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Online Palliative Care Education in the Skilled Nursing Facility

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Abstract

America's older adult population is expanding more quickly than any other age group. This is unprecedented in our history, especially in healthcare. The substantial increase in the number of older adults means people will be living longer with co-morbid, chronic medical conditions. As a result, nursing facilities have become an increasingly important setting for skilled nursing care including palliative (PC) and end-of-life (EOL) care for older adults.

The need for nurses with PC and EOL knowledge is increasing as the population ages. However, research has shown that many nurses don't feel equipped to care for these patients. Education on PC and EOL care in nursing schools and in clinical practice has been found to be inadequate as well. The Institute of Medicine in 2014 released key findings and recommendations on EOL care calling for basic competency in PC for all clinicians working with people with advanced serious illness. In addition, they recommended that educational institutions and professional societies should provide training in PC concepts to clinicians throughout their careers.

In this one-group posttest only design study, a one hour Online PC Education was developed for nurses in a skilled nursing facility using 8 domains identified as key constructs to the provision of quality PC. Post Online PC Education, an evaluation of the impact on participants' confidence in decision-making related to PC and acceptability ratings of the Online PC Education were examined. The overall mean score for confidence in decision-making related to PC was $M = 91.11$ ($SD = 6.85$). The overall mean score for Acceptability eScale for the Online PC Education was $M = 26.55$ ($SD = 4.06$). Both mean scores for confidence level in decision-making and acceptability of Online PC Education were found to be moderately high to very high levels after the completion of the Online PC Education.

Keywords: Palliative care, online seminar, acceptability, confidence in decision-making, long-term care facility, nurses, nursing home, skilled nursing facility

Online Palliative Care Education in the Skilled Nursing Facility

Background and Significance

For patients and their loved ones, decisions about care near end of life (EOL) and grappling with progressive chronic illnesses are profoundly difficult tasks. According to the Institute of Medicine (IOM), care options for older adults can be a challenge, not only for the elder, but the entire family (IOM, 2014). Often times circumstances arise that necessitate the need for more comprehensive care. In the U.S. in 2014, the Centers for Disease Control and Prevention (CDC) estimated that 1.4 million older adults lived in nursing homes (CDC, 2014). Nursing homes (NHs) or skilled nursing facilities (SNFs) today have evolved into an important location where health care is provided. Nursing facilities are complex health care settings that are a mix of hospital, rehabilitation, palliative and hospice care, and dementia care. These facilities provide a crucial need for older adults and their families. Skilled nursing in this setting offers sub-acute care which functions similarly to the general medical-surgical floors of the past (Touhy & Jett, 2012, p. 310). The high acuity of patients being discharged to sub-acute care demands diligent oversight and management of chronic and acute conditions. As the population ages, nursing homes have increasingly become a setting where EOL care is provided. Thus, as the U.S. Department of Health and Human Services reported in 2003, an increasing number of older adults are predicted to die in nursing facilities. As the number of deaths occurring in nursing homes increases, so do the concerns about the quality of end-of-life care in this setting (Qinghua, Zheng, & Temkin-Greener, 2013, p. 1066).

Yet, nurses who stand at the front lines of caring for patients with life limiting conditions often are not prepared to provide adequate care at or near the end of the lifespan. As cited by the IOM (2014), nursing school curricula do not contain adequate content focusing on palliative care

(PC) and lack practical skills development in this area. Hence, many nurses have insufficient understanding of palliative care and end-of-life care (Hinds & Meghani, 2014, p 543).

The PC model is a framework that focuses on quality of life, comfort and value of care through the reduction of symptoms of chronic illness and pain. PC has increasingly become the standard of care since the specialty was approved by the American Board of Medical Specialties in 2000 and seems to be clearly poised to address the growing dissatisfaction with fragmented care of seriously ill and debilitated people, especially those of the older adult population (Meier, 2014). Directing PC to this population with the greatest need and the heftiest potential healthcare risk can lead to a transformation in the way care is delivered (Morrissey, Herr, & Levine, 2015).

It is imperative that nurses be educated to provide high quality PC and EOL care. Wallace et al. (2009) indicated that this education should ideally focus on "individuals with life-threatening illness beginning at the time of diagnosis and continuing throughout the illness trajectory until death (p. 50).

Past Studies

Past research has examined PC from a variety of perspectives. One such initiative was published by the End-of-Life Nursing Education Consortium (ELNEC) in 2000. The ELNEC curriculum was developed to address the educational needs of nurses in the care of seriously ill patients and patients at EOL. The original curriculum has been adapted for specific populations including geriatrics, pediatrics, critical care, and veterans (American Association of Colleges of Nursing, 2016; Sherman, Matzo, Coyne, Ferrell, & Penn, 2004). The National Consensus Project (NCP) for Quality PC released updated clinical practice guidelines in 2013 that provides a blueprint upon which to build and operationalize optimal PC (NCP, 2013).

As primary providers, nurses will need to meet the challenge of caring for patients in their last years of life. As patients face the burden of chronic illness, nurses are in the optimal position to provide quality care and address physical symptom management as well as spiritual and emotional needs of older adults (Josephsen & Martz, 2014, p. 474). However, research studies show that nurses report a lack of preparation and comfort in the care of persons with life limiting illness and indicate the need for continued education in PC (Autor, Storey, & Ziemba-Davis, 2013; Knapp et al., 2009; Schlairet, 2009; White & Coyne, 2011). In a study completed by Moir, Roberts, Martz, Perry, and Tivis (2015), the researchers identified the need for education in PC and EOL care for nurses in the inpatient setting and recommended future focus on outpatient settings (p. 111). Lazenby, Ercolano, Schulman-Green, and McCorckle (2012) cited a lack of trained professionals as an impediment to the provision of quality palliative and EOL care and the need for educational programs in PC and EOL care for practicing professionals (p. 427).

Deficiencies in Past Studies

Much of the focus of research on PC education has been conducted with nurses in specialty acute care settings, such as intensive care units, cardiac units, and oncology floors. There has been a concerted effort to make quality PC the standard in many care environments as evidenced by national organizations like ELNEC, NCP, and the Center to Advance Palliative Care (CAPC). In the outpatient setting, Kelly, Thrane, Virani, Malloy, and Ferrell (2011) studied expanding PC nurse education in California and focused on NHs, SNFs, long-term care (LTC) facilities, and hospices. One deficiency in this review of ELNEC programs in California nursing homes was the relatively small number of participants in the program. In addition, the ELNEC courses during this time period were funded by several foundations which offset the cost

of the course for participants. While this may not be a deficiency in the study, free and reduced-cost registration influenced the level of participation in the study. In 2015, Unroe, Gagle, Lane, Callahan, and Miller completed a large survey in Indiana looking at nursing home staff's PC knowledge and practices. Limitations in this study are the lack of generalizability due to it being a one-state sample and the lack of ethnic diversity of the participants. In addition, the authors stated that the methodology did not allow for follow-up questions which would be possible with interview or focus groups. Many barriers have been identified that impact how PC is delivered in the nursing facility including high staff turnover, understaffing, low pay, extensive regulatory requirements, low reimbursement for PC in this setting, and lack of PC education (Ersek & Wilson, 2003; Meier & Sieger, 2008). Many of these barriers can lead to deficiencies in research studies for a variety of reasons, including reduced motivation and participation in study requirements. Hence, we have designed a DNP Project that delivers an Online PC Education to nurses who work in the skilled nursing care facility.

Study Purpose

The purpose of this study was to evaluate a one hour, Online PC Education for nurses. The one-group posttest only study design measured participants' confidence in decision making in PC and EOL care in the SNF and acceptability of the Online PC Education.

Clinical Question

Was an investigator-developed one hour Online PC Education acceptable and able to build confidence in decision- making related to PC and EOL care among SNF nurses?

Conceptual Framework

The Quality of Life Model developed by Ferrell & Grant (2000) at the City of Hope National Medical Center provided the conceptual framework that guided this study. Quality of

life within this model encompasses 4 constructs- physical well-being and symptoms, psychological, social, and spiritual well-being. In addition, there are concepts and variables within each construct that describe and name various phenomena that further delineate the constructs.

Physical well-being is described as multiple symptoms that are experienced due to disease progression, debility, and organic and metabolic changes that occur with chronic illness. Within the construct of physical well-being and symptoms there are the following concepts and/or variables: functional ability, strength/fatigue, sleep, nausea, appetite, constipation, and pain. Psychological well-being includes a wide range of emotions and psychological concerns that can occur near the EOL. Under the construct of psychological well-being are the concepts of anxiety, depression, enjoyment, pain distress, happiness, fear, cognition and attention. Social well-being incorporates the social structure and the integrity of the family that may be threatened and relationships and roles that are disrupted including financial burden, caregiver burden, roles and relationships, affection, and appearance. Spiritual well-being encompasses religion, spirituality, and the search for meaning (Ferrell & Grant, 2000; ELNEC Core Curriculum, 2016, p. 74-75).

The Quality of Life model was used as the framework for the ELNEC (2016) Core Curriculum and the key constructs were operationalized into 8 domains of PC:

- Palliative nursing care

- Pain management

- Symptom Management

- Ethical issues in PC nursing

- Cultural and spiritual considerations in end-of life care

- Communication

- Loss, grief, and bereavement

- Final hours

These domains were used to understand and explain the constructs of this study. The ELNEC curriculum has been used, modified, and expanded upon over the last 15 years since its development and most recently was revised in 2016. ELNEC has been the collaborative effort of a distinguished array of researchers, educators, authors and leaders in the field of PC. An estimated 21,400 nurses and other healthcare providers have received ELNEC training and these trainers are estimated to have trained 642,000 additional nurses and other healthcare providers (AACN, 2016).

Definitions of Key Concepts

Palliative care has been defined by the CAPC as "specialized medical care for people living with serious illness. It focuses on providing relief from the symptoms and stress of a serious illness. The goal is to improve the quality of life for both the patient and the family. PC is provided by a team of doctors, nurses, social workers, and others who work with a patient's other doctors to provide an extra layer of support. It is appropriate at any age and at any stage in a serious illness and can be provided along with curative treatment" (CAPC, 2015). Fletcher and Panke (2012) stated that "PC delivers patient and family-centered care that improves quality outcomes such as pain and symptom management, communication, emotional and spiritual support, improved quality of life, better patient and family satisfaction, and reduced healthcare costs" (p. 454). The US Department of Health and Human Services Centers for Medicare & Medicaid Services (CMS, 2008) and the NCP (2013) stated that "PC means patient and family-centered care that optimizes quality of life by anticipating, preventing, and treating suffering. PC

throughout the continuum of illness involves addressing physical, intellectual, emotional, social, and spiritual needs and to facilitate patient autonomy, access to information, and choice" (ELNEC, 2016). For the purposes of this study, the last description of PC will be used as the defining concept of PC.

Review of the Literature

A search of CINAHL Complete was conducted using keywords PC, EOL care, terminal care, nursing education, skilled nursing facility, and nursing homes, yielding 674 articles. Articles were then limited to full text, English, between 2007 and 2017 which yielded 220 articles. Of these, the relevance of the article yield was improved by adding outcomes of nursing education and teaching methods, which resulted in 61 articles yield, with 6 highly relevant articles reviewed for this project. A PubMed search was conducted for years 2007-2017 using medical subject headings (MeSH) terms such as palliative care, nursing education, skilled nursing facility, and decision-making which yielded 277 results, and with further discrimination by English language and full text access, 5 highly relevant articles were reviewed. A search of ERIC from 2007-2017 using PC, EOL care, terminal care, education, training, or teaching and nursing yielded no articles. Academic Search Complete with keywords of PC, EOL care, nursing education, SNF or NH resulted in 1,480 articles. Use of filters for full text, date range from 2007-2017, and search terms of decision making and older adults or elderly, the search resulted in 23 articles, none were found to be relevant to this study.

Lack of Palliative Care Knowledge and Training

The provision of PC in SNFs and NHs is a necessity. Despite efforts to reduce institutionalization, the NH population is projected to grow to more than 3 million by 2030 according to the CAPC (2008). Additionally, the lack of PC knowledge and education of

professional staff in these care settings is placing one of our most vulnerable populations at risk. Studies have been done to examine educational programs on PC in a variety of care settings. Broglio and Bookbinder (2014) designed and piloted a brief online introduction to PC for hospital nurses. They utilized the Palliative Care Quiz for Nurses (PCQN) tool and found average scores of 57.6% before education, which increased to 72.2% after the online session and was sustained at 70.3% 3 weeks later. These findings highlighted that nurses lack knowledge in the care of people with advanced disease and at the EOL. This study suggested that focused PC education can improve knowledge in the short term. However, more studies are needed to test whether increased knowledge translates into change in nursing practice and patient outcomes.

Autor, Storey, and Ziemba-Davis (2013) set out to better understand whether oncology, intensive care, and heart failure nurses in an acute care hospital accurately understood PC and found that nurses often overlooked patients who might have benefited from PC due to lack of knowledge. Nursing experience and area of specialty accounted for some of the variations in findings, with oncology nurses scoring highest on the PCQN. The authors noted that more PC awareness and education is needed among frontline nursing staff.

Mahon and McAuley (2010) examined how oncology nurses define PC, views about who should and should not receive PC, and beliefs about PC decision making through interviews and qualitative content analysis and theme analysis. The primary focus of nurse's perceptions of PC was related to symptom management. Most nurses did not distinguish between PC and hospice and believed that those near end-of-life should receive PC. They viewed their role as restricted regarding decisions about PC. Oncology nurses are thought to be well versed in PC; however, these nurses' understanding of the concept may limit their ability to care adequately for patients who could benefit from PC.

White and Coyne (2011) conducted a descriptive, cross-sectional study of 714 members of the Oncology Nursing Society from Georgia, Virginia, Washington, and Wisconsin. More than half of the respondents had fewer than 2 hours of EOL care continuing education in the last 2 years and 25% felt they were inadequately prepared to effectively care for a dying patient. Symptom management was noted to be the top core competency across all variables. These findings indicated that educational gaps exist in EOL nursing care and symptom management, and quality EOL continuing education was lacking.

Unroe, Gagle, Lane, Callahan, and Miller (2015) used the Palliative Care Survey (PCS) in their study and observed differences in PC practice and knowledge scores by staff, which included RNs, LPNs, social workers, and certified nursing assistants in NHs. The researchers concluded that the PCS was a useful tool to assess NH staff and, importantly, that low EOL knowledge scores indicated an area to target for future quality improvement programs.

ELNEC Training Program

Kelly, Ersek, Virani, Malloy, and Ferrell (2008) evaluated the data following the pilot study of the EOL Nursing Education Consortium (ELNEC) Geriatric Training Program and found the program to be an effective model providing end-of-life education in the NH setting for a variety of health care professionals, with the specific inclusion of nursing assistants. However, they cautioned that many barriers and challenges remain in the NH setting.

Kelly, Thrane, Virani, Malloy, and Ferrell (2011) described a California program to educate nurses and unlicensed staff in providing EOL care for older adults in nursing homes, skilled nursing facilities, long-term care facilities, and hospices. They discussed the development, implementation, and follow-up evaluations of this program known as the Geriatric ELNEC curriculum. The Geriatric ELNEC training supported increased education,

collaboration, and multidisciplinary efforts to improve and promote change in EOL practice.

Their findings indicated that the ELNEC course could serve as a model program for educating

nurses.

Evaluation of Palliative Care Education Needs

Studies have been conducted to determine the educational needs of nurses on PC and

EOL care. Lazenby et al. (2011) looked at multidisciplinary education.   These researchers

developed the End-of-Life Professional Caregiver Survey (EPCS) instrument to assess education

needs across professions- nurses, physicians, and social workers. The authors concluded that

EPCS was a valid psychometric tool to evaluate the educational needs of professionals among

different disciplines and included broad PC domains and EOL curricula.

Schlairet (2009) used the End-of-Life Care-Educational Needs Survey with 567 nurses

across settings and found the majority of respondents had no formal EOL education or

continuing education in this area and significant knowledge deficits were identified on 21 of 23

EOL care topics. Moir, Roberts, Martz, Perry, and Tivis (2015) utilized the EPCS and the results

indicated a need for enhanced communication with patients and families about PC and EOL care,

especially among less experienced nurses and those not working in oncology. There was a

moderate level of perceived skill with a stronger need for additional knowledge among less

experienced nurses. Additional education for newer nurses could increase comfort levels in all

domains and improve care for patients approaching EOL. Miller, Lima, and Thompson (2015)

found that promoting the development of NH PC knowledge and practices could improve care

and reduce hospital and ER use at the EOL. In addition, the authors emphasized the need for

advocacy with regard to PC policy and practice to motivate change within the NH system, as

well as the need to have PC resources available.

Given the prevalent lack of PC knowledge and education of nurses and other staff members in the SNF setting, the main clinical question for this study was: Among nurses who work in the SNF, was an investigator-developed one hour Online PC Education acceptable and able to build confidence in decision making related to PC and EOL care?

Methods

Target Population

Nurses stand at the frontline of patient care and, as such, are in the position to pave the way in the provision of quality PC. With the aging of the U.S. population, NHs will increasingly become the site for EOL care (Ersek & Wilson, 2003). Nurses in settings such as NHs, long-term care facilities, and SNFs face the challenge of providing care for those patients at or near EOL and those with chronic, life-limiting illnesses. However, as studies have shown, nurses often are ill-equipped to do so. As noted by Carlson, Lim, and Meier (2011) one of the most immediate barriers to improving implementation of PC in NHs was inadequate training of staff. These researchers noted there was little educational focus on symptom assessment and treatment, communication, or psychosocial and spiritual domains, but more focus on the primary concern of direct patient care tasks. Additional studies have also indicated that the typical undergraduate nursing curriculum content falls short in providing an adequate foundation for PC/EOL care (Josephsen & Martz, 2014; Wallace et al., 2009). It is, therefore, imperative that nurses be the target for education in PC and EOL care in the setting where this will have a tremendous impact-NHs and SNFs, and other long-term care settings. The online format of the PC Education was deemed appropriate for this study due to its easy accessibility and 24/7 availability to busy practicing nurses in the SNF.

Sample and Setting

This study involved a sample of nurses at one SNF in Illinois. The pool of potential participants included all the nursing staff in the facility, a total of 52 nurses. Purposive sampling was utilized so that a targeted sample was obtained, in this case, nurses in the SNF. According to Trochim, Donnelly, and Arora (2016), a purposive sample will obtain the opinions of the target population. The setting of the study took place in a 198-bed suburban Illinois SNF which delivered skilled nursing care, sub-acute rehabilitation, and long-term care.

Project Description: PC Education Development & Content

The first step in the development of the Online PC Education for nurses was the determination of the foundational constructs of the material to be presented. To operationalize this study, having a framework for the development of the Online PC Education was important to ensure that valid and evidenced-based knowledge is conferred from the program. The ELNEC Core Curriculum provided the framework for the Online PC Education. ELNEC identified 8 crucial domains of PC/EOL care and these, in turn, were the building blocks for the Online PC Education content. The objectives for the development of the Online PC Education included:

1. Determine concepts of PC/EOL care to be addressed in the one hour Online PC Education.

2. Determine which concepts are most applicable to the nurses in the SNF.

3. Determine which PC concepts contribute to decision making processes.

4. Use of expert feedback to narrow down the most applicable PC/EOL care concepts that contribute to effective decision making among nurses in the SNF/NH.

In order to determine which of the PC concepts influence the decision-making process of nurses in this setting, expert opinion was needed from those professionals who were most

familiar with PC/EOL care. These experts included clinicians who worked with nurses and nurse

practitioners who had expertise in the care of patients at or near EOL. The culmination of the

expert opinions resulted in an Online PC Education which consisted of a 60-minute Online PC

Education program covering the key concepts of PC. Features of the Online PC Education

included the 8 areas of concentration in the ELNEC Core Curriculum: palliative nursing care;

pain management; symptom management; ethical issues in PC nursing; cultural and spiritual

considerations in EOL care; communication; loss, grief, and bereavement; and lastly, final hours.

The study incorporated the use of a survey instrument with a post-test only study design. Using

quantitative methodology, the Online PC Education was implemented followed by an evaluation

of the online education program using valid and reliable tools such as the AeS (Tariman, Berry,

Halpenny, Wolpin, & Schepp, 2011) and Critical Action Confidence Survey or CACS (Tselonis

& Majewski, 2017). The participants were asked to view a 60-minute, audio-recorded, online

PowerPoint presentation titled Online PC Education on computer terminals in the facility. After

viewing, they were asked to complete the post survey AeS and CACS in anonymity.

Study Tool 1: Critical Action Confidence Survey

Two surveys were used for posttest purposes. The first was the CACS (Tselonis &

Majewski, 2017), a survey that was modified for this study to incorporate the 8 domains of the

ELNEC curriculum and assess the level of confidence the participant had in making decisions

within each area. The second tool used was the Sociodemographic (SD) questionnaire and AeS

which was adapted for this study from the original version developed by Tariman et al. (2011).

This survey elucidated the demographics of the participants and measured acceptability of the

Online PC Education.

The CACS developed by Tselonis and Majewski (2017) was adapted for this study to fit the framework of the ELNEC core curriculum. The original CACS had a Cronbach's alpha of .92 (Tselonis & Majewski, 2017), which correlates with a high level of instrument reliability. The main construct measured was confidence in decision making. The modified CACS used for this study was a 20-item survey which encompassed each of the 8 ELNEC core curricular domains. Items 1-4 covered palliative nursing care, items 5-6 related to pain management, items 7-9 symptom management, items 10-11 ethical issues, items 12-14 communication, item 15 culture and spirituality, items 16-17 loss, grief, and bereavement, and items 18-20 final hours. The responses were measured on a Likert-type scale in which 1= not confident, 2= somewhat not confident, 3= neutral, 4= somewhat confident, 5= confident. The CACS can be completed in less than 10 minutes and the ease of use is desirable in a busy clinical setting.

The use of Likert-type scales, such as the CACS, to determine confidence in decision making after an educational program was appropriate within quantitative methodology. Sullivan and Artino (2013) pointed out that if Likert-type scales are used to create a survey scale, the Cronbach's alpha test should be utilized so that the "components of the scale are sufficiently intercorrelated and that the grouped items measure the underlying variable" (p. 542). Polit & Beck (2017) described the use of multi-item scales as necessary to measure a construct and by "sampling multiple items with various wordings, item irrelevancies are expected to cancel each other out" (p. 307). The authors also confirmed the use of an alpha coefficient (Cronbach's alpha) for evaluating internal consistency of the items in the instrument and coefficients of .80 and higher are especially desired (p. 308).

Validity of the CACS after adaptation for this study was accomplished through the use of content experts as reviewers in the process. The content validity procedure ensured accuracy,

relevancy, inclusivity, and representativeness of the PC Education contents. Statistical validity

needs to confirm there was a relationship between the variables and that the observed

relationship was real. Internal validity should indicate that the independent variable (Online PC

Education) was the cause of the outcomes or dependent variables (acceptability and confidence

in decision-making related to PC) as opposed to something else (Polit & Beck, 2017, p. 216).

The CACS can be found in Appendix A.

Study Tools 2 and 3: Sociodemographic Questionnaire and Acceptability eScale

The SD questionnaire and Acceptability eScale (AeS) for Online PC Education

instruments were the second and third instruments used for this study, respectively. It was

important to conduct an evaluation of the Online PC Education to determine its acceptability.

Participants were provided educational material in the Online PC Education and an appropriate

evaluation was needed in order to assess the usefulness of the program (Tariman et al., 2011).

Tariman et al. (2011) developed a survey that was used to evaluate the acceptability and usability

of a web-based interventions called Electronic Self Report for Cancer or ESRA-C. A

longitudinal, randomized clinical trial was conducted to establish its reliability in evaluating the

impressions and attitudes of participants towards the online ESRA-C program. The SD and AeS

tools for this study were adapted from the original version and measured demographic

information of the participants looking at 5 SD variables including gender, age, ethnicity/race,

years of clinical experience. Due to varying levels of professional nurses practicing in the SNF

setting, level of nursing education was added. The educational levels designated for this study

were licensed practical nurse (LPN), associate degree nurse (ADN), baccalaureate degree nurse

(BSN), and master's degree nurse (MSN).

AeS was used to measure the acceptability of the Online PC Education. There were 6 acceptability questions which included ease of completion of the Online PC Education, how understandable was the information presented, how enjoyable was participation, how helpful was the information, was the time allotment acceptable for the Online PC Education, and overall satisfaction with the Online PC Education. A Likert-type scale was incorporated for responses in the survey. The original AeS had a Cronbach's alpha of .757 indicating adequate reliability of the tool (Tariman et al., 2011). In addition to the level of reliability, the survey was selected for straightforward adaptation to the Online PC Education for its ability to measure the construct of acceptability after the completion of Online PC Education by study participants. Typically, the survey can be completed in less than two minutes. The SD questionnaire and AeS instruments can be found in Appendix A.

Validity and Reliability

Intervention fidelity was an important factor in this study with the potential to reveal the "extent to which the implementation of an intervention is faithful to its plan" (Polit & Beck, 2017, p. 222). Interventions can be weakened by inconsistency in the delivery of said intervention. In this study, the Online PC Education was computer-based, which strengthened the constancy in delivery of the intervention. This also brought other concerns to fidelity such as location of computers, environment surrounding computer area, and potential interruptions in the delivery of the Online PC Education. Designated computers for use to view and complete the study streamlined the process and provided clarity for the participants. Both computers were in separate areas, away from nurse's stations and general interaction with other staff members and visitors. The use of headphones for the Online PC Education reduced distractions and

additional noise in the designated areas. These study details helped reduce factors limiting

fidelity of the intervention.

The posttest only design may reduce testing bias that Polit & Beck (2017) described as

potentially problematic in a pretest/posttest design. The use of a pretest can impact performance

on the posttest. The phenomena of sensitization can have an effect on testing and, in the case of

this study, testing bias was addressed with the use of a posttest only instrument.

Evaluation Plan

As discussed earlier, both AeS and CACS instruments have strong internal consistency of

the items in their respective instruments in measuring acceptability and confidence in decision

making, respectively. The CACS tool was modified for the current study and reviewed by

content experts to ensure accuracy and validity of the concepts contained within the survey. The

AES tool was adapted for the study to describe the features of the study participant

demographics. Through the use of the AeS and CACS instruments, the content of the Online PC

Education could be analyzed and evaluated to determine the effect of Online PC Education on

confidence in decision making related to PC and describe the usefulness, understandability,

enjoyability, satisfactoriness and overall acceptability of the Online PC Education.

Qualtrics data from the SD questionnaire, AeS and the CACS were entered into the

Statistical Package for the Social Sciences (SPSS) software version 24 by International Business

Machine or IBM (2017). Descriptive statistics were used to analyze, in particular, those

questions that received the most extreme responses and provided a dependable way to determine

if the Online PC Education was acceptable. Given that ordinal data were obtained from Likert-

type questionnaires, inferential, non-parametric statistical tests were used to test the null

hypotheses whether there are statistically significant associations of SD variables with the

acceptability and confidence in decision making mean scores. For example, the Kruskal-Wallis test was used to examine any statistically significant differences among 3 or more independent groups and for this study, 3 age categories of participants were utilized (i.e., 20-29 y.o., 30-39 y.o., and 40 y.o. and above age groupings). The Mann-Whitney *U* test was used to test the difference between two independent groups. In this study, the data sets were regrouped to maintain equal sample sizes for dichotomous groupings of race- White and Asian, and also dichotomous groupings by educational level- LPN/ADN and BSN/MSN. A Cronbach's alpha coefficient was calculated to test the reliability of the adapted instruments (AeS and CACS) in this current study. According to DeVellis (2017), a Cronbach's alpha coefficient of .70 or higher indicates an adequate reliability of the instrument.

The post-test surveys provided descriptive information to determine if the Online PC Education was acceptable and also describe the confidence level on decision making related to PC. The results of the surveys can be used to make adjustments within the Online PC Education for potential future use. Ultimately, the analysis of evaluation responses will help to guide the future development and use of the Online PC Education and may lead to further development of staff education in the SNF. Incorporating feedback from the nurses in the SNF can potentially increase the relevance of the contents of Online PC Education and may engender new PC knowledge into their clinical practice.

Study Procedures

All nurses in the SNF were invited to participate in the study through the use of an informational flyer displayed throughout the facility 2 weeks prior to the start date of the Online PC Education. A website was created and developed using Wix.com in order to launch the entire study online. The website was titled Online Palliative Care Education in the Skilled Nursing

Facility and was only accessible with a direct hyperlink to the site. The website home page

displayed 5 tabs: instructions, contact, consent, video, and survey as seen in Figure 1. Study

participants accessed the Online PC Education instructions and hyperlink to the website on

designated computer terminals at the SNF. The designated computers (2) had the Online PC

Education instructions and hyperlink uploaded to the desktop hard drive. Participants accessed

the study seamlessly through the hyperlink which allowed them to go directly to the website,

view brief instructions, contact information for questions or concerns, consent, the Online PC

Education, and lastly, provided a hyperlink to the Qualtrics survey. Participants were

encouraged to contact the principal investigator with any questions or concerns and could stop

their participation at any time by exiting the website. Participants were prompted to thoroughly

read the consent material and their consent was assumed if they proceeded to view the Online PC

Education and complete the survey. Participants accessed the Online PC Education and post

completion survey at a time determined through coordination with the nursing supervisor for the

shift and time availability. Upon completion of the Online PC Education, the participants

completed the posttest survey online using Qualtrics software via a direct link. Once the survey

was completed, participants could exit the website.

Human Subjects Protection

Participation in all aspects of this study was voluntary. Informed consent was obtained

from all participants. Participation was anonymous, and no personal identifiers were used in

either survey or subsequent statistical analyses. Prior to the implementation phase of the study,

approval from a University Institutional Review Board (IRB) was obtained.

The study met all legal and ethical requirements set forth by the university IRB. The

study site facility did not have an IRB and, as such, permission was obtained from the

administrator of the facility. The facility will remain anonymous in any publication(s) stemming

from the study.

The principal investigator (PI) completed Collaborative Institutional Training Initiative

(CITI) student training. The CITI basic course for students was completed January 2017 and

covered information on students in research, history of ethical principles, research on human

subjects, regulations, assessing risk, informed consent, privacy and confidentiality, and conflicts

of interest. Copies of CITI training certificates can be found in Appendix C.

<div align="center">**Results**</div>

Demographics

Participant characteristics were explored using descriptive and bivariate analyses.

Twenty-seven out of 52 staff nurses participated in this study (participation rate 51.9%) have

completed the survey in its entirety. Most of the participants were female 85.2% (n = 23) and

only 14.8% (n = 4) were male. The demographic data revealed 51.9% of the participants were

age 30-39, 29.6% were 40 years of age and above, and 18.5% were age 20-29. Ethnicity and

race showed an equal representation of both White and Asian/Pacific Island participants at

44.4% (n = 12, n=12, respectively). A small group of African American nurses were represented

at 11.1% (n = 3). Almost 41% of the participants had obtained an associate degree, 37%

reported a baccalaureate degree, 18.5% were licensed practical nurses, and 3.7% reported a

master's degree as the highest level of education. There was a variety of years of professional

nursing experience among the study participants with the majority, 59.3%, having more than 6

years of nursing experience, and within this subset most of the nurses reported 6-15 years of

experience (40 .7%), and 18.5% with 16 years and above. Nurses with 1-5 years of experience

comprised 40.7% of the study sample. Detailed frequencies and percentages of demographic

variables of the participants can be found in Table 1.

Posttest Results: CACS & AeS Survey

Post-Online PC Education survey results were downloaded from Qualtrics into SPSS

version 24 (IBM, 2017). The first 20 items pertained to the CACS and the remaining 11 items (5

demographic items, 6 acceptability items) pertained to the SD and AeS, respectively. All items

except the demographic questions were formatted on a Likert-type scale from 1-5. The mean

response rate was calculated for each of the questions using SPSS software. The overall mean

ratings of the individual CACS questions ranged from M= 4.41-4.74 out of 5. The standard

deviation was small and ranged from SD = 0.447 to 0.762, with a Cronbach's alpha coefficient

of 0.90 indicating excellent internal consistency of the CACS items and overall high reliability of

the CACS instrument. An item-by-item analysis was performed to determine which areas of

decision making were rated highest and lowest. Of the 20 items, 19 had responses that ranged

from 3 (neutral) to 5 (confident) and of those 19 items, 8 items had responses that were a 4

(somewhat confident) or 5 (confident). Only one item had a response of 2 (somewhat not

confident) on the Likert scale. This item was #10 with one participant (3.7%) choosing a 2 on

the scale, indicating somewhat not confident in recognizing ethical concerns that may arise in PC

and EOL care. For this same item, 30.8% rated this 4 (somewhat confident) and 61.5 % rated

this item 5 (confident) on the scale. The item with the highest mean rating was item #5. The

rating of this item showed 74% of the participants felt confident in determining barriers to pain

relief and performing a pain assessment and 25.9% felt somewhat confident. A breakdown of

each item on the CACS can be found in Table 2. The cutoff for mean confidence scores in the

CACS was 80 (minimum = 75, maximum = 100). The overall mean score for the CACS was *M*

= 91.1, *SD* = 6.85 as seen in Table 3, and was near the maximum score of 100, which indicated

moderately high confidence in decision making related to PC after completing the Online PC

Education.

The overall mean score of the six acceptability questions on the AeS was *M* = 26.55 out

of 30 with a *SD* = 4.06. The standard deviation for the six individual items in the AeS ranged

from *SD* = 0.648 to 0.934. The Cronbach's alpha coefficient for AeS instrument was 0.93,

indicating high reliability of the AeS instrument. The questions with the lowest mean rating,

both 4.22 out of 5, were related to how much they enjoyed the Online PC Education and the

amount of time required to complete the Online PC Education. Although they have the lowest

mean scores rating, these means scores on enjoyability and acceptability of amount of time

required to complete the Online PC Education are near the highest possible rating of 5 (highly

enjoyable and high acceptable in the Likert scale, respectively). The ease of understanding the

information presented was the question with the highest mean rating, 4.67 out of 5.

The cutoff for the mean score in the AeS was 18 which indicated neutral acceptability

(min = 17, max = 30). The mean score for the AeS was 26.55 (*SD* = 4.06) and was near the

maximum score of 30 which indicated moderately high acceptability of the Online PC

Education. Of 27 participants, only one had a mean score of 17, while the majority (*N* = 12*)* had

a mean score of 30. The second largest group of participants (*N* = 11) ranged from 23-29. A

detailed description of the mean scores of the six items in the AeS can be found in Table 3.

For ordinal data obtained from Likert-type scale such as CACS and AeS and data that

have skewed distributions or samples that are small, nonparametric tests are often indicated

(Polit & Beck, p. 384). Hence, in this study, the Mann-Whitney *U* and the Kruskal-Wallis tests

were performed. The categories for level of nursing education were dichotomized into LPN/ADN and BSN/MSN groups. A Mann- Whitney U test was performed to test the difference between these 2 independent groups. This test is useful for data that is on an ordinal scale. The results were statistically significant with $p = 0.045$ and the null hypothesis was rejected. Hence, we can conclude that the overall distribution of mean scores of the CACS was *not* the same across the two education categories as shown in Table 4.

Race was also dichotomized into White and Asian and a Mann-Whitney U test was performed to look at the 2 groups and the mean scores of the CACS. No statistical significance was found between these groups, $p = > 0.05$, and the null hypothesis was retained. The Kruskal-Wallis test was used to test for any statistically significant differences in the mean scores in CACS among the three age categories. Grouping by 3 age categories were as follows: age 20-29 y.o., 30-39 y.o., 40 y.o. and above. The distribution of mean scores on the CACS was found to be the same across the three age groups and no statistical significance was found, therefore the null hypothesis was retained. Years of experience was divided into 4 groups: 1-5 years, 6-10 years, 11-15 years, and 16 years and above. Kruskal-Wallis test revealed no statistically significant differences in mean scores for confidence levels for PC decision making among four groupings of study participants based on years of nursing experience ($p = > 0.05$), and the null hypothesis that there is no statistically significant differences in the mean scores for CACS among these groups was retained.

Discussion

This study evaluated the acceptability and the effect of an Online PC Education on confidence level in decision making by nurses in the SNF. The Online PC Education provided an introduction to 8 domains of PC in an online format that was easily and conveniently

accessible before, during, or after work hours at the SNF. The participation rate of 51.9% was

higher than expected for online survey response rate which is typically around 35% according to

Cook, Heath, and Thompson (2000). However, the sample size remained small (n = 27). All 27

nurses completed the Online PC Education and post completion survey, indicating that the

participants were engaged in the Online PC Education and followed through to complete the

survey. The data revealed that almost 60% of participants had 6 or more years of nursing

experience and almost 60% of the nurses were either LPNs or ADNs. Based on the overall high

ratings in the AeS section (overall mean rating 4.43 out of 5), it is clear that the nurses found the

Online PC Education to be enjoyable, understandable, helpful, and has an acceptable completion

time period. The small standard deviation value demonstrated that there was minimal variability

in how the participants rated each item in the AeS. The Cronbach's alpha for the six

acceptability items was 0.934, implying that the six items had high internal consistency and the

instrument is highly reliable in measuring the construct of acceptability of the Online PC

Education.

Based on these results, it can be concluded that the CACS reliably determined that the

Online PC Education was effective in building confidence in decision-making related to PC as

evidenced by high overall confidence level mean score. The AeS also reliably measured a high

overall acceptability rating of the Online PC Education. Ongoing monitoring and continuous

quality improvements to the Online PC Education are needed to ensure that the objectives are

being met and the overall acceptability of the Online PC Education by participants remains high.

It would be beneficial to add an open-ended question to the post-Online PC Education survey for

narrative feedback from participants to identify areas for improvement or change. In addition,

knowing the participants' prior level of knowledge and confidence in decision-making related to

PC would help in being able to establish correlations between knowledge and decision-making capabilities among nurses in the SNF in future studies. Adding a PC knowledge assessment tool that can measure prior PC knowledge, therefore, would be beneficial.

Nineteen of 20 items on the CACS was rated 3 or greater on a 5-point Likert scale, and, of those items, 8 were rated at or above 4. The narrow standard deviation of mean scores for this scale, 0.447 to 0.762, with a Cronbach's alpha coefficient of 0.90 indicated strong reliability of the CACS items.   The mean scores of the CACS revealed that participants were somewhat confident to confident in decision making in PC and EOL care domains after viewing the Online PC Education. The lowest rated item was item #15 ($M = 4.41$), identifying aspects of culture and the influence of culture and spirituality in PC, followed by item #2 ($M = 4.44$) identifying the multiple dimensions of care needed to achieve quality PC, and item #11 ($M = 4.44$) describing advanced directives and their role in establishing goals of care. The lower mean scores from these items don't reflect a significant lack of confidence in decision making, given that 4= somewhat confident. However, these slightly lower scores may speak to the need for continued PC education in the SNF setting with special attention to these aspects of PC or EOL. Twelve of the CACS items had one or two participants providing a rating of 3 (neutral) - items 1, 2, 3, 7, 9, 10, 11, 12, 15, 16, 17, and 19. The neutral rating in these survey items may be indicative of the need for improved education in those specific domains. Of note, none of the participants indicated a score of 1 (not confident) on any of the items. Only one participant rated one item on the CACS at a score of 2 (somewhat not confident).

The results demonstrated that confidence in decision-making in PC and EOL care was different between educational groups. This notion that higher educational level is associated with higher confidence level in clinical decision making and better patient outcomes has been

explored in the literature. Aiken, Clarke, Sloane, Sochalski, and Silber (2002) found that higher

nursing education levels were related to lower hospital mortality rates. Carter and Porell (2003)

found that in nursing homes with more LPN to RN ratios, residents were at a higher risk for

hospitalization. McHugh and Lake (2010) noted in the hospital setting the number of nurses

with at least a BSN degree was correlated with higher odds of reporting a more advanced level of

expertise. Estabrooks, Midodzi, Cummings, Ricker, and Giovanetti (2005) also identified

significant hospital nursing variables which were associated with lower patient mortality

including higher nurse education levels. This current study also provides preliminary evidence

that higher educational level could be associated with moderately high confidence level on

decision making related to PC. However, this conclusion must be interpreted with caution as

there are a few studies that examine decision-making as an outcome which have shown the

opposite (Bobay, Gentile, & Hagle, 2009; Hoffman, Donoghue, & Duffield, 2004; Muntean,

2012).

In this study, level of nursing education had an impact on decision making as evidenced

by the results from the CACS. In particular, it was noted by the demographic data that most of

the nurses participating in the study had 1 to 2 years of formal nursing education. In light of the

diversity in education levels of nurses practicing in the SNF noted from this study, and the

potential effect of nursing education level on confidence in decision-making related to PC,

further investigations of this finding are warranted.

Without knowing prior level of PC knowledge of participants, it is unclear the exact

extent of knowledge gained from the Online PC Education. Although the mean scores indicated

moderate to high levels of confidence in decision-making after viewing the Online PC

Education, additional data on PC knowledge level and its association with confidence level in

decision-making are needed. As has been pointed out, PC education in schools of nursing is minimal, and there is likelihood that 1 or 2-year nursing programs have similar, if not less, PC content in their curricula given the time constraints of these shorter nursing programs. Asking participants about PC education in their nursing program would be practical information that would help to identify potential gaps in PC knowledge. This is a variable that is out of the scope of this current study but may be useful in the planning of future PC educational programs.

Enhancing PC knowledge of nursing staff may lead to improved decision-making and the utilization of this data could be instrumental in providing a focus in these specific areas for future online PC educational programs in the SNF. The results found in this study will help to guide the future development and use of the Online PC Education itself and may lead to further development of staff education in the SNF. This could be further investigated and defined with the implementation of a needs assessment survey, and subsequently lead to modifications to the current Online PC Education for future use. The integration of new PC knowledge into the clinical practice of SNF nurses is a potential added benefit to nurses who plan to work in the SNF as the number of patients needing PC and EOL care in this setting will likely continue to grow.

Lastly, from a practical standpoint, the use of online format for PC educational opportunities for nurses in the SNF setting may be a significant factor that deems further investigation. Providing education in an online, web-based format has the potential to be done at convenient times and in convenient places (Kane, Halpern, Squiers, Treiman, & McCormack, 2014) for nursing staff. Offering accessibility at home, for instance, from any computer platform such as a laptop, notebook or iPad device would open up expanded options to complete required continuing nursing education for nursing license renewal. As discussed in the upcoming section,

it is difficult for nurses working in a busy clinical environment to carve out time at work to complete educational programs, making remote, online access a plus. This is worthwhile consideration for future educational planning in this work setting.

Limitations

There are several limitations to this study. The study utilized a convenience sample and was small in scale and limited to one setting and one specific SNF, which limit the generalizability of study findings. The participants were predominantly White and Asian which may not be reflective of the racial diversity that may be found in other care settings and other SNFs. Prior knowledge of PC or EOL care was outside the scope of this project and therefore results should not be interpreted within the context of the amount of knowledge gained from the Online PC Education. Completing the Online PC Education and post completion survey while at work, or immediately before or after a work shift, may have caused the nurses to feel rushed in their participation. Access to the designated computer terminals, given that there were only 2, may have impacted participation by the nurses at the study site. Lastly, given that the study was accessed completely online, for future adaptation it would be useful to allow remote access to the Online PC Education website so that participants could complete the Online PC Education and post-completion survey conveniently outside of work. This may have yielded higher participation rates by nurses as well.

Implications and Future Recommendations

The Institute of Medicine in a report in 2014, *Dying in America*, stated "improving the quality and availability of medical and social services for patients and their families could not only enhance quality of life through the EOL, but may also contribute to a more sustainable care system" and that "a substantial body of evidence shows that broad improvements to end-of- life

care are within reach." (p. 1). One of the key findings from the IOM report identified

professional education and development as a crucial factor in the provision of quality PC.

Specifically noted is the inadequate preparation of healthcare professionals to deliver basic PC to

patients who are not currently hospitalized (IOM, 2014, p. 2). Recommendations from this

landmark report related specifically to professional education include:

- All clinicians across disciplines and specialties who care for people with

  advanced serious illness should be competent in basic PC, including

  communication skills, interprofessional collaboration, and symptom management

- Educational institutions and professional societies should provide training in PC

  domains throughout the professional's career (IOM, 2014, p. 4)

The development and implementation of PC education for nurses and other allied

healthcare providers in the SNF setting directly speaks to these IOM recommendations.

Although this study was done on a small scale, the implications for broadening the scope of this

work are without limits. Future studies with a larger sample size would be needed to fine tune

the Online PC Education. As stated earlier, a needs assessment may be useful in identifying and

planning for more focused PC content in the Online PC Education. The online format of this

program lends itself to implementation in facilities of various sizes that have computer access for

staff. Additionally, this type of program has the potential for use off-site by staff members who

wish to access the program remotely. Although other nursing facilities have unique

characteristics, they all serve the older adult population, making this program potentially useful

in other SNFs. Recognizing the importance of expanding PC knowledge in all care settings, use

of educational programs like the Online PC Education is not only feasible, but necessary.

In 2014, 14.5% (46.3 million) of the US population was aged 65 or older and is projected

to reach 23.5% (98 million) by 2060 (Office of Disease Prevention and Health Promotion, 2018).

"The number of individuals using nursing facilities, alternative residential care, or home care

services is expected to increase from 15 million in 2000 to 27 million in 2050. Most of this

increase will be driven by the growth in the number of elderly in need of such care, which is

expected to double from approximately 8 million in 2000 to 19 million in 2050" (USDHHS,

Executive Summary, 2003, p. v). Given the aging of America and the expectations of growth in

the older adult population, unprecedented numbers of older adults will need and benefit from

nurses who have received education and training on PC and EOL care.

Conclusion

The goals of the study were successfully met through this project. The results of the

survey indicated that the Online PC Education was acceptable in terms of its usefulness,

understandability, enjoyability and completion timeliness and it also had a positive effect on

building the confidence level on decision-making related to PC care. Although the overall mean

score of the confidence in decision-making in PC was moderately high, ongoing monitoring for

improvement and expansion of the PC knowledge of nurses who stand at the front line of patient

care at SNFs are warranted. The study highlighted opportunities for future research to improve

and enhance the PC knowledge of nurses in the SNF setting. As the likely setting of care for

many older adults with serious advanced illness, addressing this crucial educational need of

nurses in SNFs is an essential professional nursing endeavor.

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Tables and Figures

Table 1. Demographics of Study Participants

Variable	n	Percent
Gender		
Male	4	14.8%
Female	23	85.2%
Age		
20-29	5	18.5%
30-39	14	51.9%
40-49	5	18.5%
50-59	3	11.1%
Ethnicity		
White	12	44.4%
Black/African American	3	11.1%
Asian/Pacific Islander	12	44.4%
Years of Experience		
1-5	11	40.7%
6-10	6	22.2%
11-15	5	18.5%
16-20	3	11.1%
21-25	0	0%
>26	2	7.4%
Level of Education		
Licensed Practical Nurse	5	18.5%
Associate Degree	11	40.7%
Baccalaureate Degree	10	37.0%
Master's Degree	1	3.7%
Doctoral Degree	0	0%

Table 2. Individual Mean Score of the 20 Items in the CACS				
CACS Questionnaire	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
1) Describing the philosophy of palliative care: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.52	.580
2) Identifying the multiple dimensions of care needed to achieve quality palliative care: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.44	.641
3) Explaining the need for collaboration with interdisciplinary team members in the delivery of palliative care: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.52	.580
4) Naming barriers to quality care at end of life: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.67	.480
5) Determining barriers to pain relief and performing a pain assessment: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.74	.447

6) Comparing pharmacologic and nonpharmacologic therapies used to relieve pain: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.59	.501
7) Distinguishing other symptoms common in advanced disease: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.59	.572
8) Performing assessment of symptoms at the end of life: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.67	.480
9) Discussing interventions that can prevent or reduce symptoms at end of life: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.59	.572
10) Recognizing ethical concerns that may arise in palliative care and end of life care: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	2	5	4.44	.801

11) Describing advanced directives and their role in establishing goals of care: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.44	.641
12) Demonstrating effective communication with patient, family, and team members throughout the process of palliative care and end of life: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.59	.572
13) Discussing factors that influence communication in the palliative care setting: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.56	.506
14) Utilizing strategies for communicating difficult/bad news: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.48	.509
15) Identifying aspects of culture and the influence of culture and spirituality in palliative care: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.41	.636

16) Comparing loss, grief, bereavement, and mourning: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.52	.643
17) Recognizing compassion fatigue as a professional caregiver: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.59	.572
18) Distinguishing components of a good death: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.48	.509
19) Assessing physical, psychological, social, and spiritual care needs for a dying patient and their families/caregivers: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	3	5	4.63	.565
20) Discussing the role of the nurse surrounding the death of a patient: 1=Not confident 2=Somewhat not confident 3=Neutral 4=Somewhat confident 5=Confident	4	5	4.63	.492

Table 3. Overall Mean Score and Standard Deviation for CACS and AeS Instruments (N=27)					
	N	Minimum	Maximum	Mean	Std. Deviation
Overall Mean Score of CACS-Post Test Only	27	75.00	100.00	91.1111	6.85752
Overall Mean Score of AeS- Post Test Only	27	17.00	30.00	26.5556	4.06044

Table 4. Hypothesis Test Summary				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of mean scores of Critical Action Confidence Scale is the same between dichotomous groupings of LPN/ADN and BSN/MSN	Independent Samples Mann-Whitney U Test	.045	Reject the null hypothesis.
2	The distribution of mean scores of Acceptability eScale is the same between dichotomous groupings of LPN/ADN and BSN/MSN	Independent Samples Mann-Whitney U Test	1.000	Retain the null hypothesis.

Asymptotic differences are displayed. The significance level is .05.

Table 5. Evidence-Based Table on Palliative Care Education for Nurses							
Author and Year	Study Objective	Methods (Design, Sample Size, Setting, Human Subjects Issues)	Study Variables or Constructs Measured or Variables Controlled for by Researchers	Instrument/s Used to Measure the Construct/s	Statistics Used for Data Analysis	Study Findings	Conclusion
Broglio and Bookbinder (2014)	1. Design and pilot a brief online intro-duction to palliative care (PC) for hospital nurses. 2. Test an improve-ment in know-ledge after the education and sustain-ability 3 weeks later. 3. Evaluate the feasibility and likeability of the education and nursing intention to change practice.	Design-Quantitative1 group pretest/ posttest and follow-posttest study Sample-N= 23 RNs, attrition reported Setting-general medical unit in a 750-bed urban teaching hospital Human subjects-Informed consent obtained before pretest, posttest, and 3-week evaluations; IRB approved.	PC, nursing education online, PC Quiz for Nursing (PCQN)	The PC Quiz for Nursing (PCQN), 20 item, validated tool; Demo-graphic questions Five addition-al test items were added to address recent topics in PC nursing thought to be empiric-ally relevant and not included in the PCQN.	Independent t tests performed on the PCQN using SPSS Statistics; Levene test for equality; univariate ANOVA to assess for significance that may be skewed due to the small sample size; Tukey's honest significant difference test	Average PCQN score of 57.6% before education increased to 72.2% after the online session and was sustained at 70.3% 3 weeks later. Statistically significant improvement between pretest and posttest scores (t= -4.149, P=.000), and between the pretest and 3- week posttest (t= -3.216, P= .003) No significant difference seen between the posttest and follow-up posttest scores (t= 0.571, p=.571). Levene test with no significant differences between samples (f= 0.380, p= .686). Univariate ANOVA statistical significance between pretest and posttest scores on post-hoc analysis (p=.001) and pretest and follow-up posttest scores (p= .004), but none between posttest and follow-up posttest using Tukey's significant difference test (p= .832)	Findings highlight that nurses lack knowledge in the care of people with advanced disease and at the EOL. Study suggests that focused education can improve knowledge in the short term. More study is needed to test whether increased knowledge translates into change in nursing practice and patient outcomes.
Autor, Storey, and Ziemba-Davis (2013)	1. Better understand whether oncology (ONC), intensive care	Design-Quantitative Survey Sample-n= 251nurses: 59 ONC, 96 HF,	PC, heart failure, intensive care, oncology, nurse knowledge, nursing experience	PC Quiz for Nurses (PCQN), validated tool; Demo-graphic questions	ANOVA (F) to compare mean number of correct PCQN responses by specialty and by the number of PC patients previously cared for;	Mean of correct responses 67.6%, indicating some knowledge but not full knowledge of PC (F= 4.11, p= .018). Mean	Nurses often overlook patients who might benefit from PC due to lack of knowledge. Nursing experience and area of specialty accounts for some of the variations in findings. More PC awareness and education is needed

(IC), and heart failure (HF) nurses in an acute care hospital accurately understand PC.	96 IC nurses; attrition reported Setting- 400-bed tertiary care hospital Human Subjects- Consent obtained from all participants; IRB approved				student *t* test used to assess differences in mean number of correct responses based several variables. Pearson correlation coefficient (*r*) used to examine the relationship between years of experience and number of correct responses.	correct varied by specialty with ONC nurses answering the most correct, followed by IC, HF nurses (*t*= 3.14, *p*= .002). Total years of nursing experience was unrelated to percentage of correct responses (r= 0.117, *p*= .165)	among frontline nursing staff.
Unroe, Gagle, Lane, Callahan, and Miller (2015)	1. Compare PC knowledge and practice among nursing home (NH) staff roles 2. Examine relation-ships between facility charac-teristics and survey scores	Design- Quantitative Survey Sample- 1859 participants from 52 NHs from 2 different NH chains Setting- 52 NHs in the state of Indiana Human Subjects- IRB approved	PC, EOL, hospice, PC Survey (PCS), nursing home	PCS validated 51-item tool that measures NH staff engagement in PC practice as well as knowledge about best practices in end-of-life care. Surveys given to the staff in the following roles: RN, LPN, CNA, SW, or "other". Survey format differed between NHs; however the content and explanation did not differ.	Descriptive statistics were calculated for each item and by Online Survey, Certification, and Reporting (OSCAR).	CNAs had significantly lower practice and knowledge scores compared to LPNs, RNs, SWs (*p*<0.05). CNAs had significantly lower psychological, end-of-life-care, and total knowledge than RNs (*p*<0.05). Knowledge about physical symptoms was uniformly high end-of-life knowledge was notably low for all staff. Higher presence of hospice in the NH was associated with higher end-of-life knowledge (*p*=0.003, 95% CI: 0.002-0.010)	Observed differences in PC practice and knowledge scores by staff, the authors concluded that the PCS is a useful tool to assess NH staff. Low end-of-life knowledge scores indicate an area to target for quality improvement.
Kelly, Thrane, Virani, Malloy, and Ferrell (2011)	1. Describe California program to educate nurses and unlicensed staff in providing end-of-life care for older adults in nursing homes, skilled nursing	Design- Survey Program Evaluation; pre-course and 12-month post-course survey Sample- California ELNEC participants 2007-2009, n= 351 Setting- ELENC program offered	PC, EOL, nursing education, ELNEC	Course Evaluations: Pre-course survey, 12- month post-course survey	Descriptive statistics calculated	Identified that participants felt their workplace was now much better at teaching end-of-life content (*p*<0.001); participants felt slightly less positive about their staff's receptivity after 12 months (*p*<0.001), this was attributed to the reality of implementation when participants	ELNEC training supported increased education, collaboration, and multidisciplinary efforts to improve and promote change in end-of-life practice. ELNEC geriatric course can serve as a model program for educating nurses.

	facilities, long-term care facilities, and hospices. 2. Describe develop-ment, imple-mentation, follow-up eval-uations, and examples of partici-pants use of the EOL Nursing Education Con-sortium (ELNEC) Geriatric curri-culum.	in California, sites not specified Human Subjects- voluntary participation in ELNEC course and surveys				returned to their prospective facilities. Barriers noted were lack of time for educating staff and costs associated. However, many went on to offer educational programs or in-services for staff at their home facility- 302 respondents reported holding 1493 courses using all ELNEC modules, educating a total of 22,235 health professionals- RNs, LPNs, CNAs, other health professionals.	
Mahon and McAuley (2010)	1. Examine how oncology nurses define PC, views about who should and should not receive PC, and beliefs about PC decision making.	Design- Qualitative interviews and analysis Sample- 12 nurses Setting- per each respondent preference Human Subjects- informed consent obtained, IRB approved	Nurses' definitions of PC, views about who should and should not receive PC, and beliefs about PC decision making	Interviews	Qualitative content analysis, theme analysis	The focus of nurse perceptions fell within symptom management. Most did not distinguish between PC and hospice and believed that those near end-of-life should receive PC. They viewed their role as restricted regarding decisions about PC.	Oncology nurses are thought to be well versed in PC; however, these nurses' understanding of the concept may limit their ability to care adequately for patients who could benefit from PC.
White and Coyne (2011)	1. Assess end-of-life (EOL) care core competencies deemed most important with related education-al needs of oncology nurses. 2. Describe the charac-	Design- Descriptive, cross-sectional study Sample- 714 members of Oncology Nursing Society from Georgia, Virginia, Washington, and Wisconsin Setting- in	Ranking of EOL care core competencies, perceived gaps in EOL continuing education	Mailed or emailed researcher-developed questionnaire during a 6-month period	Measures of central tendency, and ANOVA	More than half of the respondents had fewer than 2 hours of EOL care continuing education in the last 2 years. 25% feel that they are inadequately prepared to effectively care for a dying patient. Symptom management was the top core competency across all variables.	Educational gaps exist in EOL nursing care. Symptom management is the primary core competency. Quality EOL continuing education is lacking.

	teristics of respon-dents that are associated with top-ranked core compe-tencies.	participants preferred setting Human Subjects-voluntary members of professional organization, IRB approved					
Miller, Lima, and Thompson (2015)	1. Evaluate how differing levels of NH PC knowledge and practice associated with residents' end-of-life healthcare use.	Design-Quantitativesurvey Sample-n= 2165, stratified random sample of Directors of Nursing (DONs) in U.S. NHs; NH residents who died from 2009-2010 Setting- 1,981 U.S. NHs between 2009 and 2011 Human Subjects-Part of a larger National Institute on Aging funded program project.	Minimum data set (MDS), PC, nursing practice	Validated PC survey, MDS	Descriptive statistics with means described how PC knowledge and practice scores differed by NH characteristics; t-tests and ANOVA tested the statistical significance of the observed differences. Variables controlled for include: use of hospice, resident-level demographics and social characteristics, NH-level variables. Last MDS report before death for each resident was merged with the PC survey scores, covariate data from OSCAR, and county- level covariate data from the Area Resource File.	Controlling for NH hospice use, being in a nursing home with higher PC knowledge scores was associated with residents having a 13% increased likelihood of documented 6-month prognosis (adjusted odds ratio [AOR] 1.13, 95% CI 1.045, 1.216), and reduced incidence of feeding tubes, injections (P= 0.057), restraints, suctioning, 7% lower likelihood of end-of-life hospital and ER use (AOR 0.93; 95% CI 0.891, 0.961) and 9% lower likelihood of dying in the hospital (AOR 0.91; 95% CI 0.876, 0.955). Being in a NH with higher PC practice scores was associated with decreased incidence of feeding tubes (P= 0.075) and ER visits (AOR 0.99; 95% CI 0.981, 0.997).	Promoting the development of NH PC knowledge and practices could improve care and reduce hospital and ER use at the EOL. Advocacy for PC policy and practice to motivate change within the NH system, as well as having PC resources available is needed.
Kelly, Ersek, Virani, Malloy, and Ferrell (2008)	1. Evaluate data from the 2007 pilot ELNEC-Geriatric Training Program. 2. Dissemi-nate PC education in	Design-1-month and 4-month post-program surveys Sample- n=76, health care profession-als in a variety of roles, convenience sample of those	ELNEC Geriatric Training Program, PC, hospice, EOL, education, nurses, nursing assistants (NAs)	Program Evaluation Surveys validated by ELNEC	Descriptive statistics used to determine means	1-month post-course survey participants' mean rating of The ELNEC Geriatric Training Program in terms of planning for staff education programs was 9.04 (1=least effective, 10=most effective), more than 21% reported	Evaluation surveys found that the ELNEC Geriatric Training Program to be an effective model providing end-of-life education in the NH setting for a variety of health care professionals, with the specific inclusion of NAs. Many barriers and challenges remain in the NH setting.

	geriatric settings.	who voluntarily attended the ELNEC Geriatric Program Setting- per each respondent's preference: email, fax, telephone interview Human Subjects- not reported, voluntary participation				scheduled educational programs for nurses, 24% had organized a program for NAs and other staff. 4-month survey 82% had held educational programs, total of 157 programs for nurses, 117 programs given to NAs or other unlicensed staff	
Lazenby, Ercolano, Schulman-Green, and McCorkle (2011)	1. Develop a tool to assess the PC and EOL care-specific education-al needs of multidisci-plinary professionals. 2. Report on the validity of the tool and ability to discrimi-nate among charac-teristics of a multidisciplinary sample.	Design- Cross-sectional web-based survey Sample- n= 369; nurses, physicians, and social workers; 21 years or older, access to internet, communicate in English, practice PC and EOL care Setting- online Human Subjects- IRB approved	PC, EOL care, knowledge, educational needs, multidisci-plinary professionals	End-of-Life Professional Care-giver Survey (EPCS)	SPSS Sample characteristics were described using central tendency, factors screened for interrelation, 2 factors eliminated. Principal common factor analysis (FA) performed on remaining factors. Kaiser-Myer-Olkin (KMO) test used to determine sampling adequacy. Bartlett's test used to test hypothesis that the variables are uncorrelated among the population sampled. Cronbach's alpha >0.70 was evidence of scale reliability. Pearson product-moment correlation for assessing degree of association among factors. Comparison of factors using ANOVA, post hoc comparisons via Bonferroni correction.	KMO 0.95, Bartlett's 7456.5 (df 378, p= 0.000). Sample was adequate for factor analysis and items uncorrelated in the sample. All 28 items mean 107.7-18.7 with an α of 0.96. Correlations with overall EPCS ranged from 0.80-0.92 (p=0.01). 3 factors emerged: 12-item Patient and Family-Centered Communication (PFCC), 8-item Cultural and Ethical Values (CEV), 8-item Effective Care Delivery (ECD). One-way ANOVA revealed significant relationships (p<0.05) between profession with PFCC and CEV, age with PFCC, CEV, and ECD, highest level of education with PFCC.	EPCS is valid psychometric tool for use as a stand- alone scale to evaluate the educational needs of professionals among different disciplines and includes broad PC domains and EOL curricula.
Schlairet (2009)	1.Explore EOL care attitude/ belief, know-	Design- Descriptive cross-sectional	EOL care, PC, continuing education (CE)	End-of-Life Care-Educational Needs Survey;	Person's correlation coefficient; ANCOVA	Results suggested a positive relationship between nurses wanting	Majority of respondents had no formal EOL education or continuing education in this area and significant knowledge

	ledge/skill and prior education.	survey Sample- n=567, nurses in a southeastern state; accessible population- RNs employed in the state, estimated at 51,000 Setting- mailed to respondents and published in a state nurses association's newspaper Human Subjects- voluntary participation	Dependent variables: attitude/belief knowledge/ Skill, objective and subjective knowledge, workplace appropriate-ness, desire for education	validated tool with Cronbach's alpha score of .70 supported internal validity of 23 EOL content areas	MANOVA	to deliver quality EOL care and wanting to improve knowledge through education (r=.615, p=.01) and between those interested in improving knowledge through education and those willing to participate in CE provided by the state nurses association (r=.570, p=.01). ANCOVA on formal EOL education during initial nursing instruction F(12, 440)= 18.83, p<.001, n2=.24 and prior participation in EOL CE F(12, 440) = 31.39, p<.001, n2=.300 showing significant overall effects for both variables to all 6 dependent variables. MANOVA revealed that nurses who had taken part in prior EOL CE scored significantly higher than those who had not across all 6 dependent variables (p= <.001).	deficits were identified on 21 of 23 EOL care topics.
Moir, Roberts, Martz, Perry, and Tivis (2015)	1.Deter-mine perceived needs of inpatient nurses for communi-cating with patients and families about PC and EOL care.	Design- Non-experiment-al Sample- n=60, nurses from one hospital in Idaho; convenience sample of nurses in the telemetry, oncology, and critical care units Setting- online or handwritten Surveys done at the hospital	PC, End-of-life care, patient-centered nursing, EOL Professional Caregiver Survey (EPCS)	EPCS which examines three domains- patient and family-centered Communication (PCFF), cultural and ethical values (CEV), effective care delivery (ECD).	SAS 10.0 software used. Descriptive statistics and Chi-square used to analyze demo-graphic information. MANOVA used to determine overall effects of age of the nurse, unit the nurse works in, and years of experience across domain scores. Duncan's Multiple Range test used to conduct post-hoc	Participant age did not differ between hospital units included (likelihood ratio χ^2(6, n=58) =5.68, p=0.46). Years of experience did not significantly differ among work units (likelihood ratio χ^2(6, n=60) =9.98, p=0.13). MANOVA showed there was an overall effect of	There is a need for enhanced communication with patients and families about PC and EOL care, especially among less experienced nurses and those not working in oncology. There was a moderate level of perceived skill with a stronger need for additional knowledge among less experienced nurses. Additional education for newer nurses could increase comfort levels in all domains and improve care for patients approaching EOL.

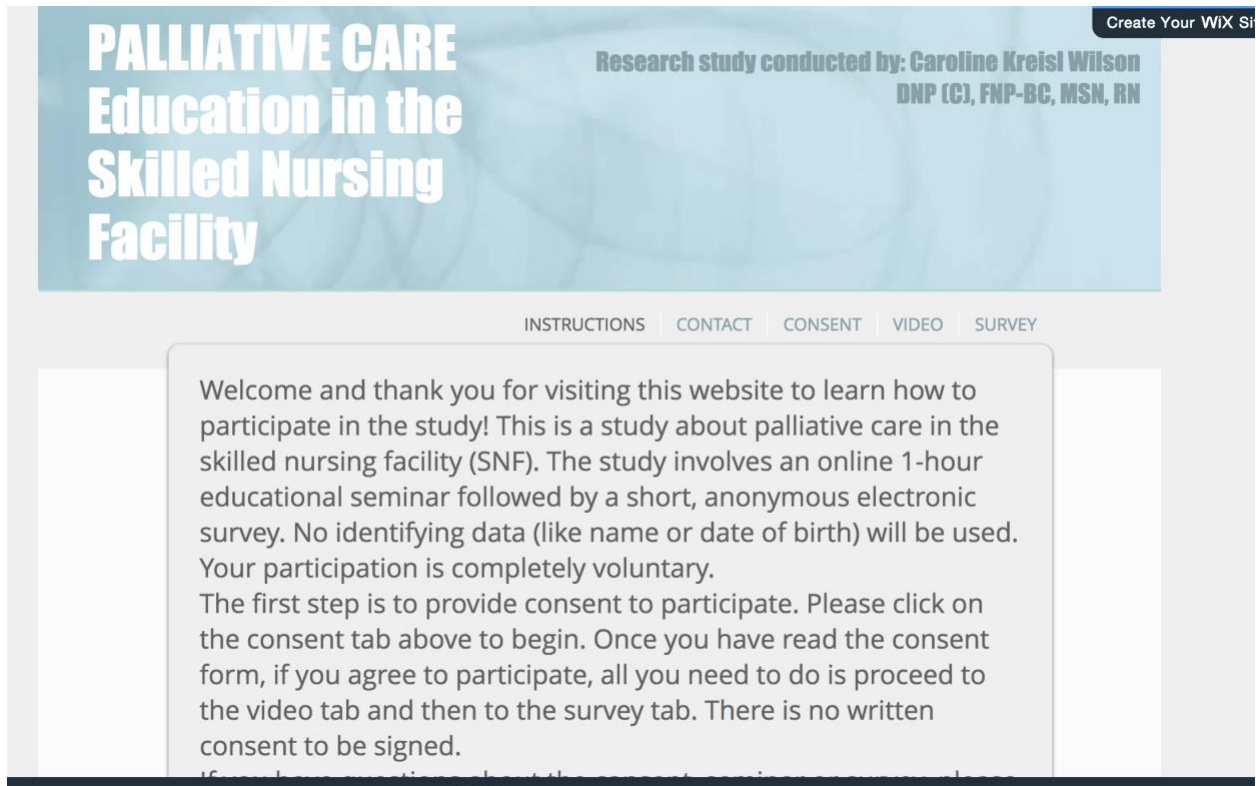| | | Human Subjects-voluntary participation IRB approved | | | comparisons to determine within domain differences. | experience $F(9,131.57)=2.22$, $p=0.0246$) and unit $F(6,110)=2.49$, $p=0.0269$, but no effect of age $F(9,126.7)=1.19$, $p=0.3083$. Only the PFCC domain showed differences by unit. Oncology nurses expressed higher comfort levels than critical care or telemetry nurses in patient and family-centered communication. | |

Figure 1. Home Page of the Online Palliative Care Education
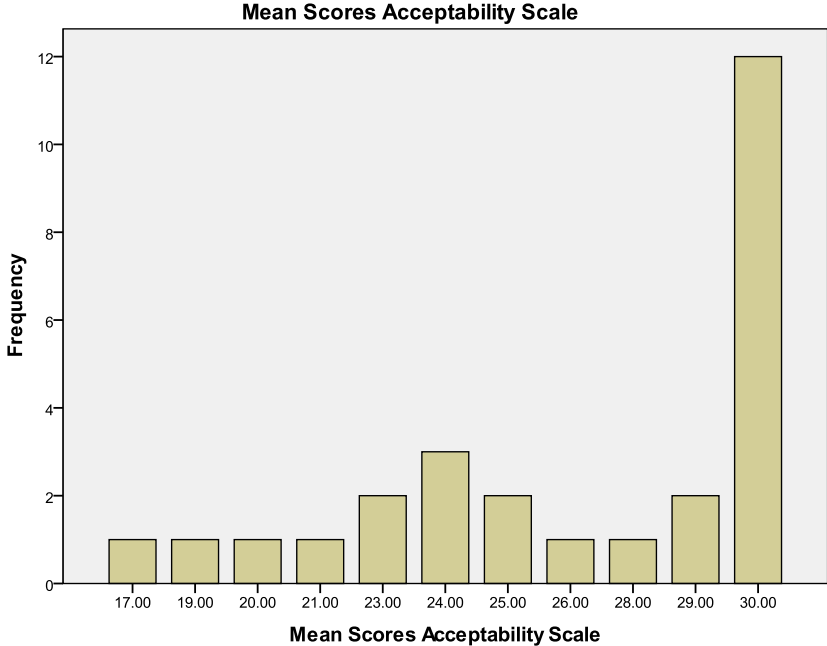
Figure 2. Mean Scores of the Acceptability eScale

APPENDIX A

CRITICAL ACTION CONFIDENCE SURVEY

After receiving the Online Palliative Care Education, rate your level of confidence in making decisions regarding the following actions:					
	Not confident (1)	Somewhat not confident (2)	Neutral (3)	Somewhat confident (4)	Confident (5)
1. Describing the philosophy of palliative care:	1	2	3	4	5
2. Identifying the multiple dimensions of care needed to achieve quality palliative care:	1	2	3	4	5
3. Explaining the need for collaboration with interdisciplinary team members in the delivery of palliative care:	1	2	3	4	5
4. Naming barriers to quality care at end of life:	1	2	3	4	5
5. Determining barriers to pain relief and performing a pain assessment:	1	2	3	4	5
6. Comparing pharmacologic and nonpharmacologic therapies used to relieve pain:	1	2	3	4	5
7. Distinguishing other symptoms common in advanced disease:	1	2	3	4	5
8. Performing assessment of symptoms at the end of life:	1	2	3	4	5
9. Discussing interventions that can prevent or reduce symptoms at end of life:	1	2	3	4	5
10. Recognizing ethical concerns that may arise in palliative care and end of life care:	1	2	3	4	5

11. Describing advanced directives and their role in preventing ethical dilemmas:	1	2	3	4	5
12. Demonstrating effective communication with patient, family, and team members throughout the process of palliative care and end of life:	1	2	3	4	5
13. Discussing the key factors that influence communication in the palliative care setting:	1	2	3	4	5
14. Utilizing strategies for communicating difficult/bad news:	1	2	3	4	5
15. Identifying aspects of culture and the influence of culture and spirituality in palliative care:	1	2	3	4	5
16. Comparing loss, grief, bereavement, and mourning:	1	2	3	4	5
17. Recognizing compassion fatigue as a professional caregiver:	1	2	3	4	5
18. Distinguishing components of a good death:	1	2	3	4	5
19. Assessing physical, psychological, social, and spiritual care needs for a dying patient and their families/caregivers:	1	2	3	4	5
20. Discussing the role of the nurse surrounding the death of a patient:	1	2	3	4	5

Reference:

Tselonis, P., & Majewski, L. (2017). *Task-management training for recognition, prioritization and decision making for the SRNA* (Doctoral thesis). DePaul University.

Sociodemographic Questionnaire:

Please complete the following survey based on your participation on the Online PC Education.

Sociodemographic Questionnaire:

1) What is your gender?
1. Male
2. Female

2) What is your age group?
1. 20-29
2. 30-39
3. 40-49
4. 50-59
5. 60 and above

3) What is your ethnicity or race?
1. White
2. Hispanic/Latino
3. Black/African American
4. Native American/American Indian
5. Asian/Pacific Islander
6. Mixed race

4) How many years of clinical experience do you currently have?
1. 1-5 years
2. 6-10 years
3. 11-15 years
4. 16-20 years
5. 21-25 years
6. 26-and above years

5) What is your level of nursing education?
1. Licensed practical nurse
2. Associate degree
3. Baccalaureate degree
4. Master degree
5. Doctoral degree

Acceptability eScale for Online PC Education:

1) How easy was the Online PC Education to complete?

1	2	3	4	5
Very difficult				Very easy

2) How understandable was the information that was presented?

1	2	3	4	5
Difficult to Understand				Easy to understand

3) How much did you enjoy participating in this Online PC Education?

1	2	3	4	5
Not at all				Very much

4) How helpful was the information presented in the Online PC Education?

1	2	3	4	5
Very unhelpful				Very helpful

5) Was the amount of time it took to complete the Online PC Education acceptable?

1	2	3	4	5
Very unacceptable				Very acceptable

6) How would you rate your overall satisfaction with this Online PC Education?

1	2	3	4	5
Very dissatisfied				Very satisfied

Appendix B: Proof of Human Subjects Protection Training

CITI Training Certificates of Completion

COLLABORATIVE INSTITUTIONAL TRAINING INITIATIVE (CITI PROGRAM)
COMPLETION REPORT - PART 1 OF 2
COURSEWORK REQUIREMENTS*

* NOTE: Scores on this Requirements Report reflect quiz completions at the time all requirements for the course were met. See list below for details.
See separate Transcript Report for more recent quiz scores, including those on optional (supplemental) course elements.

• **Name:**	Caroline Wilson (ID: 6262314)
• **Institution Affiliation:**	DePaul University (ID: 1435)
• **Institution Email:**	carokw@gmail.com
• **Institution Unit:**	College of Nursing
• **Phone:**	7736002601
• **Curriculum Group:**	Students
• **Course Learner Group:**	Students - Class projects
• **Stage:**	Stage 1 - Basic Course
• **Record ID:**	22780656
• **Completion Date:**	02-Apr-2017
• **Expiration Date:**	01-Apr-2020
• **Minimum Passing:**	80
• **Reported Score*:**	88

REQUIRED AND ELECTIVE MODULES ONLY	DATE COMPLETED	SCORE
History and Ethical Principles - SBE (ID: 490)	02-Apr-2017	5/5 (100%)
Defining Research with Human Subjects - SBE (ID: 491)	02-Apr-2017	4/5 (80%)
The Federal Regulations - SBE (ID: 502)	02-Apr-2017	5/5 (100%)
Assessing Risk - SBE (ID: 503)	02-Apr-2017	5/5 (100%)
Informed Consent - SBE (ID: 504)	02-Apr-2017	5/5 (100%)
Privacy and Confidentiality - SBE (ID: 505)	02-Apr-2017	3/5 (60%)
Students in Research (ID: 1321)	02-Apr-2017	4/5 (80%)
Conflicts of Interest in Research Involving Human Subjects (ID: 488)	02-Apr-2017	4/5 (80%)
DePaul University (ID: 12952)	02-Apr-2017	No Quiz

For this Report to be valid, the learner identified above must have had a valid affiliation with the CITI Program subscribing institution
identified above or have been a paid Independent Learner.

Verify at: www.citiprogram.org/verify/?k747c372f-bc5d-4467-88d5-53df05a2938d-22780656

Collaborative Institutional Training Initiative (CITI Program)
Email: support@citiprogram.org
Phone: 888-529-5929
Web: https://www.citiprogram.org

CITI
PROGRAM

Completion Date 01-Apr-2017
Expiration Date N/A
Record ID 22780658

This is to certify that:

Caroline Wilson

Has completed the following CITI Program course:

CITI Health Information Privacy and Security (HIPS) (Curriculum Group)
CITI Health Information Privacy and Security (HIPS) for Students (Course Learner Group)
1 - HIPS (Stage)

Under requirements set by:

DePaul University

CITI
Collaborative Institutional Training Initiative

Verify at www.citiprogram.org/verify/?wda01699f-1a19-40b8-b0ef-224e58227707-22780658

Appendix C: Supporting Documents

DNP Committee Approval Form

DePaul University
School of Nursing
Doctor of Nursing Practice Program

The DNP Project Committee Form

Directions: Follow the guidelines for selection of the Practice Dissertation Committee described in the DNP Project Guideline. The student (s) should submit this form to the DNP Program Director after all signatures of the DNP project Committee are obtained.

Doctoral Student Name (s): CAROLINE K. WILSON

The DNP Project Topic: END OF LIFE NURSE EDUCATION – INTRODUCTION to END OF LIFE CARE FOR NURSES

DNP Project Committee:
The following persons have agreed to serve on the DNP project committee of the candidate named above.

JOSEPH TARIMAN PhD   01-24-2017
Chairperson (printed)   Signature   Date

RONALD GRAF   04/18/2017
Member (printed)   Signature   Date

_____   _____   _____
Member (printed)   Signature   Date

_____   _____   _____
Member (printed)   Signature   Date

Reviewed and Approved by

RONALD GRAF   04/18/2017
DNP Program Director (printed)   Signature   Date

Copy: Student File
Copy: Chairperson
Copy: Student

Appendix D: Recruitment Flyer & Consent Form

You are invited to take part in a research study which includes an online educational seminar and survey

Palliative Care Education in the Skilled Nursing Facility:
An Introduction for Nurses

The older adult population continues to grow and so to, patients appropriate for palliative care. Learn more about palliative and end-of-life care in a one hour online seminar. You will be asked to take a brief anonymous online survey following the seminar. Your response in the survey will be kept confidential.

The seminar is available October 9- 22, 2017

☐ The educational seminar and survey will be available on 2 designated computers- in the Specialty Office and in the lower level Conference Room and can be accessed at your convenience during the dates listed above.

☐ CONSENT is required to participate and will be obtained electronically at the study website, details will be available at the designated computers during the dates of the seminar. Consent is needed <u>before</u> taking part in the study.

Please contact Caroline Wilson FNP-BC with any questions at
carokw@gmail.com

<u>**ADULT CONSENT TO PARTICIPATE IN RESEARCH**</u>

Palliative Care Education in the Skilled Nursing Facility

Principal Investigator: Caroline K. Wilson, FNP-BC, MSN, RN; graduate student

Institution: DePaul University, Chicago, Illinois, USA

Department (School, College): Nursing

Faculty Advisor: Dr. Joseph Tariman, PhD, School of Nursing

<u>What is the purpose of this research?</u>
I am asking you to be in a research study because I am trying to learn more about palliative care nursing education in the skilled nursing facility. The purpose of the study is to evaluate a 1-hour, online palliative care education seminar for nurses, with a brief survey on program acceptability and participants' confidence in decision making in relation to palliative care and end-of-life care. This study is being conducted by Caroline Wilson, a graduate student at DePaul University as a requirement to obtain her doctoral degree. This research is being supervised by her faculty advisor, Dr. Joseph Tariman, PhD.

We hope to include 50 participants in the research.

<u>Why are you being asked to be in the research?</u>
You are invited to participate in this study because you are a nurse at Providence Healthcare and Rehabilitation Center, a skilled nursing facility and this study is focusing on palliative care nursing education in this care setting.

<u>What is involved in being in the research study?</u>
If you agree to be in this study, the research involves viewing an online palliative care educational seminar on palliative care in the skilled nursing facility. A summary of the topics covered in the seminar include: the philosophy of palliative care, symptom management, ethical issues, cultural and spiritual concerns in palliative care, importance of communication in the palliative care setting, differentiation between loss and grief, strategies for self-care, and distinguishing care in the final hours of life. Following this, you will be asked to complete a short online survey after you have viewed the educational seminar. The topics covered in the survey include decision making confidence related to: concepts of palliative care, symptom recognition and management, identifying ethical issues in palliative care, considering cultural and spiritual aspects that influence care, utilizing effective communication in the palliative care setting, describing loss and grief, identifying strategies for self-care as nurses, and distinguishing aspects of care in the final hours of life. The survey is completely anonymous and along with the questions related to the seminar, only general demographic information will be asked such as age, sex, race, level of education as a nurse, years in practice as a nurse. No names or other personal identifying information will be collected. All study data will be kept confidential.

<u>How much time will this take?</u>

This study will take about 60 minutes to view the educational seminar and an additional 10 minutes to complete the survey. Total time will be approximately 1 hour and 10 minutes.

Are there any risks involved in participating in this study?
Being in this study involves minimal risk, similar to the risks you may encounter in your daily work. You may experience a sense of loss of time or may experience frustration with the video or survey or may be uncomfortable with some of the content in the seminar or survey. These risks are not expected to have significant impact if experienced. Expanding knowledge in the nursing profession through continuing education is the expectation and involves time and exposure to new concepts.

To minimize these risks, you have the ability to choose not to participate in the study. If you do choose to participate, you have the option to stop or pause the video or survey if you wish to do so and may complete it at a later time if desired. In addition, you can skip questions on the survey if you wish to do so. The study is voluntary and therefore you can stop at any time without any negative recourse.

Are there any benefits to participating in this study?
You may benefit from the research by increasing your knowledge on palliative and end of life nursing care, this may be a potential benefit to the patients you care for in your role as a nurse

I hope that what I learn will help provide a basis for future nursing education programs in palliative care and end of life care and this dissemination of knowledge will positively impact the care of older adult patients and their families. In addition, knowledge gained through this study may prove to be a springboard for future educational programs in this care setting.

Can you decide not to participate?
Your participation is voluntary, which means you can choose not to participate. There will be no negative consequences, penalties, or loss of benefits if you decide not to participate or change your mind later and withdraw from the research study after you begin participating.
Your decision whether or not to participate in the research will not affect your employment or your relationship with Providence Healthcare and Rehabilitation Center.

Who will see my study information and how will the confidentiality of the information collected for the research be protected?
Research records will be kept for 3 years after the closure of the study with the IRB. Research records include documents approved by the IRB, and all communication with the IRB. Study data will be kept and stored indefinitely; data will be stored in secure cloud storage and a digital file will be maintained in a locked secure drive. This will be done to defend the research study's findings if any future requests are made to do so. Your information will be combined with information from other people taking part in the study. When I write about the study or publish a paper to share the research with other researchers, I will write about the combined information gathered. I will not include any information that will directly identify you. I will make every effort to prevent anyone who is not on the research team from knowing that you gave information, or what that information is. However, some people might review or copy the records that may identify you in order to make sure I am following the required rules, laws, and

regulations. For example, the DePaul University Institutional Review Board may review your information. If they look at the records, they will keep your information confidential.

Who should be contacted for more information about the research?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind. Later, if you have questions, suggestions, concerns, or complaints about the study or you want to get additional information or provide input about this research, you can contact the researcher, Caroline Wilson, carokw@gmail.com, 773-600-2601.

This research has been reviewed and approved by the DePaul Institutional Review Board (IRB). If you have questions about your rights as a research subject you may contact Susan Loess-Perez, DePaul University's Director of Research Compliance, in the Office of Research Services at 312-362-7593 or by email at sloesspe@depaul.edu.

You may also contact DePaul's Office of Research Services if:

- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.

You may print a copy of this information of your records.

Statement of Consent from the Participant:

I have read the above information. My consent will be indicated if I proceed to view the educational seminar and complete the survey. If I have questions or concerns about the study or consent form, I may exit the website and use the contact information provided to contact the Principal Investigator, Caroline Wilson, to have questions addressed and if desired, can return at a later time to complete the study.

I have had all my questions and concerns addressed. By proceeding to the educational seminar and completing the survey, I indicate my consent to be in the research.

Appendix E: DePaul University IRB Approval Letter

DEPAUL UNIVERSITY

Office of Research Services
Institutional Review Board
1 East Jackson Boulevard
Chicago, Illinois 60604-2201
312-362-7593
Fax: 312-362-7574

Research Involving Human Subjects
NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

To: Caroline Kreisl Williams, MSN, FNP-BC, Graduate Student, School of Nursing

Date: September 1, 2017

Re: Research Protocol # CK072517NUR
"Palliative Care Education in the Skilled Nursing Facility"

Please review the following important information about the review of your proposed research activity.

Review Details
This submission is an initial submission. Your research project meets the criteria for Expedited review under 45 CFR 45 CFR 46.110 under the following category:

> *"(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies."*

Approval Details
Your research was originally reviewed on August 11, 2017 and revisions were requested. The revisions you submitted on August 27, 2017 were reviewed and approved on September 1, 2017.

Approval Period: September 1, 2017- August 31, 2018

Approved Consent, Parent/Guardian Permission, or Assent Materials:
1) Adult Consent- online, version 3- 9/1/2017(attached)
    a. Waiver of documentation of consent granted under 45 CFR 46.117 (c) 2

Other approved study documents:
1) Recruitment flyer, version 2, 8/21/17 (attached)

Number of approved participants: 50 Total
You should not exceed this total number of subjects without prospectively submitting an amendment to the IRB requesting an increase in subject number.

Funding Source: 1) None

Approved Performance sites: 1) DePaul University; 2) Providence Healthcare and Rehabilitation Center (Palos Heights, IL)

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Appendix F: Websites for the Online PC Education and Content Materials

Wix.com Website Link:

https://carokw.wixsite.com/palliativecare

Palliative Care Education in the Skilled Nursing Facility PowerPoint with audio

https://youtu.be/KxOyfb7A1CM

Qualtrics Survey Link for CACS, SD Questionnaire and Acceptability eScale for Online PC

Education:

http://depaul.qualtrics.com/jfe/form/SV_9S3Ff3nBoB8qwPH