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An Educational Intervention for Hospice and Palliative Care Nurses

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Regis University

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Executive Summary

An Educational Intervention for Hospice and Palliative Care Nurses

Problem

The provision of high quality nursing care to the dying has become a significant concern in the United States (Kruse, Melhado, Convertine, & Stecher, 2008). However, some studies have shown that nurses working with dying patients have expressed concern over a lack of knowledge and preparation in caring for the dying and do not feel comfortable in the provision of end-of-life care (Kruse et. al, 2005; Ferrell, Virani, Grant, Coyne, & Uman, 2000; Shea, Grossman, Wallace, & Lang, 2010). The problem statement was: In (Population) nurses caring for hospice and palliative care patients, will (Intervention) an evidence based educational intervention, when compared (Comparison) with no educational intervention and measured by the End-of-Life Care (EOLC) questionnaire (Outcome) change their perceptions in their ability to meet essential competencies for End-of-Life care as defined by American Association of Colleges of Nursing (AACN)?

Purpose

The purpose of this capstone project was to provide an evidence-based and effective nursing educational intervention that is based upon self-identified weaknesses that will empower hospice and palliative care nurses to provide high quality care for patients during the end-of-life.

Goal

The goal of this capstone project was to explore the effectiveness of education designed for nurses caring for hospice and palliative care patients in enhancing their perceptions of their ability to meet essential competencies in providing care.

Objectives

Project objectives were (1) Using the EOLC questionnaire, assess weakness and knowledge gaps of the ability to meet core competences as defined by the AACN for nurses caring for hospice and palliative care patients. (2) Provide an educational intervention based on needs assessment of study population using the Toolkit for Nurturing Excellence at End-of-Life transition (TNEEL) nursing education program (3) Measure changes in the self-perception of the study population as related to the core competencies defined by the AACN.

Plan

This project started with an extensive literature review and needs assessment. The next step involved finding and obtaining permission to use the EOLC questionnaire to measure nurse's self-perceived knowledge changes. Institutional review board (IRB) approval was obtained from Regis University and a local hospice agency gave permission for the project. The project was implemented and data was collected and analyzed to determine if there were changes in the nurses self-perceived knowledge measured using the EOLC questionnaire post-test.

Outcomes and Results

Participants (N=16) self-identified weaknesses in communication about the dying process, assessment and treatment of the dying patient and their family, and the promotion of comfort and completed the EOLC questionnaire pre- and post-intervention. There was no statistical significance in improvement noted between the first and second administrations of the questionnaire but there was a statistical improvement between the first and third and the second and third administrations. There was no statistical significance in improvement in the five lowest scoring items on the questionnaire between administrations of the questionnaire.

Acknowledgements

I would not have been able to complete the course work without the support of many people along the way. My best friend Rachel stood by my side throughout the time I was completing the work and was more than understanding and supportive of my efforts in school and everyday life. My parents and family, who also showed patience and understanding when I could not attend family events due to my busy schedule.

I would like to extend a very special thank you to one of my best friends and study partner Cassie Banks, I absolutely could not have completed the course work without her advice and help. She was my editor, advisor, and psychologist on many occasions. I feel blessed to have met her and call her friend. I would like to thank Dr. Marcia Gilbert and Dr. Barbara Berg for their patience, guidance, and encouragement throughout this process. I would like to extend a special thanks to Dr. Lynn Wimett for her efforts in reviewing, editing, and guiding this project; without her help, this would not have been possible. All of the course instructors at Regis University were instrumental and an inspiration in my completion of this project.

The nurses and staff at the hospice agency were kind enough and willing to participate in the study and complete the questionnaires. This project would not have been possible without Maureen Eaves and Shellie Manuel who allowed me to complete the project at their facility.

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An Educational Intervention for Hospice and Palliative Care Nurses

This project proposal describes an educational intervention focused on nurses working in hospice and palliative care. The educational intervention adapted from the Toolkit for Nurturing Excellence at End-of-Life Transition (TNEEL) education program was delivered in a lecture style format utilizing handouts and discussions to augment understanding (The Cancer Pain and Symptom Management Nursing Research Group, 2011). The purpose of this project was to measure changes in perceived competency following an educational program based on assessed learning needs in hospice and palliative care nurses caring for patients in the end-of-life care (EOLC) setting.

Problem Recognition and Definition

When recognizing and identifying a problem within a practice setting, "the critical thinker identifies a need or change required in a practice environment" (Zaccagnini & White, 2011, p. 458). The provision of high quality nursing care to the dying has become a significant concern in the United States (Kruse, Melhado, Convertine, & Stecher, 2008). The Institute of Medicine (IOM, 1997) defines the good death as one "that is free of avoidable distress and suffering, in general accord with one's wishes, and is consistent with clinical and cultural standards" (p. 4). "However, the translation of these definitions of a good death into quality end-of-life care remains a challenge" (Reinke et al., 2010, p. 753). The goal of palliative care is to provide care that allows for optimal quality of life for patients and their families (Betcher, 2010; McIlfatrick, Mawhinney, & Gilmour, 2010). However, the admission of a family member to hospice services can be unexpected and upsetting for family members. Further confounding the issue are health care providers who feel uncomfortable communicating with family members about end-of-life issues (Lindstrom & Melnyk, 2009). Moreover according to Kruse et al., nurses working with dying patients have expressed concern over a lack of knowledge and preparation in caring for the dying. Other research studies revealed that nurses do not feel comfortable in the provision of end-of-life care (Ferrell, Virani, Grant, Coyne, & Uman, 2000; Shea, Grossman, Wallace, & Lang, 2010).

The recognition of valuable and underutilized end-of-life nursing skills may provide guidance for the development of interventions to improve nurses' roles in caring for dying patients and their family members (Reinke et al., 2010). The American Association of the Colleges of Nursing (AACN, 2002) has established a list of fifteen core competencies essential in the provision of high quality nursing care to patients and their families during the end-of-life transition period. The development of expertise in these skills may be accomplished through targeted nursing education aimed at reducing barriers to implementation of these end-of-life skills (Reinke et al.). "Nurses are similar to other learners in that each nurse has a slightly differing learning style and brings varied life experiences to each educational venture" (Banks, Gilmartin, & Fink, 2010, p. E2). Moreover, Kruse et al. (2008) found that both classroom and clinical nursing experiences develop a transaction process that assists in the attainment of goals for nurses seeking to provide quality end-of-life care for patients. Finally, "understanding the learning needs of students is a vital step in planning the delivery of effective education" (Thompson, Foster, & Dowding, 2005, p. 68). However, the evaluation of an intervention is complicated and relies to some degree on self-reported behavior and self-perceived knowledge gains. Evaluating the impact of such interventions is not always easy and many methods rely on self-reported behavior (Thompson et al.).

Problem Statement

The evidence-based study question is: In (Population) nurses caring for hospice and palliative care patients, will (Intervention) an evidence based educational intervention, when compared (Comparison) with no educational intervention and measured by the End-of-Life Care (EOLC) questionnaire (Outcome) change their perceptions in their ability to meet essential competencies for End-of-Life care as defined by American Association of Colleges of Nursing (AACN)?

Significance, Scope, and Rationale

There is a growing demand for hospice and palliative care nurses and an emphasis on the provision of quality care. Because nurses spend more time with patients in the end-of-life care setting, the need for end-of-life education for these nurses is necessary to provide adequate care (Whitehead, Anderson, Redican, & Stratton, 2010). The core competencies for hospice and palliative care nurses provide a framework and benchmark from which end-of-life care education can be focused. It has been the intention of this capstone project to provide an evidence-based and effective nursing educational intervention that is based upon self-identified weaknesses that will empower hospice and palliative care nurses to provide high quality care for patients during the end-of-life transition.

Theoretical Framework

The theoretical foundation for this project was based on Therese Meehan's The Careful Nursing Model. The link between this project and this model's theory lies in the understanding that the given areas of care should not be a part of what nurses do, but should actually be hemmed by their caring both in action and in belief. Thorne et al. (1998) stated, "No-one seriously disputes the idea that excellent nursing involves something which can be called care, and that the ultimate aims of the caring movement are to foster that quality within nursing" (p. 1265).

Meehan (2003) noted, "The careful nursing model illuminates important aspects of professional nursing and could be developed to conceptualize and guide nursing practice" (p. 99). If theory is to be applied to practice, then the ten concepts and four sub-concepts of The Careful Nursing Model will provide guidance for the proposed actions. By actually caring for patients and families in hospice care, the theory guided goal of this project would be actualized by observing a decrease in nurses concerns in providing end-of-life care and an increase in self-perceived education levels in the core competencies of palliative and end-of-life care, thus resulting in better clinical outcomes for patients and their families.

The ten concepts of nursing practice as described by The Careful Nursing Model, when examined more closely:

> Appear to compose themselves under the following four headings (with concepts): 1) nurses' therapeutic capacity - nurses care for themselves 2) therapeutic milieu within which practice takes place - disinterested love, contagious calmness, and creation of a restorative environment 3) clinical competence and expertise - perfect skill in fostering safety and comfort, nursing interventions, health education 4) management of practice and relationships between them – participatory - authoritative management, trustworthy collaboration, and power derived from service. (Meehan, 2003, p.105)

The application of this theory to the proposed practice problem followed the four theoretical concepts. *Nurses' therapeutic capacity* entails the nurse maintaining a healthy lifestyle and thereby maintaining the ability to care for patients. *Therapeutic milieu* is displayed by the compassion that is the foundation for all nursing (personnel) actions, maintaining calm while approaching and educating staff regarding the problem and solution. The ultimate goal was to provide patients with excellent hospice and palliative care while using hospice and palliative care core competencies as one tool in the provision of care. *Clinical competence and expertise* provides for an approach to patient care and interventions using expert skill to educate, interact, and guide patients and their families during the provision of end-of-life care. *Management of practice and relationships* provides the framework for nursing interaction with physicians and staff and will lead to an acquired power within the organization (Meehan, 2003).

Literature Review

A comprehensive review of the literature yielded two themes deemed relevant to this project. The first theme is the belief that nurses must understand their own feelings and develop skills that enable them to care for the dying patient accordingly. The second and more prominent idea is the evidence in the literature that supports the need for improvement in the care of the rapidly growing number of patients receiving palliative and hospice care and that a knowledge deficit exists for nurses who deliver this care. These two themes gave direction and set the tone for this project.

The satisfaction of nurses who provide care for the dying patient and their family is an important component of end-of-life care (Flacker, Won, Kiely, & Iloputaife, 2001). Nurses frequently have more contact with patients and their families at the end-of-life than other medical practitioners (Kruse et Al., 2008; Lange, Shea, Grossman, Wallace, & Ferrell, 2009; Reinke et al., 2010). Serious illness and death can elicit challenging emotional responses in nurses (Ödling, Norberg, & Danielson, 2002). Further, these nurses named their stress as being associated with death and dying and, maybe more importantly, the lack of preparation and nursing skills to meet the emotional needs of their patients. (Power & Sharp, 1988). In order to meet the needs of their patients and families, nurses need to be educated about hospice and palliative care and must understand their own feelings about the dying process (Meraviglia, McGuire, & Chelsey 2003). This idea is further supported by Mitchell, Sakraida, Dysart-Gale, and Gadmer (2006) in a study that demonstrated that hospice care and palliative care nurses with increased training and support in dealing with the terminal patient reported less job-related stress and greater job satisfaction.

A common theme within the literature is the improvement of the quality of care at the end of life remains a major concern for health care providers (Beckstrand, Callister, & Kirchhoff, 2006; Reineke et al., 2010). According to Merevigilia et al. (2003), the care of the terminally ill patient has been moved from the hospital setting to the home or extended care facility. Those receiving hospice and palliative care hold the belief that their care will be consistent with current guidelines and provided by nursing staff that have kept up-to-date with current care techniques (Department of Health [DH], 2008). “Nurses who are experienced and comfortable in end-of-life decision-making are more likely to engage in communication and assessment strategies that facilitate end-of-life care” (Melhado et al., 2005, p. 2). Competent and ethical care is possible when nurses, who are committed to maintaining their knowledge and skills, undertake ongoing education in order to inform themselves of advances in the practice and theory of end-of-life care (Melhado et al.; Shotton, 2000).

Another concern is the limited or delayed access to hospice and palliative care. Schairet (2006) listed “increasing incidence of chronic diseases, a shortfall of caregivers, a limit in cancer care resources, heightened acuity amongst greater numbers of frail patients with increased comorbidity and disability, increased family mobility and isolation and an escalation of healthcare costs [among barriers to] the provision of expert, compassionate [end-of-life] care (p. 3). Further, hospice access is often difficult for patients receiving palliative chemotherapy, radiation, or surgery, even with the recent increase in hospice utilization (Medicare Payment Advisory Commission [MedPAC], 2002). In 2001, the American Academy of Nursing's Palliative and End-of-Life Care Expert Panel identified the need to integrate palliative care skills throughout the nursing care of people with acute and chronic illnesses. The enhanced knowledge about advanced care planning and improved communication skills may facilitate decision making and provide for earlier referrals to palliative and hospice care (Reb, 2003).

Qualified nurses have the potential to decrease the suffering and improve comfort and patient outcomes for hospice and palliative care patients (Murray, Fiset, & O'Connor, 2004). Nurses in one study named "pain control methods, comfort care interventions, and palliative treatments as important core competencies" (White, Coyne, & Patel, 2001, p. 150). Reinke and colleagues (2010) noted the need for nursing education and healthcare systems interventions that focused on communication and symptom management skills to improve end-of-life skills for nurses. Meanwhile, access to hospice and palliative care has been difficult for some patients. Further, while hospice care may benefit patients and their families, the patients are often referred to hospice care late in the course of their illness (Casarett, Crowly, & Hirschman, 2004). Adding to the complexity of the hospice and palliative care delivery structure are the logistics of coordinating and communicating the plan of care for each patient (McIlfatrick et al., 2010). The education and training of nurses and caregivers is imperative in the promotion of excellent hospice and palliative care for patients and their families (McIlfatrick et al.). Additionally, the development of better nursing skills and improved patient-centered healthcare delivery should result in higher quality end-of-life care for patients and family members (Reinke et. al). Finally, “to provide competent and ethical care is possible when nurses are committed to maintaining their knowledge and skills at a level that benefits patients” (Melhado et al., 2005, p. 2).

Market/Risk Analysis

Project Strengths, Weaknesses, Opportunities, Threats

There were several strengths associated with the design of this project. First, the project provided for a cost effective and efficient way to educate many nurses in a short period of time. Secondly, the study utilized a proven questionnaire and a widely accepted educational source. Additionally, the design of the study makes it easily reproducible. Finally, this type of project sets an example for nursing staff in the use of evidence-based practice projects.

There were some inherent weaknesses associated with this project. First, self-perceived knowledge may or may not have been an accurate indicator of improvement in knowledge or competency. Second, the study participants may have demonstrated increased self-perceived knowledge due to pressure to enhance performance over time. Moreover, because the educational initiative targeted only the self-identified five weakest areas, it was not encompassing of each facet of the core competencies as identified by the AACN. Finally, the project had a relatively small number of participants given the number of nurses employed by the facility where the project took place.

Some areas of opportunity existed within the study design. In the future, the study could be applied to a different setting or population or used to test reproducibility. Additionally, the same principles of the educational initiative could be applied to other types of evidence-based content. Had this project shown favorable outcomes, it could be repeated over the course of several months to address other and new areas of identified weaknesses within the core competencies as described by the AACN.

Some threats to validity exist with this type of study. Historical effect describes the influence of any extraneous factors upon the outcomes of the study. This could include any exposure to learning between pre- and post-intervention periods. The testing effect refers to the effect of administering the same test repeatedly and respondents may score higher as a result of repeatedly seeing the same information. This is a potential threat to external validity. Attrition among the nurses initially enrolled in the project is another threat to the project. Finally, regression to the mean is an additional threat. Regression to the mean occurs "when unusually large or small measurements tend to be followed by measurements that are closer to the mean" (Barnett, van der Pols, & Dobson, 2005, p. 215).

Need, Resources, and Sustainability

According to Zaccagnini and White (2011), the purpose of a needs assessment is to assess the population affected by a given problem. Further, Zaccagnini and White note that needs assessments may be one of several types of tools or instruments. For the purposes of this project, the pre-intervention EOLC questionnaire administration served to address needs assessment. Because the educational intervention was subsequently designed based upon the results of the pre-intervention needs assessment, it was the objective of the author that the education intervention would have met the needs of the target population.

There were few resources required to undertake this capstone project. Manpower resources included the advanced practice nurse/project leader and hospice advanced practice nurse/content expert. The TNEEL program was central to the project content and was obtained for a nominal fee through the University of Illinois College of Nursing and the Robert Wood Johnson Foundation. The program was only compatible with a windows platform, and thus a personal computer/laptop was purchased in order to run the program. Microsoft Office for windows was purchased and utilized to create the educational content and handouts for the educational program. The paid time for nursing staff to attend the program was donated by the hospice agency.

Given the relatively simplistic design of this capstone project and the short time frame for implementation and data collection, the short-term sustainability of the project remained intact. The long-term sustainability of this project has been determined by the outcomes of the project and more research is needed to direct the use of the methodology in long-term nursing education for the hospice facility where the project took place. A thorough review of realized strengths, weakness, threats, and opportunities performed after project completion offers a better determinant of the future implications of this project for all stakeholders and is discussed later in this paper.

Stakeholders and Project Team

In order to identify the stakeholders of the project, Zaccagnini and White (2011) recommend that consideration be given to those individuals who may be affected by the project and its outcomes. According to Zaccagnini and White, there are both internal and external stakeholders. Internal stakeholders in the project included the project leader, an advanced practice nurse who is the content expert, the hospice facility’s director of nurses, the hospice facility’s administrator, and the hospice nurses involved in the project. Indirect stakeholders included residents and families in the local communities that surround the hospice facility that may potential utilize the hospice services. Additional indirect stakeholders to be considered were other hospice facilities that may have an interest in hospice nurse education.

The project leader developed and facilitated the educational intervention and completed the project. The team leader was responsible for the outcomes of the project (Zaccagnini & White, 2011). The content expert provided assistance and advice to the project leader on the content that was required for the educational intervention. The director of nurses and facility administrator were responsible for coordinating the on-site educational activity sessions and granted permission for the project. The hospice nurse participants were the focus audience for the project. The families and residents in the communities may be recipients of hospice care in the future. Other hospice facilities may benefit from a proven and effective educational tool for hospice and palliative care nurses.

Cost-Benefit Analysis

A cost benefit analysis is a powerful tool that demonstrates that the benefit of solving a specific problem is worth the cost of undertaking a project (Zaccagnini & White, 2011). “Direct costs are those that are specifically attributable to the project” (Zaccagnini & White, p. 476), while indirect costs may include the support staff within an organization. Direct or measurable costs of this project included the laptop for managing the TNEEL education program, the actual digitally formatted TNEEL education program, and the paper needed for handouts and questionnaire answers (Appendix I). Consideration was given to the donated time for the nurses participating in the project. The total cost of these items was estimated at $2506.00 and included both direct and indirect costs.

Because some of the benefits have indirect value, such as improved patient and family satisfaction with nursing end-of-life care and enhanced self-perceived nursing competencies, it was difficult to directly attain an exact benefit cost. However, there is the measurable benefit of the cost savings associated with in-house nursing education provision, which was estimated at $2500.00 per year. This type of affordable nursing education could be used for hospice agencies across the United States and even worldwide.

Project Objectives

Mission and Vision

The mission of this capstone project was to enhance self-perceived nursing knowledge related to the hospice and palliative care core competencies as measured by the EOLC questionnaire. Additionally, another facet of this study was to review the effectiveness of the method and data analysis for possible implementation with a larger subject population. Through the use of the TNEEL nursing education program (Appendix D), the education was adapted and targeted at self-perceived weaknesses and knowledge gaps, in the hopes of an enhanced overall self-perceived knowledge. The vision of the project centered upon the ideal that if this method of directed nurse education was effective, this methodology could be applied to other topics and settings in the future.

Goals

The goal of this project was to explore the effectiveness of education designed for nurses caring for hospice and palliative care patients in enhancing their perceptions of their ability to meet essential competencies in providing care. The research also examined potential influences of extraneous variables on pre-test scores and teaching effectiveness (post-test scores) such as age, level of education, years of hospice experience, and experience with a family member receiving hospice care. The project also explored transfer of knowledge to the clinical area through a self-reported open-ended questionnaire.

Process Outcomes and Objectives

The objective of this study was to demonstrate the efficacy of an educational initiative targeted at self-perceived weaknesses and gaps in nursing knowledge related to hospice and palliative care. Mean, median, and mode values for each item were determined pre and post intervention. Demographic variables including age, licensed practical nurse (LPN), registered nurse (RN), or advanced practice registered nurse (APRN) status, years of hospice experience, and whether the nurse has had a family member on hospice care in the past were collected for possible effect on the EOLC questionnaire competency assessment and may be controlled for in future studies.

Among the desired outcomes of this study was first, enhanced self-perceived nursing knowledge of the hospice and palliative care core competencies. Second, the participation of nurses in an evidence based practice project may lead to an enhanced sense of inquiry and willingness to participate in future practice improvement projects. Finally, had the project demonstrated efficacy and effectiveness in educating nursing staff, this project may have set precedent for the hospice organization’s methodology for staff education.

Evaluation Plan

Logic Model

The model that has been created is an attempt to describe the flow of thinking from start to finish (Appendix C). According to Earp and Ennett (1991), the best models convey information to allow readers to quickly view the material in an understandable format.

The first phase of the model was the identification of a knowledge deficit in nurses caring for hospice and palliative care patients. During the end-of-life stage, patients spend more time with nurses than other members of the care team (Melhado et al., 2005). However, several studies have noted that nurses feel unprepared to provide the type of comprehensive care necessary during the end-of-life transition (Melhado et al.). Further in 2002, the AACN developed a list of fifteen core competencies that provide guidance for nurses providing care for patients and families at the end-of-life.

The second phase of the conceptual model addressed the review of literature to identify evidence-based guidelines for the provision of hospice and palliative care. According to Zaccagnini and White (2011), making the best clinical decisions is dependent upon the utilization of the best available evidence. This was accomplished through a systematic review of the literature and research of current educational tools available to hospice and palliative care nurses.

The next phase addressed the design of an educational intervention to target a self-perceived knowledge deficit and enhance nursing confidence in providing care for hospice and palliative care patients. Houser and Oman (2011) state that the need for mentoring has become greater in recent years and it is the belief of this author that this is inherent to the Doctor of Nursing Practice (DNP) role. After assessing the hospice nurses' self-perceived knowledge deficits, the educational material was designed. When designing the materials for the educational intervention, principles of adult learning as well as information gathered from the administration of the EOLC pre-test were integrated into the educational methodology. The TNEEL educational program “is designed to provide nurse educators in academic and clinical settings with ready access to teaching and learning resources dealing with end-of-life concepts” (Wilke, 2004, p. 26).

The following phase addressed the presentation of materials to the target audience of hospice and palliative-care nurses. It was the intent of this author that through the integration of principles of adult learning and thought-provoking content, that nurses would retain the knowledge and subsequently be able to apply it to their nursing practice.

As noted by Zaccagnini and White (2011), "As nursing moves practice decisions from those based on tradition to those based on empirical evidence, the advanced practice nurse is in the best position to affect and assess change within the clinical setting" (p.90). In the evaluation phase, the EOLC post-test was administered and the efficacy of the educational methodology in enhancing nursing knowledge was assessed. It was the expectation of the author that enhanced nursing knowledge would result in greater confidence and empowerment in the provision of end-of-life care and subsequently improved patient outcomes. Additionally, sustainable changes in nursing practice were a desired long-term outcome of the project. After all, “the goal of palliative care is to achieve the best quality of life for patients and their families” (McIlfatrick et al., 2010, p. 555).

Population and Sampling

The focus population for this project was those nurses practicing in the hospice and palliative care setting at Brighton Bridge Hospice Agency. All nurses meeting the inclusion criteria were invited to participate. Inclusion criteria included that subjects must be an RN, an

LPN, or an APRN. The participants were full-time or part-time employees and employed at the time of the study. No incentives for participation were provided aside from access to the educational program. Participation was voluntary and participants were able to withdraw from the study at any time.

Setting

The setting for the project was at Brighton Bridge Hospice Agency. This agency is a small hospice company employing 20 to 25 hospice nurses. The educational intervention took place in main conference room at the hospice agency. Study participants were recruited from the Brighton Bridge Hospice Agency and included the nursing staff only.

Methodology and Measurement

Nursing staff caring for hospice and palliative care patients at the agency were invited to participate in this project. The main concept of the project involved introducing nurses to end-of-life education and measuring their self-perceived core competencies using the EOLC Questionnaire. The EOLC is a 28-item questionnaire developed by Melhado et al. (2005) through reviewing the literature focusing on nursing and end-of-life care issues. A panel of qualified experts helped to develop the questionnaire. Further, the panel was made up of people knowledgeable in the area of nursing care and end-of-life issues (Melhado et al). Each statement on the questionnaire is supported by the AACN core competencies for end-of-life care.

As a measure of questionnaire stability, test-retest reliability measures were performed on the EOLC questionnaire by its developer. The test-retest interval was ten to 14 days, and applying the Spearman rho correlation test, the correlation coefficient was 0.91. There was a confidence interval of 0.72 to 0.98. The two-tailed p-value was less than 0.0001. All of these measures illustrate the reliability of the questionnaire (Polit, 2010).

The project was explained and subjects asked to sign an informed consent and to complete the Pre-Intervention Assessment: Perceptions on End-of-Life Care Questionnaire found in Appendix E. This was a pre-test, post-test quasi-experimental design as randomization was not possible mainly due to the small sample size.

Subjects then participated in an educational session composed of lecture with discussion and handouts based on the TNEEL curriculum designed by the Cancer Pain and Symptom Management Nursing Research Group (2011) to facilitate learners in meeting the AACN competencies (Appendix F) recommended to provide quality care for hospice patients. Finally, subjects completed the Post Intervention Assessment: Perceptions on End-of-Life Care Questionnaire immediately after the final education session and again at 30 days post education intervention (Appendix G).

Mean, median, and mode values for each item were determined pre and post intervention. Demographic variables including age, LPN or RN or APRN status, years of hospice experience, and whether the nurse has had a family member on hospice care in the past were collected for possible effect on the EOLC Questionnaire competency assessment and could be controlled for in future studies.

The sample size was estimated at approximately 20 with a mixed number of RNs, APRNs, and LPNs. This number is low for accurate outcomes and to have sufficient statistical power. It was determined for this proposed project that the sample size needed for power can be calculated prior to statistical analysis by performing a power analysis. The sample size was calculated using a priori power analysis as described by Polit (2010). Power analysis includes four components: significance criterion, power, population size effect, and sample size (Polit). Because t-tests were utilized to compare pre- and post-intervention means, a-priori sample size was determined by assuming a Cohen's D of 0.2 (small), 0.5 (medium), or 0.8 (large). A larger effect size implies a large degree of separation between two groups or obvious difference from the pre- to post-intervention means. If alpha is set at 0.05, anticipated Cohen's D is set at 0.8 and desired statistical power level is set at 0.8, then the necessary sample size is 42 participants. If the anticipated Cohen's D is set at 0.5 then the minimum sample size is 51 participants. This brings into reality the idea of a considerably small sample size. This project was approached with these numbers in mind.

It is also important to note that Polit (2010) suggests reporting the calculations for t-tests in text for one or two variables and promotes the use of tables for reporting larger numbers of variables. Because of the number of variables in this project, the use of tables for reporting was used for final presentation. Individual numbers within different categories were presented in a bar chart format.

Human Rights Protection

With regard to the Regis DNP cohort's capstone projects, Dr. Cullen (2011) suggested that the cohort should strive for an exempt status for the proposals as a project or quality improvement (QI) initiative. Exempt status approval for this project was granted from the Regis University Institutional Review Board (IRB) on October 26, 2011. The exempt from review procedures designation indicates a less than minimal risk for the subjects and is usually reserved for educational interventions or projects that involve teaching patients and families in the clinical setting (Cullen, 2011).

The focus for this capstone project was nurses practicing in a hospice setting providing palliative or end-of-life care to patients with terminal illnesses. The main concept of the project involved the introduction of nurses to end-of-life education and measuring their self-perceived core competencies using the EOLC questionnaire. This was a pre-test, post-test quasi-experimental design and the entire population received the same intervention (Kane & Radosevich, 2011). This capstone project would generally be considered a non-therapeutic curricular change.

It is with this IRB designation in mind that the project was approached with an assurance that the population of focus was protected with respect to their human rights. Further, the essential elements of informed consent and the moral and ethical principles were followed carefully. This included but was not limited to: taking time to ensure that the nurses in the study understood the project, that the information given was easily comprehended, and that there was adequate documentation of consent by the study participants. The participants' rights to decline participation in the study and a non-coerced participation were maintained. This was further achieved through an abidance of the seven morals and principals of research as listed by Dr. Cullen (2011). These include:

1. Autonomy (Self-Determination) Freedom (for the participant) to make one's own decisions without external interference.
2. Beneficence - Doing as little harm as possible under the circumstances.
3. Nonmaleficence - Obligation to avoid doing harm either intentionally or unintentionally.

4. Respect for Persons - Supports personal autonomy and refers also to the interrelatedness and interconnectedness of all people.
5. Justice - Implies fair treatment and that treatment decisions and resource allocation are not based on age, sex, gender, race, religion, socioeconomic status, etc.
6. Fidelity - Duty to be faithful to commitments, to maintain privacy, and to keep promises.
7. Veracity - Specifies a duty to tell the truth.

Along with the above listed obligations for this project, the author also attempted to have clear communication with the target population of nurses, gave a complete explanation of the project to the study's subjects, maintained each participant's privacy while remembering their needs as a participant, and attempted to maintain accuracy of data and outcomes in reporting. Protecting the study's participants was a priority during the project's implementation.

Project Findings and Results

The 20.0 Statistical Package for the Social Sciences (SPSS) and Microsoft Office 2011 Excel were used to analyze the data. Demographic variables reviewed included age, licensure status, prior exposure to hospice, and years of experience. Descriptive statistics and tests of difference (paired t-test) were completed to analyze changes following the intervention. Alpha was set at 0.05.

Description of the Sample

Sixteen nurses, that included four nurse practitioners, two licensed practical nurses, and 10 registered nurses agreed to be participants. All 16 completed the pre questionnaire, the educational intervention and the post questionnaire. The mean age of project participants was

42.61 years with a range of 29 to 61 years. The mean years of nursing experience for the participants was 18.05 years with a range of 8 to 35 years, while the mean years of hospice experience of project participants was 7.6 years with a range of 3 to 35 years. There were two male participants and 14 female participants. Six of the 16 participants reported having a family member who had been on hospice care in the past. Five out of six nurses with a family member on hospice in the past reported that the experience changed their outlook towards hospice.

Figure 1. Population licensure.

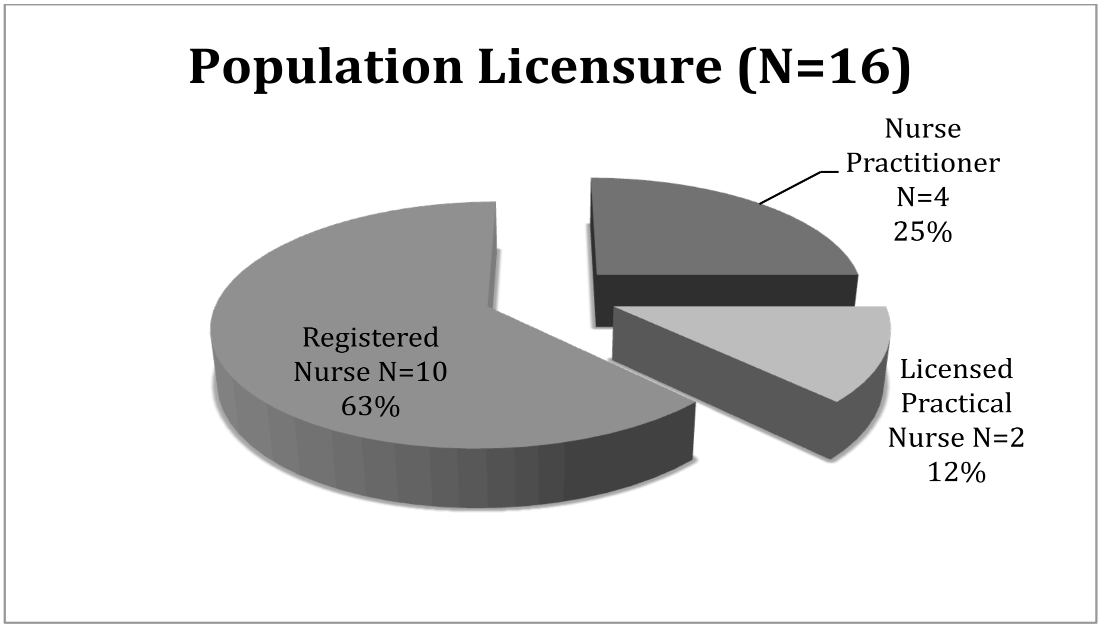
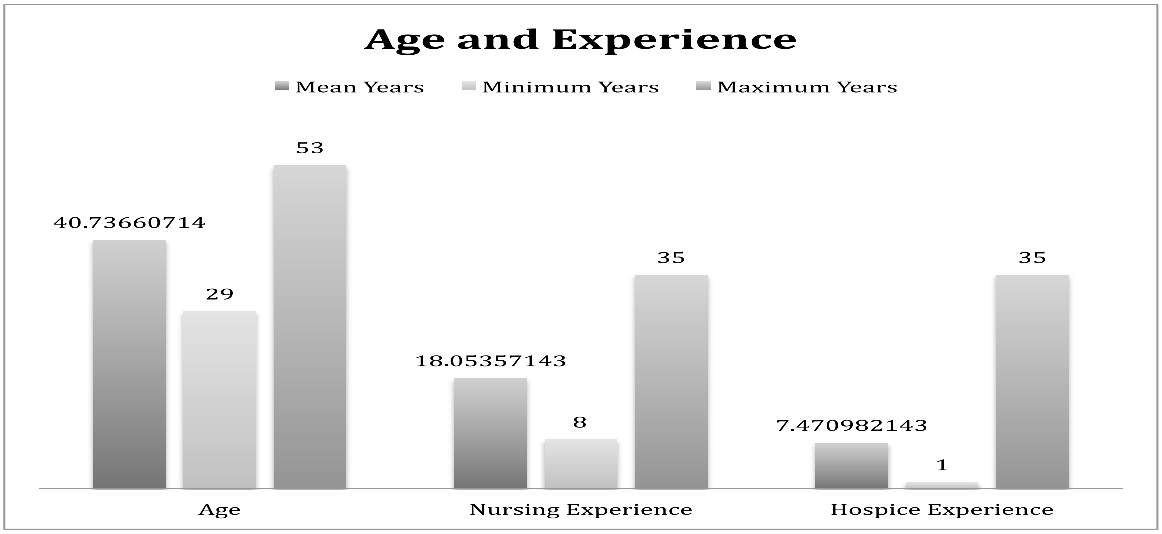


Figure 2. Age and experience of population.



Objectives

The objective of this study was to demonstrate the efficacy of an educational initiative targeted at self-perceived weaknesses and gaps in nursing knowledge related to hospice and palliative care. The EOLC questionnaire was used in the pre- and post- educational intervention periods to assess self-reported knowledge. The pre-and post- educational intervention questionnaires (Appendix E and G) used a Likert scale of one to five with (1) strongly disagree, (2) disagree, (3) uncertain, (4) agree, and (5) strongly agree. Positively scored statements include items 1, 3, 5, 6, 7, 9, 10, 12, 13, 15, 17, 19, 21, 22, 23, 25, 26, 27, and 28 (see Appendices E and G) and were scored from 1 to 5. Questions 2, 4, 8, 11, 14, 16, 18, 20, and 24 (see Appendices E and G) were negatively score items and were scored from 5 to 1. In the final analysis of data the negatively scored questions values were reversed as directed by the EOLC scoring template.

The pre-education or phase one participant responses are noted in figure 3 with the mean score and standard deviation for each item. The post-education or phases two and three are noted in figures 4 and 5 respectively with mean score and standard deviation for each item.

Figure 3. Pre-intervention questionnaire mean scores.

Questionnaire Items	Strongly Disagree	Somewhat Disagree	Uncertain	Somewhat Agree	Strongly Agree	MEAN	S.D.
1. I am comfortable talking about death with my terminally ill patients.			6.3%(1)	31.3%(5)	56.3%(9)	4.5	0.6325
2. I feel uneasy when I am taking care of a patient that is dying.		12.5%(2)		12.5%(2)	75.0%(12)	4.5	1.0328
3. I am comfortable talking about advanced directives with my patients.			6.3%(1)	31.3%(5)	62.5%(10)	4.5625	0.6292
4. I dread conversations about advanced directives and DNR orders with dying patients and their families.		12.5%(2)	6.3%(1)	25.0%(4)	56.3%(9)	4.25	1.0646
5. It is important to talk with patients about their end-of-life choices and decisions.		6.3%(1)			93.8%(15)	4.8125	0.7500
6. I feel I am able to communicate openly with patients and their families about end-of-life choices and decisions.				50.0%(8)	50.0%(8)	4.5	0.5164
7. I am comfortable when explaining and placing a DNR band on a patient.			12.5%(2)	18.8%(3)	68.8%(11)	4.5625	0.7274
8. I am at a loss for words when a patient asks me, "Am I dying?"		25.0%(4)	31.3%(5)	25.0%(4)	18.8%(3)	3.375	1.0878
9. It would be helpful for me if the doctor discussed prognosis and end-of-life issues with the patients and their families before I am confronted with these tasks.		6.3%(1)	25.0%(4)	68.8%(11)		4.5625	0.8139
10. It would be helpful to me for the doctors to communicate and collaborate with me in the care of the dying patient.				18.8%(3)	81.3%(13)	4.8125	0.4031
11. I feel guilty that I am not able to spend enough time with the dying patient.	18.8%(3)	25.0%(4)	6.3%(1)	25.0%(4)	25.0%(4)	3.125	1.5438
12. I feel comfortable addressing the grief and emotional turmoil, which often confront dying patients and their families.		25.0%(4)	25.0%(4)	31.3%(5)	18.8%(3)	3.4375	1.0935
13. I feel comfortable assessing and addressing patients' spiritual needs at end-of-life.			18.8%(3)	56.3%(9)	25.0%(4)	4.0625	0.6801
14. I would prefer that Spiritual Services would address my patients' spiritual needs.	18.8%(3)	50.0%(8)	12.5%(2)	18.8%(3)		2.3125	1.0145
15. I am competent addressing cultural preferences of patients and their families.		6.3%(1)	25.0%(4)	56.3%(9)	12.5%(2)	3.75	0.7746
16. I believe administering narcotics to a dying patient hastens death.	12.5%(2)	12.5%(2)	31.3%(5)	43.8%(7)		3.8125	1.4705
17. If a dying patient is already sedated, it still may be necessary to give additional pain medication.	12.5%(2)	31.3%(5)	56.3%(9)			4.1875	1.3276
18. I delay end-of-life conversations.			6.3%(1)	31.3%(5)	62.5%(10)	4.5625	0.6292
19. When pain and other distressing symptoms are present, I feel the patient should have sufficient medications in whatever dosage and route needed to promote physical and mental comfort as perceived by the patient.				25.0%(4)	75.0%(12)	4.75	0.4472
20. I do not know what to do when families request that pain medication be withheld so that their loved one may be more alert.		25.0%(4)	6.3%(1)	18.8%(3)	50.0%(8)	3.9375	1.2894
21. I feel it would be helpful to me to be more knowledgeable in symptom control of the dying patient.	12.5%(2)	6.3%(1)		56.3%(9)	25.0%(4)	3.75	1.2910
22. I feel competent in assessing signs and symptoms of a patient's approaching death and discussing with the patient and his or her family these sign and symptoms.			6.3%(1)	18.8%(3)	12-75.0	4.6875	0.6021
23. I feel that the needs of a person dying in the hospital are addressed as well as a person dying under hospice care.	31.3%(5)	43.8%(7)	6.3%(1)	6.3%(1)	12.5%(2)	2.25	1.3416
24. I feel distressed when my patient dies.		12.5%(2)	31.3%(5)	37.5%(6)	18.8%(3)	3.625	0.9574
25. I am not afraid to be alone with a dying patient.	12.5%(2)	12.5%(2)		18.8%(3)	56.3%(9)	3.9375	1.5262
26. I feel that my formal nursing education has adequately prepared me to speak to my patients and their families about end-of-life issues.	18.8%(3)	25.0%(4)		18.8%(3)	37.5%(6)	3.3125	1.6621
27. I am skilled in assessing changes in the patient's condition that may signal a shift to a terminal phase.				43.8%(7)	56.3%(9)	4.5625	0.5123
28. I am skilled in determining whether expectations of patients, family members, and providers are consistent.				56.3%(9)	43.8%(7)	4.4375	0.5123

Figure 5. Post-intervention questionnaire mean scores (Immediate follow-up).

Questionnaire Items	Strongly Disagree	Somewhat Disagree	Uncertain	Somewhat Agree	Strongly Agree	MEAN	S.D.
1. I am comfortable talking about death with my terminally ill patients.				62.5%(10)	37.5%(6)	4.3750	0.5000
2. I feel uneasy when I am taking care of a patient that is dying.		12.5%(2)		43.8%(7)	43.8%(7)	4.1875	0.9811
3. I am comfortable talking about advanced directives with my patients.			12.5%(2)	43.8%(7)	43.8%(7)	4.3125	0.7042
4. I dread conversations about advanced directives and DNR orders with dying patients and their families.		25.0%(4)	6.3%(1)	25.0%(4)	43.8%(7)	3.8750	1.2583
5. It is important to talk with patients about their end-of-life choices and decisions.			6.3%(1)	12.5%(2)	81.3%(13)	4.7500	0.5774
6. I feel I am able to communicate openly with patients and their families about end-of-life choices and decisions.			6.3%(1)	43.8%(7)	50.0%(8)	4.4375	0.6292
7. I am comfortable when explaining and placing a DNR band on a patient.			6.3%(1)	18.8%(3)	75.0%(12)	4.6875	0.6021
8. I am at a loss for words when a patient asks me, "Am I dying?"		25.0%(4)	25.0%(4)	31.3%(5)	18.8%(3)	3.4375	1.0935
9. It would be helpful for me if the doctor discussed prognosis and end-of-life issues with the patients and their families before I am confronted with these tasks.		6.3%(1)	18.8%(3)	75.0%(12)		4.6250	0.8062
10. It would be helpful to me for the doctors to communicate and collaborate with me in the care of the dying patient.				43.8%(7)	56.3%(9)	4.5625	0.5123
11. I feel guilty that I am not able to spend enough time with the dying patient.	25.0%(4)	18.8%(3)	12.5%(2)	18.8%(3)	25.0%(4)	3.0000	1.5916
12. I feel comfortable addressing the grief and emotional turmoil, which often confront dying patients and their families.		6.3%(1)	25.0%(4)	43.8%(7)	25.0%(4)	3.8750	0.8851
13. I feel comfortable assessing and addressing patients' spiritual needs at end-of-life.			12.5%(2)	68.8%(11)	18.8%(3)	4.0625	0.5737
14. I would prefer that Spiritual Services would address my patients' spiritual needs.	12.5%(2)	9=56.4	12.5%(2)	6.3%(1)	12.5%(2)	2.5000	1.2111
15. I am competent addressing cultural preferences of patients and their families.		12.5%(2)	31.3%(5)	43.8%(7)	12.5%(2)	3.5625	0.8921
16. I believe administering narcotics to a dying patient hastens death.	6.3%(1)	12.5%(2)	6.3%(1)	31.3%(5)	43.8%(7)	3.9375	1.2894
17. If a dying patient is already sedated, it still may be necessary to give additional pain medication.		6.3%(1)	6.3%(1)	31.3%(5)	56.3%(9)	4.3750	0.8851
18. I delay end-of-life conversations.	6.3%(1)	6.3%(1)		50.0%(8)	37.5%(6)	4.0625	1.1236
19. When pain and other distressing symptoms are present, I feel the patient should have sufficient medications in whatever dosage and route needed to promote physical and mental comfort as perceived by the patient.		6.3%(1)		25.0%(4)	68.8%(11)	4.5625	0.8139
20. I do not know what to do when families request that pain medication be withheld so that their loved one may be more alert.		12.5%(2)	6.3%(1)	50.0%(8)	31.3%(5)	4.0000	0.9661
21. I feel it would be helpful to me to be more knowledgeable in symptom control of the dying patient.	12.5%(2)	6.3%(1)		50.0%(8)	31.3%(5)	3.8750	1.2583
22. I feel competent in assessing signs and symptoms of a patient's approaching death and discussing with the patient and his or her family these sign and symptoms.				31.3%(5)	68.8%(11)	4.6875	0.4787
23. I feel that the needs of a person dying in the hospital are addressed as well as a person dying under hospice care.	6.3%(1)	6.3%(1)	25.0%(4)	37.5%(6)	25.0%(4)	3.6875	1.1383
24. I feel distressed when my patient dies.		12.5%(2)	18.8%(3)	43.8%(7)	25.0%(4)	3.8125	0.9811
25. I am not afraid to be alone with a dying patient.	6.3%(1)	12.5%(2)	6.3%(1)	18.8%(3)	56.3%(9)	4.0625	1.3401
26. I feel that my formal nursing education has adequately prepared me to speak to my patients and their families about end-of-life issues.	6.3%(1)	12.5%(2)	12.5%(2)	31.3%(5)	37.5%(6)	3.8125	1.2764
27. I am skilled in assessing changes in the patient's condition that may signal a shift to a terminal phase.				50.0%(8)	50.0%(8)	4.5000	0.5164
28. I am skilled in determining whether expectations of patients, family members, and providers are consistent.				75.0%(12)	25.0%(4)	4.2500	0.4472

Figure 5. Post-intervention questionnaire mean scores (One month follow-up).

Questionnaire Items	Strongly Disagree	Somewhat Disagree	Uncertain	Somewhat Agree	Strongly Agree	MEAN	S.D.
1. I am comfortable talking about death with my terminally ill patients.				12.5%(2)	87.5%(14)	4.8750	0.3416
2. I feel uneasy when I am taking care of a patient that is dying.		6.3%(1)	6.3%(1)	18.8%(3)	68.8%(11)	4.5000	0.8944
3. I am comfortable talking about advanced directives with my patients.			6.3%(1)	31.3%(5)	62.5%(10)	4.5625	0.6292
4. I dread conversations about advanced directives and DNR orders with dying patients and their families.	18.8%(3)	12.5%(2)	6.3%(1)	12.5%(2)	50.0%(8)	3.6250	1.6683
5. It is important to talk with patients about their end-of-life choices and decisions.				18.8%(3)	81.3%(13)	4.8125	0.4031
6. I feel I am able to communicate openly with patients and their families about end-of-life choices and decisions.				37.5%(6)	62.5%(10)	4.6250	0.5000
7. I am comfortable when explaining and placing a DNR band on a patient.				18.8%(3)	81.3%(13)	4.8125	0.4031
8. I am at a loss for words when a patient asks me, "Am I dying?"		25.0%(4)	6.3%(1)	56.3%(9)	12.5%(2)	3.5625	1.0308
9. It would be helpful for me if the doctor discussed prognosis and end-of-life issues with the patients and their families before I am confronted with these tasks.		6.3%(1)		12.5%(2)	81.3%(13)	4.6875	0.7932
10. It would be helpful to me for the doctors to communicate and collaborate with me in the care of the dying patient.			6.3%(1)	31.3%(5)	62.5%(10)	4.5625	0.6292
11. I feel guilty that I am not able to spend enough time with the dying patient.	12.5%(2)	25.0%(4)	12.5%(2)	37.5%(6)	12.5%(2)	3.1250	1.3102
12. I feel comfortable addressing the grief and emotional turmoil, which often confront dying patients and their families.			6.3%(1)	62.5%(10)	31.3%(5)	4.2500	0.5774
13. I feel comfortable assessing and addressing patients' spiritual needs at end-of-life.			6.3%(1)	43.8%(7)	50.0%(8)	4.4375	0.6292
14. I would prefer that Spiritual Services would address my patients' spiritual needs.	6.3%(1)	75.0%(12)		6.3%(1)	12.5%(2)	2.4375	1.1529
15. I am competent addressing cultural preferences of patients and their families.			43.8%(7)	37.5%(6)	18.8%(3)	3.7500	0.7746
16. I believe administering narcotics to a dying patient hastens death.	12.5%(2)	6.3%(1)		50.0%(8)	31.3%(5)	3.8125	1.3276
17. If a dying patient is already sedated, it still may be necessary to give additional pain medication.			6.3%(1)	43.8%(7)	50.0%(8)	4.4375	0.6292
18. I delay end-of-life conversations.	6.3%(1)	6.3%(1)	6.3%(1)	37.5%(6)	43.8%(7)	4.0625	1.1815
19. When pain and other distressing symptoms are present, I feel the patient should have sufficient medications in whatever dosage and route needed to promote physical and mental comfort as perceived by the patient.				18.8%(3)	81.3%(13)	4.8125	0.4031
20. I do not know what to do when families request that pain medication be withheld so that their loved one may be more alert.		18.8%(3)		56.3%(9)	25.0%(4)	3.8750	1.0247
21. I feel it would be helpful to me to be more knowledgeable in symptom control of the dying patient.	6.3%(1)	12.5%(2)		37.5%(6)	43.8%(7)	4.0000	1.2649
22. I feel competent in assessing signs and symptoms of a patient's approaching death and discussing with the patient and his or her family these sign and symptoms.				25.0%(4)	75.0%(12)	4.7500	0.4472
23. I feel that the needs of a person dying in the hospital are addressed as well as a person dying under hospice care.	6.3%(1)	18.8%(3)	18.8%(3)	18.8%(3)	37.5%(6)	3.6250	1.3601
24. I feel distressed when my patient dies.	6.3%(1)	12.5%(2)	18.8%(3)	25.0%(4)	37.5%(6)	3.7500	1.2910
25. I am not afraid to be alone with a dying patient.			6.3%(1)	25.0%(4)	68.8%(11)	4.6250	0.6191
26. I feel that my formal nursing education has adequately prepared me to speak to my patients and their families about end-of-life issues.	6.3%(1)	6.3%(1)	6.3%(1)	37.5%(6)	43.8%(7)	4.0625	1.1815
27. I am skilled in assessing changes in the patient's condition that may signal a shift to a terminal phase.				18.8%(3)	81.3%(13)	4.8125	0.4031
28. I am skilled in determining whether expectations of patients, family members, and providers are consistent.			6.3%(1)	37.5%(6)	56.3%(9)	4.5000	0.6325

Note that Items 23, 14, 11, 26, 8, and 12 had the lowest mean scores in the pre-educational questionnaires (See Figure 3.) This translated to core competencies 3, 4, 10, 11, and 13 as the areas of weakness (Appendix F). These lowest scoring items from the pre-educational intervention questionnaire and their related core competencies were the areas of focus for the consideration of the efficacy of the educational initiative. In the post intervention analysis, these item scores were most closely followed in the post-intervention follow-ups.

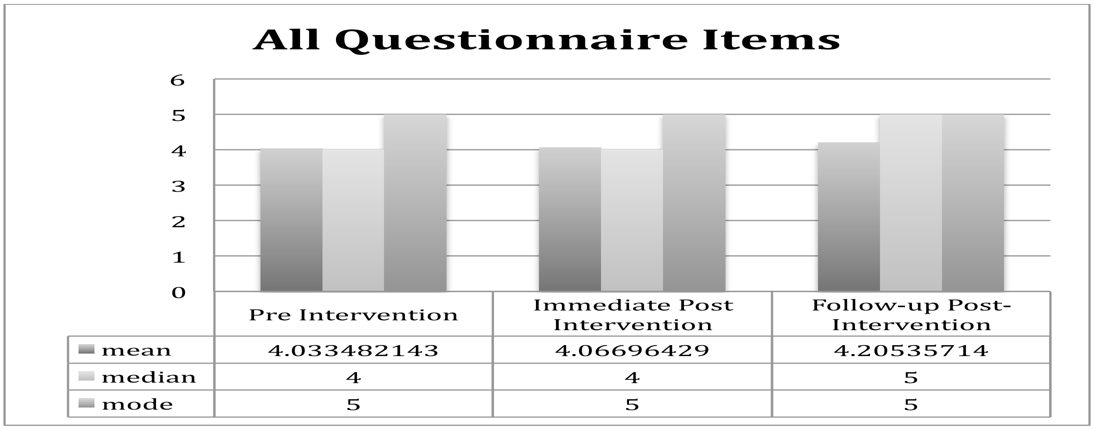
Figure 6. Lowest scoring items from pre-intervention questionnaire.

Lowest Scoring Items from Pre-Intervention Questionnaire	**Pre-Intervention Mean Score**	**S.D.**	**1st Post-Intervention Mean Score**	**S.D.**	**2nd Post Intervention Mean Score**	**S.D.**
23. I feel that the needs of a person dying in the hospital are addressed as well as a person dying under hospice care.	2.25	1.3416	2.25	1.3416	3.6250	1.3601
14. I would prefer that Spiritual Services would address my patients' spiritual needs.	2.3125	1.0145	2.5000	1.2111	2.4375	1.1529
11. I feel guilty that I am not able to spend enough time with the dying patient.	3.125	1.5438	3.0000	1.5916	3.1250	1.3102
26. I feel that my formal nursing education has adequately prepared me to speak to my patients and their families about end-of-life issues.	3.3125	1.6621	3.8125	1.2764	4.0625	1.1815
8. I am at a loss for words when a patient asks me, "Am I dying?"	3.375	1.0878	3.4375	1.0935	3.5625	1.0308
12. I feel comfortable addressing the grief and emotional turmoil, which often confront dying patients and their families.	3.4375	1.0935	3.8750	0.8851	4.2500	0.5774

Because the project is focused on the lowest five self-identified scores, these scores are compared for each stage of the project. The item scores relate to the core competencies in varying numbers. This created a need to identify six of the lowest questionnaire items in order to provide the five lowest scored core competencies. Based on the analysis of the pre-intervention questionnaire the weakest areas for the participants were core competencies (3) Communicate effectively and compassionately with the patient, family, and health care team members about end-of-life issues, (4) Recognize one’s own attitudes, feelings, values, and expectations about death and the individual, cultural, and spiritual diversity existing in these beliefs and customs, (10) Assess and treat multiple dimensions, including physical, psychological, social, and spiritual needs to improve quality at the end-of-life, (11) Assist the patient, family, colleagues, and one’s self to cope with suffering, grief, loss, and bereavement in end-of-life care, and (13) Identify barriers and facilitators to patients’ and caregivers’ effective use of resources.

The overall questionnaire responses were analyzed for each item. Each item score was analyzed and compared to determine mean differences for pre- and post- intervention phases of the questionnaire and for statistical significance. Median and mode scores were also given consideration. Theses scores represent the average of all of the items combined. The mean scores for each stage was as follows: Pre-intervention (PI) = 4.033482143, Immediate Post-intervention (IPI)= 4.06696429, and Follow-up Post-intervention (FPI)= 4.20535714. The median and mode of each stage were as follows: PI median = 4 and mode = 5, IPI median = 4 and mode = 5, and FPI median = 5 and mode = 5.

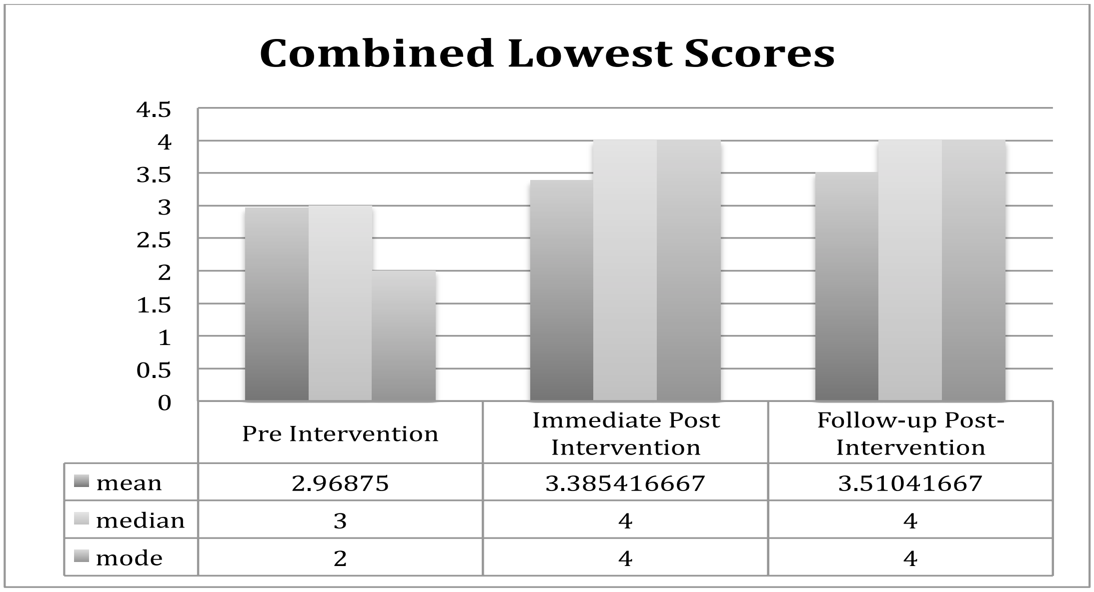
Figure 7. All questionnaire item pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



	Pre Intervention	Immediate Post Intervention	Follow-up Post-Intervention
▨ mean	4.033482143	4.06696429	4.20535714
▨ median	4	4	5
▨ mode	5	5	5

The mean scores were for the combined lowest five scores were as follows: questionnaire #1 - 2.96875, questionnaire #2-3.385416667, and questionnaire #3 - 3.51041667. The median and mode of each stage were as follows: PI median = 3 and mode = 2, IPI median = 4 and mode = 4, and FPI median = 4 and mode = 4.

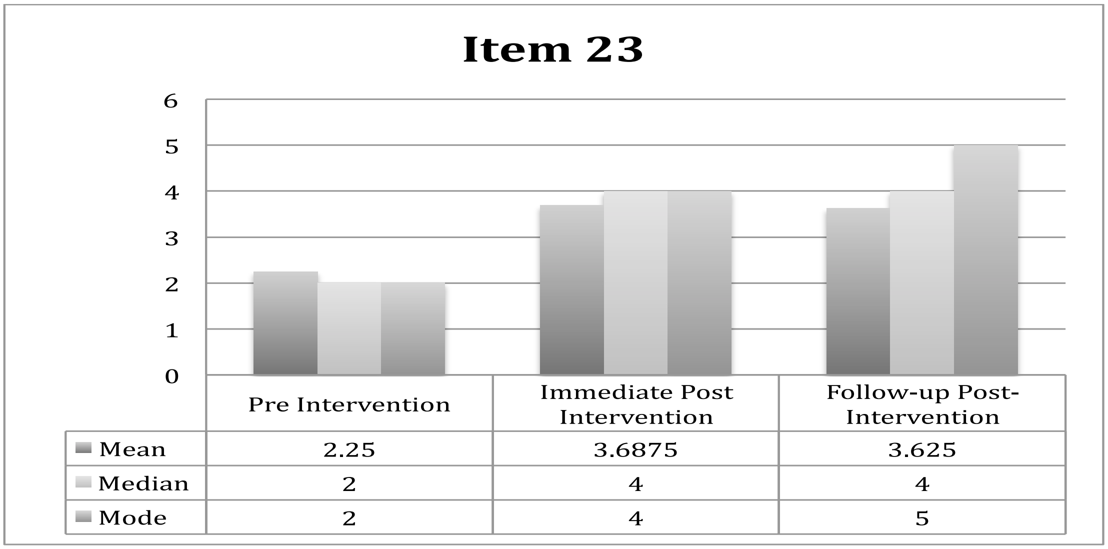
Figure 8. Combined lowest scored items pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



	Pre Intervention	Immediate Post Intervention	Follow-up Post-Intervention
▨ mean	2.96875	3.385416667	3.51041667
▨ median	3	4	4
▨ mode	2	4	4

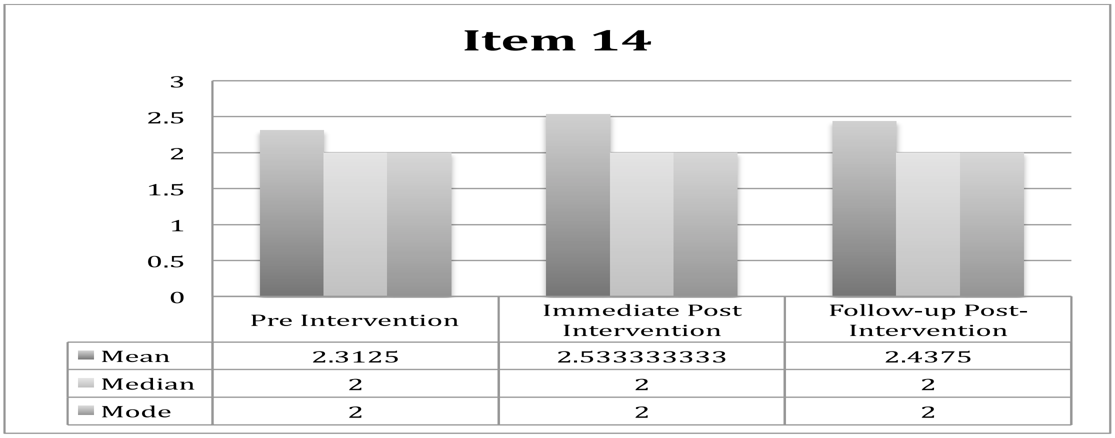
The final area of data that was analyzed was a comparison of the individual mean scores for the lowest scoring items on the questionnaire. For item #23 the mean scores were as follows: PI - 2.25, IPI- 3.6875, and FPI- 3.625. The median and mode for item 23 were as follows: PI median = 2 and mode = 2, IPI median = 4 and mode = 4, and FPI median = 4 and mode = 4.

Figure 9. Item 23 Pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



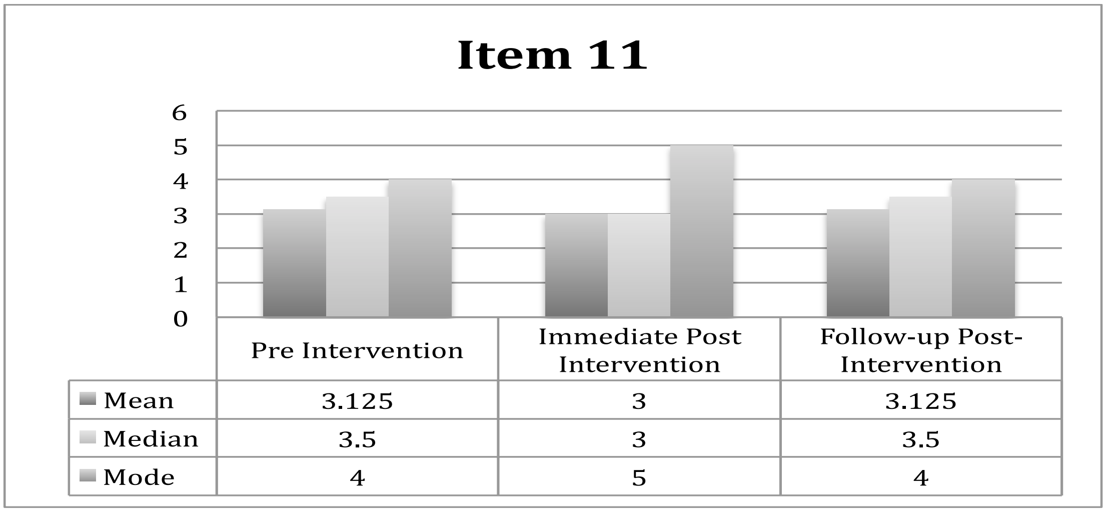
For item #14 of the questionnaire, the mean scores were as follows: PI - 2.3125, IPI- 2.5, and FPI - 2.4375. The median and mode for item 14 were as follows: PI median = 2 and mode = 2, IPI median = 2 and mode = 2, and FPI median = 2 and mode = 2.

Figure 10. Item 14 Pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



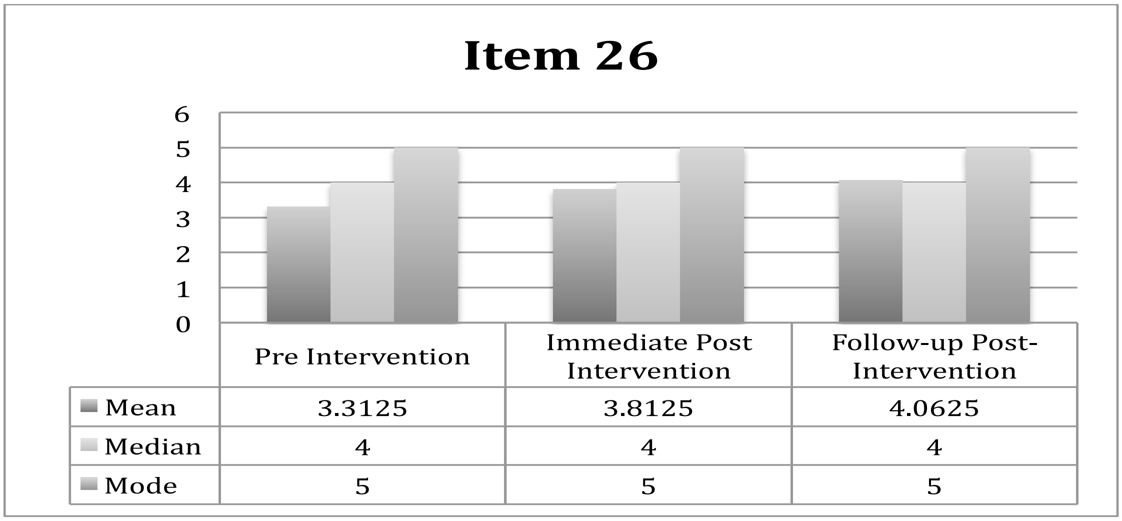
For item #11 of the questionnaire, the mean scores were as follows: PI - 3.1250, IPI- 3.0, and FPI - 3.1250. The median and mode for item 11 were as follows: PI median = 3.5 and mode = 4, IPI median = 3 and mode = 5, and FPI median = 3.5 and mode = 4.

Figure 11. Item 11 Pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



For item # 26 of the questionnaire, the mean scores were as follows: PI - 3.3125, IPI- 3.8125, and IPI - 4.0625. The median and mode for item 26 were as follows: PI median = 4 and mode = 5, IPI median = 4 and mode = 5, and FPI median = 4 and mode = 5.

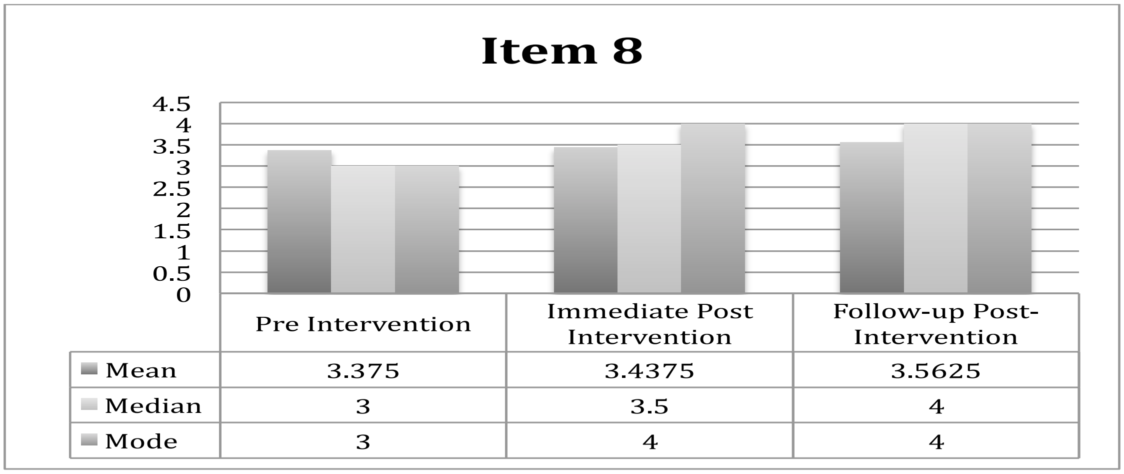
Figure 12. Item 26 Pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



	Pre Intervention	Immediate Post Intervention	Follow-up Post-Intervention
▨ Mean	3.3125	3.8125	4.0625
▨ Median	4	4	4
▨ Mode	5	5	5

For item #8 of the questionnaire, the mean scores were as follows: PI - 3.3750, IPI- 3.4375, and FPI - 3.5625. The median and mode for item 8 were as follows: PI median = 3 and mode = 3, IPI median = 3.5 and mode = 4, and FPI median = 4 and mode = 4.

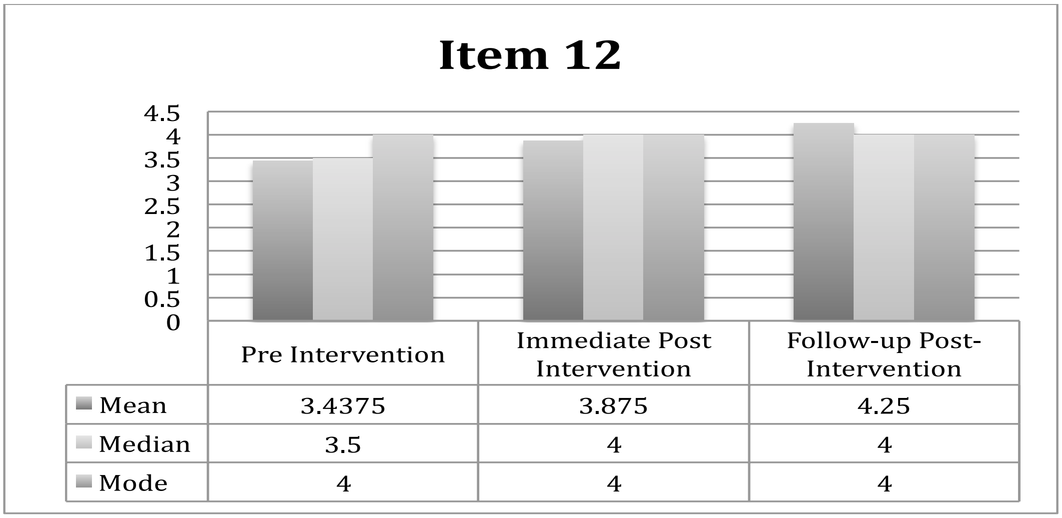
Figure 13. Item 8 Pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



	Pre Intervention	Immediate Post Intervention	Follow-up Post-Intervention
▨ Mean	3.375	3.4375	3.5625
▨ Median	3	3.5	4
▨ Mode	3	4	4

For item # 12 of the questionnaire, the mean scores were as follows: PI -3.4375, IPI-3.8750, and FPI - 4.25. The median and mode for item 8 were as follows: PI median = 3.5 and mode = 4, IPI median = 4 and mode = 4, and FPI median = 4 and mode = 4.

Figure 14. Item 12 Pre-intervention, immediate post-intervention, and follow-up post-intervention mean, median, and mode scores.



Analysis

In the scores for the combined questionnaire items there was an improvement in mean scores for each administration of the questionnaire. Though improvement in mean scores was noted between the first and second administration of the questionnaire, the improvement was not statistically significant ($p > .623$). There was a statistically significant improvement in mean scores between the second and third administration of the questionnaire ($p = .001$). There was a statistical significance between the first administration of the questionnaire and the third administration as well ($p=0.027$). This is somewhat misleading as the key factor is no improvement was noted after the educational intervention.

The second area of data that was analyzed involved the comparison of the mean scores of the combined five lowest scores for each questionnaire. When the combined mean scores for the five lowest scoring items on the questionnaire were compared, no statistically significant differences were noted between the first and second, first and third or second and third questionnaire administrations.

For item #23, a statistically significant difference exists between the first and second administration ($p = .002$), between the first and third ($p = .006$), but not between the second and third administration of the questionnaire.

For item #14, there was no statistically significant improvement between the first and second administration and between first and third administration. Additionally, no statistically significant improvement between the second and third administration was noted.

For item #11, there was no statistically significant improvement between first and second administration. There was no statistically significant improvement between first and third administration. Finally, there was a statistically significant improvement between the second and third administration.

For item #26, there was no statistically significant improvement between the first and second administration and between first and third administration. Additionally, no statistically significant improvement between the second and third administration was noted.

For item #8, there was no statistically significant improvement between the first and second administration and between first and third administration. Additionally, no statistically significant improvement between the second and third administration was noted.

For item #12, there was a statistically significant improvement noted between the first and third administration (p = .003). However there was no improvement (statistically significant) noted between the first and second questionnaire scores. Finally, there was no statistically significant improvement noted between the second and third administrations of the questionnaire.

Limitations, Recommendations, Implications for Practice

Limitations

The small convenience sample limited the generalizability of the study, prevented control of extraneous variables, and lowered the power of the study to predict differences thus increasing the possibility of a Type 1 or Type II error (Polit, 2010).

Another limitation of this project was the potential for historical effects and the possibility of memory of answers to the pre-test questionnaire items. Because nurses in the state of Louisiana are required to maintain continuing education credits, any of the participants may have had exposure to other educational programs or articles during the study period, which influenced their answers to the post questionnaire more than the intervention itself. Another limitation was using the same questionnaire pre and post intervention. Subjects may have remembered how they answered the question on the pre-test that biased their answers for the post-test. Additionally, conversation with other project participants may have influenced participant's responses on the post between administrations of the questionnaire.

The self-report nature of the questionnaire is also a limitation since perception of competency is subjective. There was also no attempt to control extraneous variables such as a feeling or situation on the day of or preceding the administration of the questionnaires that might have influenced any of the participant's responses. While this is partially expected in self-reported assessments, it is a larger problem than for a tool that measures actual knowledge rather than perceptions of knowledge gained and ability to apply that knowledge (competency).

Another limitation is the study was based on the lowest five self-identified questionnaire items and their related core competencies rather than the entire 28 item questionnaire and all 15 core competencies.

Recommendations

Repeating this study with a random sample and a larger number of participants based on a power analysis is recommended to help avoid the danger of Type 1 or Type 2 errors and control somewhat for extraneous variables.

With a larger repeat study, it is also recommended that all 28 questionnaire items be used in designing the educational intervention. This may give a better picture of the outcomes and whether the educational intervention proved effective. Centering the education on the lowest five had advantages, but also left potential gaps in the relationship between items and core competencies and the educational intervention.

In addition to the use of all 28 items on the questionnaire, it could be advantageous to increase the educational intervention to use the entire TNEEL program over several weeks or months, to include all of the information on the program. This would be interesting because it would allow for data analysis of the entire questionnaire after being exposed to the entire TNEEL program. This may potentially reduce some of the possibility of the testing effect on the outcomes. In addition to the increased sample size, use of the entire questionnaire and TNEEL program, it may prove beneficial to measure retention at longer time intervals such as six months or one year. This would allow for a determination of the long-term effectiveness of the program and the questionnaire.

Implications for Practice

Change's in knowledge base and perceptions of competency can occur with education and is particularly effective when the education is presented based on a needs assessment. It could help to focus education for nurses in the areas deemed important by those nurses who are receiving the education. The focus on weaker areas, even those that are self-reported and not knowledge based could be of value and provide time and monetary savings for nursing administration and directors.

It is the belief of this author that most educational initiatives have, at minimum, some value. The TNEEL course is relatively inexpensive as a digital copy can be purchased for about twenty-five dollars. Because of these factors, it is recommended for use by hospice companies that provide education to their nursing staff and by hospice nurses that want to increase their knowledge of these topics. It would be beneficial to hospice nurses to use the discs and review the TNEEL program in its entirety. This could be completed on an individual or team level and completed yearly in order to remain current on relevant hospice topics and to help continue the conversation about each nurses feeling and biases towards death and the care of the dying. The monetary savings for helping to educate nurses would be significant for the hospice companies as well.

Summary

"Education and training are vital for promoting quality palliative and end-of-life care for patients" (McIlfatrick et al., 2010, p. 559). Furthermore, there is a need for educational programs for healthcare providers that focus on end-of life care (Beckstrand et al., 2006). The evidence-based design of the TNEEL educational program gives nursing educators a greater access to teaching aids that are designed to meet learner needs (Wilke, Judge, Wells & Berkeley, 2001). While this study demonstrated limited efficacy in hospice nurse education using the TNEEL program, further research is needed to help identify methodologies and their efficacy for effectively educating nurses to achieve higher self-reported skills in the identified core competencies.

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Appendix A

Systematic Review

Article Title and Journal	Assessing the educational needs of palliative care link nurses. International Journal of Palliative Nursing.	Georgia nurses and end of life care: Results of a statewide educational needs survey, Georgia Nursing.	Nurses' Needs for Education on Cancer and End-of-Life Care, The Journal of Continuing Education in Nursing.	Evaluating Strategies for Changing Acute Care Nurses' Perceptions on End-of-life Care	Predicting the Risk of Compassion Fatigue A Study of Hospice Nurses	Some benefits experienced by hospice nurses from group clinical supervision
Author/Year	McIlfatrick, S., Mawhinney, A.,Gilmour, F. (2010)	Schlairet, M. (2007)	Meraviglia, M., McGuire, C., & Chesley, D., 2003.	Barbara G. Kruse, Lolita W. Melhado, Linda Convertine, , and Jo Stecher (2008).	Maryann Abendroth & Jeanne Flannery (2006).	Jones, A. (2003).
Database and Keywords	Educational needs, hospice nurses, CINAHL	Educational needs, hospice nurses, CINAHL	Educational needs, hospice nurses, CINAHL	Educational needs, palliative care nurses, OVID	compassion fatigue, hospice nurses	hospice nurses, education, CINAHL
Research Design	Quantitative analysis of a questionaire	Descriptive, cross-sectional design	Quantitative analysis of a survey	3 group experimental design, pre-test,post-test	Non-experimental descriptive design using cross-sectional data and descriptive and inferential statistics was used	Qualitative interviews and quantitative analysis of survey
Level of Evidence	ONS Level II	ONS Level II	ONS level II	ONS Level I	ONS Level III	ONS Level II or III
Study Aim/Purpose	To explore the educational needs of palliative care link nurses.	To promote an awareness of the need for end of life education in generalist nurses.	To assess the effectiveness of ongoing education efforts and identify new educational needs.	To test the best method for changing acute nurse's perceptions about end-of-life care.	This study investigated the prevalence and the relationships between nurse characteristics and compassion fatigue risk.	To explore the benefits of a group approach to clinical supervision for hospice nurses.
Population Studied/Sample Size/Criteria/ Power	80 palliative care link nurses	567 Georgia RNs	352 Texas RNs	81 registered nurses	216 Florida Hospice Nurses	5 hospice nurses
Methods/Study Appraisal/ Synthesis Methods	The Whittaker (2006) questionnaire was analyzed including demographics, knowledge and understanding of palliative care, and awareness of other health professionals involved in delivering palliative care.	A survey addressing end of life care attitude, knowledge, prior education, and learner characteristics.	A random sample of Texas RNs were surveys regarding CE practices, level of knowledge and educational needs.	Group 1: Participants were given a packet containing an article on end-of-life from peer-reviewed journal to read, the posttest, and a self-addressed stamped envelope. They were instructed to complete the posttest immediately after reading the article and mail to the PI. Group 2: Subjects attended the 3-hour classroom intervention and completed the posttest. Group 3: Subjects attended the 3-hour classroom intervention and completed the posttest. They attended the 4-hour clinical intervention and completed the posttest again. The pretests and posttests were assigned the same numeric and alpha code. No names were on the questionnaires	The Pool used 30 statements that assessed behaviors that could lead to CF '• risk, which was the dependent variable. Participants were asked to rate each statement as it applied to their current situation. Each statement was an independent variable in the study that was analyzed and grouped to produce a CF risk score	A group of 5 hospice nurses met weekly for a clinical supervisory meeting. After 12 weeks, the nurses the nurses were surveyed regarding interpersonal learning (output), identification, catharsis, family re-enactment, group cohesiveness and self-understanding.

Primary Outcome Measures and Results	Analysis of questionnaire responses	Analysis of questionnaire responses through quantitative analysis.	Analysis of questionnaire responses through quantitative analysis.	Comparison of pre-test and post test perception scores	Risk of compassion fatigue	Variation in individual responses.
Author Conclusions/ Implications of Key Findings	Education for palliative care link nurses needs to incorporate strategies to develop competence and confidence in practice alongside skill-based learning.	Most Georgia nurses had no formal end of life education. A clear need for development and dissemination of end of life nursing education exists among working RNs in Georgia.	Care of the terminally ill was a major concern of the nurses in this study. Nurses need to be informed about end-of-life care to meet the needs of patients and their families. In addition, nurses must evaluate their own feelings about death and dying	This pilot study demonstrates the need to devote more time and resources to effectively change perceptions on end-of-life care.	Findings revealed that 78% of the sample was at moderate to high risk for compassion fatigue, with approximately 26% in the high-risk category. Trauma, anxiety, life demands, and excessive empathy (leading to blurred professional boundaries) were key determinants of compassion fatigue risk in the multiple regression model that accounted for 91 % ($P < .001$) of the variance in compassion fatigue risk.	Work discussion groups can offer nurses the means to calm, regulate and plan their interactions with themselves and others.
Strengths/ Limitations	The use of closed questions, unclear link between knowledge and confidence and actual expertise.	Survey methodology with potential for in accuracies, inclusion of nurses from only one state.	Strengths: number of survey respondents, Limitations: survey methodology, inclusion of non-specialist nurses in the survey	Limitations of this study include the relatively small sample size, time, and difficulties with recruitment.	Limitations is that this is a non-experimental design.	Limitations is that this is a non experimental design, small sample, and some ethical considerations.
Funding Source	None Identified	None Identified	None Identified	Florida Nursing Foundation	None Identified	None identified.
Comments	Reinforced need for tailored education.	Demonstrates deficiencies in end of life care knowledge in nurses.	Potential for use of CE in continuous development of professional nursing education.	Useful tool measuring perceptions in the pre and post intervention period - email sent to corresponding author.	Compassion fatigue is treatable and preventable!	Clinical supervision is considered an important intervention.

Anticipatory mourning: processes of expected loss in palliative care	Artificial hydration: the role of the nurse in addressing patient and family needs	Development and implementation of a palliative care link-nurse programme in care homes	Palliative care nurses' experiences of training in cognitive behavior therapy and taking part in a randomized controlled trial	An analysis of the palliative care education needs of RGNs and HCAs in nursing homes in Ireland	Evaluation of a training programme to teach a guided self-help psychological intervention to hospice staff	Using the M technique as therapy for patients at the end of life: two case studies
Clukey, Lory (2008)	Schmidlin, Esther (2008)	Heals, D. (2008)	E Cort, S Moorey, M Hotopf, M Kapari, B Monroe, P Hansford (2009)	Mary M McDonnell, Eileen McGuigan, Joanne McElhinney, Marie McTeggart, David McClure (2009)	JM Galfin, ER Watkins, T Harlow (2011)	Keris Roberts, Heather Campbell (2011)
Anticipatory mourning Grief Loss Caregivers Dying Presence, CINAHL	Hydration Dehydration End-of-life care Elderly Geriatrics Role of the nurse. CINAHL	Care homes End of life Link nurses Older people Palliative care, CINAHL	Advanced cancer patients Anxiety Cognitive behavioral therapy training Depression Palliative care, CINAHL	Palliative care education Nursing home residents Long-term care Gerontological nursing End-of-life care	Palliative care Staff training Self-help Anxiety, CINAHL	M technique Palliative care Symptom relief Touch Complementary therapies
Qualitative Study	Descriptive Study	Descriptive Article	Randomized control study	Descriptive survery design	Randomized Control Cluster Trial	Article Review
ONS level III	ONS Level II	ONS Level II	ONS Level I	ONS Level III	ONS Level !	ONS Level III
This qualitative study explored the retrospective perceptions of the anticipatory mourning experience of caregivers who had not received hospice services.	This descriptive study explored the the meaning of dehydration for the patient and their family, and reviews the role of the nurse within the decision-making process.	This article explores the development and implementation by a hospice education department of a palliative care link nurse programme in care homes with nursing as a means of providing aspects of the required training.	The study aimed to determine whether palliative care nurses given basic training in cognitive behavioral therapy (CBT) were able to use core components of this training when treating advanced cancer patients with anxiety or depression.	To identify the palliative care education needs of registered general nurses (RGNs) and health-care assistants (HCAs) working in care of the older person units (nursing homes).	This study investigated whether training palliative nurses to deliver a guided self-help intervention would improve their routine management of psychological distress.	This article reflects on the potential for palliative care nurses in a hospice setting to support patients with agitation and distress at the end of life by using the M technique.
There were nine participants who had been caregivers to a family member.	Case studies were reviewed.	2 hospitals were reviewed	Fifteen nurses were randomly allocated to either receive training in cognitive behavioral techniques or to continue their practice as usual.	The total population of RGNs and HCAs employed in the 13 HSE care of the older person units of the North East area of Ireland was 686.	10 nurses were involved in the study. 5 in each group.	2 Case Studies are reviewed.
A semistructured interview guide was used and the informants were asked questions from a previous study con-ducted by the researcher and used with caregivers who had received hospice services .	Arguments for or against artificial hydration are illuminated through patient situations which took place in the clinical setting of a hospice. The article further highlights the importance of recognizing dehydration in frail and elderly patients, and critically assesses policies that may hinder its optimal palliation in different settings in Switzerland.	This article explores the development and implementation by a hospice education department of a palliative care link nurse programme in care homes with nursing as a means of providing aspects of the required training. Maintaining the motivation and commitment of the care home staff and managers is seen as vital in sustaining the programme, which has been running successfully for 4 years.	Nurses were interviewed following the CBT training and after the research study.	A questionnaire was sent to all RGNs and HCAs working in nursing homes run by the Health Service Executive (HSE) in one health-care region in Ireland.	A randomized controlled cluster trial compared a team of nurses who attended training (n=5) with a team allocated to a no-training control condition (n=5) on self-reported behavior and confidence in addressing psychological distress. Ratings of patient psychological distress at routine clinical assessments were also examined pre- and post-training to assess the impact of training on patient distress.	This simple method of structured touch can be learned in two days and applied in any setting.

Analysis of questionnaire responses through quantitative analysis.	Analysis of reflective information.	Analysis of reflective information.	Analysis of comparison groups.	Analysis of questionnaire responses through quantitative analysis.	Pre and post test training analysis was completed.	Analysis of review of two case studies.
Five major processes were identified from the data about anticipatory mourning that informants described consistently. These processes were: Realization, Caretaking, Presence, Finding meaning, Transitioning.	Nurses in close and regular contact with patients at the end of life are in a privileged position to observe and evaluate the possible need for hydration. They must be prepared to listen to and dis-cuss concerns about the meaning and sense of illness, about death and dying, as well as about underlying fears, anguish and ambivalent emotions in both the patient and the family.	Key findings included the importance of contact and liaison with the hospice, the value of specialist nurses working in the community and the support received from the hospice's 24-hour advice line. Networking was considered to be an integral part of the programme, especially with the ability to discuss difficult issues and concerns with colleagues.	The CBT group reported a positive change in their approach to patients. Nurses felt empowered, more skilled and effective not only to assess and support patients with symptoms of anxiety and depression but also to facilitate change. In addition, nurses placed considerable value on being given a psychological model and set of interventions.	RGNs identified 8 specific educational needs: understanding of the dying process; pain and symptom management; improved communication skills; nutritional assessment issues; practical skills; the appropriate use of syringe drivers; and the role of complementary therapies. HCAs identified a need to improve their communication skills and clarify their role. Both groups identified the need for support in caring for dying patients and the need to improve their understanding of palliative care .	As predicted, patients cared for by the trained team demonstrated a greater reduction in distress post-training than patients cared for by the untrained team. There was no significant difference in self-reported behavior and confidence. These findings suggest that brief workshop-based training improves clinical outcomes on psychological distress and may be a means to increase the accessibility of effective psychological interventions in palliative care.	The M-technique is particularly useful for end-of-life patients with pain and fragile skin tissue, because the pressure applied can be adjusted to meet the individual patient's needs while still being beneficial.
Strengths: qualitative techniques aids deeper understanding of a phenomenon using peoples experiences. Weaknesses: limited generalization, limited sample size.	Strengths: Arguments for or against artificial hydration are illuminated through patient situations which took place in the clinical setting of a hospice.Weakness: Small number of cases reviewed.	Limitations was that thi study is a descriptor only and no data analysis was measured for validity.	A limitation of the study is the small number of nurses that participated. In addition, there may not have been suffi client opportunity for critical feedback	These findings may not necessarily reflect the national experience owing to the 53% response rate, however, for a population study this is considered a good response rate. The knowledge and confidence in skills reported by the staff is based on their reported accounts, and perhaps participant observation may have aided in supporting their accounts.	The study had a small sample size although this translated into a reasonable sample size for caseload. The findings cannot be generalized outside the context of training palliative care specialist nurses. Also, the questions used to assess behavior and confidence may have lacked sensitivity.	Limitations is that this study is a descriptor only and no data analysis was measured for validity.
None identified	None identified	None identified	Gatsby Foundation grant and the Biomedical Research Centre at the Institute of Psychiatry.	None identified	None identified	None identified
This study has helped to elucidate what caregivers identify as being supportive and caring.	This article describes the importance of the role of the nurse in palliative care.	At the inception of the link-nurse scheme, end-of-life care and end-of-life strategies were in their infancy and the teaching on the study days reflected a more abstract approach to palliative care. Now, however, the advent of new government initiatives has afforded new opportunities for education.	The main research suggests that training for palliative care nurses in CBT is effective in terms of improvement in knowledge and skills and that training may be associated with better outcomes for symptoms of anxiety.	The need for managerial support in the development, delivery and commitment of palliative care educational programmes for nursing home staff The use of innovative educational strategies (pod cast teaching, case studies, problem learning, reflection) to maximize attendance and impact in the present climate of cut backs and financial restraints	The findings indicate that brief training can influence the impact of routine nursing care on patient psychological distress in a palliative care setting.	Effectively alleviating patient symptoms in palliative and end-of-life care requires a holistic approach that may include complementary therapies alongside or integrated into other mainstream care.

A comparison of sources of nursing stress and job satisfaction among mental handicap and hospice nursing staff	Multi-faceted palliative care intervention: aged care nurses’ and care assistants’ perceptions and experiences	Elephant in the Room Project: Improving Caring Efficacy through Effective and Compassionate Communication with Palliative Care Patients - MedSurg Nursing	THE RELATIONSHIP BETWEEN PATIENTS’ CONCERNS AND PSYCHOLOGICAL DISTRESS IN A HOSPICE SETTING - Psycho-Oncology	Differences in assessment of symptoms and quality of life between patients with advanced cancer and their specialist palliative care nurses in a home care setting - Palliative Medicine	TNEEL Workshop Interactive Methods/or Teaching End-of-Life Care - Nursing Education Perspective	Letting go before a death: a concept analysis
K Power, G Sharp (1988)	Jane L. Phillips, Patricia M. Davidson, Debra Jackson & Linda J. Kristjanson (2008)	Betcher, D. K. (2010).	Heaven, C. & Macquire, P. (1998)	Horton, R. (2002).	Wilke, Lin, Judge, Shannon, Corless, Farber & Brown (2004).	Susan E. Lowey (2008)
Hospice, Anxiety, Nursing, Palliative care, Staff, CINAHL	action research, chronic care, focus groups, gerontology, nurses’ experiences, palliative care	hospice nurses, education, CINAHL	cancer patient, hospice nursing, nursing education, CINAHL	cancer, palliative care nurses, quality of life, education, CINAHL	end of life, nursing education, teaching	concept analysis, death awareness, end-of-life care, family caregiver, hospice, letting go, nursing
Comparison Study	Thematic content analysis.	Pre-test, post-test	Quantitative analysis of anxiety and depression in cancer patients.	Quantitative comparison of paired nurses and patients responses to a questionaire.	Quantitative Analysis of post-workshop participant evaluations	Concept Analysis
ONS Level II	ONS Level III	ONS Level II	ONS Level I	ONS Level I	ONS Level II	ONS Level III
A comparison of sources of nursing stress and job satisfaction among mental handicap and hospice nursing staff.	This paper is a report of a study to describe residential aged care nurses’ and care assistants’ perceptions of a multi-faceted palliative care intervention to identify potential areas to be addressed during subsequent action research phases.	Nurses would demonstrate increased caring as evidenced by improved scores on Caring Efficacy Scale after the intervention. • Nurses would learn effective and compassionate communication techniques regarding end-of-life issues, such as planning care in advance of need, reinforcing and clarifying bad news, and resolving conflicts between	To assess current concerns of hospice patients.	To examine differences in the assessment of symptoms and quality of life (QoL) between patients with advanced cancer living at home and their specialists palliative care nurses.	The purpose of this article is to describe the TNEEL workshop curriculum, evaluation results, and future plans for facilitating TNEEL adoption.	This paper is a report of a concept analysis of letting go within the context of family caregivers and end-of-life care.
181 mental handicap and 24 hospice nurses.	28 age care nurses and nurse assistants.	8 nurses	87 Patients	174 patients	75 Participants	158 papers
Analysis of variance revealed differing features of nursing stress between the two specialties.	A purposive sample (n = 28) of aged care nurses and care assistants participated in a series of four focus groups conducted in July 2005. Thematic content analysis of the transcripts was performed.	A palliative care survey was administered then an interactive didactic program was utilized to help to improve "caring" in hospice and palliative care nurses.	A total of 87 patients admitted to two hospices during a 9 month period were assessed by trained nurses to determine their current concerns. These assessment interviews were tape recorded. A trained researcher then administered a semi structured concerns interview using the Concerns Checklist, the Hospital Anxiety and Depression Scale and the Spielberger State Anxiety Inventory.	Nurses introduced a recently validated outcome measure, the Palliative Care Outcome Scale (POS), to patients referred to their hospice at their first or second home visit. The surveys were completed by both nurses and patients and the results were paired and analyzed using statistical analysis.	Demographic data and workshop evaluation data were statistically analyzed.	The Walker and Avant method of concept analysis was used, and the study was guided by Zerwekh’s family caregiving model of core competencies for hospice nurses.

Analysis of variance.	Thematic content analysis.	Improved caring and acquisition of skills to improve therapeutic communication.	Number of concerns and themes of these concerns.	The POS incorporates 10 questions covering the physical, psychological and spiritual domains of life within the remit of palliative care	Participants completed a posttest evaluation of their actual experiences using TNEEL on the laptop computers and provided written opinions about the toolkit.	Letting go before the death of a loved one involves a shift in thinking in which there is acknowledgement of impending loss without impeding its natural progression.
The results suggest that two additional factors that did not differ between specialties require further exanimation, namely patient behavior and purposelessness of nursing care. Job satisfaction also differed between specialties with hospice nurses reporting higher satisfaction with supervision, co-workers, and pay, and lower satisfaction with promotion in comparison to mental handicap nurses.	Sustaining a culture that is committed to ongoing learning and development interventions and creating multi-disciplinary teams in the aged care setting is critical to embedding a palliative approach. The chronic care model is a useful framework to guide the development of interventions leading to better palliative care outcomes for residents and their families.	Results indicated nurses' increased level of confidence in the ability to convey a caring attitude and develop a caring relationship through communication.	Concerns about pain and treatment were particularly associated with anxiety whereas concerns about disability were linked with depressed mood. Concerns about cancer were linked with both anxious and depressive changes in mood (p"0.001).	The study confirms the importance of evaluating the needs, feelings and concerns of patients with advanced cancer cared for at home and highlights both the significance and necessity of the patient's contribution to any such assessment	Despite this extensive distribution, survey data (3) suggested that faculty computer skills could be a potential and important barrier to TNEEL adoption.	The concept of letting go has been explored in many contexts but the core essence of the awareness and work towards the acceptance of an impending loss appears to be a universal domain. Research is needed to further explore and identify patterns of this phenomenon in family caregivers in the context of death of a loved one.
The sample size of the two groups is skewed. No measure of non-occupationally-related stressors was included to assess whether levels of subjectively perceived siress were related to factors outwith nursing. No assessment of coping strategies was included.	Limited resources and available study participants were listed.Therefore, the extent to which these findings represent the total nurse and care assistant population needs to be considered, given the small sample size and the heterogeneous composition of the groups.	Limitations: small sample size, project was time consuming.	Strengths: experimental design. Limitations: Relatively small sample size, privately funded.	Limitations: timing of the questionaire,low response rate.	Limitations: limited time available for workshops, use of survey methodology.	The synthesis of literature on which the definition of the concept was derived was based on only the papers found by the specific literature search conducted, and this might have missed other pertinent attributes found in concepts not characterized as letting go per se.
None identified.	Australian Commonwealth Department of Health and Age-ing, National Rural Palliative Care Program.	None identified.	Foundation of Nursing Studies and Cancer Research Campaign.	None Identified.	None Identified.	None identified.
the present study suggests that sources of nursing stress are not as similar for all specialties as previously reported. There may be additional stress factors as yet undetected in nursing specialties that have not been the focus of research in the past, such as mental handicap, geriatric and adult psychiatry.	An action research process was effective in driving practice change in the residential aged care setting through an enabling, empowering method. • Improving access to palliative care information, education, networking opportunities and promoting collaborative practice were empowering for aged care nurses and care assistants. • Systems, integrated with policy initiatives, are required to promote a sustainable multi-disciplinary team approach to planning and delivering a palliative approach to care to older people in residential aged care facilities.	The use of role playing and inclusion of therapeutic communication skills in educational intervention?	A wide range of concerns are present in hospice patients.	Unique design in comparison of nursing and patients perceptions of care.	TNEEL is a possible educational resource that may be utilized in my DNP project!	The concept of letting go before the death of a loved one is characterized by a shift in thinking about the acceptance of impending death and the realization that its natural progression should not be impeded.

Levels, Types, and Predictors of Family Caregiver Strain During Hospice Home Care for an Older Adult	**Article Title and Journal**	Nurses' Identification of Important yet Under-Utilized End-of-Life Care Skills for Patients with Life-Limiting or Terminal Illnesses	Making Difficult Decisions About Hospice Enrollment: What Do Patients and Families Want to Know? - Journal of the American Geriatrics Society	How Should Clinicians Describe Hospice to Patients and Families? - Journal of the American Geriatrics Society	Home Care and Hospice Nurses' Attitudes Toward Death and Caring for the Dying - Journal of Hospice and Palliative Nursing
Aloen L. Townsend, Karen J. Ishler, Beth M. Shapiro, Elizabeth Ford Pitorak & Carol R. Matthews (2010)	**Author/Year**	Lynn F. Reinke, Sarah E. Shannon, Ruth Engelberg, Danae Dotolo, Gerard A. Silvestri, and J. Randall Curtis (2010)	Casarett, Crowley, Stevenson, Xie, & Teno (2005).	Casarett, Crowley & Hirschman (2004).	Wessel & Rutledge (2005).
academic-community partnership, caregiver strain, end of life, family caregiving, hospice	**Database and Keywords**	Palliative care education Nursing home residents Long-term care Gerontological nursing End-of-life care Palliative care Staff training Self-help Anxiety, CINAHL	hospice, end of life care, palliative, informed consent, OVID	end of life, decision making, OVID	education, palliative care, nursing, CINAHL
cross-sectional survey design	**Research Design**		Cross Sectional Interview	Cross Sectional Interview	Quantitative Analysis of post education attitudes
ONS Level II	**Level of Evidence**	ONS I	ONS Level II	ONS Level II	ONS Level I
This research addressed two questions: (a) What levels and types of strain do family caregivers to older adults receiving hospice home care report?; and (b) What risk and protective factors predict caregiver strain?	**Study Aim/Purpose**	This study was designed to identify nurses' perspectives on nursing skills that are important yet under-utilized in end-of-life care.	To define patients' and families' priorities for information about hospice.	To describe hospice enrollment from the perspective of bereaved family members and to identify information about hospice that would encourage patients and families to enroll sooner.	The purpose of this study was to determine [a] the relationships among nurses' attitudes toward death and caring for dying patients and [b] the impact of palliative care education and the writing of a reflective end of-life narrative on home care nurses' attitudes toward death and their attitudes toward caring for dying patients.
A total of 167 interviews were completed.	**Population Studied/Sample Size/Criteria/ Power**	A 45-item survey was administered to nurses (n ℅ 717) in four U.S. states with a response rate of 79%.	237 Patients and Families	92 Patient Family Members	33 Palliative Care Nurses
Open-ended perceptions of both the caregivers and the social workers regarding usefulness of the measures for assessing caregivers' experiences were also collected.	**Methods/Study Appraisal/ Synthesis Methods**	Chi square statistics to examine professional characteristics associated with ratings of end-of-life care skills including practice settings, years of experience, and end-of-life care education. Content analysis was used to examine nurses' responses to open-ended questions.	The interview required approximately 10 minutes and included five parts. First, patients and families described their understanding of hospice, and staff recorded verbatim responses on the study interview guide. Second, the staff presented patients and families with eight questions that summarized categories of information about hospice and hospice care.	Family member described their own and the patients' knowledge of hospice before the illness. Next, they described initial discussions about hospice, sources of information about hospice and hospice services, and participants in the hospice decision-making process. Family members also described the patient's involvement on a 5-point scale (made the decision entirely on his/her own, made the decision but got advice from others, shared the decision with others, let others make the decision but had an opinion, was not involved at all in the decision).20 Next, they described what they knew of hospice before the patient enrolled, including the positive aspects of hospice that they and the patient found attractive and the negative aspects that were of concern. Finally, they described the aspects of hospice care that they learned about after the patient's enrollment and that they would have liked to know sooner.	This study determined the effects of a palliative care education intervention on attitudes toward death, and attitudes toward care of the dying. Pretest and posttest scores (approximately 3 months after the educational intervention) were obtained on two instruments.

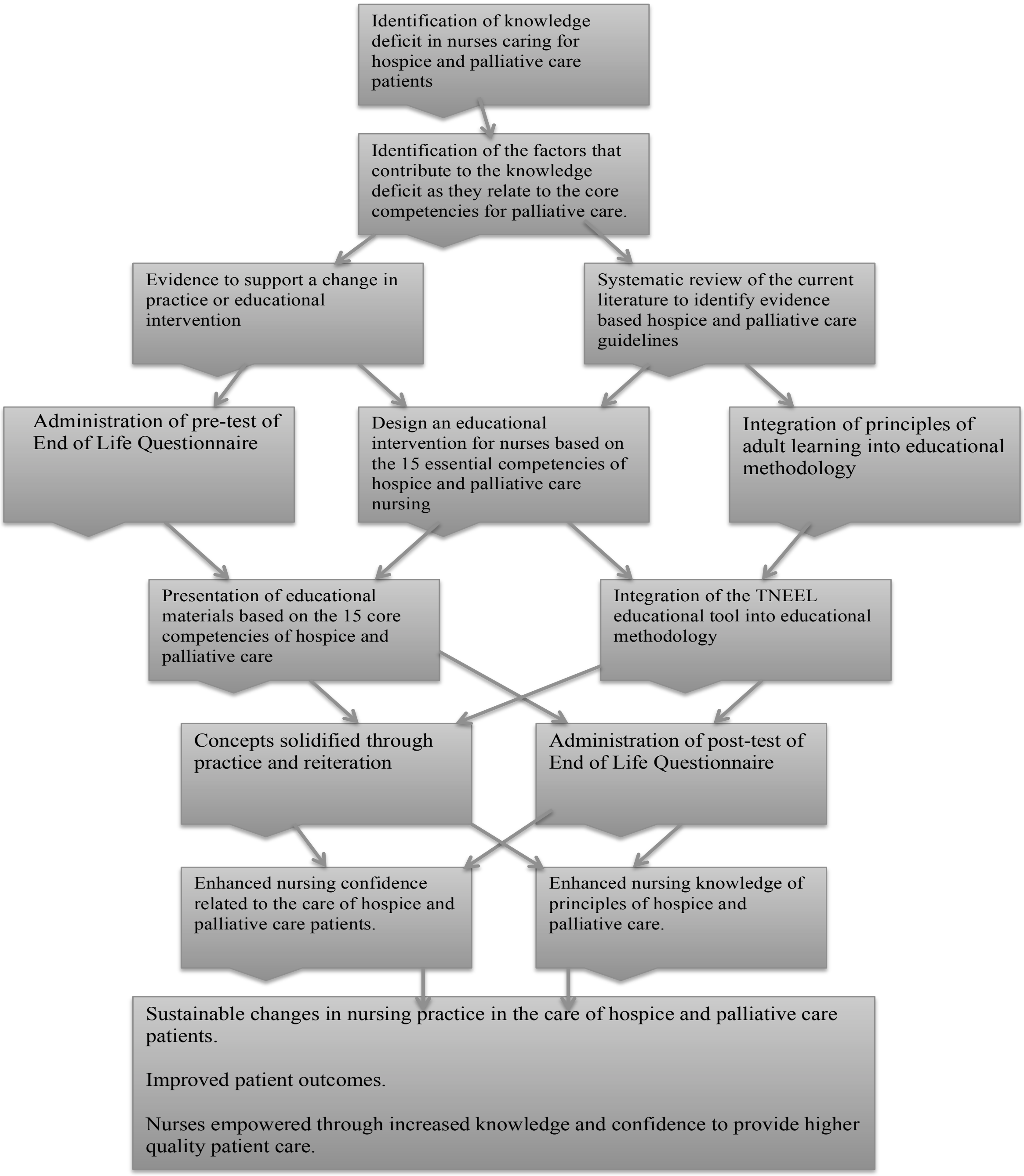
Most items contained less than 4% missing cases (n =7)—except income, which had 12% missing cases (n = 20). A regression-based imputation method, using all variables in the data set, was used to impute missing values prior to analysis.	**Primary Outcome Measures and Results**	Nineteen items were endorsed as extremely important and also ranked as under-utilized. These end-of-life care skills included communication skills, symptom management competencies especially those concerning anxiety and depression, and issues related to patient-centered care systems. Four complementary themes emerged from qualitative analysis of nurses' comments, which supported the quantitative findings.	Understanding of hospice, assessment of the relative importance of eight categories of information (by direct rating and ranking tasks), and nurse observation of shared decision making between patient and family (5-point scale).	Semi structured interviews assessed prior knowledge of hospice, patients' and physicians' involvement in the enrollment process, features of hospice that motivated enrollment, and features that patients and families wished they had learned about sooner.	Attitudes as measured by the From melt's Attitudes Toward Care of the Dying (FATCOD)''' scale and Death Attitude Profile - Revised (DAP-R)
Hierarch-ical multiple regressions revealed that caregivers' age and race, hospice patients' major illnesses (particularly cancer), caregivers' appraisals of their situation, and resources were significant risk or protective factors for caregiver strain, although the predictors varied by type of strain and amount of strain.	**Author Conclusions/ Implications of Key Findings**	This study provides a summary of skills nurses feel are important and under-utilized in their care of patients with life-limiting illnesses. The findings support the need to target both nursing education and healthcare system interventions to improve the use of practical end-of-life care skills by nurses with a focus on communication and symptom management skills.	Most patients and families who are referred for a hospice information visit know little about hospice and have substantial information needs.	Almost all family members (n592) and patients (n571) knew about hospice before the patient's illness. Almost half the patients (n544) were not involved at all in the hospice enrollment decision. The patient's physician (n551) or the patient or family (n534) initiated most hospice discussions, but patients and families usually obtained information about hospice from a hospice representative (n575) rather than from the patient's physician (n522).	The participants in this study had a significant decrease in negative attitudes of death avoidance (death anxiety) after the palliative care education and reflective narratives exercise.
This study was restricted to caregivers to persons age 65 or older receiving hospice home care.	**Strengths/ Limitations**	The procedure for generating the physician sample may have resulted in a unrepresentative sample.Despite the potential for bias, the sample was large and geographically diverse from within the U.S. Second, the ''Nurse Role in End-of-life Care Questionnaire'' had not been validated prior to collection of these data.	Limitations: qualitative design, single urban hospice used as sample, did not distinguish information needs	Limitations included the elicited responses of family members, and the small sample size	Limitations include a smmall sample size, non randomized, and lastly it was non controlled.
None identified.	**Funding Source**	Agency for Health Research and Quality (R01 HS11425 - 02) and an NRSA from the National Institute of Nursing Research (1F31NR010055) and Post-Doctoral Fellowship, VA Health Services R & D (TPP-61-021).	None Identified	None Identified	None Identified
The study documents that early assessment of strain can enhance communication between hospice staff and family caregivers by quickly opening up discussion of sensitive topics (e.g., economic strain) and by pinpointing areas for further assessment.	**Comments**	Nurses experienced with caring for patients at the end-of-life offer an important perspective on skills and activities that need to be offered to dying patients. This study provides a summary of skills that nurses feel are extremely important but currently under-utilized by nurses caring for patients diagnosed with life-threatening illnesses.	Reinforces the need for extensive patient and family education.	Potentially applicable to patient and family education from a standpoint of hospice description.	Assess attitude as part of the intervention or outcomes measurement process?

Update in Hospice and Palliative Care	Assessment of Advanced Practice Palliative Care Nursing Competencies in Nurse Practitioner Students: Implications for the Integration of ELNEC Curricular Modules - Journal of Nursing Education	Interventions for Family Caregivers of Loved Ones on Hospice	Advance Care Planning and Hospice Enrollment: Who Really Makes the Decision To Enroll? - Journal of Palliative Medicine	Hospice nurses and genetics: implications for end-of-life care - The Journal of Clinical Nursing
Wendy G. Anderson, M.D., and Nathan E. Goldstein, M.D (2010).	Shea, Grossman, Wallace & Lange (2009).	Kathryn B. Lindstrom, MSN, FNP-BC and Bernadette Mazurek Melnyk, PhD	Hirschman, Cocoran, Straton & Kapo (2010).	Metcalfe, Pumphrey & Clifford (2009).
Hospice, palliative care, nursing, education, end of life care, CINAHL, MEDLINE	education, palliative care nursing, OVID	caregivers hospice intervention CINAHL, MEDLINE	hospice, education, nursing, intervention, OVID	education, family, genetics, nursing, palliative care, psychosocial nursing, CINAHL
Review of literature.	Descriptive Study	Review of literature	Quantitative analysis of survey findings	Quantitative analysis of survey findings
ONS Level III	ONS Level II	ONS Level III	ONS Level I	ONS Level I
T he goal of this update in hospice and palliative care is to identify, summarize, and critique journal articles published (electronically or in print) between January 1, 2009 and December 31, 2009 with the highest potential for impact on the clinical practice of hospice and palliative care. inform clinicians across a broad range of topics, including: spiritual and psychosocial care; palliative care for special populations (pediatrics and geriatrics); symptom manage-ment; and clinician self care.	The purpose of this study is to describe a mixed method formative assessment of 36 graduate nursing students' knowledge about and attitudes toward palliative care preliminary to curricular integration of the End-of-Life Nursing Education Consortium (ELNEC) graduate core modules.	The primary purpose of this article was to review, critically appraise, and synthesize the current literature on interventions for family caregivers caring for loved ones on hospice in the United States. A secondary purpose was to provide recommendations for clinical practice and future interventional research for family caregivers of loved ones on hospice.	The purpose of this study was to assess patient participation in advance care planning (ACP) and the decision to enroll in hospice.	The overall aim of this study is to determine hospice nurses' perception of the importance of genetics to hospice care provision and their personal level of confidence in carrying out genetics-related activities within an end-of-life care context.
Several studies were reviewed for relevant inclusion in this review.	36 Graduate Nursing Students	Five studies performed in the United States with family caregivers of hospice patients were identified, reviewed, critically analyzed, and synthesized	146 family members of hospice patients	328 Hospice nurses is England and Wales
The review began with a hand search of 21 leading medical journals as well as a keyword search in PubMed using the terms ''hospice'' and ''palliative care.'' There was also a hand-searched the Co-chrane Database of Systematic Reviews and Fast Article Critical Summaries for Clinicians in Palliative Care. Articles were reviewed and ranked based on study quality, scientific merit, and potential for immediate impact on the field of hospice and palliative care.	Once informed consent was obtained, participants were asked to complete a demographic information sheet, a qualitative interview questionnaire, and the 106-item ELNEC multiple-choice examination. The qualitative questionnaire focused on six open-ended questions regarding participants' definition or description of palliative care.	Four of the studies were quasi-experimental designs, and one was a true randomized controlled trial (RCT).	One hundred sixty-five family members of patients who died in hospice between January 2004 and September 2004 returned an anonymous survey	Questionnaires were sent to a stratified sample of hospice nurses (n = 1149) in England and Wales. Using Likert scales, nurses were asked to rate the importance of and their confidence in undertaking a range of scenario-based activities that accompany caring for a patient and family affected by a genetic condition in the hospice setting

Start Providing nursing phone support to rural patients with cancer; it improves their quality of life and decreases depression. Asking parents of seriously ill children how we can support them in being a ‘‘good parent.’’ Explaining the relationship between starting dialysis, functional decline, and mortality in nursing home patients. Consider Helping parents of seriously ill children to plan the location of their child’s death; it may change the care the child receives and improve the parent’s experience. Using methods to increase mindfulness for self-care. Continue Providing spiritual support for patients with advanced cancer; it improves quality of life at the end of life. Continue exploring proxy knowledge of the course of advanced dementia; it is related to the care the patient receives. Using the anticholinergic agent of your choice to treat death rattle.	Description of palliative care, essential characteristics of palliative care, the role of the APRN in delivering palliative care, personal or professional experiences related to palliative care, educational needs related to palliative care, and descriptions of “good” and “bad” death.	Caregivers reported being willing to use the new technology of videophones and were not put off by technical issues they experienced.Results from a three-session intervention using the intervention of coping skills plus hospice care showed a decrease in caregiver burden and distress, along with an increase in QOL for the caregivers in the intervention group. MacDonald reported a decrease in emotional and physical stress by 85% of the caregivers, decreased physical pain by 77%, and a decrease in insomnia by 54% after their massage intervention.	Demographics and Characteristics, patient involvement in decision to enroll in hospice,Advance Care planning	Rating of importance and confidence in doing specific hospice related activities.
Below are several of the conclusions from the review: Patients with advanced cancer who receive pastoral care are more likely to feel their spiritual needs are supported by the medical team.Providing rural patients with advanced cancer with nurse-led telephone support and education to encourage patient activation, self-management, and empowerment improves quality of life and decreases rates of depression.Communication about end-of-life treatment options and home care may help parents to plan their child’s location of death. Nursing home patients with advanced dementia have high morbidity, mortality, and symptom burden.	Most students exclusively linked palliative care with end-of-life care and believed that the treatment they provide should have the goal of prolonging life over maintaining quality of life.	Outcome measures varied widely, making it difficult to compare the efficacy of the interventions across studies. Most of the reviewed intervention studies did not measure anxiety, one of the most common problems for family caregivers of hospice patients.	Forty-nine percent of family members reported that the patient was not involved in the hospice enrollment decision.	Hospice nurses felt that all aspects of genetics-related care were ‘very important’ to hospice care, but lacked confidence in their ability to carry out the activities.Hospice nurses’ need genetics education focusing on the psychosocial implications of caring for patients and families affected by genetic conditions to enable them to provide the complex care and support in face of the difficult issues that arise in practice.
Below are limitations from several of the studies reviewed: Residents were recruited only from nursing homes within the Boston area which may lead to decreased generalizability. A limitation is the lack of blinding and placebo control and that it was not powered to detect differences in adverse effects.Although a small percentage of eligible physicians en-rolled, those who participated completed a significant pro-portion of this very time-intensive behavioral intervention.	Limitations were a small sample size, qualitative design, homogenous sample	Limitations of the reviewed studies of interventions include (a) inconsistent use of theory-based interventions and outcomes, (b) a lack of attention to the underlying problem (ie, lack of a cognitive schema for caring for a dying loved one) for family caregivers of a newly admitted hospice patient, (c) little attention to recruitment and retention strategies for this population, (d) frequent use of cancer patients when less than 50% of hospice patients have a cancer diagnosis, (e) use of self-report measures and unvalidated measures that can affect internal validity, (f) small samples, and (g) high attrition rates.	Limitations included family member recollection, higher percentage of cancer patients than national average,	Limitations: low response rate, some directors did not view genetics as related to hospice care
Dr. Anderson was supported by the University of California San Francisco Clinical and Translational Science In-stitute Career Development Program, which is supported by National Institutes of Health grant number 5KL2 RR024130-04. Dr. Goldstein was supported by a Mentored Patient-Oriented Research Career Development Award from the National Institute of Aging (K23 AG025933).	None Identified	None listed.	None Identified	General Nursing Counsel Trust of Whales
Several important studies relating to palliative care were published in 2009. Important measures and issues in spiritual care, pediatrics, geriatric and long-term care, symptom management, and self-care were discussed and presented.	What is and should the goal of hospice nurses in hospice interventions?	In conclusion, rigorous theory-based experimental research is needed to develop and test interventions that assist family caregivers in coping with the stress of having loved ones newly admitted to hospice and becoming optimal caregivers.	This study highlights that patients are involved in the decision to enroll in hospice, are having advance care planning discussions, and do complete written advance directives.	Genetics and important piece of hospice education as well.

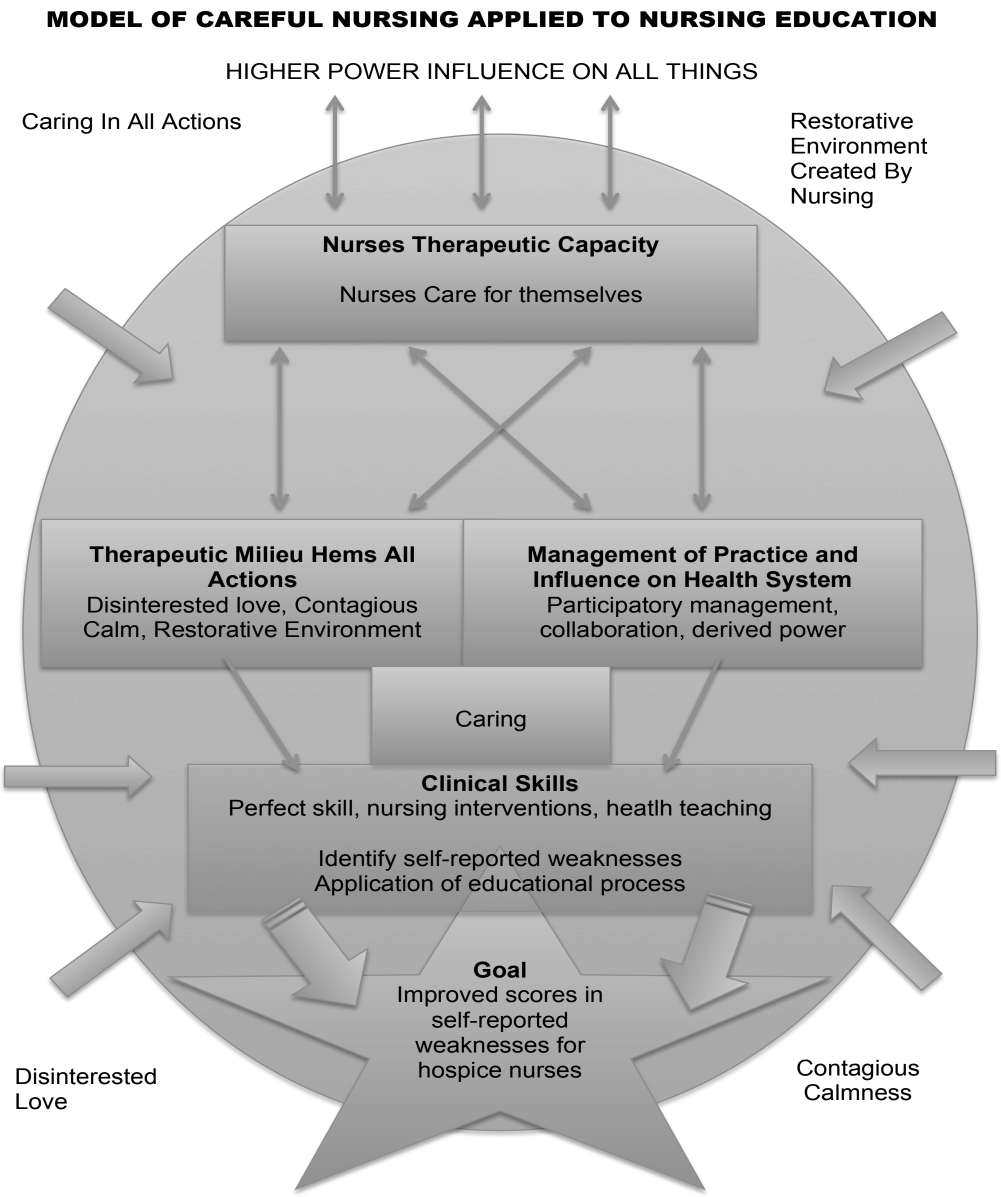
Appendix B

Logic Model



Appendix C

Conceptual Map



Appendix D

TNEEL Course Description

The proposed educational intervention is designed for hospice and palliative care nurses, nurse aides and advanced practice nurses. The EOLC questionnaire will be administered to hospice and palliative care nurses. After the pre intervention completion of the questionnaire, areas of weakness or lesser self-perceived knowledge will be determined and the educational intervention will be designed specifically to address areas of weakness. Though the intervention will cover information related to each of the 15 core competencies, the five weakest core competencies will be the focus of the educational intervention. A four-hour teaching plan with handouts will be designed and implemented based on the pre-test to facilitate learning core competencies for hospice and palliative care nurses. Practical strategies for improving nursing practice and patient outcomes will be discussed and role-played

Target Audience

This course and educational content is intended for nurses working with hospice and palliative care patients.

Educational Objectives

After attending the educational lecture, the participant should be able to:

1. Demonstrate enhanced knowledge of the fifteen core competencies (with a focus on the five areas identified as weakest by the nurses) for hospice and palliative care nurses.
2. Explain the role of the health care provided in supporting the patient and family in the dying process.
3. Employ strategies for integrating newly learned core competencies into patient care.
4. Role-play assessment skills to integrate into practice.

Teaching Plan

The presentation will be delivered using PowerPoint and in a lecture/discussion style format. Handouts will also be given for review and reinforcement of the information presented. Additionally, role-play will be utilized to reinforce learning. The content will be based upon the fifteen core competencies with particular attention given to the areas identified as weakest for the individual competencies and the implications for nursing practice. The subject matter will be based upon the Toolkit for Nursing Excellence at End-of-Life Transition (TNEEL). Additionally, practical advice for implementing these evidence based patient care techniques will be offered. The TNEEL includes the following topic areas:

- comfort goals and preferences
- assessment and management of pain and other symptoms
- signs and symptoms of approaching death
- decision-making at the end of life
- communications and relationships supporting patient and family-centered care at the end-of-life transition
- grief, loss, and bereavement
- hope and well being
- complementary comfort therapies
- spiritual and psychosocial needs
- impact of dying (epidemiology, economics, service delivery systems, and resource utilization at end of life)
- cultural, ethical, legal and quality of life concerns at this life-stage

(From The Cancer Pain and Symptom Management Nursing Research Group (2011).

Appendix E

Pre Intervention Assessment
Perceptions on End-of-Life Care Questionnaire

Directions: Read each statement and circle the number to the right of the statement that best describes your response.

STRONGLY DISAGREE	SOMEWHAT DISAGREE	UNCERTAIN	SOMEWHAT AGREE	STRONGLY AGREE
1	2	3	4	5

1. I am comfortable talking about death with my terminally ill patients.	1	2	3	4	5
2. I feel uneasy when I am taking care of a patient that is dying.	1	2	3	4	5
3. I am comfortable talking about advanced directives with my patients.	1	2	3	4	5
4. I dread conversations about advanced directives and DNR orders with dying patients and their families.	1	2	3	4	5
5. It is important to talk with patients about their end-of-life choices and decisions.	1	2	3	4	5
6. I feel I am able to communicate openly with patients and their families about end-of-life choices and decisions.	1	2	3	4	5
7. I am comfortable when explaining and placing a DNR band on a patient.	1	2	3	4	5
8. I am at a loss for words when a patient asks me, “Am I dying?”	1	2	3	4	5
9. It would be helpful for me if the doctor discussed prognosis and end-of-life issues with the patients and their families before I am confronted with these tasks.	1	2	3	4	5
10. It would be helpful to me for the doctors to communicate and collaborate with me in the care of the dying patient.	1	2	3	4	5
11. I feel guilty that I am not able to spend enough time with the dying patient.	1	2	3	4	5
12. I feel comfortable addressing the grief and emotional turmoil, which often confront dying patients and their families.	1	2	3	4	5
13. I feel comfortable assessing and addressing patients’ spiritual needs at end-of-life.	1	2	3	4	5
14. I would prefer that Spiritual Services would address my patients’ spiritual needs.	1	2	3	4	5
15. I am competent addressing cultural preferences of patients and their families.	1	2	3	4	5
16. I believe administering narcotics to a dying patient hastens death.	1	2	3	4	5
17. If a dying patient is already sedated, it still may be necessary to give additional pain medication.	1	2	3	4	5
18. I delay end-of-life conversations.	1	2	3	4	5
19. When pain and other distressing symptoms are present, I feel the patient should have sufficient medications in whatever dosage and route	1	2	3	4	5

needed to promote physical and mental comfort as perceived by the patient.	
20. I do not know what to do when families request that pain medication be withheld so that their loved one may be more alert.	1 2 3 4 5
21. I feel it would be helpful to me to be more knowledgeable in symptom control of the dying patient.	1 2 3 4 5
22. I feel competent in assessing signs and symptoms of a patient's approaching death and discussing with the patient and his or her family these sign and symptoms.	1 2 3 4 5
23. I feel that the needs of a person dying in the hospital are addressed as well as a person dying under hospice care.	1 2 3 4 5
24. I feel distressed when my patient dies.	1 2 3 4 5
25. I am not afraid to be alone with a dying patient.	1 2 3 4 5
26. I feel that my formal nursing education has adequately prepared me to speak to my patients and their families about end-of-life issues.	1 2 3 4 5
27. I am skilled in assessing changes in the patient's condition that may signal a shift to a terminal phase.	1 2 3 4 5
28. I am skilled in determining whether expectations of patients, family members, and providers are consistent.	1 2 3 4 5

Demographic Questions

In order to maintain anonymity please list the last four digits of your social security #, so that the questionnaires can be matched before and after the education. _______________

1. What is your age in years?
2. Please circle the license you hold
    1. LPN
    2. RN
    3. Nurse Practitioner
3. How many years of experience in nursing do you have?
4. How may years of hospice/palliative care nursing experience do you have?
5. Have you ever had a family member on hospice care?
    1. Yes
    2. No
    3. Prefer not to answer
6. If you have had a family member on hospice care, do you feel that the experience has changed your outlook on hospice care?
    1. Yes
    2. No
    3. Prefer not to answer
7. Gender
    1. Female
    2. Male

Appendix F

The American Association of College of Nurses has developed a list of competencies "necessary for nurses to provide high-quality care to patients and families during the transition at the end-of-life." The purpose of the competency statements is to assist nurse educators in incorporating end-of-life content into nursing curricula. A list of the Nursing Competencies follows:

Competencies Necessary for Nurses to Provide High-Quality Care to Patients and Families During the Transition at the End of Life

1. Recognize dynamic changes in population demographics, health care economics, and service delivery that necessitate improved professional preparation for end-of-life care.
2. Promote the provision of comfort care to the dying as an active, desirable, and important skill, and an integral component of nursing care.
3. Communicate effectively and compassionately with the patient, family, and health care team members about end-of-life issues.
4. Recognize one's own attitudes, feelings, values, and expectations about death and the individual, cultural, and spiritual diversity existing in these beliefs and customs.
5. Demonstrate respect for the patient's views and wishes during end-of-life care.
6. Collaborate with interdisciplinary team members while implementing the nursing role in end-of-life care.
7. Use scientifically based standardized tools to assess symptoms (e.g., pain, dyspnea [difficulty breathing] constipation, anxiety, fatigue, nausea/vomiting, and altered cognition) experienced by patients at the end-of-life.
8. Use data from symptom assessment to plan and intervene in symptom management using state-of-the-art traditional and complementary approaches.
9. Evaluate the impact of traditional, complementary, and technological therapies on patient-centered outcomes.
10. Assess and treat multiple dimensions, including physical, psychological, social, and spiritual needs to improve quality at the end-of-life.
11. Assist the patient, family, colleagues, and one's self to cope with suffering, grief, loss, and bereavement in end-of-life care.
12. Apply legal and ethical principles in the analysis of complex issues in end-of-life care, recognizing the influence of personal values, professional codes, and patient preferences.
13. Identify barriers and facilitators to patients' and caregivers' effective use of resources.
14. Demonstrate skill at implementing a plan for improved end-of-life care within a dynamic and complex health care delivery system.
15. Apply knowledge gained from palliative care research to end-of-life education and care.

- AACN Core Competencies, 2002

(From Melhado et. al, 2005)

Appendix G

Post Intervention Assessment
Perceptions on End-of-Life Care Questionnaire

Directions: Read each statement and circle the number to the right of the statement that best describes your response.

STRONGLY DISAGREE	SOMEWHAT DISAGREE	UNCERTAIN	SOMEWHAT AGREE	STRONGLY AGREE
1	2	3	4	5

1. I am comfortable talking about death with my terminally ill patients.	1	2	3	4	5
2. I feel uneasy when I am taking care of a patient that is dying.	1	2	3	4	5
3. I am comfortable talking about advanced directives with my patients.	1	2	3	4	5
4. I dread conversations about advanced directives and DNR orders with dying patients and their families.	1	2	3	4	5
5. It is important to talk with patients about their end-of-life choices and decisions.	1	2	3	4	5
6. I feel I am able to communicate openly with patients and their families about end-of-life choices and decisions.	1	2	3	4	5
7. I am comfortable when explaining and placing a DNR band on a patient.	1	2	3	4	5
8. I am at a loss for words when a patient asks me, “Am I dying?”	1	2	3	4	5
9. It would be helpful for me if the doctor discussed prognosis and end-of-life issues with the patients and their families before I am confronted with these tasks.	1	2	3	4	5
10. It would be helpful to me for the doctors to communicate and collaborate with me in the care of the dying patient.	1	2	3	4	5
11. I feel guilty that I am not able to spend enough time with the dying patient.	1	2	3	4	5
12. I feel comfortable addressing the grief and emotional turmoil, which often confront dying patients and their families.	1	2	3	4	5
13. I feel comfortable assessing and addressing patients’ spiritual needs at end-of-life.	1	2	3	4	5
14. I would prefer that Spiritual Services would address my patients’ spiritual needs.	1	2	3	4	5
15. I am competent addressing cultural preferences of patients and their families.	1	2	3	4	5
16. I believe administering narcotics to a dying patient hastens death.	1	2	3	4	5
17. If a dying patient is already sedated, it still may be necessary to give additional pain medication.	1	2	3	4	5
18. I delay end-of-life conversations.	1	2	3	4	5
19. When pain and other distressing symptoms are present, I feel the patient should have sufficient medications in whatever dosage and route	1	2	3	4	5

needed to promote physical and mental comfort as perceived by the patient.	
20. I do not know what to do when families request that pain medication be withheld so that their loved one may be more alert.	1 2 3 4 5
21. I feel it would be helpful to me to be more knowledgeable in symptom control of the dying patient.	1 2 3 4 5
22. I feel competent in assessing signs and symptoms of a patient's approaching death and discussing with the patient and his or her family these sign and symptoms.	1 2 3 4 5
23. I feel that the needs of a person dying in the hospital are addressed as well as a person dying under hospice care.	1 2 3 4 5
24. I feel distressed when my patient dies.	1 2 3 4 5
25. I am not afraid to be alone with a dying patient.	1 2 3 4 5
26. I feel that my formal nursing education has adequately prepared me to speak to my patients and their families about end-of-life issues.	1 2 3 4 5
27. I am skilled in assessing changes in the patient's condition that may signal a shift to a terminal phase.	1 2 3 4 5
28. I am skilled in determining whether expectations of patients, family members, and providers are consistent.	1 2 3 4 5

Demographic Questions

In order to maintain anonymity please list the last four digits of your social security #, so

that the questionnaires can be matched before and after the education. ________________

Appendix H

Timeline

✓ #	Task	7/11	8/11	9/11	10/11	11/11	12/11	1/12	2/12	3/12	4/12	5/12	Status
1	**Step V: Work Planning**												Group
	Project Proposal												Done
	○ 08/01/11 Complete Project Proposal		x										Done
	○ Educational Plan												Done
	▪ 08/15/11 Obtain TNEEL Curriculum		x										Done
2	▫ 09/01/11 Obtain Laptop to run TNEEL Curriculum			x		x							Done
	▪ 11/01/11 Administer EOLC Pre Intervention Questionaire					x							Done
	▪ 11/15/11 Design Educational Intervention based upon EOLC Results					x							In Progress
	▪ 12/01/11-12/15/11 Begin Educational Intervention						x						In Progress
	▫ Plan dates, locations for lectures, discussions						x						In Progress
	▫ Finalize content for lectures						x						In Progress
	Project Management Tools												Done
	○ 11/1/11 Timeline Completed						x						Done
3	§IRB Approval Receivied 10/15/11					x							Done
	○ 11/01/11 Revised Budget Completed					x							Done
	Step VI: Planning for Evaluation												Done
	Evaluation Plan Developed												Done
4	○ 09/15/11 Selection of EOLC Questionaire as Pre and Post assessment			x									Done
	○ 09/15/11 Developed demographic questions to include			x									Done
5	○ 09/15/11 Identify pre and post test intervals			x									Done
	Logic Model Development												Done
	○ 10/15/11 Complete Logic Model (p. 479)				x								Done
	Step VII: Implementation												Done
	IRB Approval												Done
	○ 10/01/11 Submit IRB proposal at Regis				x								Done
	10/15/11 IRB Approval Granted				x								Done
	Threats and Barriers												Done
	○ 09/15/11 Make a list of potentials barriers to project implementation			x									Done
	Monitoring Implementation Phase												Done
	○ 11/01/11 Expected date of project implementation					x							Done
	○ 11/15/11 All nurses shall have completed pre-test					x							Done
6	○ 12/01/11 Educational lecture invervention scheduled to begin						x						Done
	○ 12/15/11 Lecture Intervention Completed						x						Done
	○ 12/20/11 – 01/01/12 Post test administration						x						Done
	Project Closure												Planned
	○ 01/01/12 Anticipate completion of intervention							x					Done
	▪ Document proposed practice changes into policy and procedure							x					Planned
	Step VIII: Giving Meaning to the Data												Done
7	Qualitative Data												Done
	○ 01/10/12 Input demographic and confidence data into excel spreadsheet							x					Done
	Quantitative Data												Done
	○ 01/01/12 Input quantitative data in excel spreadsheet							x					Done
	○ 01/12 Run SPSS reports							x					Done
	Step IX: Utilizing & Reporting Results												Done
	Written Dissemination												Planned
7	○ 01/01/11 – 03/01/11 Write project summary							x	x	x			Planned
	Oral Dissemination									x			Planned
8	○ 04/11 Defend DNP Project									x			Planned
	Electronic Dissemination										x		Planned
	○ 05/11 Begin publication process, submit manuscript for publication										x	x	Planned

Appendix I

Cost Benefit Analysis

Costs

Equipment needed for educational intervention:

Laptop Computer: $450.00
TNEEL Program: $50.00
Paper for handouts: $6.00

Nursing time (donated paid time from each facility) estimated at $20/hr x 25 participants = $500/hr. estimated at 4 hours = $2000.00

Total costs - $2506 (estimated)

Benefits

Improved patient and family satisfaction with nursing end-of-life care

Enhanced self-perceived nursing competencies

Cost savings associated with in-house nursing education provision estimated at $2500/year

Total measurable monetary benefit = $2500/year

It should be noted that enhanced satisfaction with care and improved self-perceived knowledge are difficult to quantify, however, these benefits certainly may result in positive fiscal outcomes.

Appendix J

IRB Approval Letter

REGIS UNIVERSITY

Academic Affairs
Academic Grants

3333 Regis Boulevard, H-4
Denver, Colorado 80221-1099

303-458-4206
303-964-3647 FAX
www.regis.edu

IRB – REGIS UNIVERSITY

October 28, 2011

Troy Fletcher
2535 East Levingwood Road
Lake Charles, LA 70611

RE: IRB #: 11-315

Dear Troy:

Your application to the Regis IRB for your study, "An Educational Intervention for Hospice and Palliative Care Nurses" was approved as exempt on October 26, 2011.

Supporting reference information from the chair: "…approved as an exempt study under 45CFR46.101(b)(1 & 2) (instructional strategies & survey research). A consent form is not required for exempt studies, but a statement of consent on the opening page of the survey is suggested.

The designation of "exempt," means no further IRB review of this project, as it is currently designed, is needed.

If changes are made in the research plan that significantly alter the involvement of human subjects from that which was approved in the named application, the new research plan must be resubmitted to the Regis IRB for approval.

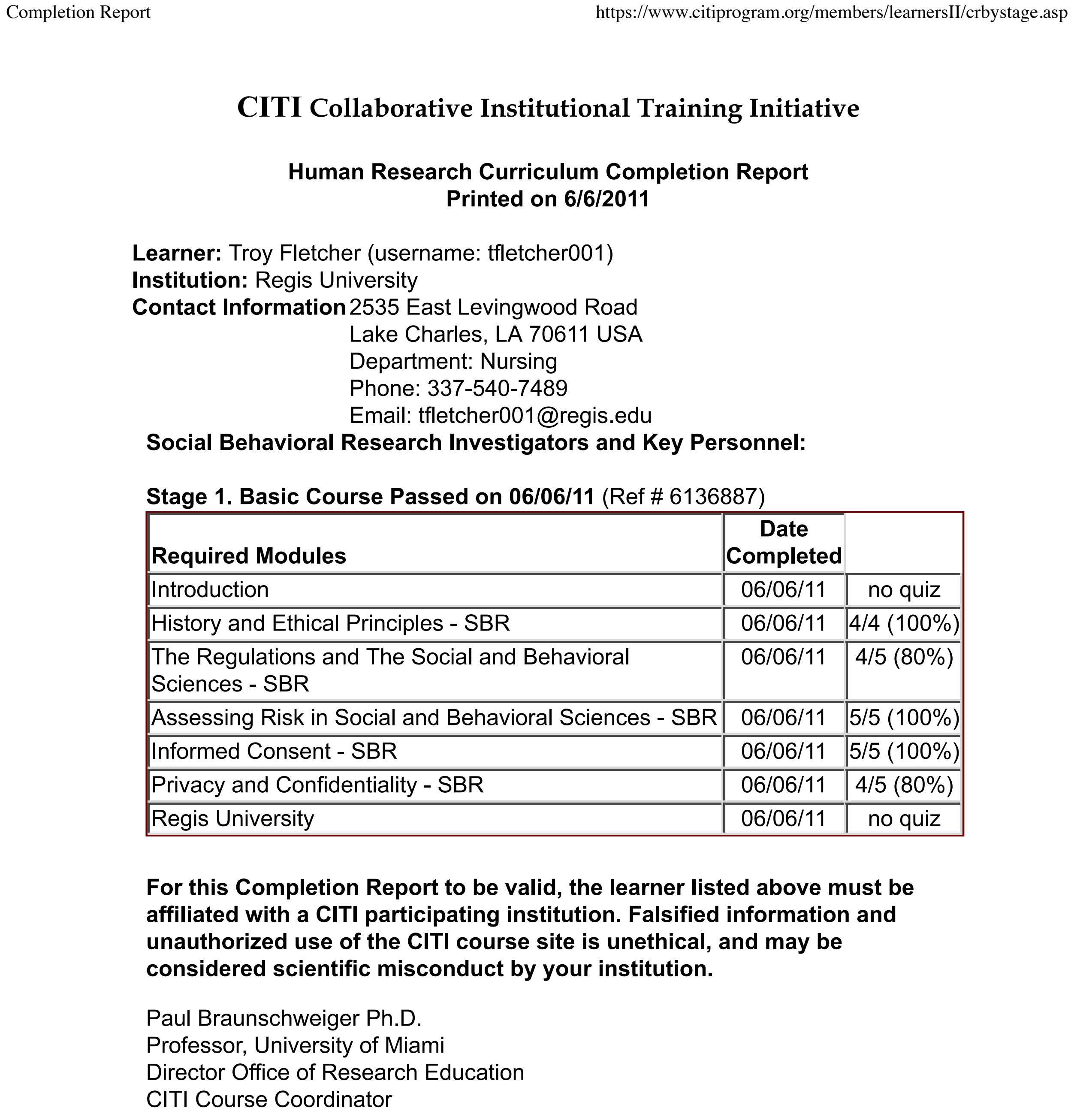
Sincerely,

Daniel Roysden, Ph.D.
Chair, Institutional Review Board

cc: Dr. Lynn Wimett

Appendix K

CITI Training Certificate



Completion Report https://www.citiprogram.org/members/learnersII/crbystage.asp

CITI Collaborative Institutional Training Initiative

Human Research Curriculum Completion Report
Printed on 6/6/2011

Learner: Troy Fletcher (username: tfletcher001)
Institution: Regis University
Contact Information 2535 East Levingwood Road
Lake Charles, LA 70611 USA
Department: Nursing
Phone: 337-540-7489
Email: tfletcher001@regis.edu

Social Behavioral Research Investigators and Key Personnel:

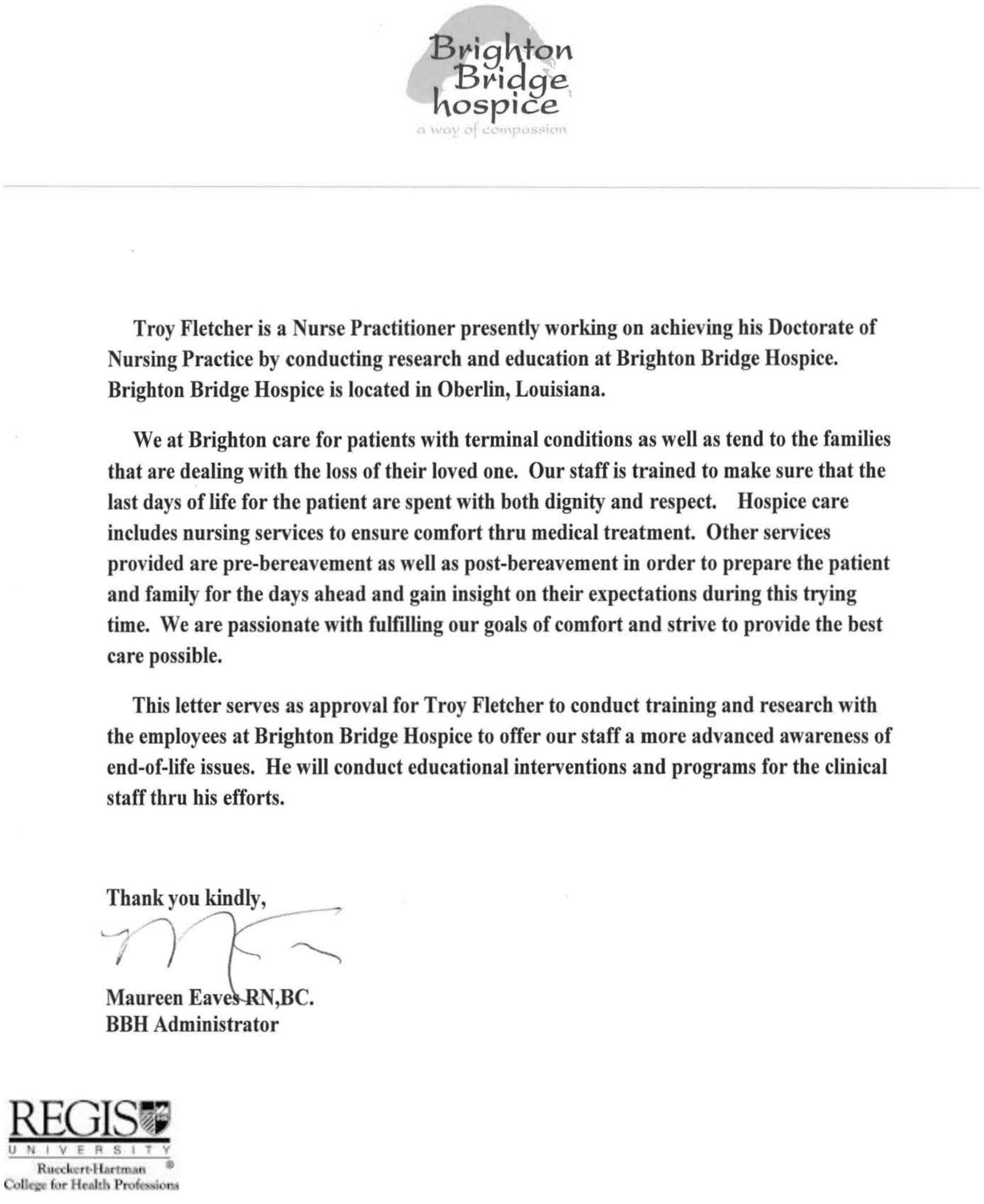
Stage 1. Basic Course Passed on 06/06/11 (Ref # 6136887)

Required Modules	**Date Completed**	
Introduction	06/06/11	no quiz
History and Ethical Principles - SBR	06/06/11	4/4 (100%)
The Regulations and The Social and Behavioral Sciences - SBR	06/06/11	4/5 (80%)
Assessing Risk in Social and Behavioral Sciences - SBR	06/06/11	5/5 (100%)
Informed Consent - SBR	06/06/11	5/5 (100%)
Privacy and Confidentiality - SBR	06/06/11	4/5 (80%)
Regis University	06/06/11	no quiz

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Course Coordinator

Approval Letter



Brighton
Bridge
hospice
a way of compassion

Troy Fletcher is a Nurse Practitioner presently working on achieving his Doctorate of Nursing Practice by conducting research and education at Brighton Bridge Hospice. Brighton Bridge Hospice is located in Oberlin, Louisiana.

We at Brighton care for patients with terminal conditions as well as tend to the families that are dealing with the loss of their loved one. Our staff is trained to make sure that the last days of life for the patient are spent with both dignity and respect. Hospice care includes nursing services to ensure comfort thru medical treatment. Other services provided are pre-bereavement as well as post-bereavement in order to prepare the patient and family for the days ahead and gain insight on their expectations during this trying time. We are passionate with fulfilling our goals of comfort and strive to provide the best care possible.

This letter serves as approval for Troy Fletcher to conduct training and research with the employees at Brighton Bridge Hospice to offer our staff a more advanced awareness of end-of-life issues. He will conduct educational interventions and programs for the clinical staff thru his efforts.

Thank you kindly,

Maureen Eaves RN,BC.
BBH Administrator

REGIS
UNIVERSITY
Rueckert-Hartman
College for Health Professions