an impact on nurses' ability as graduates to help patients understand and complete an advance directive.

According to the ANA (2015) *Code of Ethics with Interpretive Statements,* nurses must be able to educate patients regarding advance directives. Nurses must also be able to provide end-of-life care that will give patients dignity at the end of their lives. In order to meet the ANA standards, graduate nurses must receive this information during their nursing program. Yet, in the literature review, nurses report having little to no education and recommend more education in nursing programs. Nursing programs are providing some education; however, it is not clear that this information is enough to ensure students have the skills needed to provide end-of-life care.

Walerius et al. (2009) asked nurses in their study about their nursing program education and any other type of education received about advance directives. Forty-five percent of nurses reported an average of 1 hour of education about advance directives in their nursing programs. Fifty-five percent (60 participants) reported receiving no education about advance directives in their nursing programs. Forty-nine percent (54 participants) reported no education on advance directives in their workplace, and 50% (56 participants) reported receiving some. Thirty-six percent (39 participants) reported attending an in-service program about advance directives, and 16% (18 participants) reported using their hospital policy and procedure manual for referencing advance directive information. Ninety-two percent (102 participants) reported knowing their place of employment had an ethics committee, and 66% (73 participants) reported not knowing the schedule of the ethics committee at their place of employment. Walerius et al.'s study findings are consistent with study findings by Lipson et al. (2004), Dickinson (2007), Ferrell, Virani, Grant, Coyne, and Uman (2000), and Jezewski et al. (2003). In Jezewski et al.'s study, participants reported a mean of 1.3 hours of advance directive education in their nursing programs. Fifty-five percent reported receiving some education at their employment institution. Some nurses recommended regular in-services, annual mandatory updates, and competency requirements.

Reinke et al. (2010) reported that nurses in their study did not feel adequately prepared to discuss advance directives. Duke and Thompson (2007) reported similar findings, with nurses in their study reporting knowledge deficits. Jezewski and Feng (2007) asked what was needed for nurses to better assist patients with the completion of an advance directive; more education and time were the top two items frequently written. Sixty percent of critical care nurses in Attia et al.'s (2012) study interviewed reported lack of basic education and training in end-of-life care as major barriers to providing care to critically ill patients.

Adesina et al. (2014) conducted a study that involved participants in the third year of their baccalaureate nursing program in Australia. The purpose of the study was to explore participants' attitudes, experiences, knowledge, and education about end-of-life care. The questionnaire used for the study was developed from two questionnaires, the FATCOD scale and the DAP-R scale. The study revealed that older students were more confident in certain areas about death and dying. The study showed there was a relationship between gender, age, and attitude toward end-of-life care. Five themes emerged from the qualitative data. The five major themes concerning death and dying were the importance of the students' values and attitudes, the influence of experience, their views on what constitutes a good or bad death, their knowledge of ethics and legislation surrounding end-of-life care, and how they perceived their level of education and knowledge (Adesina et al., 2014, p. 398). Some participants reported their nursing education had been beneficial, yet others reported needing more education about end-of-life care. Some students reflected on mortality, specifically their own. Some participants suggested separate end-of-life care or palliative care courses all students must take. Others recommended including end-of-life cultural and religious education. Posttest, 63% of students reported not feeling prepared to provide care to patients at the end of life (Adesina et al., 2014).

Ek et al.'s (2014) qualitative study explored first-year nursing students' experiences when providing care to dying patients. First-year nursing students enrolled in three different universities in Sweden were recruited to participate in the study. Some students reported being scared about caring for a dying patient or a patient who had died. Some participants shared they were worried about losing control or not being able to be calm in those situations, which would prevent them from tending to and supporting patients and/or families. Students shared the importance that terminal patients are given the opportunity to live the way they want in their last days. Students sometimes felt insecure when patients were not able to express their wishes. Students felt that dying patients should have their loved ones at the bedside. When dying patients did not have loved ones present, students believed time should be made by the student and staff to be with these patients. When there was lack of time due to other obligations and tasks that needed to be completed, students felt inadequate (Ek et al., 2014).

Twelve students in their junior year of a baccalaureate program at a New England university participated in Allchin’s (2006) hermeneutic study. Students reported feeling uncomfortable taking care of a dying patient. They were uncertain regarding their role because they were students and not yet nurses when providing care to a dying patient. Other themes that emerged from the study included being unsure what to say or how to act around the patient and family. One student stated, “I just kind of felt at a loss because, you know, I really didn’t know what I should be doing or what my place was with the family” (Allchin, 2006, p. 114). On the way home, students reported reflecting on their experience with the dying patient and their family. Some students reported feeling overcome by feelings of sadness, emotionally drained by the experience, crying about the patient, family, and their personal past losses. Some students found the clinical experience helpful with gaining knowledge and skills needed to provide optimal and supportive care to dying patients and their family members. Because of the themes that emerged from the study, Allchin (2006) recommended that students be given opportunities to care for dying patients during clinical rotations, and end-of-life care education be incorporated in the clinical and classroom. A separate course on end-of-life care was another recommendation. If a nursing program is unable to include a separate course in its curriculum, then Allchin (2006) recommended designating one class period in each course to end-of-life care education specific to the population.

Wallace et al. (2009) conducted a pretest on sophomore students prior to their first nursing courses using an end-of-life questionnaire developed from the ELNEC modules. The students' pretest grade was a *D*. Students received integrated end-of-life care content in their program and were retested their senior year using the same end-of-life questionnaire they had completed their sophomore year. The students' posttest grade was a *B*. Although Wallace et al. saw an improvement in student knowledge about end-of-life care, they believed improvement was still needed.

Kim and Ko (2013) surveyed 239 Korean nursing students from four nursing programs in a quantitative study to find out what student knowledge about advance directives and withdrawal of life-sustaining treatment in patients. The results showed students had very little knowledge about advance directives and removal of life-sustaining treatments. Students who cared for a dying patient demonstrated higher knowledge scores. When it came to completing advance directives, students reported they were more likely to withhold or withdraw life-sustaining treatments for family members, but not for themselves. The researchers recommended reinforcement of these two topics in nursing programs.

Wilkie, Judge, Wells, and Berkley (2001) reported only 3% of the 311 nursing programs that completed their survey included a separate nursing course on end-of-life care in their curriculum. Seventy-eight percent of the respondents said their faculty had an intermediate level of expertise in teaching end-of-life content. Forty percent of respondents said education on end-of-life care content should be increased in curricula.

Bosek (2007) reported that advance directive content is taught in most nursing programs (98.3%) in North Carolina, but not in every semester. Only 15% of programs reported using interactive teaching strategies, and there is a wide variation on advance directives taught in curricula. Bosek (2007) recommended increasing advance directive content in nursing curricula and investigating factors that have an impact on retention of nurses in organizations.

In order to provide education to patients and families, nurses must receive the information needed during their nursing education programs; otherwise, lack of education has an impact on a nurse’s ability to help patients understand and complete an advance directive.

Chapter Summary

Minimal education in nursing programs affects the ability of nurses to function effectively when it comes to educating patients about advance care planning and providing quality end-of-life care. Without good education, graduate nurses may find it difficult to care for patients at the end of their lives or provide appropriate education about advance directives (Duke & Thompson, 2007; Putnam-Casdorph et al., 2009; Robinson, 2004; Walerius et al., 2009; White & Coyne, 2011). Few studies have been completed that address the gap in nursing programs or specifically nursing students’ knowledge, attitudes, and confidence of advance directives (Bosek, 2007; Connell & Mallory, 2007; Kim & Ko, 2013).

Although students are being taught end-of-life care content in nursing programs, more education is needed. The literature review revealed that nursing education still has to work on improving end-of-life care education in nursing curricula so that students are comfortable with their role and have the knowledge, confidence and attitude to provide optimal end-of-life care to patients. The AACN (2008) provided essentials for nursing programs to help them integrate end-of-life care in curricula; even though some programs are integrating the information in their curriculum, there is a gap in the literature regarding whether the essentials are improving end-of-life care education in nursing curricula. The literature review revealed that students who received end-of-life care information in the classroom and had the opportunity to provide end-of-life care to patients had more confidence and positive attitudes than students who did not. Only one study existed that specifically focused on students' knowledge about advance directives (Kim & Ko, 2013). Most studies focused on end-of-life care, which includes pain and symptom management. There is a gap in the literature regarding student knowledge about advance directives.

The ANA's (2015) *Code of Ethics with Interpretive Statements* expects nurses to play an active role in end-of-life care, educate and help patients complete an advance directive, uphold patient autonomy, and the right to self-determination. Yet, the literature review showed nurses do not understand their role in end-of-life care and lack knowledge and confidence about end-of-life care and advance directives. Most nurses have positive attitudes about advance directives, yet some nurses have a moderate to negative attitude and believe these documents as worthless if the patient becomes incapacitated. In the literature review, nurses recommended more education in nursing programs. Nurses cited lack of education in their programs as a reason for their lack of knowledge and confidence with end-of-life care. Nurses are in a unique position to facilitate this advance care planning process, but to do so effectively, they need knowledge, skills, and resources (Duke & Thompson, 2007).

Chapter Three

The purpose of this study was to determine if there are differences in senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on when in the curriculum end-of-life content is presented. The information in this chapter includes a discussion of the study design, an explanation of the instrument, and the method of statistical analysis of the data. Five research questions guided this study:

1. What are the perceived knowledge, attitudes, and confidence about end-of-life care of senior nursing students who participate in a curriculum that offers course content in end-of-life care based on when the information is provided in the curriculum?
2. Is there a significant relationship among knowledge, attitudes, and confidence about end-of-life care in senior nursing students?
3. Is there a significant relationship between demographic attributes and attitudes about end-of-life care?
4. Is there a significant relationship between knowledge and attitudes of senior nursing students who receive end-of-life care information?
5. Is there a significant relationship between knowledge and confidence of senior nursing students who receive end-of-life care information?

Research Design

This quantitative study used a non-experimental, exploratory design. This design is ideal for comparing and describing variables among groups (Grove et al., 2013). Usually, the results acquired are not generalizable to a population because the information is very specific to the group from which information was collected (Grove et al., 2013). The benefits and strengths of using an exploratory design are (a) it will increase the knowledge of an area about which little is known, (b) it may help the researcher identify possible causes to the problem being studied, and (c) it can provide information that can be used to guide future research studies (Grove et al., 2013; Kumar, 2011; LoBiondo-Wood & Haber, 2010).

Research Assumptions

The following are assumptions the researcher believed to be true in this study. Regarding the subjects, it was assumed

- students understood what the KAESAD instrument was asking;
- students would accurately and honestly answer the questions on the KAESAD instrument; and
- each student’s test score was a reflection of his or her true ability plus some error. This error can be the results of the test, examiner, examinee, or the environment (McIntire & Miller, 2007).

Regarding the instrument, the researcher assumed the three scales of the KAESAD would measure the concepts of knowledge of advance directives, PSDA and

Illinois State laws, professional attitudes regarding end-of-life decision making, and confidence about end-of-life situations that it claims to measure.

Setting

The settings for this study were three bachelor of science nursing programs located in central Illinois and accredited by either the CCNE or ACEN. The first program is a private nonprofit college affiliated with a medical institution. The college offers a bachelor of science in nursing, master of science in nursing, and a doctor of nursing practice program. Approximately 400 students are enrolled at the college. The college offers end-of-life care content in the curriculum the second and fourth semester. The second program is a private institution that offers a bachelor of science in nursing, a master of science in nursing, and two bachelor of science in health science degree programs. Approximately 600 students are enrolled at the college. The college offers end-of-life care content in the curriculum the last semester. The third program is a public institution that offers a bachelor of science in nursing, master of science in nursing, doctor of nursing practice, and doctor of philosophy in nursing programs. The public institution has approximately 20,000 students enrolled, with approximately 300 students enrolled in the nursing program. The college offers end-of-life care content in the curriculum the second semester.

The population of interest was senior nursing students in the last year of the selected nursing programs. These students were chosen for this study because end-of-life care would have been addressed in the first, second, third, or fourth semester. The researcher would identify if there was a difference in senior nursing students’ knowledge, attitudes, and confidence levels about end-of-life care based on when end-of-life care content was introduced in their program. This information can provide evidence to guide placement of the content in the curriculum.

Sampling Plan

Sampling Strategy

This study utilized a non-probability convenience sampling of nursing students in the last year of their program. Strengths of this sampling plan were that participants were easily accessible and therefore easier to acquire, it was inexpensive, and it required less time to obtain than other types of sampling methods (Grove et al., 2013; LoBiondo-Wood & Haber, 2010). Limitations of this sampling plan were that it may not have been a true representation of the total population of senior nursing students, it may be less generalizable to the population, and there may be a risk of bias because participants who feel strongly about the topic being studied were more likely to participate (Grove et al., 2013; LoBiondo-Wood & Haber, 2010).

Eligibility Criteria

Inclusion criteria. Participants were nursing students in the last year of their CCNE or ACEN accredited nursing program. All students were 18 years of age or older and literate in the English language.

Exclusion criteria. Students who did not speak English or were not enrolled in their last year were excluded from this study. All participants were in the last year of their CCNE- or ACEN-accredited nursing program.

Determination of Sample Size: Power Analysis

Using a 95% level of confidence, with a margin of error less than 10% and with no initial estimate of performance proportion, the targeted sample size was

$$n = (\frac{1.96}{.1})^2 .0.5 * 0.5 \approx 97$$

Protection of Human Subjects

Institutional Review Board (IRB) approval was obtained from the university where the researcher was a student and from the IRB and academic administrators from the nursing programs where students were recruited to participate. Data were collected anonymously; names were not collected on the survey. Data were collected using two different methods, electronically and paper. The electronic survey utilized SelectSurvey, a secure site. Students received a recruitment e-mail through their course list server that was sent out by a faculty or staff member from their program. The recruitment e-mail contained a link to the instruction guide describing the study, including the purpose, risks and benefits, data collection procedure, and an invitation to participate. Students who agreed to participate were directed to a link to the survey at the end of the instruction guide. Students were informed in the invitation to participate that by accessing the link for the survey, they were giving their consent to participate in the study. Students were advised to complete the survey alone.

Students who participated in the face-to-face paper method were read the procedure form out loud by the staff member administering the survey prior to the survey being handed out. The procedure informed the students that they could choose to skip questions, stop, or withdraw from the study at any time prior to submitting their survey.

Students were told because the survey was anonymous and names would not be collected, it would not be possible to connect them to their information. In addition, it would not be possible to identify and remove their responses once they were submitted. The procedure informed the students that their completion of the survey was their implied consent to participate in the study. Students were provided with an opportunity to ask questions or provide comments in relation to the study. The staff member emphasized to the students that participation in the study was totally voluntary, and the decision to accept or decline to participate had no consequence or effect on their grade or status in the course or program. Prior to the survey being handed out, the staff member reminded students that the survey was anonymous and not to write any personal information. If a student wrote down personal information, the survey was shredded and not used in the data analysis.

Participants' privacy was maintained in this study (Polit & Beck, 2010). Survey data were held in confidence, with access being limited to the investigator and the dissertation committee members guiding the investigator in this study.

Risks and Benefits of Participation

There were no anticipated risks to the participants related to participating in this study. However, participants could experience anxiety when completing the survey. Anxiety was minimized by telling participants their participation was voluntary and information was collected anonymously.

Participants were informed that there was no direct benefit from participating in the study; however, findings from the study might be used to inform curriculum development relating to the optimum time to include end-of-life care in the curriculum, and contribute to the body of evidence in this area. Participants received an honorarium in the form of a $25 gift card for completing the questionnaire.

Data Storage

All paper material collected or printed out, and notebooks and flash drives were stored in a locked cabinet located at the investigator's home office. Research data were entered into statistical analysis software, SPSS Version 22.0, on a password-protected computer owned by the investigator that was kept in a locked cabinet located at the investigator's home office. The password on the computer was changed every 3 months to ensure information remained secure. The dissertation committee members guiding the investigator in the study had access to research materials and statistical data.

Paper materials will be stored for 3 years after completion of the study and then shredded. All statistical data and other electronic information kept on the password-protected computer or flash drives will be stored for 3 years after completion of the study and then erased.

Procedures

The information in the procedure section includes a discussion of how students were recruited for the study and how data were collected. The research plan was discussed with the instructors of each course in the various universities, and their willingness to participate was solicited. Based on the requests from the various programs, the decision was made to collect data both electronically and face to face.

Data were collected electronically from two programs using SelectSurvey, a secure site. Data were also collected from one program using SelectSurvey, a secure site, as well as face to face.

Electronic Data Collection

Students received a recruitment e-mail through their course list server that was sent out by a faculty or staff member from their program. The recruitment e-mail had a link to the instruction guide describing the study that included the purpose, risks and benefits, data collection procedure, and an invitation to participate. Students who agreed to participate were directed to a link to the survey at the end of the instruction guide. Students were informed in the invitation to participate that by accessing the link for the survey, they were giving their consent to participate in the study. Upon accessing the survey, SelectSurvey assigned a number to each survey as students accessed the link. This number was assigned whether or not a student completed the survey. Upon completion of the survey, students were directed to another link to redeem their gift card.

Face-to-Face Data Collection

Data were collected face to face at one program using paper surveys. Each student received the instruction guide, and a staff member from the university read aloud the information contained in the document to the students in the classroom. This information identified the purpose, data collection procedure, and the invitation to participate. Students were informed that completing the survey indicated their willingness to participate in the study. Students who were not willing to participate in the study remained in their seats or left the classroom. The staff member handed out the survey and an envelope. Each survey was pre-numbered prior to being distributed to the students. There was no request for any identifying information that would link the survey to an individual student. Once students had completed the survey, they placed it in the envelope, sealed it, and gave it to the staff member. The staff member returned the sealed envelopes to the investigator.

Instrumentation

The instrumentation section includes information about the instrument chosen for the study, specific parts of the instrument used in the study, the reliability, validity, scoring of the instrument, and demographics collected for this study. Selecting an instrument was challenging because an instrument that specifically measured nursing students' knowledge, attitudes, and confidence on advance directives has not been developed. Instruments reviewed for this study contained very few questions about advance directives or did not measure the three variables of knowledge, attitudes, and confidence.

Instrument 1: Knowledge, Attitudinal Experiential Survey on Advance Directives

The KAESAD was used for this study (Appendix B). The KAESAD instrument was developed to identify oncology nurses' knowledge, attitudes, confidence, and experiences with advance directives in California, Illinois, New York, and Texas (Jezewski et al., 2005). The researcher received permission from the primary author, Jezewski, to use the questionnaire for this research study (Appendix C). The complete KAESAD instrument contains five scales, and a demographic survey. Scale 1 contains 10 items on general knowledge of advance directives; scale 2 contains seven items on knowledge of the PSDA; scale 3 contains 13 items on knowledge of individual state laws; scale 4 contains 20 items on attitudes toward advance directives and end-of-life issues; and scale 5 contains 30 items (seven items on experience with advance directives, 20 items on experience related to end-of-life decision making, and 11 items on confidence assisting patients with advance directives); the demographic survey contains 26 demographic items, and there is one open-ended question that asks nurses about what they need to better assist patient with advance directives (Jezewski et al., 2005). The following scales of the KAESAD were used in this study: scale 1 that measured knowledge of advance directives, scale 2 that measured knowledge of the PSDA, scale 3 that measured knowledge of Illinois state law, and scale 4 that measured attitudes about advance directives and end-of-life care decision making. Eleven items that measured confidence in assisting patients with advance directives were used from scale 5.

This research study identified the knowledge, attitudes, and confidence levels of advance directives of senior nursing students enrolled in a CCNE- or ACNE- accredited bachelor of science nursing program in Illinois, using the KAESAD instrument. Senior nursing students were selected as subjects for this study because end-of-life care is presented prior or during the last year of their program. This study revealed the current state of baccalaureate nursing education programs in Illinois related to end-of-life care.

Validity. Jezewski et al. (2005) developed the KAESAD instrument to measure knowledge of, attitudes toward, and confidence and experiences with advance directives in end-of-life decisions among oncology nurses (Ryan & Jezewski, 2012). Jezewski et al. obtained face and content validity for the KAESAD instrument. Face validity was obtained by administering the initial instrument to 40 oncology nurses from each of the following states: California, Illinois, New York, and Texas. The nurses checked the wording and instructions to ensure the instrument was understandable and to determine whether it was assessing the congruence of the key variables of knowledge, attitudes, experiences, confidence, and advance directives (Jezewski et al., 2005; Simon & Goes, 2013). In addition, the 110-item instrument was rated by panel members in end-of-life care and advance directives for content validity. The experts represented the disciplines of nursing, medicine, law, and bioethics and provided feedback on each item on the instrument. Based on the feedback from the panel members, changes were made to 22 items. Nine items were added, and four items were deleted based on the opinions of the panel and the judgment of the investigators. The final instrument consisted of 115 items (Jezewski et al., 2005, p. 321).

Reliability. The 115-instrument reliability was initially obtained by conducting a pilot test with 40 oncology nurses from California, Illinois, New York, and Texas. The reliability of the initial 110-item instrument was established through an initial pilot test, a second pilot test, judgment of the investigators, and an expert panel that consisted of experts in nursing, medicine, law, and bioethics (Jezewski et al., 2005). The KAESAD was revised based on the feedback from the expert panel, judgment of the investigators, the initial pilot test, and the second pilot test. The second pilot test utilized a convenience sample of 18 graduate nursing students. The reliability of the pilot survey test-retest over a 3-week period were $r = 0.51$ and $r = 0.90$, the test-retest proportion of agreement for individual items were 0.71 and -1.0, and internal consistency (Cronbach's alpha = 0.58–

0.95). Reliability coefficients higher than .70 are considered satisfactory, but coefficients greater than .80 are preferred (Polit & Beck, 2008). Based on Polit and Beck (2008), the KAESAD instrument scores made it reliable enough to use for the study.

Scoring. This section includes a discussion of discusses the scoring of the five scales of the KAESAD instrument used in this study. Scale 1 examines general knowledge of advance directives using 10 questions. Scale 2 examines knowledge of the PSDA (1990) using seven questions. Scale 3 examines knowledge of Illinois state laws regarding advance directives using 13 questions. Each statement in each of these three scales requires a *true*, *false*, or *do not know* response. The do not know response was added to these scales to minimize guessing and was marked as incorrect. The three knowledge scales were totaled as one score, with the total number of correct scores ranging from 0 to 30. For this study, the three knowledge scales were totaled as one score.

Scale 4 examines professional attitudes regarding end-of-life decision making. Twenty items surveyed nurses' attitudes toward patient rights, starting and stopping life support, artificial hydration and nutrition, nurses' role informing patients, and assisted suicide (Jezewski et al., 2005, p. 321). Each statement utilizes a 4-point Likert scale response, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The Likert scale was reduced to two levels: agree (strongly agree, agree) and disagree (disagree, strongly disagree). Jezewski et al. (2005) did not calculate a total attitude score, but in the analysis, used individual items in the scale because of low internal consistency, with a Cronbach's alpha of 0.58. For this study, a score was assigned to each item based on the answers provided by the students, and then a comparison of students' percentage of answers, not total scores, was performed.

Scale 5 examines nurses' confidence with helping patients complete an advance directive. Eleven items assessed nurses' confidence in answering patient and family questions, teaching others about advance directives, mediating in disagreements related to advance directives, and advocating for patients' advance directives (Jezewski et al., 2005, p. 321). Each statement utilized a 5-point Likert scale response, ranging from 1 (*not at all confident*) to 5 (*very confident*). The Cronbach's alpha for this scale was 0.95 (Jezewski et al., 2005, p. 321). For this study, a score was assigned to each item based on the answers provided by the students, and then a comparison of students' percentage of answers, not total scores, was performed.

Instrument 2: Demographic Questionnaire

A demographic questionnaire was developed for this study to identify participant characteristics and nursing program education about advance directives. Three items allowed assessment of personal characteristics. Personal characteristics included gender, ethnicity, and age. Three items were related to advance directives. The items asked whether the participant had an advance directive, if immediate family members had an advance directive, and whether the participant had attended an in-service program or workshop about advance directives. Educational program information asked the participant to identify what program he or she was attending and to identify in what semesters they had received end-of-life care information in their program. The last items on the questionnaire asked, “What do nursing students need to increase their ability to assist patients with advance directives before graduation?”

General Statistical Strategy

This section presents a discussion of the data preparation, analysis for errors, and the program that was used for statistical analysis. In addition, it identifies measures to test the assumptions and analyze data to answer the research questions and the extent to which the hypotheses are statistically significant. The statistical test used for this study was for two independent groups. Due to low participation, with only one participant answering the questionnaire, one program was not utilized.

Data obtained from the KAESAD and demographic questionnaires were entered and analyzed using the computer program, SPSS Version 22.0, graduate student version. Descriptive data were collected to show characteristics and demographics of the participants. Descriptive statistics of age and sex provided the researcher with characteristics of the sample at the ordinal and nominal level.

Hypothesis testing to compare average proportions of the correctly identified answers between two student cohorts was implemented. Students who received content in the junior year and students who received content in the senior year were the two cohorts. More specifically, individual students’ answers were tabulated in relation to the correctly identified answers. For each student participant, the proportion of correct answers was determined. Average proportions were compared via z test for comparing two population proportions. The participant answers for Likert-scale questions were weighted according to the correctly or nearly correctly identified answers. Summary measures of these answers were obtained for appropriate two-sample comparison tests using independent *t*-test procedures. Furthermore, student answers were correlated to their provided demographic attributes. Comparison procedures were implemented to identify the end-of-life care attitudes between different genders, age groups, and races.

The statistical assumptions for this study were based on parametric and nonparametric statistics. The requirements for using parametric statistics are as follows:

- The variance is calculated from the sample population (Grove et al., 2013; LoBiondo-Wood & Haber, 2010; Polit & Beck, 2010).
- The level of measurement is at the interval and/or ordinal level (Grove et al., 2013; LoBiondo-Wood & Haber, 2010; Polit & Beck, 2010).
- The variable is normally dispersed in the general population (Grove et al., 2013; LoBiondo-Wood & Haber, 2010; Polit & Beck, 2010).

The requirements for using nonparametric statistics are as follows:

- Data do not have to fit a standard distribution (Grove et al., 2013; LoBiondo-Wood & Haber, 2010; Polit & Beck, 2010).
- Variables are measured at the nominal and/or ordinal level (Grove et al., 2013; LoBiondo-Wood & Haber, 2010; Polit & Beck, 2010).

Data Cleaning

Data were entered, verified, and cleaned. All questionnaires, both electronic and paper, were visually inspected for completeness before entering data into SPSS. Surveys that were incomplete were not included in the analysis. If a participant marked two answers on the survey or chose a response between two choices, the data were excluded to prevent inaccurate results (Grove et al., 2013; Polit & Beck, 2008). All completed data were entered into SPSS, Version 22.0, graduate student version. To ensure data were entered correctly, the researcher did not enter data for more than 2 hours at one sitting so that mistakes were not made due to fatigue. The working environment was calm and quiet, with no disturbances during the time the data were entered, so mistakes were not made because of distractions (Grove et al., 2013).

Data cleaning also involved checking for outliers by conducting a box plot (Pallant, 2013; Polit & Beck, 2008). If an outlier was found, the outlier score was checked to see if it was in the range of possible scores for that particular variable. The questionnaire and data record input were also checked to find out whether a mistake had been done when the data were entered. If an error was found, it was corrected, and another box plot was run using SPSS. Outliers were kept and changed to a less extreme value. Changing the outliers to a less extreme value was done so the data could be included in the data analysis without having his or her data distort the general patterns the overall data set provided. For this study, an *outlier* was defined as three standard deviations from the mean (Bannon, 2013; Pallant, 2013; Polit & Beck, 2008).

Descriptive

Descriptive statistics were used to analyze and describe the sample. A frequency distribution and related percentages were done to see what participant demographics of ethnicity, age, and gender were. Frequency distributions and related percentages were reported for participants who did have and those who did not have an advance directive, and immediate family members who did or did not have an advance directive. Measures of central tendency, mean, median, and mode were reported for ethnicity, age, and gender (Grove et al., 2013; LoBiondo-Wood & Haber, 2010; Pallant, 2013; Polit & Beck, 2008). The students' responses to the open-ended question were summarized using descriptive statistics.

Reliability Testing

A Cronbach's alpha score was calculated to assess for internal consistency from the knowledge, attitudes, and confidence data collected from participants. An alpha score of 0.70 or higher was considered acceptable for this study. A score of 0.70 is considered 70% reliable (Leech, Barrett, & Morgan, 2015). Every item was correlated with the total score for the survey. Any items with low factor weights were removed in order to increase the reliability of the instrument (Grove et al., 2013; LoBiondo-Wood & Haber, 2010). The Cronbach's alpha scores for the KAESAD scales as reported by Jezewski et al. (2005) ranged within the test-retest pilot survey of 0.58–0.95.

Hypothesis Testing

Hypothesis 1. There is a difference in the level of knowledge about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. The independent variable was end-of-life care and the dependent variable was knowledge. A *z* test was performed to compare knowledge about end-of-life care among senior nursing students who received content in the junior year to students who received it in the senior year.

Hypothesis 2. There is a difference in the level of confidence about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. The independent variable was end-of-life care and the dependent variable was confidence. A *z* test was performed to compare confidence about end-of-life care among senior nursing students who received content in the junior year to students who received it in the senior year.

Hypothesis 3. There is a difference in the attitudes about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. The independent variable was end-of-life care and the dependent variable was attitude of senior nursing students who received content in the junior year to students that received it in the senior year. A *z* test was performed to compare attitude toward end-of-life care among senior nursing students who received content in the junior year to students who received it in the senior year.

Hypothesis 4. There is a significant relationship among knowledge, attitudes, and confidence about end-of-life care of senior nursing students who receive end-of-life care information. The independent variable was end-of-life care and the dependent variables were knowledge, confidence, and attitudes. A two-way chi square was performed to compare knowledge, confidence, and attitudes about end-of-life care of senior nursing students enrolled in the two programs utilized for this study.

Hypothesis 5. There is a significant relationship between attitudes about end-of-life care and demographic attributes in senior nursing students who receive end-of-life care information. The independent variable was end-of-life care and the dependent variables were attitudes, gender, and ethnicity. A two-way chi square was performed to compare knowledge, confidence, and attitudes about end-of-life care of senior nursing students enrolled in the two programs utilized for this study.

Hypothesis 6. There is a significant relationship between knowledge and attitudes about end-of-life care in senior nursing students who receive end-of-life care information. A two-way chi square was performed to compare knowledge, and attitudes about end-of-life care of senior nursing students enrolled in the two programs utilized for this study.

Hypothesis 7. There is a significant relationship between knowledge and confidence about end-of-life care in senior nursing students who receive end-of-life care information. The independent variable was end-of-life care and the dependent variables were knowledge, confidence, and attitudes. A two-way chi square was performed to compare knowledge, confidence, and attitudes about end-of-life care of senior nursing students enrolled in the two programs utilized for this study.

Limitations

Threats to Internal Validity

Selection bias was a concern because there were only two schools in the Midwest involved in the study. The researcher made sure to include participants from schools of nursing in central Illinois. The programs utilized for this study had participants who displayed a true sample of the population and generalization.

Threats to External Validity

Selection effects may be a threat to external validity because the location of the participants may not mirror other locations that may have more diverse students. The researcher made every effort to acquire a decent diverse population sample by using two different nursing programs.

Chapter Summary

This study used five scales of the KAESAD to determine if there were differences in senior nursing students' knowledge, attitudes, and confidence about advance directives, the PSDA, and state laws governing these concepts, which are important features of end-of-life care information, based on when the information is presented in the curriculum. Scales 4 and 5 of the KAESAD have low internal consistency; however, there are no other tools that measure the variables of confidence and attitude.

The quantitative, non-experimental, comparative descriptive design study tested seven hypotheses. Hypothesis 1: there is a difference in the level of knowledge about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. A *z* test was performed to compare knowledge about end of life among senior nursing students. Hypothesis 2: there is a difference in the level of confidence about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. A *z* test was performed to compare confidence about end of life among senior nursing students.

Hypothesis 3: there is a difference in the attitudes about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. A *z* test was performed to compare attitude toward end-of-life care among senior nursing students.

Hypothesis 4: there is a significant relationship among knowledge, attitudes, and confidence about end-of-life care of senior nursing students who receive end-of-life care information. A two-way chi square test was performed to compare knowledge, confidence, and attitudes about end-of-life care of senior nursing students. Hypothesis 5: there is a significant relationship between attitudes about end-of-life care and demographic attributes in senior nursing students who receive end-of-life care information. A two-way chi square was performed to compare knowledge, confidence, and attitudes about end-of-life care of senior nursing students. Hypothesis 6: there is a significant relationship between knowledge and attitudes about end-of-life care in senior nursing students who receive end-of-life care information. A two-way chi square was performed to compare knowledge, and attitudes about end-of-life care of senior nursing students. Hypothesis 7: there is a significant relationship between knowledge and confidence about end-of-life care in senior nursing students who receive end-of-life care information. A two-way chi square was performed to compare knowledge, confidence, and attitudes about end-of-life care of senior nursing students.

Once IRB approvals were obtained, data collection was performed at the three nursing programs via SelectSurvey and face to face, two nursing programs via

SelectSurvey and one program face to face. These programs are CCNE- or ACEN-accredited bachelor of science nursing programs in the state of Illinois, specifically, central Illinois. Data was collected until sample size was met.

Chapter Four

Results

This chapter discusses the process of data collection, data analysis, and results. The purpose of this non-experimental, exploratory study was to determine if there were differences in senior nursing students’ knowledge, attitudes, and confidence about end-of-life care based on whether they participated in a curriculum that offered an integrated end-of-life care course content in their junior or senior year of the program. Data were collected using the KAESAD instrument and one open-ended question.

Study Participants

Senior nursing students were invited to participate in the study from three different nursing programs in central Illinois. A total of 131 students participated in the study. One hundred thirty-five students from the program that presented end-of-life care information in the junior year, 88 students from the college that presented the content in the senior year, and 70 students from the college that presented the content in the junior and senior year were invited to participate in the study. One hundred sixteen students from the program that presented end-of-life care information in the junior year, 15 students from the program that presented the content in the senior year, and one student from the college that presented content in the junior and senior year completed the survey. The participation rate was 86% for the program that presented end-of-life care content in the junior year, 17% for the program that presented the content in the senior year, and .01% for the program that presented the content in the junior and senior year. The participant from the program that presented the content in the junior and senior year was excluded from the study because only one student completed the questionnaire; therefore, the result from this college was not included in the data analysis.

Data were collected two ways, face to face and via SelectSurvey, a secure site. The program that presented end-of-life care content in the junior year had a higher participation rate because data were collected face to face in the leadership course. Not all students chose to participate in the study. Students may have been absent from class the day of data collection, were not interested, did not have the time to complete the survey and demographic questionnaire, or may have been uncomfortable completing the KAESAD. Data and demographic questionnaires were collected from the programs that offered end-of-life care content the senior year, and the junior and senior year by using SelectSurvey, a secure site. The response rate was low for both colleges. One reason may have been that it was an online survey. Students may have forgotten about the survey, did not have time to complete the survey and demographic questionnaire, chose not to participate, or may have been uncomfortable participating.

Data Cleaning

A total of 131 surveys and demographic questionnaires were collected for this study. Non-responded items were coded as missing data where applicable. Due to the nature of the responses, the data contained no outliers. On Question 89, the semester in which students were exposed to advance directives, if a student indicated more than one semester, the first time he or she was introduced to the material was recorded. Non-responded demographic answers were left out of the analysis.

Descriptives

Description of the Sample

The demographics of the two sample groups were computed to describe their characteristics. Students who received content in the junior year (*N* = 116) included 100 women (86%), 15 men (13%), and one who preferred not to answer (1%). Most students, 102 reported an age range between 18 and 24 years (88%), 13 students reported an age range between 25 and 34 years (11%), and one student reported an age range between 35 and 44 years (1%). Students who received content in the senior year (*N* = 15) included 13 women (87%) and two men (13%). Two students reported an age range between 18 and 24 years (13%), seven students reported an age range between 25 and 34 years (47%), and six students reported an age range between 35 and 44 years (40%). Table 1 provides a summary of demographic data that include gender and age for both groups. Table 2 provides a summary of demographic data that include ethnicity.

Table 1

Demographic Characteristics of Gender and Age

Characteristic	Content in junior year (*N* = 116)		Content in senior year (*N* = 115)	
	n	%	*n*	%
Gender				
Female	100	86	13	87
Male	15	13	2	13
Prefer not to answer	1	1	0	0
Total	116	100	15	100
Age range (years)				
18–24	102	88	2	13
25–34	13	11	7	47
35–44	1	1	6	40
45–54	0	0	0	0
55–64	0	0	0	0
65+	0	0	0	0
Total	116	100	15	100

Table 2

Demographic Characteristics of Ethnicity

	Content in junior year (*N* = 116)		Content in senior year (*N* = 115)	
Characteristic	*n*	%	*n*	%
Ethnicity				
Caucasian, non-Hispanic	98	84	2	13.3
Black/African American	1	1	9	60
Asian/Pacific Islander	7	6	0	0
Native American	0	0	0	0
Hispanic/Latino	6	5	0	0
Other	2	2	2	13.3
Prefer not to answer	2	2	2	13.3
Total	116	100	15	100

The majority of students who received end-of-life care content in the junior year were women (86%), most (88%) reported an age range between 18 and 24 years, and most were Caucasian, non-Hispanic (84%). The majority of students who received the content in the senior year were women (87%), most students (seven) reported an age range between 25 and 34 years (47%), six students reported an age range between 35 and 44 years (40%), and most students were Black/African American (60%).

Participants were asked if they had an advance directive, if anyone in their immediate family had an advance directive, and whether they had attended an in-service program/workshop about advance directives. When participants were asked if they had an advance directive, the majority of the students who received end-of-life care content in the junior year did not have an advance directive (91%), and over half students who received the content in the senior year (73%) did not have one. Forty-eight percent of students who received end-of-life care content in the junior year reported a higher percentage of immediate family members having an advance directive (22% said no). However, 67% of students who received the content in the senior year reported that their immediate family members did not have an advance directive (20% said yes, 67% said no). When students were asked if they had attended an in-service, the majority of students in both groups, those who received content in the junior year (94% said no, 5% said yes) and received content in the senior year (80% said no, 20% said yes), reported not attending an in-service program/workshop about advance directives. Table 3 provides a summary.

Table 3

Advance Directive Characteristics

	Content in junior year (*N* = 116)		Content in senior year (*N* = 115)	
Characteristic	*n*	%	*n*	%
Have an advance directive				
Yes	9	7	4	27
No	105	91	11	73
I don’t know	2	2	0	0
Total	116	100	15	100
Immediate family have an advance directive				
Yes	56	48	3	20
No	26	22	10	67
I don’t know	34	30	2	13
Total	116	100	15	100
Attended in-service program/workshop				
Yes	56	48	3	20
No	109	94	12	80
I don’t know	1	1	0	0
Total	116	100	15	100

Responses to the Measurements

The KAESAD is composed of 88 statements organized around five subscales: general knowledge of advance directives; knowledge of the PSDA of 1990; knowledge of state laws, specifically New York, California, Illinois, and Texas; professional attitudes regarding end-of-life decision making and experiences; and confidence with advance directives and end-of-life decision making.

The mean score for the general knowledge of advance directives, PSDA of 1990, and Illinois state law for students receiving end-of-life care content in the junior year was 52% (*SD* = 11) and the senior year was 59% (*SD* = 8). The mean score for the attitude regarding end-of-life decision making for students receiving end-of-life care content in the junior year was 30% (*SD* = 7.4) and senior year 33% (*SD* = 6.9). The mean score for confidence with advance directives for students receiving end-of-life care content in the junior year was 29.22% (*SD* = 7.8) and senior year was 35.73% (*SD* = 11.4), with a median of 33. Table 4 displays a summary of the results for the overall student scores for both groups.

Table 4

Student Overall Scores on Knowledge, Attitudes, and Confidence of Advance Directives and End-of-Life Decision Making

Characteristic	Content in junior year (*n* = 116)	Content in senior year (*n* = 15)
Average knowledge of advance directives, Patient Self-Determination Act of 1990, and Illinois law (questions 1–30)		
Mean (*SD*)	52 (11)	59 (8)
Median	53	60
Average attitude regarding end-of-life decision making (questions 31–50)		
Mean (*SD*)	30 (7.4)	33 (6.9)
Median	29.5	31.5
Average level of confidence with advance directives (questions 51–61)		
Mean (*SD*)	29.22 (7.8)	35.73 (11.4)
Median	30	33

Reliability Testing

Cronbach's alpha was calculated to see what the reliability of the KAESAD tool was for this study. The Cronbach's alpha for the 81 items from the KAESAD tool used for this study was 0.766. The Cronbach's alpha for the 30 items of the Knowledge subscale was 0.837; for the 20 items of the Attitude subscale, it was 0.652; and for the 11 items of the Confidence subscale, it was 0.930. For the Attitudes subscale, the responses were weighted in order to reflect and accommodate possible personal biases toward the language used in the tool (strongly agree versus agree, and strongly disagree versus disagree), which is believed to have affected the Cronbach alpha slightly. This point can be further confirmed by the increased Cronbach's alpha score (from .652 to .714) when five items (items 31, 35, 40, 46, 49) were dropped from the Attitudes subscale.

Hypothesis Testing

The initial plan was to use the parametric statistic ANOVA to evaluate the differences of knowledge, attitudes, confidence, and mean group differences among students enrolled in three nursing programs (Polit & Beck, 2010). However, because there was only one student who participated in the study from the college that offered end-of-life care content in the junior and senior year, the decision was made to exclude that college and use the parametric statistic *z* test. Average proportions were compared using the *z* test for comparing two population proportions. The total sample size was 131, with 116 participants from the program that offered end-of-life care content in the junior year and 15 participants from the program that offered the content in the senior year. The standard deviation for students who received the content in the junior year was 11%, and 8% percent for students receiving the content in the senior year. The mean for students receiving content in the junior year was 52%, and 59% for students receiving content in the senior year.

The purpose of this study was to determine if there are differences in senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on when in the curriculum the information is presented. There were seven hypotheses tested in this study, and the results are reported in this section.

Hypothesis 1

The first hypothesis stated that there is a difference in the level of knowledge about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. The hypothesis was tested using the *z* test with an alpha of < 0.05. The *z* test result was *p* value = 0.002; therefore, the null hypothesis was rejected, concluding that students in their senior year had a higher level of knowledge. Table 5 displays a summary of the means, standard deviations for each group, and *p* value.

Table 5

Means, Standard Deviations, and p Value for Knowledge of ADs, PSDA of 1990, and Illinois Law

Calculation	Content in junior year (*N* = 116)	Content in senior year (*N* = 15)	*p* value
Mean	52	59	0.002*
SD	11	8	

Note. * *p* value < 0.05.

Hypothesis 2

The second hypothesis stated that there is a difference in the level of confidence about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. The hypothesis was tested using the *z* test with an alpha of < 0.05. The *z* test result was *p* value = 0.3; therefore, the null hypothesis was not rejected, concluding there were no significant difference in the level of knowledge irrespective of when the integrated end-of-life content was provided. Table 6 displays a summary.

Table 6

Means, Standard Deviations, and p Value for Level of Confidence With Advance Directives

Calculation	Content in junior year (*N* = 116)	Content in senior year (*N* = 15)	*p* value
Mean	29	36	0.3*
SD	7.8	11.4	

Note. * *p* value > 0.05.

Hypothesis 3

The third hypothesis was there is a difference in the attitudes about end-of-life care in senior nursing students enrolled in a bachelor of science in nursing program based on whether an integrated end-of-life care course content is provided in the junior or senior year in the curriculum. The hypothesis was tested using the *z* test with an alpha of < 0.05. The *z* test result was *p* value = 0.1; therefore, the null hypothesis was not rejected, concluding that there were no differences in attitudes. Table 7 displays a summary of the means, standard deviations for each group, and *p* value.

Table 7

Means, Standard Deviations, and p Value for Attitudes Regarding End-of-Life Decision Making

Calculation	Content in junior year (*n* = 116)	Content in senior year (*n* = 15)	*p* value
Mean	30	33	0.1*
SD	7.4	6.9	

Note. * *p* value > 0.05.

Hypothesis 4

The fourth hypothesis stated that there is a significant relationship among knowledge, attitudes, and confidence about end-of-life care of senior nursing students who receive end-of -life care information. The hypothesis was tested using correlation statistics with a set alpha of < 0.05. There was no statistical significant correlation among knowledge, confidence, and attitudes; the null hypothesis was not rejected. However, it should be noted that the correlation approached significance for two of the variables. Students who reported higher levels of knowledge also held higher attitudes about end-of-life care ($p = 0.06$). Table 8 displays a summary of the results.

Table 8

Correlations of Knowledge, Confidence, and Attitudes with End-of-Life Care

	N = 131		
Characteristic	Knowledge	Attitudes	Confidence
Knowledge			
Attitudes	0.06		
Confidence	0.21	0.20	

Note. *p* value < 0.05

Hypothesis 5

The fifth hypothesis stated that there is a significant relationship between attitudes about end-of-life care and demographic attributes in senior nursing students who receive end-of-life care information. The hypothesis was tested using correlation statistics with an alpha of < 0.05. There was no statistically significant correlation between attitudes and demographic attributes; the null hypothesis was not rejected. However, attitudes about end-of-life care and two demographic attributes, gender and ethnicity, almost reached significance (0.06 and 0.07, respectively). Table 9 displays a summary of the results.

Table 9

Correlations of Attitudes About End-of-Life Care and Demographic Data

N = 131

Characteristic	Attitudes	Gender	Ethnicity	Age
Attitudes				
Gender	0.06			
Ethnicity	0.07	0.16		
Age	0.25	-.003*	0.34	

Note. p value < 0.05

Hypothesis 6

The sixth hypothesis was that there is a significant relationship between knowledge and attitudes about end-of-life care in senior nursing students who receive end-of-life care information. The hypothesis was tested using correlation statistics with an alpha of < 0.05. There was no significant correlation; the null hypothesis was not rejected. However, it should be noted that the correlation approached significance (p = 0.06). Students who reported higher levels of knowledge also held more positive attitudes about end-of-life care. Table 10 displays a summary of the results.

Table 10

Correlations Between Knowledge and Attitudes About End-of-Life Care

Factor	Knowledge
Attitudes	0.6

Note. *p* value < 0.05

Hypothesis 7

The seventh hypothesis stated that there is a significant relationship between knowledge and confidence about end-of-life care in senior nursing students who receive end-of-life care information. The hypothesis was tested using correlation statistics with an alpha of < 0.05. There was a significant correlation between knowledge and confidence (*p* value = 0.0001). The null hypothesis was rejected; students who had higher knowledge were more confident about their knowledge of advance directives, PSDA of 1990, and Illinois law. Table 11 displays a summary of the results.

Table 11

Correlations Between Knowledge and Confidence About Advance Directives

Factor	Knowledge
Confidence	0.0001*

Note. * *p* value < 0.05

Responses to Open-Ended Question

The responses from both colleges were similar and were grouped into three categories. The first category was *Needing more education about advance directives, PSDA, and state laws.* The following are examples of statements related to that category:

- I feel like we didn’t really go into depth about advance directives. We only briefly talked about them and maybe had one or two questions on an exam about them. Taking this survey made me realize how little I know about advance directives.

- I think if this was included in our clinical experience, we would be able to understand it a bit better. It’s hard to imagine what all these different legal documents are if you are not shown them or have any idea how you would approach a patient about them. A simulation about this would be great.

- We need more information on advance directives and teaching in class. Possibly act out a situation of helping a patient (a student in class) and how to help them, answer questions about advance directives. I do not feel prepared to discuss advance directives with my patients.

The second category was *Needing more curriculum content about nursing’s responsibilities and role*. The following are statements related to this category:

- “Knowledge of what advance directives entail. Nursing’s scope of practice regarding them, and personal reflection of our own views.”

- “I am not sure what my responsibilities and role is with helping patients with advance directives.”

The third category was *Needing more opportunity for clinical application.* The following are statements related to this category:

- More education and practice in the clinical setting. I don’t think there is enough time spent talking about how to use them in the clinical setting. Time is spent talking about the definition and meaning of advance directives rather than how to use them and patient teaching.

- End-of-life care and advance directives is talked about when looking at what they are. They are not always talked about as in how we can help patients with their advance directive or how to deal with family members when they do not agree with the patient. I think that it would be nice to do some simulation where the students have to educate the patient on advance directives and have to deal with the family disagreeing with the patient.

- More educational activities (worksheets or something) or role-playing to practice understanding, integrating and applying knowledge about advance directives. We

> think we know material . . . until we have to apply it, and that's when we find out there are so many different aspects to consider. The whole state law thing, I really had no idea about. Perhaps having a simple assignment where we ask one patient from our clinical about their knowledge or document after learning about advance directives would help.

The responses to the open-ended question are similar to what was found in the literature review. In the literature review, nurses recommended more education about advance directives in nursing programs, citing the small amount of education they received in their programs. The literature review also revealed that nurses do not understand what their roles and responsibilities are with advance directives. Based on the consistency of the responses from the open-ended question and the literature review, there is a need to review curriculum on end-of-life care. There also needs to be consideration about increasing activities for clinical application related to simulation, other active learning strategies, and exposure in the clinical setting.

Conclusions Based on Overall Hypotheses

The conclusion based on the overall hypotheses was that the semester at which students are introduced to advance directive material has an impact on confidence and knowledge. Students who received advance directive information in their senior year, specifically the last semester, believed they were more knowledgeable about end-of-life care. However, both groups of students scored low, which is consistent with findings in the literature that nurses do not feel comfortable about their knowledge of end-of-life care.

Chapter Summary

This chapter included a discussion of the findings of the statistical analysis of the seven research hypotheses relating to the differences of senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on placement of information in the curriculum. One hundred thirty-one senior nursing students participated in the study, 116 received content in the junior year, and 15 received it in the senior year. Most students were women (86%) and identified themselves as Caucasian/non-Hispanic, students who received content in the junior year (84%), and received content in the senior year (13%). Students completed the knowledge, confidence, and attitude subscales of the KAESAD and a demographic questionnaire. Comparison of the two groups was done using *z* tests on knowledge, confidence, and attitudes. Correlations were also performed to determine whether relationships existed among knowledge, attitudes, and confidence. Correlations were also performed to determine whether when students received the information in the curriculum made a difference in knowledge, confidence, and attitude. Five hypotheses were rejected, and two were not rejected.

Chapter Five

Discussion and Summary

Advance directives, components within end-of-life care, are beneficial for any patient regardless of whether they are ill or not. They become essential when a patient is unable to make his or her own healthcare decisions because of an accident or the development of an acute, chronic, or terminal illness. Advance directives provide patients the opportunity to communicate their wishes in writing, related to healthcare treatment, end-of-life care, and the choice of identifying someone to make decisions about their healthcare if they are unable, therefore ensuring their healthcare choices are honored (Watson, 2010). Not only do nurses play an important role in helping patients with advance directives, but also the ANA (2015) requires nurses to provide patient education and answer questions about advance directives. In order for nurses to assist patients to make informed decisions, they must be knowledgeable about advance directives. Education about advance directives must begin in nursing programs and continue in healthcare organizations so nurses feel prepared to discuss this delicate topic with patients. The findings of this study contribute new knowledge to the sparse information existing addressing advance directive education and nursing curricula.

The literature review yielded one study specific to nursing students and their knowledge about advance directives. No previous studies have identified how placement of end-of-life care content in nursing curricula affects nursing students’ knowledge, attitudes, and confidence. Participants in this study were nursing students in the final year of their nursing program.

The purpose of this research study was to examine whether there were differences in senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on when the information is presented in the curriculum. Nursing students who participated in the study were enrolled in a baccalaureate program that was accredited by the AACN or ACEN, which have similar accreditation standards. The variables measured in this study were knowledge, attitudes, and confidence.

Social cognitive learning theory (Merriam et al., 2007) and Zimmerman's (1989) self-regulation model provided the theoretical framework for this study. Emphasis is placed on observation, modeling behaviors, attitudes, and emotional responses of others (Saylor, 2011, p. 54). Interactions between cognitive, behavior, and environment affect learning, with much of the learning occurring in a social environment. An individual observes to learn about rules, attitudes, and strategies. The theory applied to this study because nursing students learn about rules and develop attitudes and strategies from observing others in the classroom and clinical settings. The strategies learned are applied by students when they encounter similar situations in clinical as they progress through their program and after graduation. Knowledge is obtained about end-of-life care from classroom and clinical experiences, observation of behaviors about end-of-life care in the classroom and clinical settings, and the type of classroom and clinical environments will influence student learning about end-of-life care and outcomes. The student behaviors and the variables of knowledge, attitudes, and confidence were captured using the

KAESAD. Social cognitive learning theory and Zimmerman's self-regulation model aligned and were congruent with assessing knowledge, attitudes, and confidence among senior nursing students about end-of-life care. Classroom and clinical environments influence knowledge, attitudes, and confidence.

This chapter presents a discussion of the results of this research study and compares it to previous studies. The chapter also includes discussions of implications of the findings on nursing education, practice, research, and public policy. Limitations of the research study and potential areas for future research are also discussed.

Summary of the Findings

This research study examined the knowledge, attitudes, and confidence about end-of-life care among senior nursing students and whether curriculum placement of the information makes a difference. The final sample consisted of nursing students in the last semester of their CCNE- or ACEN-accredited program. One program offered end-of-life care content in the junior year (*N* = 116) and the second offered the content in the senior year (*N* = 15) for a total of 131 participants. The demographic data showed that most participants from both programs were women, students who received content in the junior year (*N* = 100), and content received in the senior year (*N* = 13). Most participants (*n* = 102) from the program that offered content in the junior year reported an age between 18 and 24 years, and for the program that offered content in the senior year (*n* = 7), students were between 25 and 34 years of age.

This study examined the knowledge, attitudes, and confidence about end-of-life care among senior nursing students and whether curriculum placement of the information makes a difference. This section includes a discussion of the results as they relate to the research questions and how the results compare to previous knowledge in this area.

Research Question 1

Research Question 1 asked, "What are the perceived knowledge, attitudes, and confidence about end-of-life care of senior nursing students who participate in a curriculum that offers course content in end-of-life care based on when the information is presented in the curriculum?"

The results of this exploratory study revealed that the semester in which students are exposed to advance directive content is not a significant factor in determining their level of knowledge, attitude, and confidence. Students who received end-of-life care content in their senior year reported higher average levels of knowledge of advance directives, the PSDA of 1990 and Illinois law, higher average level of attitude regarding end-of-life decision making, and higher levels of confidence with advance directives than students who received end-of-life care content in their junior year.

Although students who participated in a curriculum that offered course content in end-of-life care in their senior year reported higher levels of all three variables, these scores are equivalent to a failing exam grade in nursing programs.

Integration of the findings with previous literature. This study is the first one to identify nursing students' knowledge, attitudes, and confidence and will begin to fill the gap in the literature in this area. The study by Kim and Ko (2013) was the only study of nursing students found that measured one of the variables this study measured. Kim and Ko surveyed 239 nursing students from four nursing programs in Korea about their knowledge level about advance directives and withdrawal of life-sustaining treatments. In this present study, student responses to the open-ended question confirmed that they were not getting enough education about end-of-life care, especially advance directives, state laws, and the PSDA in their programs. They reported having little knowledge about withdrawal of life-sustaining treatments and advance directives, which is consistent with the study by Kim and Ko. In Kim and Ko's study, students who had the opportunity to provide care to dying patients were more knowledgeable. They recommended reinforcement of advance directives and withdrawal of life-sustaining treatment education in nursing programs.

The results of this study were consistent with the literature review on nurses lacking the knowledge about advance directives, PSDA, and state laws needed to provide quality end-of-life care. Oncology nurses in Jezewski et al.'s (2005) study scored a mean of 58% on knowledge of advance directives, PSDA, and state laws. Nurses in Walerius et al.'s (2009) study scored a mean of 48% on knowledge of advance directives, PSDA, and state laws. Nurses in Jezewski and Feng's (2007) study scored a mean of 59%, and nurses in Scherer, Jezewski, Graves, Wu, and Bu's (2006) study scored a mean of 59.3%. Based on the literature review and the results of this study, nurses need more education about advance directives, PSDA, and state laws.

Research Question 2

Research Question 2 asked, "Is there a significant relationship among knowledge, attitudes, and confidence about end-of-life care in senior nursing students?" The results showed there was no significant relationship among knowledge, confidence, and attitudes (see Table 9).

Integration of the findings with previous literature. There is no previous literature with which to integrate the findings of this study. This was the first study done that explored relationships between knowledge, confidence, and attitudes about end-of-life care in nursing students. This study will begin to fill the gap in the literature in this area.

Further studies need to be done that evaluate the curriculum content and delivery about end-of-life care. In addition, studies that look at relationships between knowledge, confidence, and attitudes are needed, especially if nursing programs evaluate their end-of-life care information and how it is taught.

Research Question 3

Research Question 3 asked, “Is there a significant relationship between demographic attributes and attitudes about end-of-life care?” The results showed there was no significant relationship between demographic attributes (e.g., age, gender, and ethnicity) and attitudes (see Table 10).

Integration of findings with previous literature. Jafari et al. (2015) collected demographic information in their quasi-experimental study that used the FATCOD scale, which included religion. All students in their study were Muslim. The results showed there was not a significant correlation between student religion and attitude about caring for dying patients. Although different demographic attributes were explored in both studies, additional studies need to be done. Older students and students in accelerated programs may have more life experiences and may influence the attribute of age.

Research Question 4

Research Question 4 asked, “Is there a significant relationship between knowledge and attitudes of senior nursing students who receive end-of-life care information?” The results showed there was no significant relationship between knowledge and attitudes (see Table 11).

Integration of findings with previous literature. This was the first study that explored relationships between knowledge and attitudes about end-of-life care in nursing students. The literature review was mixed, with most students exposed to end-of-life care reporting a more positive attitude than students who were not exposed. Students who had the opportunity to care for or interact with dying patients or end-of-life care modules had more positive attitudes than students who received education using PowerPoints or reading the assigned textbooks assignments (Barrere et al., 2008; Dobbins, 2011; Grubb & Arthur, 2016; Jafari et al., 2015). In Hall and Grant’s (2014) study, students were given an opportunity to complete an advance directive. After completion of the advance directive, students reported being more positive and more likely to recommend and help family members with completion of an advance directive.

Further studies need to be conducted that specifically evaluate curriculum content and delivery methods about end-of-life care. Other studies that explore relationships between knowledge and attitudes can be conducted to find out whether changes in curriculum content and delivery methods have an impact on knowledge and attitudes about end-of-life care.

Attitudes in practicing nurses were similar to those of students in the literature. Most nurses had a positive attitude about end-of-life care and advance directives (Duke & Thompson, 2007; Flores et al., 2013; Jezewski & Feng, 2007; Ryan & Jezewski, 2012). Negative attitudes found in the literature were related to difficult end-of-life care situations, such as denying terminally ill patients' treatments.

Research Question 5

Research Question 5 asked, "Is there a significant relationship between knowledge and confidence of senior nursing students who receive end-of-life care information? The results showed there was a significant relationship between knowledge and confidence.

Students who had higher knowledge of advance directives, the PSDA of 1990, and Illinois law were more confident with advance directives. Students who were more knowledgeable were more confident about implementing policies, educating, and assisting patients with completion of advance directives.

Integration of findings with previous literature. The literature review revealed two studies that had explored nursing student confidence with end-of-life care. In Adesina et al.'s (2014) study, older students were more confident with end-of-life care than were younger students. The researchers attributed the results to personal and professional experiences. Hall and Grant's (2014) study was the only one specific to advance directives. Students completed their own advance directive as a learning activity.

The results showed an increase in confidence about advance directives after the learning activity.

There is no previous literature with which to integrate the findings of this study. The study was the first conducted that explored relationships between knowledge and confidence about end-of-life care in nursing students. This study will begin to fill the gap in the literature in this area.

Further studies need to be conducted that specifically evaluate curriculum content and delivery methods about end-of-life care. Other studies that explore relationships between knowledge and attitudes can be conducted to see whether changes in curriculum content and delivery methods have an impact on knowledge and attitudes about end-of-life care.

Implications of the Findings

This study was the first to examine whether there were differences in senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on when the information is presented in the curriculum. The implications for nursing education, nursing practice, nursing research, and public policy are presented in this section.

Implications for Nursing Education

The study adds to nursing education. The study showed students exposed to end-of-life care content in their senior year were more knowledgeable and confident; however, both groups scored low on the knowledge portion, specifically about advance directives, PSDA, and Illinois state laws. Although this study did not specifically examine curriculum content about end-of-life care, based on the students’ low knowledge scores, this study informs nurse educators that review of the curriculum content specific to end-of-life care and when end-of-life care is presented in the curriculum is needed. The IOM (2010) recommended changes to nursing education and curricula to better prepare students to handle the complexity and challenges of end-of-life care; however, the results of this study reveal that these outcomes have not yet been achieved. Nursing programs must reassess end-of-life care content and placement in their curricula to better prepare students on advocacy and end-of-life care. Graduate students cannot advocate or provide quality end-of-life care if curricula is not reassessed and revision made, specifically to the areas of knowledge about advance directives, PSDA, and state laws. The lack of student knowledge in these areas can lead to poor patient outcomes. These outcomes include patients receiving substandard education about end-of-life care, specifically advance directives, which will lead to not understanding choices when completing advance directives.

Implications for Nursing Practice

This study found that students exposed to end-of-life care content in their senior year were more knowledgeable and confident, yet both groups of students scored low on the knowledge portion, specifically about advance directives, PSDA, and Illinois state laws. In order for organizations to receive Medicare and Medicaid funding, they are required by the PSDA to provide information and help patients complete an advance directive.

The results inform organizations that changes must be made to current orientation, and continuing education must include information about advance directives, PSDA, and state laws to compensate for graduate nurses' lack of knowledge, which contributes to low completion rates of advance directives among patients (Cohen & Nirenberg, 2011; Duke & Thompson, 2007; Jezewski et al., 2003).

Implications for Nursing Research

The study adds to the existing sparse knowledge nursing research on this subject. It further highlights the need for more studies related to theoretical content and clinical exposures in regard to end-of-life care. Recommendations for additional research include what content is taught, how this content is reinforced throughout the program, and where it is taught in the placement in curricula. The AACN (2008) essentials are being utilized; however, there is no specific standard in the AACN (2008) essentials that specifically addresses end-of-life care. Exploring how or if the AACN (2008) *Essentials of Baccalaureate Education for Professional Nursing Practice* are being utilized in nursing curricula and the impact the essentials are having with improving education is important. The results of this study provide a foundation for intervention studies that will identify educational strategies that faculty can use in curricula to improve knowledge about advance directives, PSDA, and state laws.

Implications for Public Policy

The IOM (2010) recommended nursing programs make changes to end-of-life care content so nursing students are better prepared upon graduation to handle complex issues that may arise and better advocate for patients. These colleges were accredited by

AACN; however, there is no specific AACN standard that specifically addresses this content. This study may help nursing program accreditation agencies highlight specific end-of-life care content in programs using the AACN (2008) *Essentials of Baccalaureate Education for Professional Nursing Practice* as a guide. The highlighting of certain content will improve education in the areas of advance directives, PSDA, and state laws, because these are the areas in this study students were not knowledgeable about. Improving education in these areas will prepare graduates who can effectively provide end-of-life care.

Because nurses have the expertise when providing care to patients and their families, the ANA (2015) expects nurses to help with policy development to improve end-of-life care.

The changes made in nursing education will allow better implementation of the PSDA and state laws. In addition, nurses will have increased knowledge about advance directives, PSDA, and state laws, which will increase their confidence in these areas. The increased knowledge and confidence in these areas will help nurses empower patients to take charge and make the right decisions for themselves in regards to end-of-life care. Nurses may also become interested and involved in policy changes at the local, state, and national levels that will improve advance directive completion rates and end-of-life care.

Limitations

Limitations for this study include the use of only two of the three groups planned for inclusion in this study due to the low response rate of one program. The program that offered end-of-life care content in the senior year did not have as many participants as the program that offered the content in the junior year. The low response rate of the third program not utilized in the study and low participation of the program that offered end-of-life care content in the senior year could be contributed to the method of data collection used. Data were collected electronically, using SelectSurvey, a secure site. Typically, most online surveys have a low response rate. The program that offered end-of-life care content in the junior year had a high response rate because data were collected face to face. The timing of the survey may have contributed to the low response rate in groups 2 and 3. The survey was distributed online at the end of the semester, when students were preparing for finals and graduation. The overall reliability of the KAESAD tool used for this study was 0.766. The correlation for the attitudes subscale was 0.652. However, the correlation was higher than reported in previous studies. Five items from the attitudes subscale were removed and produced a higher reliability. A suggestion for future studies would be to revise the Attitude subscale. Because two groups participated in the study, with one group having a lower response rate, the methods and the approach used for the targeted conclusions can be generalized to apply to other regions because of the way data were analyzed and used. The data were analyzed using average proportions, which was different than how the authors of the tool, Jezewski et al. (2005), used it for their study. Jezewski et al.'s study with oncology nurses from Illinois, New York, Texas, and California used multiple regression for data analysis. This is the first study that looked at nursing students using certain subscales of the KAESAD tool. This study can be replicated using nursing students from other regions or students or professionals in other fields.

Chapter Summary

This study examined whether there were differences in senior nursing students' knowledge, attitudes, and confidence about end-of-life care based on when the information was presented in the curriculum. Nursing students from two baccalaureate programs participated in the study. The variables measured were knowledge, attitudes, and confidence using the KAESAD.

Social cognitive learning theory (Merriam et al., 2007) and Zimmerman's (1989) self-regulation model provided the theoretical framework for this study. Results from this study showed that knowledge and confidence are correlated with when end-of-life care is placed in the curriculum. Senior students who received end-of-life care in their senior year, specifically in the final semester were more knowledgeable and confident than senior students who received end-of-life care information in their junior year, specifically second semester. Yet, both groups scored poorly on knowledge of advance directives, PSDA, and Illinois laws. Responses to the open-ended question, "What do nursing students need to increase their ability to assist patients with advance directives before graduation?" from both groups within the colleges were similar. Students wanted more education about advance directives, PSDA and state laws, nursing's responsibilities and roles with advance directives, and more opportunities for clinical application.

The results of this exploratory study revealed that the semester in which students are exposed to advance directive content is an important factor in determining their level of knowledge and confidence. Senior nursing students who received end-of-life care content in the last semester were more knowledgeable (59%) than senior nursing students who received end-of-life care content their junior year, specifically in the second semester (52%). However, both groups scored poorly on the knowledge portion of the questionnaire. These scores would be consistent with a failing exam grade in nursing programs and is consistent with the literature. Discussion of the low knowledge scores of both groups is provided in greater depth in the integration of the findings with previous literature section.

Results from this study are consistent with the literature regarding nurses' lack of knowledge about end-of-life care, including advance directives, PSDA, and state laws. The study results were also consistent with the literature regarding attitudes and confidence. Students in this study reported needing additional education about end-of-life care, specifically advance directives, PSDA, state laws, and roles and responsibilities, which is consistent with the literature. Changes must be made to nursing programs regarding what end-of-life care content is being taught, how it is being taught, and where the information is being placed in nursing curricula.

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Appendix A

IRB Approval Letters

NSU
NOVA SOUTHEASTERN UNIVERSITY
Health Professions Division
College of Nursing

Title of Study: **Senior Nursing Students' Knowledge, Attitude and Confidence Levels with Advance Directives**

Principal investigator
Blanca Miller, PhD(c)
10808 N. Trailside Ln.
Dunlap, IL. 61525
217-341-4914

Co-Investigator
Cynthia Fletcher, PhD, RN
3200 South University Dr
Ft Lauderdale, FL 33328
954-262-1608

Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/Toll Free: 866-499-0790
IRB@nsu.nova.edu

Site information:
Illinois State University
100 N. University St.
Normal, IL. 61761

Saint Francis Medical Center
College of Nursing
511 NE Greenleaf St.
Peoria, IL. 61603

Methodist College
415 NE St. Mark Ct.
Peoria, IL. 61603

What is this study about? Blanca Miller is a doctoral student at Nova Southeastern University engaged in research for the purpose of satisfying a requirement for a Doctor of Nursing Education degree. You are being asked to participate in a study to determine the knowledge, attitude, and confidence levels of advance directives among senior nursing students enrolled in a baccalaureate program. Information obtained from the results could provide a foundation for additional research that may produce educational strategies faculty can use in curricula to improve knowledge, attitude and confidence about advance directives in nursing students before they begin practicing.

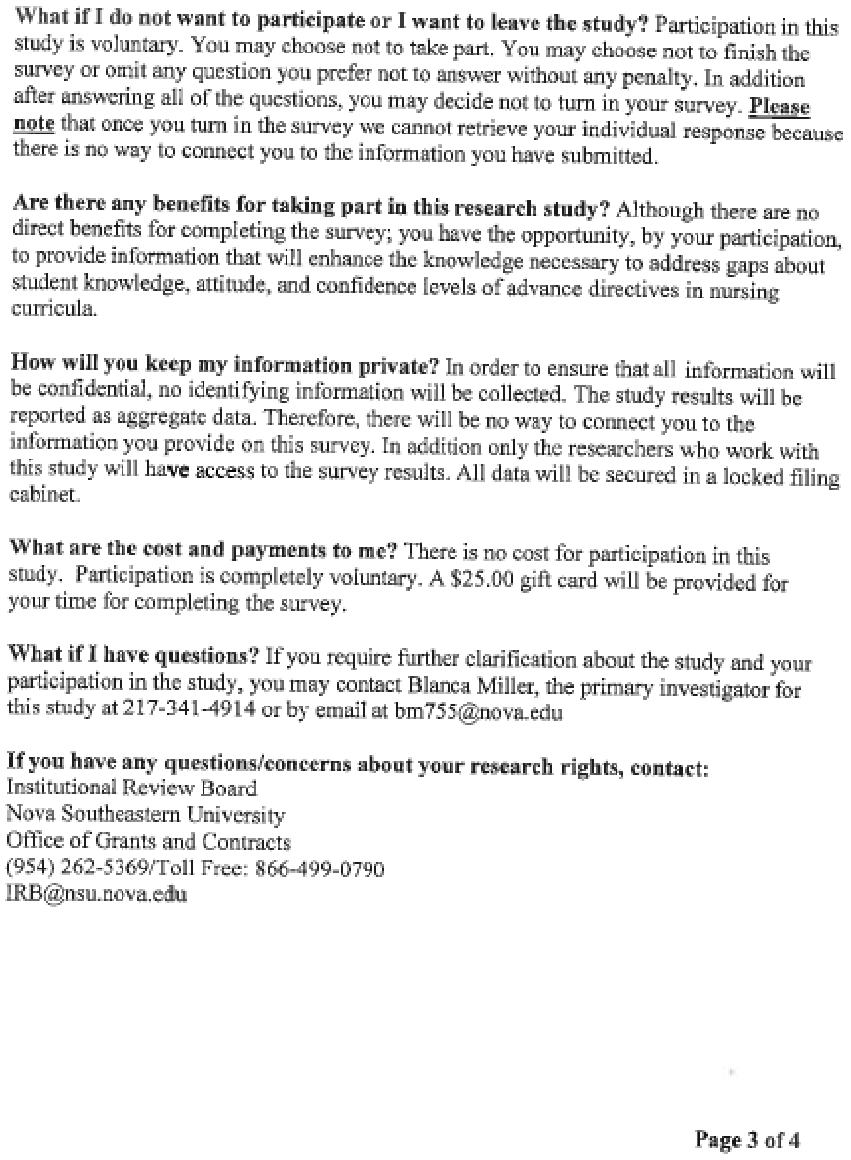
Why are you asking me? You are a nursing student that is in the last year of your nursing program.

What will I be doing if I agree to be in the study? If you agree to participate, you will be asked to complete a survey and demographic questionnaire. It will take approximately 15 to 20 minutes to complete this survey. If you choose to participate in this research, please complete each section of the survey as honestly as possible. Only one submission of the survey is allowed.

There are seven sections to the survey:

1. In the first section of the survey there are ten items. You are asked to provide your general knowledge of advance directives.
2. In the second section of the survey there are seven items. You are asked to provide your knowledge of the Patient Self-Determination Act (PSDA) of 1990.
3. In the third section of the survey there are thirteen items. You are asked to provide your knowledge of Illinois State laws regarding advance directives.
4. In the fourth section of the survey there are twenty statements. You are asked to provide your beliefs regarding end of life decision-making.
5. In the fifth section of the survey there are eleven statements. You are asked to provide your current level of confidence for each activity listed.
6. In the sixth section of the survey there are twenty statements. You are asked to provide your experiences with end of life decision-making.
7. In the seventh section there are nine items. You are asked to provide demographic information, such as gender, age, and whether you or a family member has an advance directive.

What are the dangers to me? There may be minimal risk involved in participating in this study. The likelihood that loss of confidentiality will occur is very minimal to none. However, to minimize any potential risk, no identifying information will be collected.



What if I do not want to participate or I want to leave the study? Participation in this study is voluntary. You may choose not to take part. You may choose not to finish the survey or omit any question you prefer not to answer without any penalty. In addition after answering all of the questions, you may decide not to turn in your survey. **Please note** that once you turn in the survey we cannot retrieve your individual response because there is no way to connect you to the information you have submitted.

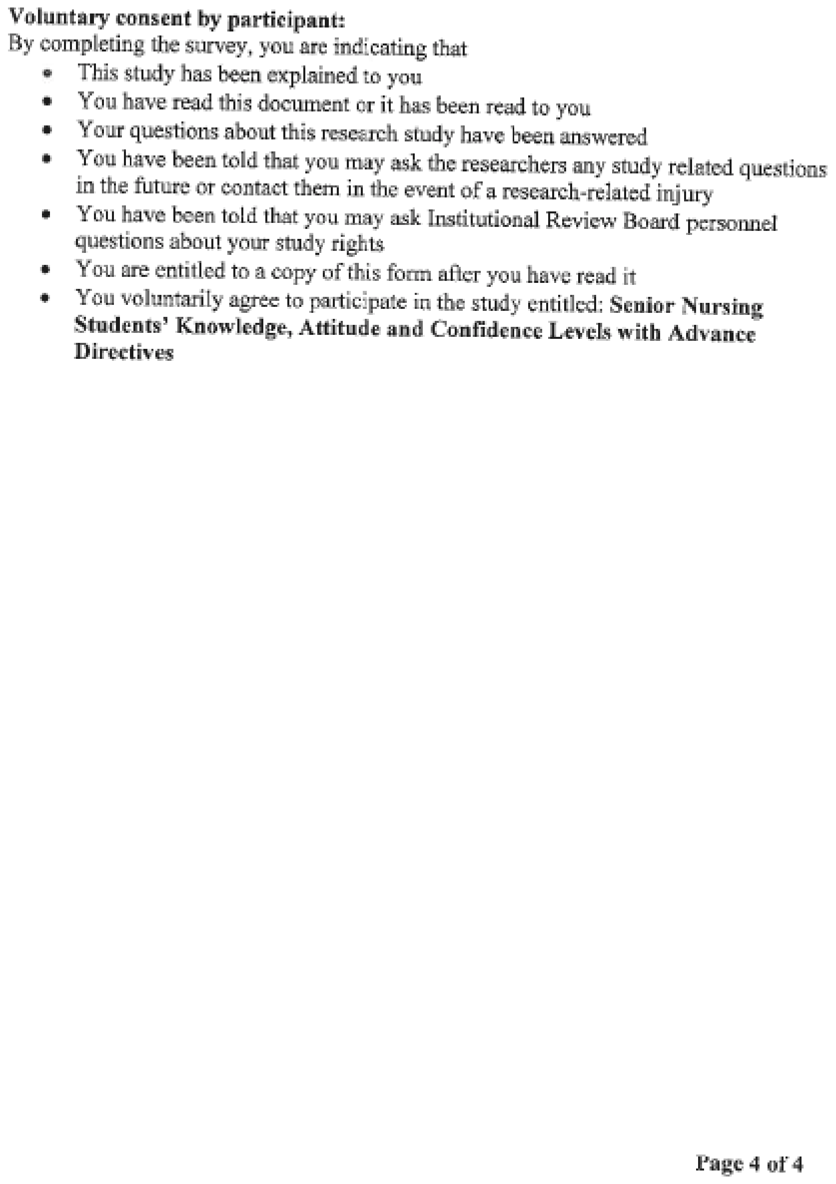
Are there any benefits for taking part in this research study? Although there are no direct benefits for completing the survey; you have the opportunity, by your participation, to provide information that will enhance the knowledge necessary to address gaps about student knowledge, attitude, and confidence levels of advance directives in nursing curricula.

How will you keep my information private? In order to ensure that all information will be confidential, no identifying information will be collected. The study results will be reported as aggregate data. Therefore, there will be no way to connect you to the information you provide on this survey. In addition only the researchers who work with this study will have access to the survey results. All data will be secured in a locked filing cabinet.

What are the cost and payments to me? There is no cost for participation in this study. Participation is completely voluntary. A $25.00 gift card will be provided for your time for completing the survey.

What if I have questions? If you require further clarification about the study and your participation in the study, you may contact Blanca Miller, the primary investigator for this study at 217-341-4914 or by email at bm755@nova.edu

If you have any questions/concerns about your research rights, contact:
Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/Toll Free: 866-499-0790
IRB@nsu.nova.edu



Voluntary consent by participant:
By completing the survey, you are indicating that

- This study has been explained to you
- You have read this document or it has been read to you
- Your questions about this research study have been answered
- You have been told that you may ask the researchers any study related questions in the future or contact them in the event of a research-related injury
- You have been told that you may ask Institutional Review Board personnel questions about your study rights
- You are entitled to a copy of this form after you have read it
- You voluntarily agree to participate in the study entitled: **Senior Nursing Students' Knowledge, Attitude and Confidence Levels with Advance Directives**

Nova Southeastern University IRB Participation Letter

Title of Study: **Senior Nursing Students' Knowledge, Attitude and Confidence Levels with Advance Directives**

Principal investigator
Blanca Miller, PhD(c)
10808 N. Trailside Ln.
Dunlap, IL. 61525
217-341-4914

Co-Investigator
Cynthia Fletcher, PhD, RN
3200 South University Dr
Ft Lauderdale, FL 33328
954-262-1608

Institutional Review Board
Nova Southeastern University
Office of Grants and Contracts
(954) 262-5369/Toll Free: 866-499-0790
IRB@nsu.nova.edu

Page 1 of 3

Description of Study: Blanca Miller is a doctoral student at Nova Southeastern University engaged in research for the purpose of satisfying a requirement for a Doctor of Nursing Education degree. The purpose of this study is to determine the knowledge, attitude, and confidence levels of advance directives among senior nursing students enrolled in a baccalaureate program.

If you agree to participate, you will be asked to complete a survey and demographic questionnaire on select survey, a secured site. This information will help the investigator determine and address gaps about student knowledge, attitude, and confidence levels of advance directives. The study could provide information about nursing curriculum and whether there is a certain semester end of life care information should be taught. The data from this survey and questionnaire could provide a foundation for additional research that may produce educational strategies faculty can use in curricula to improve knowledge, attitude and confidence about advance directives in nursing students before they begin practicing. The questionnaire will take approximately 15 to 20 minutes to complete.

Risks/Benefits to the Participant: There may be minimal risk involved in participating in this study. The likelihood that loss of confidentiality will occur is very minimal to none. However, there is the risk of potential loss of confidentiality. Every effort will be made to keep your information confidential, although this cannot be guaranteed. To minimize the risk, you will not write your name on the survey or demographic questionnaire. If your name is on either, both the survey and demographic questionnaire will be shredded. All surveys and demographic questionnaires will be kept in a locked cabinet at the investigator's home office. There are no direct benefits for agreeing to be in this study. Please understand that although you may not benefit directly from participation in this study, you have the opportunity to enhance knowledge necessary to address gaps about student knowledge, attitude, and confidence levels of advance directives in nursing curricula. If you have any concerns about the risks/benefits of participating in this study, you can contact the investigator and/or the university’s human research oversight board (the Institutional Review Board or IRB) at the numbers listed above.

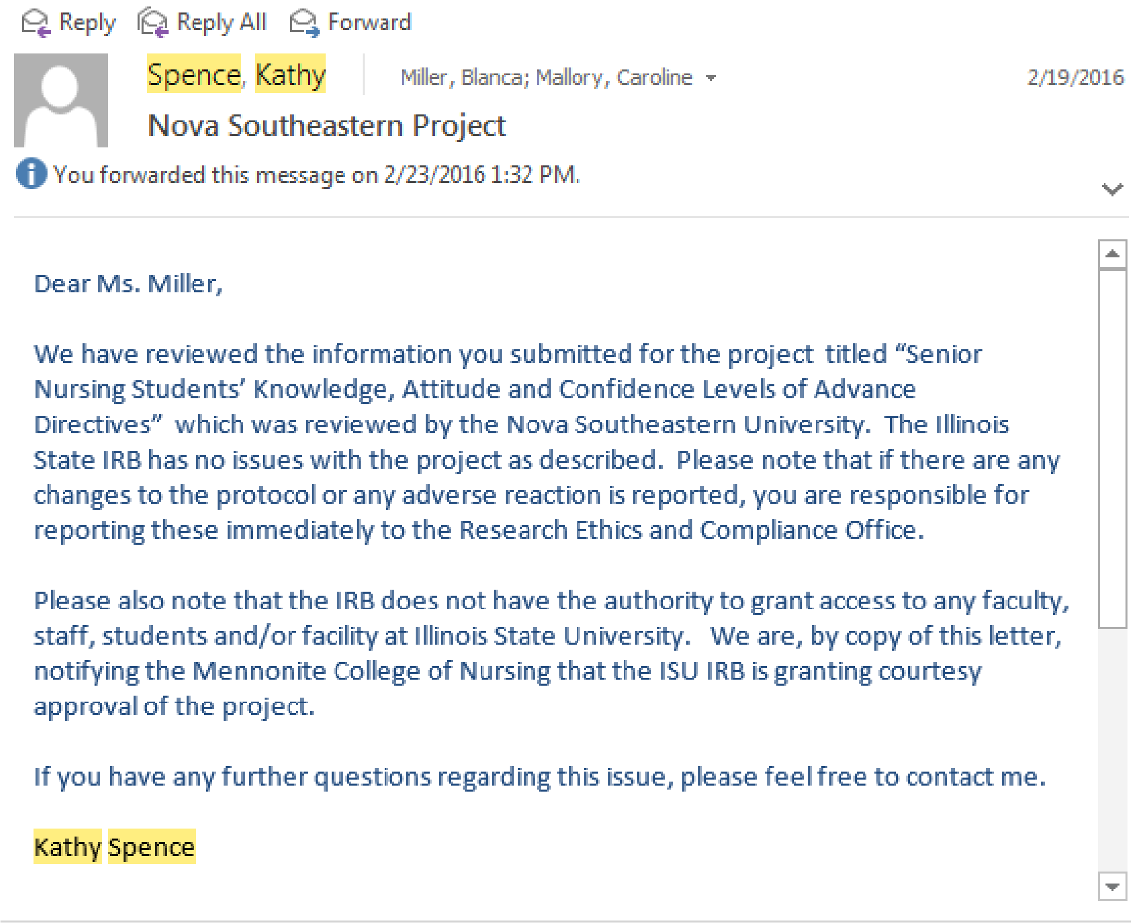
Cost and Payments to the Participant: There is no cost for participation in this study. Participation is completely voluntary and a $25.00 e-gift card will be provided for completing the survey.

Confidentiality: Information obtained in this study is strictly confidential unless disclosure is required by law. All data will be secured in a locked filing cabinet. Your name will not be used in the reporting of information in publications or conference presentations. All data collected will be anonymous.

Participant’s Right to Withdraw from the Study: You have the right to refuse to participate in this study and the right to withdraw from the study at any time without penalty.

I have read this letter and I fully understand the contents of this document and voluntarily consent to participate. All of my questions concerning this research have been answered. If I have any questions in the future about this study they will be answered by the investigator listed above or his/her staff.

I understand that the completion of this survey and demographic questionnaire implies my consent to participate in this study.



Spence, Kathy | Miller, Blanca; Mallory, Caroline
2/19/2016

Nova Southeastern Project

You forwarded this message on 2/23/2016 1:32 PM.

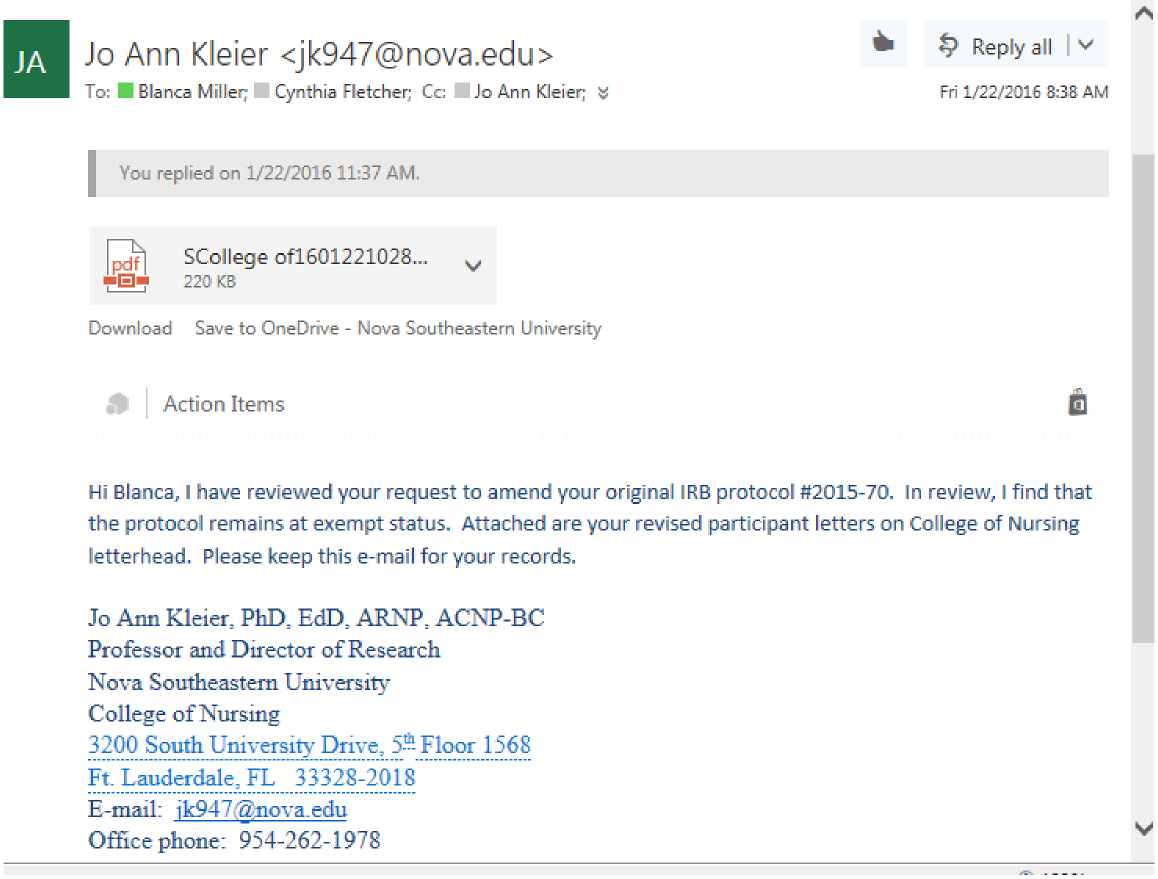
Dear Ms. Miller,

We have reviewed the information you submitted for the project titled "Senior Nursing Students' Knowledge, Attitude and Confidence Levels of Advance Directives" which was reviewed by the Nova Southeastern University. The Illinois State IRB has no issues with the project as described. Please note that if there are any changes to the protocol or any adverse reaction is reported, you are responsible for reporting these immediately to the Research Ethics and Compliance Office.

Please also note that the IRB does not have the authority to grant access to any faculty, staff, students and/or facility at Illinois State University. We are, by copy of this letter, notifying the Mennonite College of Nursing that the ISU IRB is granting courtesy approval of the project.

If you have any further questions regarding this issue, please feel free to contact me.

Kathy Spence



Jo Ann Kleier <jk947@nova.edu>
To: Blanca Miller; Cynthia Fletcher; Cc: Jo Ann Kleier;
Fri 1/22/2016 8:38 AM

You replied on 1/22/2016 11:37 AM.

SCollege of1601221028...
220 KB

Hi Blanca, I have reviewed your request to amend your original IRB protocol #2015-70. In review, I find that the protocol remains at exempt status. Attached are your revised participant letters on College of Nursing letterhead. Please keep this e-mail for your records.

Jo Ann Kleier, PhD, EdD, ARNP, ACNP-BC
Professor and Director of Research
Nova Southeastern University
College of Nursing
3200 South University Drive, 5th Floor 1568
Ft. Lauderdale, FL 33328-2018
E-mail: jk947@nova.edu
Office phone: 954-262-1978

Saint Francis Medical Center College of Nursing

Permission Letter

Saint Francis Medical Center
College of Nursing
"A Tradition of Excellence in Nursing Education"

December 5, 2016

Blanca Miller
10808 N. Trailside Ln.
Dunlap, IL 61525

Dear Blanca:

The Research Committee reviewed the revisions you made to the research proposal, "Senior Nursing Students' Knowledge, Attitude and Confidence Levels with Advanced Directives". The changes include using electronic data collection instead of paper surveys and using an imbedded electronic link for the opportunity to receive a gift card for participation, which maintains the student's anonymity. The Research Committee approved your study. You have permission to use Saint Francis Medical Center College of Nursing as a site for your research study. As we discussed, please stay in contact with Dr. Bonney regarding a time to administer the survey. You may begin data collection at this site as soon as you have approval from the Peoria Community IRB. Please contact me with any questions. We look forward to helping you earn your doctoral degree.

Sincerely,

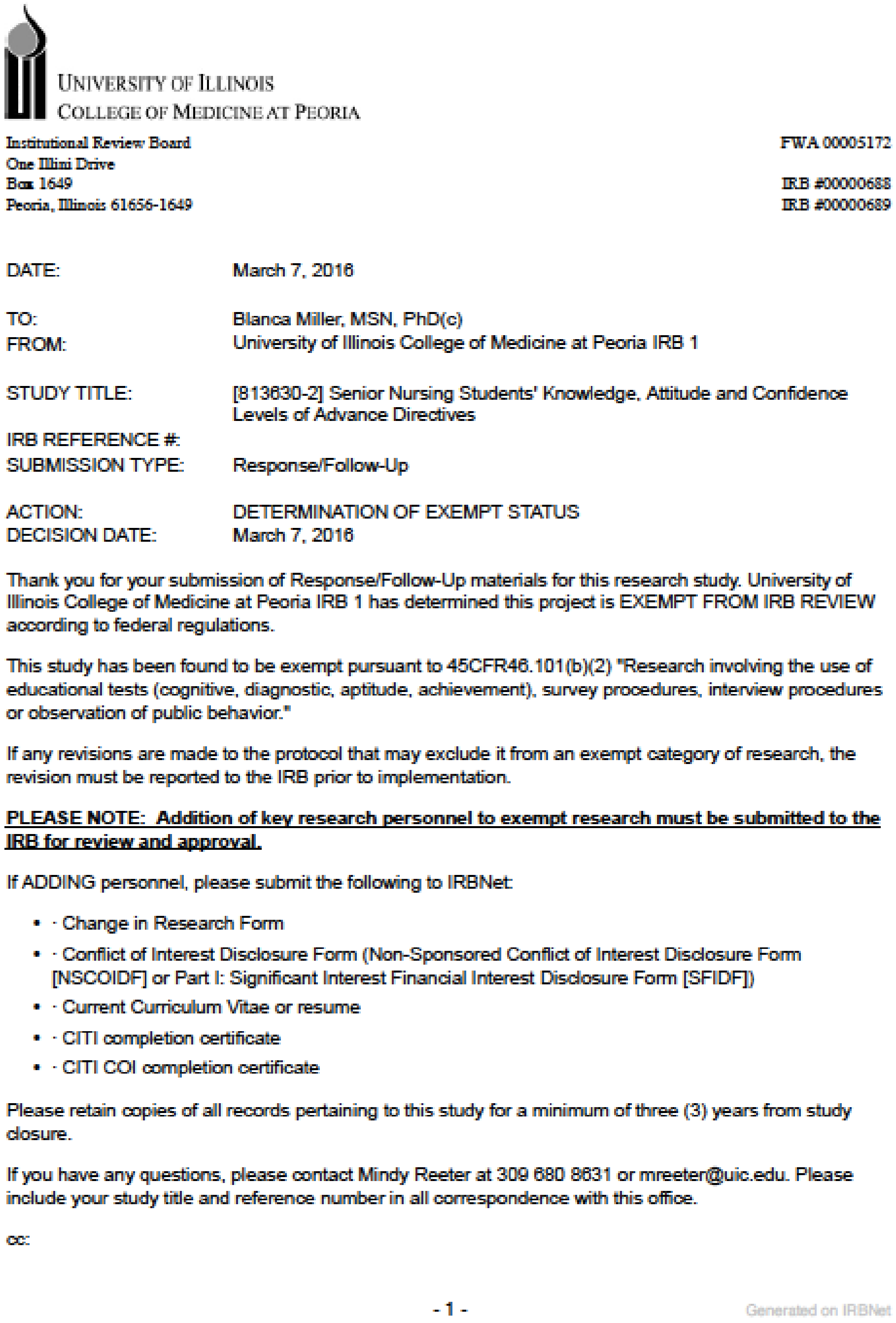
Kim Mitchell

Kimberly A. Mitchell, RN, PhD, CNE
Professor, Dean of the Graduate Program
Chair of the SFMC College of Nursing Research Committee

511 NE Greenleaf Street, Peoria, Illinois, 61603, (309) 655-2201, Fax (309) 624-8973
www.sfmccon.edu

University of Illinois College of Medicine Peoria

IRB Exemption



UNIVERSITY OF ILLINOIS
COLLEGE OF MEDICINE AT PEORIA

Institutional Review Board
One Illini Drive
Box 1649
Peoria, Illinois 61656-1649

FWA 00005172

IRB #00000688
IRB #00000689

DATE: March 7, 2016

TO: Blanca Miller, MSN, PhD(c)
FROM: University of Illinois College of Medicine at Peoria IRB 1

STUDY TITLE: [813630-2] Senior Nursing Students' Knowledge, Attitude and Confidence Levels of Advance Directives

IRB REFERENCE #:
SUBMISSION TYPE: Response/Follow-Up

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: March 7, 2016

Thank you for your submission of Response/Follow-Up materials for this research study. University of Illinois College of Medicine at Peoria IRB 1 has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

This study has been found to be exempt pursuant to 45CFR46.101(b)(2) "Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior."

If any revisions are made to the protocol that may exclude it from an exempt category of research, the revision must be reported to the IRB prior to implementation.

PLEASE NOTE: Addition of key research personnel to exempt research must be submitted to the IRB for review and approval.

If ADDING personnel, please submit the following to IRBNet:

- · Change in Research Form
- · Conflict of Interest Disclosure Form (Non-Sponsored Conflict of Interest Disclosure Form [NSCOIDF] or Part I: Significant Interest Financial Interest Disclosure Form [SFIDF])
- · Current Curriculum Vitae or resume
- · CITI completion certificate
- · CITI COI completion certificate

Please retain copies of all records pertaining to this study for a minimum of three (3) years from study closure.

If you have any questions, please contact Mindy Reeter at 309 680 8631 or mreeter@uic.edu. Please include your study title and reference number in all correspondence with this office.

cc:

Appendix B

Demographic Survey

Demographic information. Provide only one answer to each question unless otherwise indicated.

82. What is your gender?
    (1)_____Female
    (2)_____Male
    (3)_____Prefer not to answer

83. What is your ethnic background?
    (1)_____Caucasian, non-Hispanic
    (2)_____Black/African American
    (3)_____Asian/Pacific Islander
    (4)_____Native American
    (5)_____Hispanic/Latino
    (6)_____Other   Specify___________________________________
    (7)_____Prefer not to answer

84. What is your age?
    _______ 18 to 24 years
    _______ 25 to 34 years
    _______ 35 to 44 years
    _______ 45 to 54 years
    _______ 55 to 64 years
    _______ Age 65 or older

85. Do you have an advance directive?
    (1)_____ Yes
    (2)_____No
    (3)_____I Don't Know

86. Does anyone in your immediate family have an advance directive?
    (1)_____Yes
    (2)_____No
    (3)_____I Don't Know

87. Have you attended an in-service program/workshop about advance directives?
    (1)_____Yes
    (2)_____No
    (3)_____I Don't Know

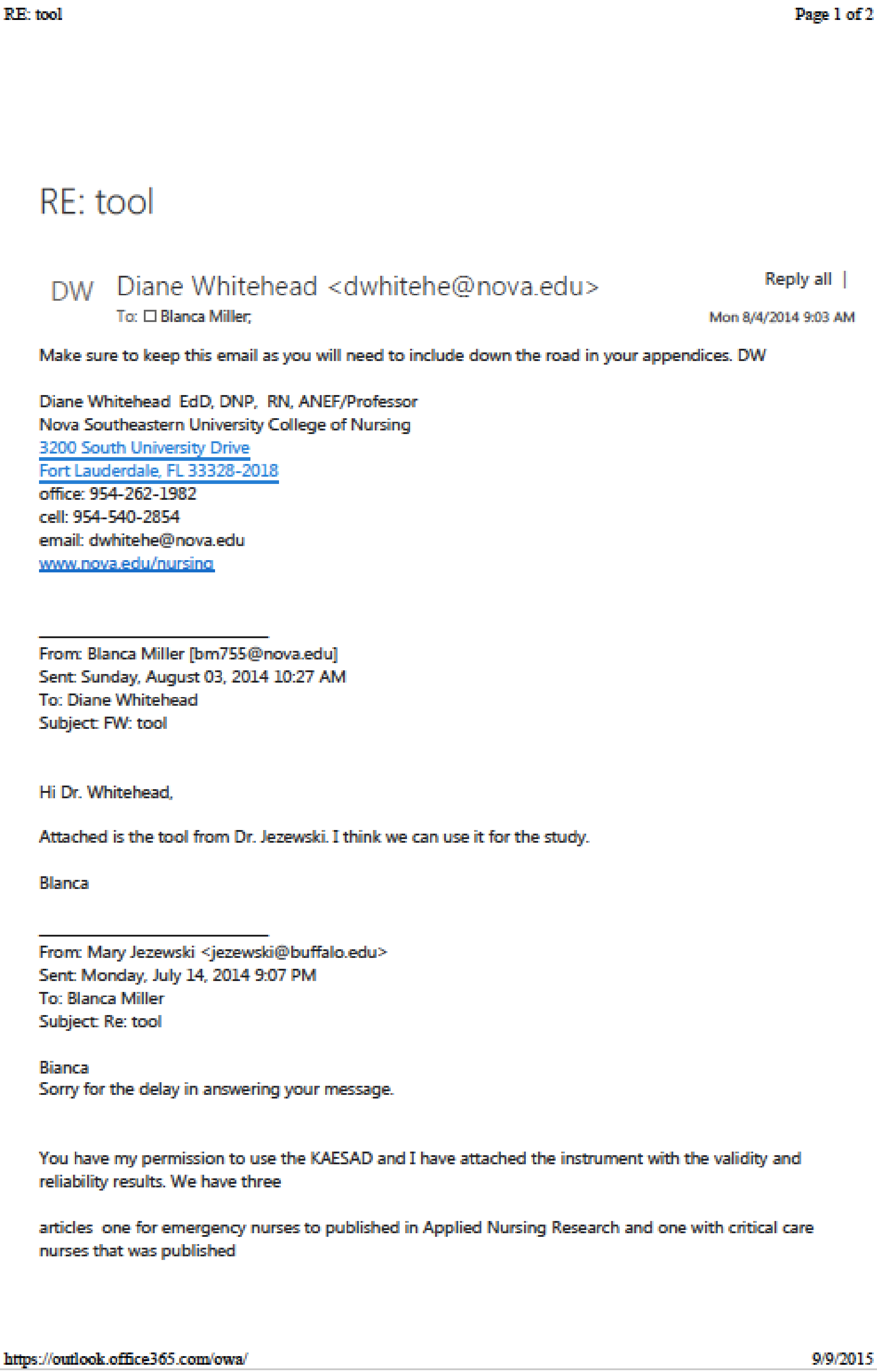
88. What program are you attending?
    (1) ______Methodist College
    (2) ______Saint Francis College of Nursing
    (3) ______Mennonite College of Nursing

89. What semesters did you receive end of life care information in your program?
    (Indicate with an X).
    (1) ____ First (2) _____Second (3) ____Third (4) _____Fourth

90. What do student nurses need to increase their ability to assist patients with advance directives before graduation?

Appendix C

Permission to Use Jezewski Tool



RE: tool

DW Diane Whitehead <dwhitehe@nova.edu>
To: ☐ Blanca Miller;

Reply all |
Mon 8/4/2014 9:03 AM

Make sure to keep this email as you will need to include down the road in your appendices. DW

Diane Whitehead EdD, DNP, RN, ANEF/Professor
Nova Southeastern University College of Nursing
3200 South University Drive
Fort Lauderdale, FL 33328-2018
office: 954-262-1982
cell: 954-540-2854
email: dwhitehe@nova.edu
www.nova.edu/nursing

From: Blanca Miller [bm755@nova.edu]
Sent: Sunday, August 03, 2014 10:27 AM
To: Diane Whitehead
Subject: FW: tool

Hi Dr. Whitehead,

Attached is the tool from Dr. Jezewski. I think we can use it for the study.

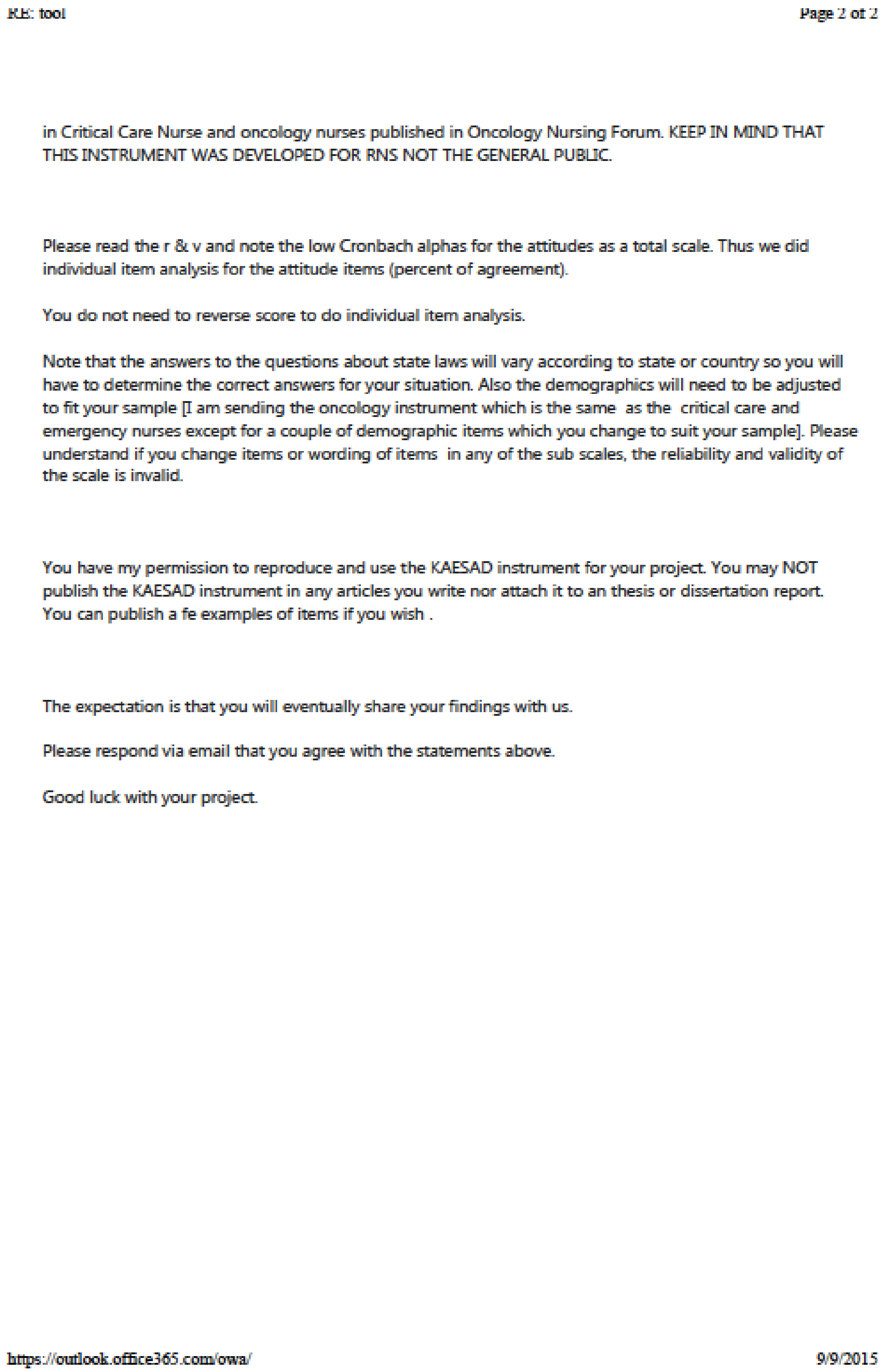
Blanca

From: Mary Jezewski <jezewski@buffalo.edu>
Sent: Monday, July 14, 2014 9:07 PM
To: Blanca Miller
Subject: Re: tool

Bianca
Sorry for the delay in answering your message.

You have my permission to use the KAESAD and I have attached the instrument with the validity and reliability results. We have three

articles one for emergency nurses to published in Applied Nursing Research and one with critical care nurses that was published



RE: tool

Page 2 of 2

in Critical Care Nurse and oncology nurses published in Oncology Nursing Forum. KEEP IN MIND THAT THIS INSTRUMENT WAS DEVELOPED FOR RNS NOT THE GENERAL PUBLIC.

Please read the r & v and note the low Cronbach alphas for the attitudes as a total scale. Thus we did individual item analysis for the attitude items (percent of agreement).

You do not need to reverse score to do individual item analysis.

Note that the answers to the questions about state laws will vary according to state or country so you will have to determine the correct answers for your situation. Also the demographics will need to be adjusted to fit your sample [I am sending the oncology instrument which is the same as the critical care and emergency nurses except for a couple of demographic items which you change to suit your sample]. Please understand if you change items or wording of items in any of the sub scales, the reliability and validity of the scale is invalid.

You have my permission to reproduce and use the KAESAD instrument for your project. You may NOT publish the KAESAD instrument in any articles you write nor attach it to an thesis or dissertation report. You can publish a fe examples of items if you wish .

The expectation is that you will eventually share your findings with us.

Please respond via email that you agree with the statements above.

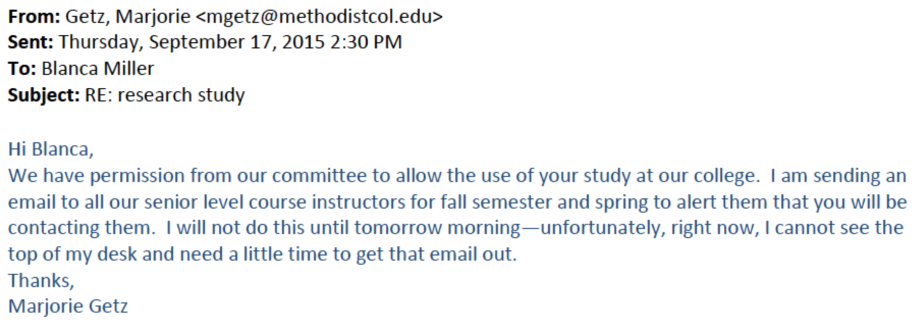
Good luck with your project.

https://outlook.office365.com/owa/

9/9/2015

Appendix D

Methodist College Site Permission



From: Getz, Marjorie <mgetz@methodistcol.edu>
Sent: Thursday, September 17, 2015 2:30 PM
To: Blanca Miller
Subject: RE: research study

Hi Blanca,
We have permission from our committee to allow the use of your study at our college. I am sending an email to all our senior level course instructors for fall semester and spring to alert them that you will be contacting them. I will not do this until tomorrow morning—unfortunately, right now, I cannot see the top of my desk and need a little time to get that email out.
Thanks,
Marjorie Getz