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# KNOWLEDGE AND ATTITUDES OF REGISTERED NURSES ON PALLIATIVE CARE

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KNOWLEDGE AND ATTITUDES OF REGISTERED NURSES ON PALLIATIVE  
CARE

A Scholarly Project Submitted to the Graduate School  
in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Nursing Practice

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KNOWLEDGE AND ATTITUDES OF REGISTERED NURSES ON PALLIATIVE  
CARE

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# KNOWLEDGE AND ATTITUDES OF REGISTERED NURSES ON PALLIATIVE CARE

An Abstract of the Scholarly Project by  
Amy Marpu

The purpose of this DNP scholarly project (SP) was to evaluate the knowledge and attitudes of registered nurses (RN) regarding palliative care (PC) before and after an educational presentation. This SP strived to answer these questions: What is the current knowledge in RNs of PC and end of life (EOL) patients before and after the education presentation? What is the anxiety level RNs feel regarding medication administration and symptom management in PC and EOL patients before and after the educational presentation?

A multimethodology, cross-sectional study design was used. The participants were currently enrolled in the RN-BSN program at PSU. These nurses were licensed and working. The instrument used was the Palliative Care Knowledge Test. A pre-test was given to determine the nurses' current knowledge regarding PC and their opinions and beliefs about EOL care. Basic demographics was collected: age, gender, area and years of nursing practice, state of current nursing practice, and if the RN has received PC education. A PowerPoint was included for participants regarding PC and the medications used for the symptoms experienced during EOL. A post-test collected quantitative data to determine if the educational presentation changed the nursing students' opinions, beliefs, comfort level, and knowledge with PC. A resource guide on PC and the medications often ordered during this time was provided to the RNs following the post-test.

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## **CHAPTER I**

### **INTRODUCTION**

#### **Introduction**

Palliative care is a relatively new field in the medical community, but the need is constant and growing. According to the Center to Advance Palliative Care (CAPA), 67 percent of U.S. hospitals with fifty or more beds report palliative care teams (2017). This number is increasing every year according to the data that CAPA has collected. In 2013, the Centers for Disease Control and Prevention (CDC) reported there were 1.3 million patients on hospice or palliative care in the United States. It is a large population that requires the care and expertise of their healthcare team, especially the providers at the patient bedside.

The healthcare team faces many barriers when providing care to this patient population which can be correlated to lack of knowledge about palliative care (PC) in general and its benefits (World Health Organization [WHO], 2017). While pain is considered one of the most common symptoms associated with palliative care patients, the control of this symptom is disappointing. The World Health Organization (WHO) also states that there are misconceptions among the healthcare team due to limited or non-existent training regarding palliative care and opioid analgesic use that will lead to increased substance abuse (2017).

In 2014, the Institute of Medicine (IOM) addressed the inadequate education of healthcare professionals pertaining to palliative care. This report included topics such as pain and symptom management, the safe and effective use of opioids, and the importance of communication among healthcare providers, families, and the patient.

Specifically, nurses without experience in palliative care or end-of-life (EOL) patients were found to be the largest population that would benefit from death education or the programs that the IOM have suggested (Peters, et al., 2013, p.14). Peters, et al., noted that “Younger nurses consistently reported stronger fear of death and more negative attitudes towards end-of-life patient care” (2013, p.14). It is surmised that education for this group may help reduce anxiety and fear and improve care delivery and patient quality of life.

### **Statement of Problem**

The WHO (2017) defines palliative care as “an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”. With the dying process being an inevitable part of life, identifying the components of palliative care and who qualifies for it is crucial. To understand palliative care and all it entails may be the answer to diminish any suffering one might experience at the end of life (EOL).

Depression, confusion, dyspnea, incontinence, severe fatigue, anorexia, vomiting, and pain can all be symptoms in actively dying patients (Singer et al., 2015). Pain is considered to be the most distressing symptom for both patients and family members



during this time. Additional symptoms include anxiety, bleeding, coughing or rattling, neurological symptoms, and occasionally pruritus (Knops, Kremer & Verhagen, 2015). These symptoms are typically seen towards the end of life whether it be from a disease process or a traumatic event.

As the human body progresses towards death, particular symptoms are seen within the last two weeks of life. Such symptoms include abdominal swelling or ascites, agitation, delirium, or restlessness, lethargy, excess respiratory secretions which produce the “death rattle”, skin integrity problems such as foul smelling wounds, sores, and decubitus ulcers, sleep problems, and asthenia (Kehl & Kowalkowski, 2013, p. 604 & 610).

These symptoms, but not every symptom, may be seen in each actively dying patient whether they are within days or minutes of death. This is a definite healthcare scenario due to biochemical changes, brain pressure alterations, hepatic and renal impairment, emotional and psychosocial changes, and even alterations in the gastrointestinal system (Nunn, 2014, p.340).

Unfortunately, many healthcare providers are slow to initiate palliative care and this can lead to uncontrolled symptoms which causes the patient and family to have a negative experience at the end of life that palliative care so actively tries to avoid. There are multiple reasons that may delay primary care providers from ordering a palliative care consult. Some of these reasons include lack of communication about the patients’ status and prognoses, challenges associated with quick treatment plan changes from curative to comfort measures only, an abundance of choices to offer to the terminal patient, lack of knowledge regarding scientific and cultural facts, and lack of appreciation for symbolism for artificial nutrition and resuscitation (Callaway, 2012).

The healthcare providers, especially nurses, struggle with initiating and providing palliative care and often times they feel the perception of not having done enough, failure or incompetence, and even helplessness (Beng, et al., 2013). This is especially concerning considering the number of palliative care patients and how much care they need, especially from nursing staff.

### **Statement of Purpose**

The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test. By eliminating or decreasing nurses' anxiety when caring for this patient population, the palliative patients receive a higher quality of care and better symptom management.

### **Significance of Study**

Evaluation of nursing education and anxiety related to palliative care patients can offer a solution to an acknowledged barrier of care in this population. Providing education, in particular pharmacology education, to nurses for palliative and EOL patients can eliminate the gap between palliative care guidelines and care delivery leading to an increase in quality of life for these patients and their families, resulting in a peaceful EOL experience.

The education can provide the nurses with a better understanding of the medications and the doses commonly used in this specific patient population which can give rise to improved symptom management. Improved symptom management may lead to a more peaceful EOL experience.

## **Dissemination of Results**

Understanding and eliminating barriers to adequate palliative care from bedside nurses can improve the overall quality of EOL care this population receives. To reach the largest number of practitioners and make a significant impact, it is ideal for this research to be published in a medical journal such as the *American Journal of Hospice and Palliative Medicine*. Furthermore, utilizing the research to create continuing education courses for nurses on topics where they are needed will also be beneficial and create a positive change in patient care.

## **Theoretical Framework**

In 1998, Ruland and Moore created the Peaceful End of Life Theory. This theory demonstrates that by the patient not being in pain, experiencing comfort and dignity, being at peace, and maintaining a sense of closeness to significant others and family, the patient can ultimately achieve a peaceful end of life or “good death” (Ruland & Moore, 1998). The five parts to achieving a peaceful end of life are further broken down into multiple rectangles, describing how to obtain each main topic. The components include experiencing comfort, experiencing dignity and respect, having a closeness to significant others, being at peace, and not being in pain. To not achieve any one of the five steps may lead to the patient not succeeding in having a peaceful end of life process.

This theory was chosen because it is important to focus on care delivery to the patients so they achieve a peaceful EOL experience rather than concentrating on the discomfort of the healthcare team when caring for palliative care or EOL patients. When the healthcare team, specifically the nurse, understands the components that result in a peaceful death, they can strive to ensure that all five factors of the theory are met.

## **Project Questions**

The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test. By eliminating or decreasing nurses' anxiety when caring for this patient population, the palliative patients receive a higher quality of care and better symptom management. Studies have been done regarding nurses' anxiety related to dying patients, but are limited concerning medication administration in this specific population. This scholarly project strives to answer these questions:

- What is the current understanding among a group of registered nurses (RN) pertaining to palliative care and EOL patients?
- What is the current knowledge in nurses of palliative care and EOL patients before the education presentation?
- What is the knowledge in nurses of palliative care and EOL patients after the education presentation?
- What is the anxiety level registered nurses feel regarding medication administration and symptom management in palliative and end of life patients before and after the educational presentation?

## **Definitions**

The following terms are used throughout this paper with their corresponding definitions.

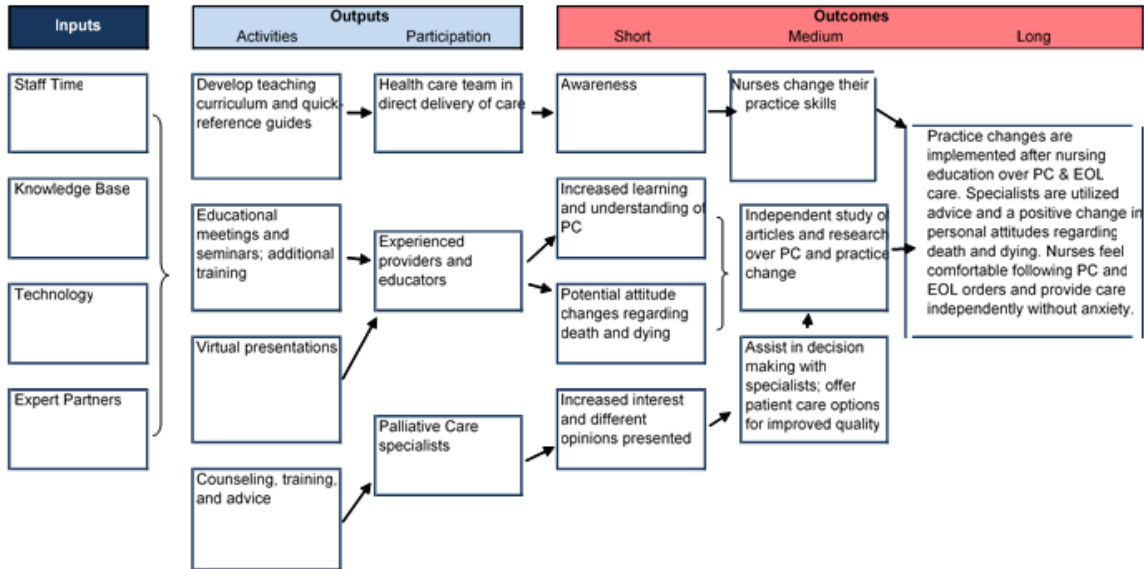
- Palliative Care as defined by The World Health Organization (2017) defines palliative care as “an approach that improves the quality of life of patients and their

families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”.

- End-of-Life Care is defined as “the term used to describe the support and medical care given during the time surrounding death. Such care does not happen only in the moments before breathing ceases and the heart stops beating. Older people often live with one or more chronic illnesses and need a lot of care for days, weeks, and even months before death” (National Institute on Aging, 2017).
- Knowledge is defined as the fact or condition of knowing something with familiarity gained through experience of association (Merriam-Webster.com, 2017).
- Registered Nurse is defined as a graduate nurse who has passed a state board examination and been registered and licensed to practice nursing (Dictionary.com, 2018).

## Logic Model

### Logic Model for The Value of Palliative Care and EOL Education in Nurses



The inputs utilized in the logic model for the value of palliative care and EOL education in nurses included staff time, knowledge base, technology, and expert partners. These are all important inputs that strongly effect the desired outcome. These four inputs would then be applied through the development of teaching curriculum and printing quick-reference guides for staff, virtual presentations for educational convenience, educational meets and seminars along with additional training, and counseling and advice from expert partners. The participation is dependent upon the healthcare team that is directly involved with care delivery, experienced providers and educators, and palliative care specialists.

There are many outcomes for this logic module, but the short outcomes include awareness about PC and EOL care including an increased learning and understanding of the topics. There is also a short term outcome of a personal attitude change towards a more positive understanding of death and dying. There is another outcome that focusing on

increased interest regarding the topics of PC and EOL where different opinions can be presented to open the providers' minds.

Moderate outcomes include nurses changing their practice skills and beginning to read research articles or similar material over PC and EOL due to piqued interest and a desire for more knowledge and understanding. Another outcome is nurses will provide input and converse with the specialists in order to improve the quality of care.

Lastly, the long term outcome is that practice changes are implemented after nursing education over PC and EOL care. Specialists are utilized for advice and a positive change in personal attitudes regarding death and dying. Nurses will also feel comfortable following PC and EOL orders and provide care independently without anxiety.

### **Summary**

Due to increased life expectancies, palliative care is a field that is constantly needed and growing. A known barrier to palliative care and quality care at the end-of-life is lack of education in the healthcare team; nurses in this field experience the perception of not having done enough, failure or incompetence, and even helplessness (Beng, et al., 2013, p.21). By assessing the education and anxiety of nurses caring for this population, these barriers and negative emotions and perceptions may be overcome so that patients could have peaceful EOL experiences complete with symptom management.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Introduction**

A literature review of palliative care resulted in defining the term, common symptoms seen in this patient population, and barriers to symptom management and quality of care. This review also provided studies focused on biological reasons for symptoms and the appropriate pharmacological measures to alleviate them.

The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test. The literature review was done using the search criteria of: palliative care, palliative care nursing, medications in palliative care, barriers to palliative care and symptoms and signs of death. The review also includes an analysis over the anxiety that nurses and providers experience when caring for palliative care or EOL patients. The World Health Organization (2017) defines palliative care as “an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”.



## **Palliative Care Consultation**

The majority of the research studies regarding palliative care were qualitative and agreed that as soon as a life-limiting or terminal illness is diagnosed, palliative care should be consulted or initiated (Callaway, 2012, p.637). These studies also provided barriers that could be contributing to delayed palliative care initiation. The studies focused on primary care providers and the challenges they faced in ordering palliative care in a timely manner. These challenges were identified as being a lack of communication about the patients' status and prognoses, quick treatment plan changes from curative to comfort measures only, an abundance of choices to offer to the terminal patient, lack of knowledge regarding scientific and cultural facts, and lack of appreciation for symbolism for artificial nutrition and resuscitation (Callaway, 2012, p. 634). It is commonplace practice that the patient's physician must be the one to enter orders for a palliative care consult. This allows the theory that if physicians are unaware of palliative care and its purpose, it may not be utilized. Once understood, healthcare providers would be able to identify the patient population who would benefit most from the treatment that is focused more on symptom management and control rather than curative therapy.

Palliative care teams are comprised of specialized physicians, advanced nurse practitioners, chaplains, and social workers. However, the primary care provider is perhaps the ideal person to address the patients and their families when it is time to consider palliative care due to their continuous interaction over long periods of time (McCormick, Chai & Meier, 2012, p.581).

## **Adult Palliative Care Symptoms**

A quantitative study (Singer, et al., 2015) focused on a patient population for 12 years, noted the symptoms that were experienced and how often they occurred. The study was further broken down into types of terminal illnesses and whether there was a correlation between their symptoms and their diagnosis. Other quantitative studies added more symptoms and their frequency as well. This particular study over 12 years identified these symptoms: depression, confusion, dyspnea, incontinence, severe fatigue, anorexia, vomiting, and pain (Singer et al., 2015, p.2).

Symptoms seen in actively dying patients includes depression, confusion, dyspnea, incontinence, severe fatigue, anorexia, vomiting, and pain, which is considered to be the most distressing symptom for both the patient and family members (Singer, et al., 2015, p.2). Additional symptoms include anxiety, bleeding, coughing or rattling, neurological symptoms, and occasionally pruritus (Knops, Kremer & Verhagen, 2015, p. 3). These symptoms are typically seen towards the end of life whether it be from a disease process or a traumatic event.

As the human body progresses towards death, particular symptoms are seen within the last two weeks of life. Such symptoms include abdominal swelling or ascites, agitation, delirium, or restlessness, lethargy, excess respiratory secretions which produce the “death rattle”, skin integrity problems such as foul smelling wounds, sores, and decubitus ulcers, sleep problems, and asthenia (Kehl & Kowalkowski, 2013, p. 604, 610).

These symptoms, but not every symptom, will be seen in each actively dying patient whether they are within days or minutes of death. This is a definite healthcare scenario due to biochemical changes, brain pressure alterations, hepatic and renal impairment,

emotional and psychosocial changes, and even alterations in the gastrointestinal system (Nunn, 2014, p.340).

### **Medications Used in Palliative Care**

There are a variety of medications that have been found to help the symptoms experienced by actively dying patients. Haloperidol, chlorpromazine, dexamethasone, glycopyrrolate, hydromorphone, and morphine are frequently prescribed for PC patients (Kwon, et al., 2017, p.6). These medications are considered to be “off-label”, meaning they are not approved by the Federal Drug Administration (FDA) and their doses and forms are not regulated. “On-label” medications’ doses, forms, and labels are FDA-approved (Kwon, et al., 2017, p.2)

The uses for off-label medications to control symptoms varies based on the patient’s disease process and natural progression towards EOL. Haloperidol is utilized for delirium, insomnia, anxiety, nausea, and vomiting. Chlorpromazine is ideal for delirium, anxiety, and insomnia. Dexamethasone has strong data to prove its effectiveness at treating bone pain, nausea, vomiting, increasing appetite, spinal cord compression, and bowel obstruction. Glycopyrrolate is used for excess secretions, but also serves another purpose of limiting dyspnea when combined with morphine and hydromorphone (Kwon, et al., 2017, p.5-6).

On-label medication classes used for PC patients include opioids, benzodiazepines, bronchodilators, metoclopramide, laxatives, and H2 receptor blockers. These are efficient for the treatment or symptom relief of pain, seizures, dyspnea, nausea, vomiting, constipation, and gastrointestinal prophylaxis (Kwon, et al., 2017). However, with the majority of medications provided in the PC population being off-label, there are no set

doses. Therefore, it is the provider's discretion to order the appropriate amount for the patient.

As patients enter the actively dying process and near the end of life, medication administration becomes more limited. Palliative care medications are given orally (solid or liquid), subcutaneous, and transdermal (Masman, Van Dijk, Tibboel, Barr & Mathot, 2015). When patients have transitioned into the unconscious stage of actively dying, subcutaneous, transdermal, and buccal medications are needed. Subcutaneous medication delivered through a continuous infusion device can provide continued management of symptoms while removing the need for repeated oral medication administration or injections at the end of life (Centre for Palliative Care Research and Education, 2010).

### **Palliative Care Benefits**

Palliative care improves the quality of life of terminal patients and their families. Early identification, correct assessment and treatment of pain and other problems such as physical, psychosocial, or spiritual all help to prevent and relieve suffering (WHO, 2017). Palliative care also lowers costs, improves patients' moods, and provides patient empowerment (McCormick, Chai & Meier, 2012).

Utilizing palliative care in those with multiple comorbidities (two-three diagnoses) was found to reduce the cost by 22 percent. Those with four or more comorbidity diagnoses were found to have a cost reduction of 32 percent when palliative care is consulted. With 2/3 of Medicare recipients having multiple comorbidities, the amount of money saved is astronomical (May, et al., 2016).

### **Palliative Care Nursing**

Nurses are frequently exposed to death and dying in their profession, but their personal attitudes and beliefs can negatively impact their quality of care delivery when tending to this population. People develop their thoughts on death based on personal, cultural, social, and philosophical beliefs. However, experiencing a dying patient or caring for one ultimately leads the nurse to contemplate his/her own mortality, often times increasing anxiety that the nurse feels when caring for this patient (Peters, et al., 2013).

After physicians, the nurses are the most valuable palliative care team members who address the physical, functional, social, and spiritual dimensions of care and it is often difficult for nurses to care for the dying patient when it contraindicates the ultimate goal of saving all patients from death. It is especially trying in a setting where a majority of patients have acute illnesses and the nurse will see healing during most shifts. However, through educational presentations for nurses, improvement in knowledge attainment and a decrease in anxiety was seen (Hutchison & Sherman, 1992).

It is not unusual for nurses dealing with palliative patients to struggle with initiating and providing palliative care and feeling the perception of not having done enough, failure or incompetence, and even helplessness (Beng, et al., 2013). Personal expectations, emotional involvement, coping, and thoughts of death and dying are some of the barriers nurses face.

### **Barriers to Palliative Care**

Multiple barriers exist, keeping patients from receiving palliative care during the necessary time. The first barrier is a misunderstanding about what palliative care actually entails. Many providers as well as patient families believe that PC is for only dying patients. However, PC can be incorporated into care plans in all medical settings. Providers

occasionally have the belief that if they consult PC, they are “giving up” on or sentencing the patient to succumb to their disease process, but through education that can be remedied (Perrin & Kazanowski, 2015).

The terminology itself regarding PC or hospice can be confusing to patients and their families as well. Some may have the preconceived notion that hospice can only be provided inpatient or at skilled nursing facilities. There is also the fear once PC is brought up, it means all life-prolonging treatments such as chemotherapy, radiation, transfusions, and antibiotics will be rescinded (McAteer & Wellbery, 2013).

The next barrier is the anxiety providers face when initiating the conversation regarding PC with the patient and their families. The uncomfortableness that providers feel surrounding the issue of PC leads to conversations with the patients and their loved ones that are short, uninformative, and ineffective (Perrin & Kazanowski, 2015). This apprehension results in patients not receiving the care and support required during specific life stages such as unmanageable pain from injuries or chronic illness and the EOL course.

Culture is another barrier to PC, whether it be the culture of the patient, family, or healthcare setting. Culture of the healthcare setting is best described as having the optimistic perception that technology that’s readily available can be utilized to bring the patient back to life and sometimes even to health (Perrin & Kazanowski, 2015). Culturally-based misconceptions about what’s happening with the patient’s health and the idea of PC may exist. This includes thoughts that illness is punishment or attacks by evil spirits.

Mistrust of healthcare professionals and the perception that hospice is economically motivated may be present among some terminally ill patients and their families. While this can be seen as a way of denial, anger, or coping in the grieving process, it should always

be explained that the cost of hospice is likely equal to that of usual care or even donated if patients are uninsured (McAteer & Wellbery, 2013). This may be observed if the patient and family has received multiple consults or prognoses.

The last notable barrier is prognostic uncertainty which leads to a false sense of optimism regarding decision making. Prognostic uncertainty includes an unpredictable disease process with periods of the patient experiencing increases as well as declines in health, provider overestimation of life expectancy, and the patient, their families, and providers having a bias towards optimism with reference to health (McAteer & Wellbery, 2013).

### **Solutions to Overcome Barriers to Palliative Care**

Overcoming the barriers to PC is just as important as initially identifying them. Nurses can play a critical role in recognizing if their patients should have consultations with palliative care, thus decreasing patient suffering and improving patient outcomes. Bedside nurses have the ability to become PC champions, meaning they understand their patients meet a certain criteria such as being in critical care for seven days to two months to qualify for the minimum of a PC consultation. Once the consultation has taken place, the nurse can then focus on meeting the newly defined patient outcomes which help to decrease the high-levels of stress that nurses feel when making EOL decisions for this population (Perrin & Kazanwoski, 2015).

By having PC nursing champions, nurses can educate other providers and families about PC and its appropriateness. This leads to early discussion of goals of care with patients and families. The education provided can lead to better patient outcomes from symptom management, improved quality of care once the focus changes, and ensuring that

a consistent message of prognoses is presented to the patient and their family (Perrin & Kazanwoski, 2015).

In regards to confusion about PC and hospice care terminology, misperceptions about intent and scope of hospice care, and fear that PC or hospice is “speeding up” the dying process, decisions should be presented as being flexible and made by the hospice company or PC team with the patient, family members, and primary care physician (McAteer & Wellbery, 2013). This also helps the patient and family members feel included in the discussion concerning healthcare and care plans.

PC teams can educate physicians about the natural paths that diseases take, prognoses, indicator tools, and current hospice admission guidelines. Indicator tools include the Palliative Prognostic Score and Flaker Mortality Score as well as disease-specific tools. This is necessary for all patients with terminal illnesses whether it be cancer or noncancer diagnoses. This results in early, effective, and clear communication with the patients and their families. With that being said, the education provided can help patients and physicians set aside their optimism bias to accurately determine what the goals of care and advance care planning should be (McAteer & Wellbery, 2013).

Hospitals and inpatient care facilities would benefit from having protocols that are “triggered” based on patient characteristics such as repeated or lengthy hospital stays, cognitive or functional decline, uncontrolled pain, and emotional distress. This also helps remove some of the burden on healthcare providers to recognize PC or hospice-qualifying patients once they are placed on their patient rosters (McAteer & Wellbery, 2013). By having the protocols, the providers also feel as though they are not being pessimistic or crossing boundaries by initiating the tough conversation of PC or hospice care.



Another example of a protocol to overcome the barriers to PC involves incorporating PC into standard of care and each visit that the terminally ill patient makes to outpatient as well as inpatient settings. This includes stating the prognosis at the initial visit and appointing someone in the facility to ensure that advance directives are discussed and initiated. Also included is scheduling a hospice information visit within the first three visits and offering to discuss prognoses again, coping strategies, and goals of care (McAteer & Wellbery, 2013).

### **Knowledge Limitations**

There is a misconception that palliative care is used only when patients are terminal. However, palliative care can also be used for acute patients with uncontrolled symptoms, such as pain or nausea and vomiting. To understand palliative care, one must know that it does not refer to hospice patients, which are patients with a prognosis of six months or less (National Hospice and Palliative Care Organization [NHPCO], 2018). Hospice patients' care is often focused on EOL care and maximizing comfort by symptom control and quality of life. This misconception is not just seen in the healthcare team, but also in patients and their families.

Knowledge achievement regarding palliative and EOL care is especially important in the healthcare team members. Patient's wishes can be met and quality of life can be improved by avoiding potentially life-prolonging treatments if that is not what the patient desires. Due to this knowledge limitation, dying patients may not receive supportive or even adequate care.

A study from 2012 indicated that after surveying nurses regarding palliative care that they were most proficient in psychological needs of this population, but very limited

in basic EOL care knowledge, pain, and symptom management in EOL patients (Prem, et al., 2012).

Licensed registered nurses and healthcare providers are not alone in the struggle with understanding and applying palliative and EOC. A study in 2012 found EOL education adversely affected nursing student attitudes by increasing awareness of the scope or EOL and enhanced their competency and abilities to care for this population (Mutto, Cantoni, Rabhansl, & Villar, 2012). With that being said, education may solve this dilemma by preparing the student nurses to provide safe, competent, evidence-based, and compassionate care that encourages a peaceful death (Lippe, Jones, Becker & Carter, 2017).

### **Summary**

Humans have been faced with end-of-life experiences since the beginning of time. That being said, we know there are a variety of symptoms that dying individuals will experience. We know they will experience these symptoms due to multiple biological changes that occur in the body at the end of life. We also know which symptoms will guide us towards a more definitive timeline of when to expect a patient to pass away.

Throughout this literature review process, we have also discovered barriers that have been identified in key factors for keeping patients with life-limiting illnesses or poor prognoses from receiving palliative care in a timely manner. Those barriers can be handled with education and organization. Other barriers such as limited access to care will require much more planning and implementing in the future.

Nurses maintain their position as being second in command pertaining to patient care and acknowledgement of palliative care patients and when the specialty is

necessitated. Patients will continue to die as a part of the human life cycle and we are being faced with the largest group of elderly patients ever in U.S. history. Therefore, EOL care will be ever-present and even growing throughout the next decade or more.

## **CHAPTER III**

### **METHODOLOGY**

#### **Introduction**

The subject of palliative care is not well-known and even taboo in many parts of the world even today. The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test. By understanding the barriers that cause anxiety for the nurses or education needs, thus unintentionally creating less-than-ideal care, addressing those issues becomes vital to improving quality of care for palliative patients.

#### **Design**

For this study, a multimethodology, cross-sectional study design was used. The main instrument applied was the Palliative Care Knowledge Test (PCKT) in the form of a pre-test through the learning management system Canvas. An educational PowerPoint was included for participants regarding palliative care and the medications used for the main symptoms experienced during EOL. A post-test survey was also administered via Canvas which then allowed quantitative and qualitative data to be collected. The design of this questionnaire was to assess palliative care knowledge in the Registered Nurse to Bachelor

of Science in Nursing (RN-BSN) student as well as their opinions and beliefs regarding the subject through open-ended and true/false questions. The quantitative data from the post-test administration was used to determine if the educational presentation changed the nursing students' opinions, beliefs, and comfort level with PC. Quantitative data was also used to observe if the knowledge of PC has increased in the students. Statistical analysis was then utilized with the quantitative data results.

Preceding the educational PowerPoint, the pre-test was given to the nursing students to determine their current knowledge regarding PC and their opinions and beliefs about EOL care. Basic demographics were also collected during this phase. The post-test asked similar questions pertaining to the participants' knowledge over PC, EOL care opinions and beliefs, and added questions inquiring if the participant felt the educational presentation had any effect on their knowledge or views of PC.

### **Sampling**

This project was implemented through the learning management system Canvas at Pittsburg State University in Pittsburg, Kansas. The participants were currently enrolled in the RN-BSN curriculum. These nurses are already licensed and are actively working. The demographic information collected included age, gender, area of nursing practice, number of years experience, state of current nursing practice, and if the RN has received palliative care education.

Inclusion criteria included male and female nurses, ages 20-65 years of age, currently enrolled in Pittsburg State University's RN to BSN program and licensed registered nurses. Exclusion criteria included LPNs and non-English speaking nurses.

Recruitment was done through a Canvas announcement to the RN to BSN students. Data was collected through the Fall of 2018.

### **Instrumentation**

The palliative care knowledge test was used to assess RN's knowledge before and after the educational intervention. The PCKT was created in Japan by Yoki Nakazawa and five other research experts in 2009 and used to evaluate palliative care knowledge for healthcare providers, including nurses and physicians. The creators ventured to design a questionnaire that would not only identify most commonly seen symptoms in palliative care such as pain, but also those that are less commonly experienced, such as hiccups. They also desired to create an instrument that would be more in conjunction with the WHO definition of palliative care.

Ultimately, the study used 26 items in five domains which included philosophy, pain, dyspnea, psychiatric problems, and gastrointestinal problems (Nakazawa, et al., 2009). The authors found the PCKT to have established validity and reliability. The PCKT's Kuder-Richardson Formula 20 (KR-20) index of internal consistency was 0.81, re-test examination 0.88 overall and from 0.61 to 0.82 in each domain as well as intra-class correlation in the test (Nakazawa et al., 2009). This means that the dichotomous questionnaire has a considerably reliable internal consistency. A score of 0.7-1.0 is considered "extremely reliable" which means if you were to re-administer the questionnaire to another similar group of RNs, the results would have a high likelihood of being comparable to the previous results (Schoening, 2012).

As previously mentioned, the five domains of philosophy, pain, dyspnea, psychiatric problems, and gastrointestinal problems were all addressed in the study, but the

researchers did this by using seven open-ended questions which allowed nurses and physicians to prove their education on palliative care and their honest opinions. The PCKT is listed in Appendix A.

To further increase the preciseness of the study, a demographic survey was included with the PCKT gathering age, gender, current state of practice, clinical area of work, years of clinical practice, and previous education on palliative care. The demographics are listed in Appendix B.

The educational PowerPoint Presentation provided through the learning management system Canvas offered knowledge over PC, the medications used for EOL patients and the symptoms they control. The audio script used in the educational presentation is listed in Appendix C. The post-test which included specific questions from the PCKT as well as questions that assessed if the participants found the educational presentation useful in the sense of increasing their knowledge and changed their opinions regarding PC. The post-test questionnaire is listed in Appendix D.

After the participants took the pre-test, listened to the educational presentation, and answered the post-test, a pamphlet was provided. The pamphlet provided basic education regarding palliative care including when a patient and their families may benefit from utilizing those services. A copy of the pamphlet is listed in Appendix E.

## **Procedure**

The Institutional Review Board (IRB) provides a checklist to help determine if a study will be exempt or need further approval. The checklist qualifies this study as exempt. The study is exempt through the use of participants over 18 years of age and includes no vulnerable population. There are no identified risks by partaking in the pre-test and post-

test. After a presentation to a Scholarly Project Committee Board, an IRB application was submitted to the Pittsburg State University Committee for the Protection of Human Research Subject (CPHRS) and was approved for exempt status.

Before each pre-test was initiated, instructions for pre-test and post-test completion was provided as well as a consent form that described risks and benefits of participation, assurance of confidentiality, and contact information for the researcher. Implied consent was obtained if the participants submitted data to the study. Results of the study will be kept for a minimum of three years in a protected file and then deleted from the hard drive.

### **Analysis Plan**

The data regarding palliative care education and anxiety contributors were analyzed by calculating the percentage of true/false questions and identifying recurring answers during the open-ended portion of the questionnaire. Identifying the areas of weakness, strengths, and particular themes in palliative care as sources of anxiety for nurses through true/false questions and open-ended questions is vital to the research. After the educational information was presented, the post-test was administered. The answers of the post-test were analyzed similarly to the pre-test by calculating the percentage of true/false questions and identifying areas of weaknesses and strengths that these RN to BSN students possess.

### **Assumptions**

The first assumption in the study was all subjects would remain anonymous and confidential and that they could choose to opt-out of the study at any time. Another assumption was all participants are at a reading level where they understand and can answer the questionnaire. While the creators of the PCKT questionnaire used their instrument in Japan, it is assumed that it is also applicable to nurses within the United States. The last



assumption was all participants will answer each question to the best of their ability, are honest and forthcoming, and that they have a basic knowledge of palliative care, but it doesn't have to be in-depth understanding.

### **Limitations**

Limitations to the study included personal beliefs and previous experiences surrounding palliative care. Positive and negative experiences could interact with the data and create higher or lower senses of anxiety. Another limitation was the sample size due to participation not being mandatory in any way. If this were an employer-issued survey, there would more than likely be a higher number of participants.

The subject of death appears to be taboo in the Midwestern United States as evidenced by lack of education on the subject in collegiate mandated introductory psychology curriculum which therefore may limit the results compared to if there was another location where death is easily discussed, educated about, and the same questionnaires administered (Eckerd, 2009).

### **Delimitations**

A more narrow approach to the study could benefit specific locations based on educational needs identified through the questionnaire. Due to time and legal constraints, no specific hospital was eligible for utilization in this study, therefore the demographics did not include employer names, but rather only states where the nurses are currently employed.

Administering the questionnaire via Canvas allowed for immediate computed results and decreased the potential for human error if the researcher were to conduct

interviews with the participants. As previously mentioned, it also maintained the confidentiality of each participant as promised at the beginning of each survey.

### **Summary**

Nurses have a very important role in caring for EOL of patients and their families. Previous studies have shown that many nurses and even providers feel that they have a lack of knowledge on PC, thus making them uncomfortable in caring for this specific patient population. The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test.

The results of this study were analyzed to determine if providing PC education to nurses will have an impact on their knowledge on the subject as well as their opinions or beliefs on EOL care. The results of the study will be discussed in Chapter IV.

## **CHAPTER IV**

### **RESULTS**

#### **Introduction**

The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test. By eliminating or decreasing nurses' anxiety when caring for this patient population, the palliative patients receive a higher quality of care and better symptom management. This scholarly project strives to answer these questions: What is the current understanding among a group of registered nurses pertaining to palliative care and EOL patients? What is the current knowledge in nurses of palliative care and EOL patients before the education presentation? What is the knowledge in nurses of palliative care and EOL patients after the education presentation? What is the anxiety level registered nurses feel regarding medication administration and symptom management in palliative and end of life patients before and after the educational presentation?

#### **Demographics**

The total number of participants was 18 nurses from the RN-BSN Program at Pittsburg State University. These nurses were already licensed and actively working. The demographic information collected included age, gender, area of nursing practice, number

of years experience, state of current nursing practice, and if the RN had received palliative care education.

Inclusion criteria included male and female nurses, ages 20-65 years of age, currently enrolled in Pittsburg State University's RN to BSN program and licensed registered nurses. Exclusion criteria included LPNs and non-English speaking nurses. Recruitment was accomplished through a Canvas announcement to the RN to BSN students. Data was collected through the Fall of 2018 over a course of three weeks.

One hundred percent of the respondents were female. Eleven percent of the respondents were 20-29 years old, thirty-three percent were 30-39 years old, forty-four percent were 40-49 years old, and eleven percent were 50-59 years old. The clinical areas of the participants were largely split between medical surgical and emergency department with both departments having twenty eight percent. Eleven percent of respondents worked in intensive care as well as eleven percent were employed in labor and delivery. Six percent of participants worked in stroke units and another six percent worked in neonatal intensive care unit (NICU).

There was a large variety of years of clinical experience. Twenty-eight percent had three years or less of clinical experience. Seventeen percent had 4-8 years of experience. Twenty-eight percent had 9-14 years of experience. Seventeen percent of respondents had 15-20 years of clinical experience. Eleven percent of participants had over 20 years of clinical experience.

The majority of the respondents with sixty seven percent said they had never received previous palliative care education, whereas thirty three percent said they had prior palliative care education. Only three states were represented in this study and most of the

participants were from Kansas with seventy two percent. Missouri was the second most common state of practice with forty four percent. Six percent of the participants were from Oklahoma. Please refer to Table 1 for the characteristics of the respondents.

**Table 1. Demographics of Respondents (N=18)**

Characteristics	N	%
Gender		
Male	0	0
Female	18	100
Age		
20-29	2	11
30-39	6	33
40-49	8	44
50-59	2	11
Clinical Area		
Intensive Care	2	11
Medical Surgical	5	28
Oncology	0	0
Stroke	1	6
NICU	1	6
ED	5	28
Labor & Delivery	2	11
No answer	2	11
Duration of Clinical Experience		
<3 years	5	28
4-8 years	3	17
9-14 years	5	28
15-20 years	3	17
>20 years	2	11
Previous Palliative Care Education		
Yes	6	33
No	12	67
State of Current Nursing Practice		
Kansas	13	72
Missouri	8	44
Oklahoma	1	6

## **Quantitative Results**

### **Pretest**

The pretest questionnaire provided 19 true or false questions. Twelve questions were answered correctly with a response rate of 50% or more. This analysis showed the participants had a strong knowledge foundation regarding when palliative care is appropriate with seventy eight percent agreeing that palliative care should be offered when no other curative treatments are available as well as seventy two percent that believed palliative care could be provided in conjunction with anti-cancer, but not curative treatments. The goals that are desired while a patient is in palliative care were recognized with seventy two percent believing a good night's sleep is a goal to be achieved while on palliative care services. Comfort care associated with medications such as IV fluids were areas of poor understanding for the respondents. Seventeen percent voiced corrected electrolyte imbalances experienced in the last few days of life would help to eliminate patient discomfort.

Use of other medications such as anticholinergic drugs and steroids were moderately correctly identified with sixty seven percent of respondents agreeing steroids should be used to increase appetite in cancer patients, but sixty seven percent voiced that caloric needs in the terminal stages of cancer is decreased. One hundred percent of participants knew that anticholinergics are useful in alleviating bronchial secretions in the actively dying patient.

There was a lack in knowledge regarding opioid or pain management in palliative care based on the responses to the questionnaire. One hundred percent of participants stated long-term use of opioids leads to addiction. Twenty two percent of the respondents

understood that naproxen is not an appropriate therapy for mild cancer pain when opioids are available. Exactly half or fifty percent of the respondents incorrectly believed that opioids influenced survival time, but ninety-four percent understood that morphine helps relieve dyspnea in cancer patients. Fifty six percent believed that oxygen saturation levels are correlated with dyspnea and forty four percent believed that when opioids are taken on a regular basis, respiratory depression will be common. These results regarding pain management and dyspnea showed areas of improvement that are necessary for education to eliminate these factors in the palliative care setting. See Table 2 for the item analysis from the palliative care knowledge pretest and percentage of correct responses.

**Table 2**      **Item analysis of the palliative care knowledge pretest (n=18)**

Questions		Correct Answer	Correct Answer (%)
Philosophy			
1	Palliative care should only be provided for patients who have no curative treatments available	F	78
2	Palliative care should not be provided along with anti-cancer treatments	F	78
3	One of the goals of pain management is to get a good night's sleep	T	72
4	When cancer pain is mild, naproxen should be used more than an opioid	F	22
5	When opioids are taken on a regular basis, non-steroidal anti-inflammatory drugs should not be used	F	89
6	Long term use of opioids can often induce addiction	F	0
7	Use of opioids does not influence survival time	T	50
Dyspnea			
8	Morphine should be used to relieve dyspnea in cancer patients	T	94

9	When opioids are taken on a regular basis, respiratory depression will be common	F	44
10	Oxygen saturation levels are correlated with dyspnea	F	44
11	Anticholinergic drugs or scopolamine hydrobromide are effective for alleviating bronchial secretions of dying patients	T	100
Psychiatric			
12	During the last days of life, drowsiness associated with electrolyte imbalance should decrease patient discomfort	T	17
13	Benzodiazepines should be effective for controlling delirium	T	33
14	Some dying patients will require continuous sedation to alleviate suffering	T	89
15	Morphine is often a cause of delirium in terminally ill patients	F	44
Gastrointestinal			
16	At terminal stages of cancer, higher caloric intake is needed compared to earlier stages	F	67
17	There is no route except central venous for patients unable to maintain a peripheral IV	F	89
18	Steroids should be used to improve appetite among patients with advanced cancer	T	67
19	Intravenous infusion will not be effective for alleviating dry mouth in dying patients	T	89

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N=18 T= True; F= False



## Posttest

For the posttest, 14 true or false questions were asked and 5 questions were open-ended or free response.

Table 3 Item analysis of the palliative care knowledge posttest (n=14)

Questions		Correct Answer	Correct Answer (%)
Philosophy			
1	Palliative care should only be provided for patients who have no curative treatments available	F	67
2	Palliative care is only for those with six months or less to live	F	78
3	One of the goals of pain management is to get a good night's sleep	T	67
4	When cancer pain is mild, naproxen should be used more often than an opioid	F	6
5	Long-term use of opioids can often induce addiction	F	11
6	Use of opioids does not influence survival time	T	28
Dyspnea			
7	Morphine should be used to relieve dyspnea in terminal patients	T	61
8	Oxygen saturation levels are correlated with dyspnea	F	50
9	Anticholinergic drugs or scopolamine are effective for alleviating bronchial secretions of dying patients	T	72
10	Benzodiazepines should be effective for controlling delirium.	T	28
11	Some dying patients will require continuous sedation to alleviate suffering	T	67
Psychiatric			
12	Morphine is often a cause of delirium in terminally ill patients	F	22
Presentation Evaluation			

13	This presentation enhanced your knowledge of palliative care	T	61
14	This presentation decreased your hesitation in caring for palliative care patients	T	50

### **Qualitative Results**

There were 13 open-ended or qualitative questions between the pre and posttest questionnaires. The response rate was higher in the pretest than the posttest. There were many recurring themes in each question. The following are the recurring themes and direct quotes divided between pretest and posttest from participants.

#### **Pretest**

##### **List indicators where palliative care could be initiated. (n=18)**

There were 18 respondents to this question. The correct answer is that palliative care can be initiated whenever a life-limiting, chronic, or progressive disease diagnoses has been made. Recurring themes identified in this question included end-of-life care, patient requests, uncontrolled pain, and progressive diseases. Seven participants believed that end-of-life care or a terminal diagnosis is an indicator to initiate palliative care. Eight respondents felt that chronic or uncontrolled pain were adequate indicators.

##### **What curative measures can be provided in conjunction with palliative care? (n=18)**

Eighteen participants responded to this question. No curative measures should be stopped when receiving palliative care. Recurrent themes included cancer treatment, surgical procedures, and therapies that provide comfort such as thoracentesis or

dialysis. Sixteen respondents believed that any measures that would result in palliation were warranted to be used in conjunction with palliative care.

**What do you think the goal of pain management should be, as it relates to palliative care? (n=18)**

All eighteen respondents believed that the goal of pain management should be to achieve the most comfort and highest quality of life for the patient. One nurse voiced “Every person has a right to live as pain-free as possible. If the pain is able to be controlled, every measure should be taken to do so.” Another nurse stated “Pain should be kept at a tolerable level so that it does not interfere with activities of daily living or socialization.”

**What do you feel is the biggest barrier in providing palliative care? (n=18)**

Eighteen participants stated healthcare staffs’ lack of knowledge regarding palliative care, fear and misperception of the term “palliative care” by the general public as well as staff, and inadequate communication were all barriers to palliative care. Another recurring theme was the feeling of “giving up” on patients and their diagnoses. The following are multiple responses from participants.

“A majority of people think that palliative care means no more medical care other than providing end-of-life care. They think the person can't go to the hospital or be treated for any other health issues.”

“Doctors for some reason never bring it up. It tends to be left up to nurses to suggest to the doctors. When it is brought up, the family tends to think that we are writing off the patient and are just giving up and letting them die. The patient is fearful as well as the family.”

“Differences of opinions on such a serious subject often dealing with end of life. Many may see this as giving up and that is hard for some to accept.”

“Patients or their families may have a misunderstanding of palliative care and believe it to be more hospice care and think it is only available if the patient is near death. One of the most common misunderstandings are they don't realize they can have pain relief. Often the palliative plan is not shared with the entire team and that leads to a lack of communication between caregivers.”

**What is the effect on the dying process when you administer pain or psychiatric medications? (n=18)**

Recurring themes for this question included relief of pain and suffering, providing dignity at the end-of-life, and that medications do not hasten or delay the dying process. One nurse stated “I feel the effect of these drugs help the patient to relax and become welcoming to the death process. It is my experience that they are so overwhelmed by the pain that they cannot process the death effectively. By helping the patient to relax and focus only on the spiritual and mental aspect of the process they are welcoming death without anxiety.”

Another nurse responded “I feel that there is a very fine line between controlling a dying patient's pain and other symptoms of dying and using those medications so liberally that you actively contribute to the dying process. When I am in these situations with a dying patient, I really examine the reason that I am administering a pain or psychiatric medication. At the end of the day, I have to live with a conscience that is in agreement that I administered these medications because the patient truly needed them and not to speed-up the dying process.”

**Do you feel adequately prepared to talk to patients and their families about palliative care? (n=18)**

Eighteen participants responded to this question with three respondents feeling as though they could adequately talk to patients and their families about palliative care. Eight nurses believed they would feel more prepared if they had more education on the topic. One nurse stated that it should not be their place to have such conversations with the patients and families, but the provider. Six nurses felt they would never be prepared to talk to patients and families about palliative care.

**What effect does tube feeding have on a person who is on palliative care? (n=18)**

There were a variety of responses from participants regarding this question. Prolonging the dying process, alleviate hunger, maintains nutrition, and causes discomfort were the recurring themes. The following are responses from the participants.

“Tube feeding itself can be a miserable process. It can make the person's pain levels elevate and their motivation to keep fighting decrease. However, it is necessary to ensure the patient has sufficient nutrients available to keep living.”

“I believe it can support the patient for a while throughout treatment, however it can cause more discomfort in the end of life stages.”

“I feel that once a tube feeding has been placed, it needs to be used even in the terminal palliative care situation for as long as the patient is physically tolerating the feedings. In my mind, this changes if it is causing the patient severe discomfort, nausea, or any other symptom that becomes intolerable. I feel that the effect on the patient is to give them the feeling that they are still participating in a basic human activity. The route may

be different, but humans must have nutritional intake to survive. Patients on terminal palliative care still eat if they are physically able, so I would not feel right about withholding nutrition from a patient with a feeding tube simply because they are on palliative care.”

**Please rate your anxiety level when caring for palliative care patients on a scale from 1-5. 1= very uncomfortable 2 = uncomfortable 3= neutral 4= comfortable 5= very comfortable. (n=18)**

Eighteen nurses responded to this question and seven rated their anxiety level at a 5 or “very comfortable”. One nurse felt “comfortable” and five nurses felt “neutral” regarding caring for palliative care patients. Two nurses felt “uncomfortable” and one nurse was “very uncomfortable” in caring for this population.

#### **Posttest**

**List indicators where palliative care could be initiated. (n=14)**

Out of the fourteen responses to this question, the recurring themes were chronic or terminal diagnoses, pain management, and providing psychosocial or spiritual support. Seven respondents specifically stated that palliative care should be initiated when a diagnosis has been made that is ultimately fatal. Six nurses agreed palliative care could be initiated when symptom management is necessary from other treatments or procedures such as chemotherapy.

**What do you think the goal of pain management should be, as it relates to palliative care? (n=14)**

Fourteen nurses believed that the goal of pain management should be to completely eliminate pain or to make pain bearable for the patient to have the best quality

of life. Three nurses felt the goal of pain management should be for the patient to be able to achieve independent activities of daily living. One nurse stated that the goal of pain management should be to get the patient back to their baseline prior to their terminal diagnosis.

**What do you feel is the biggest barrier in providing palliative care? (n=14)**

Eight of the fourteen respondents believed that education of staff, patient, and families continues to be the biggest barrier in providing palliative care. The remaining recurring themes included getting orders for palliative care from providers and emotional or cultural issues that prevented open communication.

**What do you feel is the effect on the dying process when you administer pain or psychiatric medications? (n=12)**

Twelve nurses responded to this question and all twelve felt that administering pain or psychiatric medications helped to alleviate suffering and made the dying process more smooth. One nurse stated “Pain medication allows the patient to tolerate the pain so they can tolerate the activities of life while trying to make the most of the situation. Pain medication gives them increases the quality of time they spend with family. Quantity is not key; quality is. Patients are depressed about dying so an antidepressant may aid with alleviating some of the depression.”

**Do you feel adequately prepared to talk to patients and their families about palliative care? Why or why not? (n=13)**

Seven of the thirteen nurses who participated felt that they continued to remain inadequately prepared to talk with patients and their families regarding palliative care. Two nurses felt that they “might” feel adequate but would like more information and

education before attempting such discussions. The two remaining nurses believed they were prepared in talking with patients and family members about palliative care whether due to previous experience or having received sufficient education on the subject.

**Please rate your anxiety level when caring for palliative care patients on a scale from 1-5. 1= very uncomfortable 2 = uncomfortable 3= neutral 4= comfortable 5= very comfortable. (n=14)**

Fourteen nurses responded to this question and six of the nurses stated they were “very comfortable” when caring for the palliative care population. Two nurses believed they were “comfortable” with the idea and four were “neutral”. One nurse felt “uncomfortable” as well as one other nurse who felt “very uncomfortable”.

### **Knowledge Gain**

A mixed-method design was utilized for this project to assess the knowledge and attitudes of registered nurses regarding palliative care. The quantitative portion uncovered a lack of knowledge regarding opioid-use and pain management in this patient population as well as what procedures or treatments will or won't increase survival time. The qualitative portion revealed a need for education in nursing about palliative care, terminology related to palliative care, and overall goals of palliative care.

### **Summary**

This chapter focused on the findings of the pre and posttest questionnaires, quantitative, and qualitative responses. A need for education about pain management, palliative care and its definition, therapies that prolong the dying process and when palliative care is warranted were all identified throughout this analysis of the findings. The significance of these findings will be discussed in chapter five.



## **CHAPTER V**

### **DISCUSSION OF FINDINGS AND CONCLUSION**

#### **Introduction**

The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. In addition, a resource guide on palliative care and the medications often ordered during this time was provided to the nurses following the post-test. By eliminating or decreasing nurses' anxiety when caring for this patient population, the palliative patients receive a higher quality of care and better symptom management.

This scholarly project strives to answer these questions: What is the current understanding among a group of registered nurses pertaining to palliative care and EOL patients? What is the current knowledge in nurses of palliative care and EOL patients before the education presentation? What is the knowledge in nurses of palliative care and EOL patients after the education presentation? What is the anxiety level registered nurses feel regarding medication administration and symptom management in palliative and end of life patients before and after the educational presentation?

#### **Research Outcomes**

**What is the current understanding among a group of registered nurses pertaining to palliative care and EOL patients?**

The pretest evaluated the registered nurses' current understanding of palliative and EOL patients through the question of "Please list some indicators that palliative care could be initiated." The hypothesis was there would be some understanding regarding palliative care and end of life, but nothing in depth due to it being a relatively new field. The majority (78%) of the respondents understood that palliative care and EOL care should be initiated when a terminal diagnosis has been made and seventy two percent grasped the concept that palliative care could be provided in conjunction with anti-cancer or comfort measure treatments.

**What is the current knowledge in nurses of palliative care and EOL patients before the education presentation?**

The current knowledge of the responding registered nurses regarding palliative care and end of life patients before the educational presentation was assessed through a variety of true/false and open-ended questions. These questions showed a lack of knowledge pertaining to opioids and pain management for this patient population as well as barriers to understanding what measures will and will not prolong life. As previously mentioned, the respondents understood that palliative care and end of life care should be initiated after terminal diagnoses have been made. However, only thirty three percent acknowledged palliative care can be initiated for symptom management even without terminal diagnoses.

**What is the knowledge in nurses of palliative care and EOL patients after the education presentation?**

The knowledge of the registered nurses pertaining to palliative care and EOL patients after the educational presentation was assessed through a posttest with

sixteen repeated questions from the pretest and analyzed for any changes. The sample size of respondents decreased from eighteen to fourteen participants during the posttest which skewed the results when compared to the pretest. The data collected from the remaining respondents included an increase in knowledge specifically pertaining to opioid administration, symptom management, and when to initiate palliative care. Sixty one percent of the participants replied that this educational presentation increased their knowledge about palliative and EOL care. The hypothesis was that the knowledge would increase for this group of registered nurses after the educational presentation was provided. This hypothesis proved to be true for the majority of respondents.

**What is the anxiety level registered nurses feel regarding medication administration and symptom management in palliative and end of life patients before and after the educational presentation?**

The hypothesis of the anxiety level that nurses experience when providing medication and symptom management to palliative and end of life patients was that the majority of respondents would be uncomfortable with that aspect of care due to a knowledge barrier. This was assessed through a Likert-scale question which had the participants rate their comfort level. The scale was rated 1-5 with 1 being very uncomfortable, 2 uncomfortable, 3 neutral, 4 comfortable, and 5 very comfortable.

Before the educational presentation, eighteen nurses responded to this question and seven rated their anxiety level at a 5 or “very comfortable”. One nurse felt “comfortable” and five nurses felt “neutral” regarding caring for palliative care patients. Two nurses felt “uncomfortable” and one nurse was “very uncomfortable” in caring for this population.

After the educational presentation, fourteen nurses responded to this question and six of the nurses stated they were “very comfortable” when caring for the palliative care population. Two nurses believed they were “comfortable” with the idea and four were “neutral”. One nurse felt “uncomfortable” as well as one other nurse who felt “very uncomfortable”. Again, the decrease in sample size between the pre and posttest altered the results.

Thirty eight percent of the participants in the pretest being “very comfortable” in caring for a palliative care or EOL patient. After the educational presentation, that number increased to forty two percent. Two nurses felt uncomfortable in caring for this patient population according to the pretest. The posttest, or post-educational presentation, decreased this number down to one nurse feeling uncomfortable. This provides evidence that the hypothesis question was correct.

### **Observations**

Despite the decrease in sample size from the pretest to the posttest, this study was valuable. The educational presentation proved to be effective for increasing the knowledge in this particular group of registered nurses regarding palliative and EOL care. This project was also important in identifying areas of weakness that should be addressed for future palliative and EOL care education. A need for instruction about pain management, palliative care and its definition, therapies that prolonging the dying process and when palliative care is warranted were all identified as areas for improvement.

The instruments utilized in this study consisted of a pretest, a posttest, and an educational presentation. The assumption was that the pretest would reflect a knowledge deficiency about palliative and EOL care whereas a posttest would indicate an increase in

understanding in this field. The educational presentation was used to promote basic information about palliative and EOL care. The assumptions were correct and the instruments successful. However, it was not expected that there would be a difference in the number of respondents for the pre and posttest.

The majority of the respondents (56%) work in medical surgical or the emergency department. This is an interesting observation to make because these departments do not typically see end of life patients with the exception of hospice patients being admitted via the emergency department. With only eleven percent working in intensive care where end of life but not palliative care is common, it is not surprising to see such a knowledge deficiency. This could also explain why potentially eleven of the seventy eight percent of the respondents believed that palliative care is only initiated when a terminal diagnosis has been made. Reiteration that palliative care is not interchangeable with hospice or end of life care is key to changing this incorrect notion.

### **Theoretical Framework Evaluation**

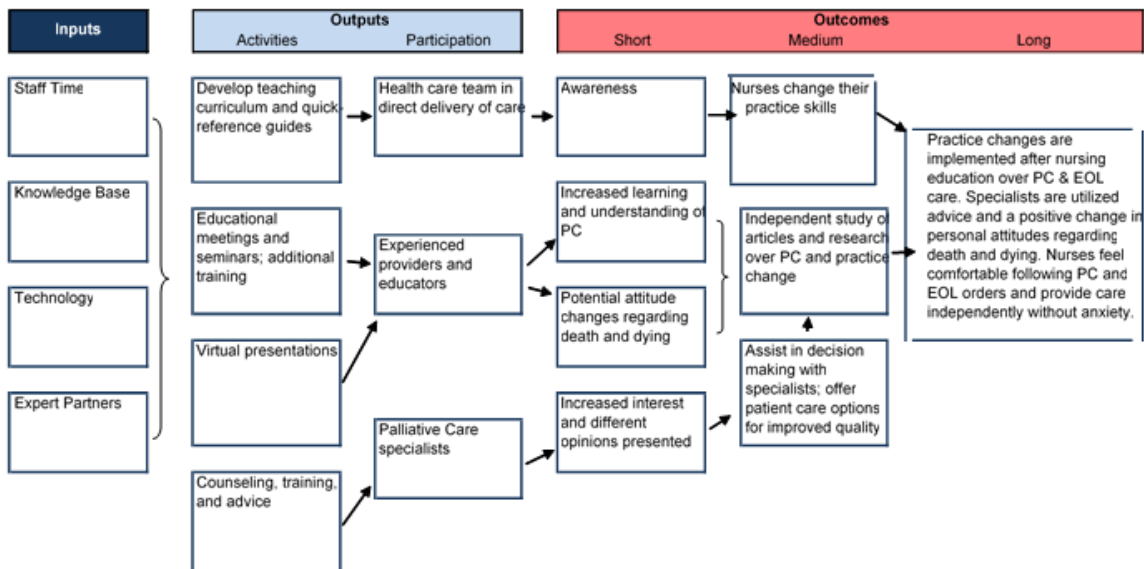
In 1998, Ruland and Moore created the Peaceful End of Life Theory. This theory demonstrates that by the patient not being in pain, experiencing comfort and dignity, being at peace, and maintaining a sense of closeness to significant others and family, the patient can ultimately achieve a peaceful end of life or “good death” (Ruland & Moore, 1998). The five parts to achieving a peaceful end of life are further separated into multiple rectangles, describing how to obtain each main topic. The components include experiencing comfort, experiencing dignity and respect, having a closeness to significant others, being at peace, and not being in pain. To not achieve any one of the five steps may lead to the patient not succeeding in having a peaceful end of life process.

This theory was chosen because it is important to focus on care delivery to the patients so they achieve a peaceful EOL experience rather than concentrating on the discomfort of the healthcare team when caring for palliative care or EOL patients. When the healthcare team, specifically nurses, understand the components that result in a peaceful death, they can strive to ensure that all five factors of the theory are met.

While the theory has five components to it, only two of the parts were addressed in this study; experiencing comfort and not being in pain. The theory also focuses on delivery of quality palliative or EOL care which being conducted by nurses makes it a very valuable topic to understand. This continues to be a support structure for the hypothesis that decreasing anxiety in registered nurses when caring for this population will lead to an increase of quality of care delivered.

### Logic Model Evaluation

#### Logic Model for The Value of Palliative Care and EOL Education in Nurses



The results of this project support the logic model created in the beginning stages of the research design. The pretest showed that many of the respondents were

uncomfortable in caring for a palliative care or EOL patient. An educational presentation was developed to provide information regarding when palliative care is necessary, medication uses and administration, and symptom management. The posttest documented an increase in the registered nurses' comfort level as well as their increase in knowledge on the topic. This led to an increased learning and understanding and for nurses to change their practice skills. While the long term outcome has not been assessed, if one follows the lineation of the logic model that has been correct thus far, the end result will be practice changes regarding palliative and EOL care, utilizing specialists for questions or concerns, and the ability for registered nurses to provide quality palliative or EOL care without hesitation or anxiety.

### **Limitations**

The first limitation to this study was the use of the Palliative Care Knowledge Test. This became a weakness in the project when it was clear that a majority of the questions were related specifically to EOL care. A better approach would have been to involve more questions about all stages and aspects of palliative care rather than limiting the timeframe of needs. However, the questionnaire was already extensive and it would be fair to state a majority of participants would not complete the PCKT if there were additions to the length.

The next limitation was the noticeable need for a standard definition of palliative care before continuing on with the remaining questionnaire. This lack of information prior to the educational presentation proved difficult and even frustrating at times for participants to respond because all of the questions pertained to palliative or EOL care. Not having a firm knowledge base in any topic is an obstacle, let alone a field many consider to be daunting.

The last limitation of the study was the change in respondents from the pretest to the posttest. Eighteen registered nurses participated in the pretest, whereas only fourteen partook in the posttest. This made it difficult to assess specific statistics regarding an increase in knowledge and decrease in anxiety levels while caring for palliative or EOL care patients. The assumption made was the respondents grew tired of answering the questionnaires or listening to the educational presentation.

### **Implications for Future Research**

The most important next step when considering practice improvement with this project is to provide a concise definition of “palliative care”. A constant definition would provide not only healthcare providers, but patients and families a basic understanding of the term and what it entails. The next implication for future research or knowledge development would be to contribute more education regarding opioid administration and symptom management with other drug classes. A completely separate research project could easily be done with the lack of knowledge surrounding opioid administration and the fear that it advances the dying process prematurely.

The instrumentation used in this project was ideal for determining the validity of the hypotheses. However, a repeat of the project could be conducted with another group of registered nurses from parts of the U.S. or even the world where death and dying are not taboo as they are here in the Midwestern United States. Another possible influence to the research and its results would be the majority of the respondents coming from medical surgical and emergency departments. A project could be set up in a similar manner with targeting for a specific unit to see if the results vary from the initial project.



## **Implications for Future Practice**

The significance of this project was the discovery that the majority of registered nurses feel a sense of anxiety or hesitation when caring for palliative or EOL care patients and it was determined an educational presentation could help decrease that anxiety. This anxiety leads to a barrier in adequate care provided to this patient population. Therefore, conveying important education about palliative and EOL care to registered nurses must be done to improve nursing confidence and decrease hesitancy in future practice when caring for this population.

To enhance the palliative or EOL care experience, the change should start in nursing education programs. Having a more in-depth understanding of this field while learning about it in a controlled, student-supported environment would perhaps register more deeply with the student rather than a “crash course” provided on a unit as a new or maybe even veteran nurse. Another opportunity for change would be to include palliative or EOL questions on the National Council Licensure Examination for Registered Nurses (NCLEX-RN). This test assesses whether an individual is able to provide safe and competent care with their knowledge base. The expectation of understanding palliative and EOL care would not be a burdensome addition to the test-taker’s skills set.

Advanced practice nurses are expected to have an exceptional and progressive understanding in the broad field of medicine. The majority of Master of Science in Nursing (MSN) and Doctor of Nursing Practice (DNP) programs require only primary care courses. Experiencing a rotation in the palliative or EOL care field would broaden the understanding of that specific population and allow for expert contacts to be made for future reference if

the need arises. Continuing education programs should also be readily available for any advanced practice nurse wanting to gain more knowledge on the topic.

### **Conclusion**

The purpose of this study was to evaluate the knowledge and attitudes of registered nurses regarding palliative care before and after an educational presentation. Throughout this project, the data showed an improvement in comfort levels and knowledge once proper education had been presented as well as areas that needed improvement. A need for a clear and concise definition of palliative care is necessary for not only the nursing staff, but the providers as well. Eliminating the barriers to this care through understanding when palliative or EOL care can be initiated as well as the symptom management associated with it will increase the productivity and care delivery in this field. With all healthcare staff experienced and aware of palliative and EOL care, communication and increased satisfaction with higher quality care can easily be achieved.

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## **APPENDIX**



**APPENDIX A**  
**Palliative Care Knowledge Test (Pre-Test)**

**Philosophy**

1. Palliative Care should only be provided for patients who have no curative treatments available. True or false?
2. Palliative care should not be provided along with anti-cancer treatments. True or false?
3. Please list some indicators that palliative care could be initiated. (Please comment below)
4. Which curative measures do you feel can be provided in conjunction with palliative care? (Please comment below)

**Pain**

5. One of the goals of pain management is to get a good night's sleep. True or false?
6. When cancer pain is mild, naproxen should be used more often than an opioid. True or false?
7. When opioids are taken on a regular basis, non-steroidal anti-inflammatory drugs should not be used. True or false?
8. Long-term use of opioids can often induce addiction. True or false?
9. Use of opioids does not influence survival time. True or false?
10. What do you think the goal of pain management should be, as it relates to palliative care? (Please comment below)
11. What do you feel is the biggest barrier in providing palliative care? (Please comment below)

**Dyspnea**

12. Morphine should be used to relieve dyspnea in terminal patients. True or false?

13. When opioids are taken on a regular basis, respiratory depression will be common. True or false?

14. Oxygen saturation levels are correlated with dyspnea. True or false?

15. Anticholinergic drugs or scopolamine are effective for alleviating bronchial secretions of dying patients. True or false?

### **Psychiatric Problems**

16. During the last days of life, drowsiness associated with electrolyte imbalance should decrease patient discomfort. True or false?

17. Benzodiazepines should be effective for controlling delirium. True or false?

18. Some dying patients will require continuous sedation to alleviate suffering. True or false?

19. Morphine is often a cause of delirium in terminally ill patients. True or false?

20. What do you feel is the effect on the dying process when you administer pain or psychiatric medications? (Please comment below)

### **Gastrointestinal Problems**

21. At terminal stages of cancer, higher caloric intake is needed compared to earlier stages. True or false?

22. There is no route except central venous for patients unable to maintain peripheral intravenous route. True or false?

23. Steroids should improve appetite among patients with advanced cancer. True or false?

24. Intravenous infusion will not be effective for alleviating dry mouth in dying patients. True or false?

25. What affect do you feel tube feeding has on a person who is on terminal palliative care?

(Please comment below)

26. Do you feel adequately prepared to talk to patients and their families about palliative care? Why or why not? (Please comment below)

27. Please rate your anxiety level when caring for palliative care patients on a scale from 1-5.

1= very uncomfortable 2 = uncomfortable 3= neutral 4= comfortable 5= very comfortable

## APPENDIX B

### Demographics

Characteristics of participants:

Gender

Male

Female

Age

20-29

30-39

40-49

50-59

> 60

Clinical Area

Intensive Care

Medical Surgical

Oncology

Stroke

Pediatrics

NICU

Labor & Delivery

Other: \_\_\_\_\_

Duration of Clinical Experience

< 3 years

4-8 years

9-14 years

15-20 years

> 20 years

Palliative Care Education

Yes

No

State of Current Nursing Practice

Kansas

Oklahoma

Missouri

Arkansas

Other: \_\_\_\_\_

## APPENDIX C

### **Educational PowerPoint Audio Script**

Hello, my name is Amy Marpu and I am a BSN to DNP student at Pittsburg State University. Today I would like to provide you with some education regarding palliative care. First, it's important to understand what palliative care is. The World Health Organization (2017) defines palliative care as “an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual”. It is incorrect to interchangeably use the terms palliative care and hospice. Hospice is for those with terminal illnesses or injuries who have six months or less of life.

End-of-Life Care is defined as “the term used to describe the support and medical care given during the time surrounding death. Such care does not happen only in the moments before breathing ceases and the heart stops beating. Older people often live with one or more chronic illnesses and need a lot of care for days, weeks, and even months before death” (National Institute on Aging, 2017).

A good example to explain the differences in terminology looks like this: Clara, a 70 year old female, has been diagnosed with breast cancer for the second time. Clara is recommended by oncology to undergo chemotherapy and radiation, but she remembers how sick chemotherapy made her feel. Palliative care is consulted and helps with her symptoms including nausea, fatigue, and oral thrush. The PC team also includes a social worker to help Clara create her advance directives and a chaplain if Clara needs spiritual assistance.

Unfortunately, Clara's chemotherapy and radiation hasn't been successful and her oncologist tells her she has six months to live. A hospice care organization is consulted and they are able to meet Clara in her own home with family and friends and continue the symptom management that palliative care previously achieved, but they are ready to address any new or increasing symptoms that may come as well as any goals that Clara may have. Clara dies peacefully in her own home surrounded by loved ones.

The symptoms seen in actively dying patients are worth mentioning. Symptoms seen in actively dying patients include depression, confusion, dyspnea, incontinence, severe fatigue, anorexia, vomiting, and pain, which is considered to be the most distressing symptom for both the patient and family members (Singer, et al., 2015, p.2). Additional symptoms include anxiety, bleeding, coughing or rattling, neurological symptoms, and occasionally pruritus (Knops, Kremer & Verhagen, 2015, p. 3). These symptoms are typically seen towards the end of life whether it be from a disease process or a traumatic event.

As the human body progresses towards death, particular symptoms are seen within the last two weeks of life. Such symptoms include abdominal swelling or ascites, agitation, delirium, or restlessness, lethargy, excess respiratory secretions which produce the "death rattle", skin integrity problems such as foul smelling wounds, sores, and decubitus ulcers, sleep problems, and asthenia (Kehl & Kowalkowski, 2013, p. 604, 610).

Next, it is important to discuss the medications used in PC to help decrease or eliminate the aforementioned symptoms. Haloperidol is utilized for delirium, insomnia, anxiety, nausea, and vomiting. Chlorpromazine is ideal for delirium, anxiety, and insomnia. Dexamethasone has strong data to prove it effective at treating bone pain, nausea, vomiting,

increasing appetite, spinal cord compression, and bowel obstruction. Glycopyrrolate is used for excess secretions, but also serves another purpose of limiting dyspnea when combined with morphine and hydromorphone (Kwon, et al., 2017, p.5-6). The dyspnea experienced at the end of life does not correlate with oxygen saturation levels.

Other medication classes used for PC patients include opioids, benzodiazepines, bronchodilators, metoclopramide, laxatives, and H2 receptor blockers. These are efficient for the treatment or symptom relief of pain, seizures, dyspnea, nausea, vomiting, constipation, and gastrointestinal prophylaxis (Kwon, et al., 2017, p.6). Unfortunately, many of these medications, especially benzodiazepines and opioids, can cause delirium in the terminally ill patient. As a nurse, it is important to discuss the cognitive changes seen in the patient with the provider since the medication administration and aim for a lower dose of the same medication or a different medication if necessary. In regards to order of medication for pain management, it should look something like this: Mild pain where the patient rates it or appears as a 1-3 on the Wong-Baker faces pain scale should be treated with acetaminophen, NSAIDs, tricyclic antidepressants, or muscle relaxants. Moderate pain which is rated at 4-6 should consist of combination opioids, such as hydrocodone and acetaminophen or oxycodone and acetaminophen, plus continued adjuvant drugs. Severe pain rated as 7-10 is managed with opioids, such as morphine and hydromorphone, plus continued adjuvant drugs (D'Arcy, 2012).

Pain management is sometimes difficult for families because they feel as though the medications are hastening the dying process. Education over the natural progression that a dying person will take and how symptoms are managed in safe amounts of medications will help to alleviate their fears, guilt, and anxiety. With that being said,



sometimes symptoms are uncontrolled and these patients enter into pain crises or irretractable nausea or dyspnea. If the symptoms are unsuccessfully controlled after a period of time, the provider may discuss the decision with the family to sedate the patient with the goal of symptom relief and not to expedite death (D'Arcy, 2012).

Caring for an actively dying patient is special and honestly, an honor. It is as important as caring for a mother and baby as the baby enters this world for the first time. Just as people are in life, their dying course will be different and specific only to them. Symptom management, family support, knowledge about the dying process and a compassionate heart is all that's needed when caring for this population. Thank you for your time and participation.

## APPENDIX D

### Post-Test Questionnaire

1. Palliative Care should only be provided for patients who have no curative treatments available. True or false?
2. Palliative Care is only for those with six months or less to live. True or false?
3. Please list some indicators that palliative care could be initiated. (Please comment below)
4. One of the goals of pain management is to get a good night's sleep. True or false?
5. When cancer pain is mild, naproxen should be used more often than an opioid. True or false?
6. Long-term use of opioids can often induce addiction. True or false?
7. Use of opioids does not influence survival time. True or false?
8. What do you think the goal of pain management should be, as it relates to palliative care? (Please comment below)
9. What do you feel is the biggest barrier in providing palliative care? (Please comment below)
10. Morphine should be used to relieve dyspnea in terminal patients. True or false?
11. Oxygen saturation levels are correlated with dyspnea. True or false?
12. Anticholinergic drugs or scopolamine are effective for alleviating bronchial secretions of dying patients. True or false?
13. Benzodiazepines should be effective for controlling delirium. True or false?
14. Some dying patients will require continuous sedation to alleviate suffering. True or false?
15. Morphine is often a cause of delirium in terminally ill patients. True or false?

16. What do you feel is the effect on the dying process when you administer pain or psychiatric medications? (Please comment below)

17. Do you feel adequately prepared to talk to patients and their families about palliative care? Why or why not? (Please comment below)

18. This presentation enhanced your knowledge of palliative care. True or false?

19. This presentation decreased your hesitation in caring for palliative care patients. True or false?

20. Please rate your anxiety level when caring for palliative care patients on a scale from 1-5.

1= very uncomfortable 2 = uncomfortable 3= neutral 4= comfortable 5= very comfortable