

ASSESSMENT OF RURAL NURSES' EDUCATIONAL NEEDS IN PROVIDING
EVIDENCE-BASED END-OF-LIFE CARE

by

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As members of the DNP Project Committee, we certify that we have read the DNP Project prepared by Heather Dawn Wiggins entitled “Assessment of Rural Nurses’ Educational Needs in Providing Evidence-Based End-of-Life Care” and recommend that it be accepted as fulfilling the DNP Project requirement for the Degree of Doctor of Nursing Practice.

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DEDICATION

This project is dedicated to all of the amazing compassionate, intelligent, and hardworking nurses and nursing assistants I have had the pleasure of meeting over the last 20 years, who are on the front lines caring for patients and their families at end-of-life, and most importantly to the many patients I have been blessed to know, who have taught me that listening, and just being present in the moment are two of the most important things we can do as healthcare providers.

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ABSTRACT

Many organizations such as the Institute of Medicine, the World Health Organization and the National Consensus Project for Quality Palliative Care have identified the need for equitable access to palliative and end-of-life care (Ferrell, Coyle, & Paice, 2015). However, in many rural areas of the world, including rural Wyoming, patients at end-of-life are cared for in acute care settings where nurses have not received specialized training and education on evidence based end-of-life care. The aim for this DNP project was to assess rural registered nurses' perceptions of competencies important in end-of-life nursing practice (Coyne & White, 2011). A 32-item survey developed by White and Coyne (2011) was adapted for use in a rural critical access hospital to determine content priorities and educational needs of generalist nurses in a rural setting, regarding providing palliative and end-of-life care. A purposive sample of 16 nurses in a rural critical access hospital in Wheatland, WY, who care for patients at end-of-life, completed the survey. Only one-third of the nurses surveyed reported receiving any type of end-of-life care education in the prior two years. Similar to findings from the study completed in 2011 in an urban area, symptom management, talking to patients and families about death and dying, and pain control were the highest ranking core competencies. Nurses who did report receiving education in end-of-life care still felt inadequately prepared to talk to patients and families about dying, and this needs assessment identified that educational gaps are evident regarding provision of end-of-life nursing care in rural settings. The information gleaned from this survey will be used to design an educational program to disseminate evidence based practice guidelines regarding providing quality end-of-life care using ELNEC (End-of-Life Nursing Education Consortium) modules based on the findings of the needs assessment survey

INTRODUCTION

Over the past few decades there has been a dramatic increase in the demand for end-of-life and palliative care services, with 300 million people throughout the world requiring these types of services each year (McIlfatrick, Mawhinney, & Gilmour, 2010). In the United States, despite wishes to die a peaceful death at home, many Americans die in hospital or nursing home settings in a culture of highly technically life sustaining interventions (Coyne & White, 2011). Many of these organizations, especially in rural areas, are not well prepared to offer evidence based, high quality end-of-life care due to current gaps in undergraduate, graduate, and continuing nursing education; as well as gaps in organizational policies and procedures regarding the provision of this type of care (Coyne & White, 2011).

In many rural areas of the world, including rural areas of Wyoming, access to evidence based end-of-life care is inconsistent or difficult to retrieve with many patients and families leaving their home communities to receive hospice care. In rural areas of Wyoming patients and families often receive end-of-life care in critical access hospitals or nursing facilities, and are cared for by staff with limited training in hospice standards and guidelines. A recent needs assessment for Platte County, a rural area of Wyoming without any formal hospice or palliative care services, has indicated that improving access to palliative and end-of-life care is a priority for health services planning in this area (Banner Health, Platte County Memorial Hospital, 2013). The intended aim of this DNP project is to assess the educational needs of registered nurses regarding providing palliative and end-of-life care at Platte County Memorial Hospital, the only hospital serving the residents of Platte County.

BACKGROUND KNOWLEDGE

Conceptual Definitions

Although end-of-life care concepts are becoming more mainstream in the curricula of nursing and medical schools, as well as in textbooks, licensure examinations, and clinical practice guidelines, current research indicates that many nurses may still be uneasy or ill prepared to discuss advance directives, goals of end-of-life care, and death and dying with patients and their families (Coyne & White, 2011). There are still many misconceptions and misunderstandings related to end-of-life care, and perceived gaps in core competencies regarding expertise in pain management and symptom control at end-of-life, as well as in discussion of the dying process with patients and families (Coyne & White, 2011). There are inconsistencies among healthcare professionals, patients, and families in even basic terminology, how to best define palliative care, hospice care and end-of-life care, as well as misconceptions that palliative care is synonymous with comfort care or hospice care. According to the US Department of Health and Human Services, CMS and the NQF, palliative care is defined as:

Patient and family centered care that optimizes quality of life by anticipating, preventing and treating suffering. Palliative care throughout the continuum of illness involves addressing physical, intellectual, emotional, social, and spiritual needs, and to facilitate patient autonomy, access to information and choice (National Consensus Project for Quality Palliative Care, 2013, p. 5).

In essence, according to this definition, palliative care is more of an umbrella term for high quality, evidence based care that should be available to all patients and families, regardless of diagnosis or prognosis; and the concepts related to palliative care are applicable at all stages of an illness, up to and including end-of-life care. According to Coyle, (2015), hospice and end-of-life care are programs through which palliative care is intensified as a person moves closer to

death. Ideally, patients with chronic or progressive disease will receive palliative care throughout their disease process, and then will be able to transition into hospice and end-of-life care when life expectancy is less than six months.

Deficiencies in End-of-Life Care and Education

The Institute of Medicine (IOM) reports discuss the importance of end-of-life care, and major deficiencies in how this type of care is provided. According to these reports, providers still communicate poorly about prognosis and treatment options, the use of advance care planning is limited, patients and families continue to report inadequacies in symptom management and pain control, and hospice care continues to be underutilized (Schulman-Green, LaCoursiere, Ma, Lazenby, & McCorkle, 2011). End-of-life is such an important transitional time in the lives of patients and families, and the IOM has indicated that identifying knowledge gaps among health care professionals who provide palliative and end-of-life care is one necessary strategy to determine what type of continuing education is needed (Schulman-Green et al., 2011), in order to disseminate high quality, evidence based end-of-life care, with the ultimate goal of improving these types of services.

Although there is a paucity of research specific to the educational needs of nurses in rural areas who provide end-of-life care, surveys such as the one completed with the 2009-2013 Connecticut Cancer Plan, which assessed palliative and end-of-life care among patients in Connecticut, provide information that is likely applicable to other states (Schulman-Green et al., 2011). This survey indicated that patients reported a need for better care coordination, improved access to spiritual care, more open communication and dialogue with health care professionals, as well as counseling services for dying patients, and prompt referral to palliative and end-of-

life care (Schulman-Green et al., 2011). One of the major reasons for deficiencies in this type of care is the lack of professionals certified in palliative and end-of-life care, and the numbers of professionals providing end-of-life care who have insufficient education and training in these topics, and thus are not well prepared to deliver this care (Schulman-Green et al., 2011).

Schulman-Green et al. (2011) reported that an 80-item survey using items from over 20 different existing tools and pilot tested on a convenience sample of health care professionals in Connecticut, was comprehensive, clear and not redundant, and addressed some of these deficiencies in end-of-life education. This survey was utilized in a statewide cross-sectional study of 602 health care professionals who provide palliative and end-of-life care. The core set of survey items included demographic questions, questions regarding work history and field experience, formal and continuing education in end-of-life care and a 16-item multidisciplinary end-of-life knowledge scale (MELKS). The results of the survey indicated that over 78% of the participants reported using palliative care techniques, but do not feel strongly confident in their ability to do so. Nurses involved in this study indicated a need for more education in cultural factors affecting end-of-life care. All of the disciplines surveyed indicated knowledge deficiencies regarding the spiritual aspects of end-of-life care. Many of the respondents also desired further education in palliative and end-of-life care, and indicated a willingness to spend time addressing these educational needs. Another interesting finding of this study was that only 35% of all participants had filled out advance directives stipulating their own wishes for end-of-life care, despite the fact they routinely care for patients at end-of-life (Schulman-Green et al., 2011).

This study also identified that areas of educational need are similar to the National Consensus Project Clinical Practice Guidelines for Quality Palliative Care and the End-of-Life Nursing Education Consortium (ELNEC) educational modules, which are based on these guidelines. Specific findings of this survey were that educational programs should address the goals of palliative care, and provide both a broad base of information for multidisciplinary teams, as well as discipline specific skills training. The respondents also indicated a need for more information on cultural and spiritual needs, as well as strategies for coping with the emotional stress and grief directly related to working in this field (Schulman-Green et al., 2011). The survey participants also indicated a preference for one to two days of on-site sessions, and the authors of this study recommend the use of the ELNEC programs as a framework for educating providers on evidence based palliative and end-of-life care (Schulman-Green et al., 2011).

Another survey of registered nurses and advanced practice nurse members of the Oncology Nursing Society in four states (n=714) found that 25% of the nurses did not feel adequately prepared to care for dying patients, even though 80% of the respondents held certification in a nursing specialty such as palliative or oncology nursing (Coyne & White, 2011), and likely had received more training in end-of-life and palliative care concepts than generalist nurses. However, more than half of the participants indicated they had received less than two hours of continuing education on end-of-life care within the previous two months, and 17% indicated the continuing education they received within the past two years was fair to poor in quality (Coyne & White, 2011).

The results of the survey indicated a desire for more education on symptom management, how to talk to patients and families about dying, and the meaning of palliative care. Although all

of the respondents ranked symptom management as the most important end-of-life competency, associate, diploma and baccalaureate nurses identified that they needed more knowledge about palliative care, as compared to master's and doctoral prepared nurses who ranked communication with patients and their families as more important as a competency than knowledge about palliative care. In comparison, nurses in administration and education ranked identifying what constitutes palliative care as more important than symptom management (Coyne & White, 2011). This survey provides great insight as to how to better tailor educational efforts to different populations, and that there is a need for high quality, evidence based information and utilizing high quality educators to disseminate current clinical guidelines and translate these into practice.

Format of Educational Interventions

The format for presenting this type of evidence to interested nurses has also been researched in recent years. A recent international systematic literature review of 30 studies that discussed end-of-life care education for health and social care staff found that participative and interactive strategies have been most successful in enhancing professionals' perceived preparedness and skills in providing high quality end-of-life care (Pulsford, Jackson, O'Brien, Yates, & Duxbury, 2011). This review focused on educational and training initiatives in end-of-life care evaluated with pre- and post-test quantitative data to determine to what extent the educational offering had on the participants' knowledge base, as well as self-reported confidence in providing quality end-of-life care. This study indicated that classroom based learning needs to be reinforced with practical experience and reflection on practice to help learners achieve "practical wisdom" and adequate clinical judgment (Pulsford et al., 2011). The most successful

courses in achieving long-term benefits were classes that utilized interpersonal skills training through role-play and discussions of case studies rather than purely didactic teaching styles (Pulsford et al., 2011).

In order to effectively plan training seminars and continuing education, preferences of target audiences must also be taken into account. A survey of 897 general practitioners, 933 registered home care nurses completed in 2010 in Austria, indicated a preference among the physicians for evening and weekend course seminars, whereas nurses preferred one-day courses (Becker et al., 2010). Results of this survey also indicated that both general practitioners and registered nurses prefer to take palliative care courses using a multidisciplinary approach with participants from different disciplines, especially regarding the topics of psychosocial and ethical concerns in end-of-life care. In regards to pain management topics, nurses surveyed prefer a more multidisciplinary approach significantly more often than general practitioners. Educational topics of highest priority for general practitioners were addressing psychosocial needs of patients and families, whereas nurses in the study gave pain management and symptom control highest priority. Similar surveys conducted in rural Australia and with American family physicians have indicated a need for supplemental training in the psychological manifestations of palliative care and end-of-life care (Becker et al., 2010). These findings are corroborated with other studies, such as a recent needs assessment of 29 United States gynecological oncology fellowship directors. This study indicated that fellowship directors feel that communication skills training, including delivering bad news; discussing prognosis, goals of care and advance directives; and discussing stopping chemotherapy are important topics to include in current curriculum (Lefkowitz et al., 2014).

Another recent study involving first-year medical oncology fellows at MD Anderson Cancer Center utilized one-hour monthly communication skills training that incorporated case-based role-play scenarios over a two-year period (Epner & Baile, 2014). This program focused on developing skills in assessing patients' knowledge before giving information, using open-ended questions, listening without interrupting and responding to emotions with empathy, instead of rushing to either give false reassurance or provide technical facts. The program also incorporated the use of reflective writing exercises to assess learners' progress and exercises including writing down emotional questions such as "Does this mean I am going to die?" and allow the participants to write down how they would respond on an index card. The cards were then collected anonymously and redistributed to stimulate discussion and receive feedback from each other in a non-threatening way. Enhanced role-play was another technique used in which participants used sociodrama, where different scenarios were given and the participants then acted out these scenarios without scripts, but with direction from the facilitator. Participants then reversed roles between patients, family members and healthcare providers to help build empathetic skills. The participants also would take turns standing behind different characters in the role-play and express what they imagined each specific character might be feeling or thinking, but not explicitly expressing. These methods were found to increase empathy, as well as teach new providers the importance of being mindful or aware of their own feelings and reactions, in an effort to improve reflective practice (Epner & Baile, 2014). Participants indicated that the program helped them learn how to help patients and families maintain hope, while finding realistic goals for care, and how to express empathy without trying to fix something that is unfixable (Epner & Baile, 2014).

Although these articles discuss the use of communications skills training for physicians, using methods that learners can practice with real time feedback, this information can also be applicable to planning educational programs for nurses. For example, The ELNEC modules have numerous resources and opportunities for communication skills training which use real time feedback, such as interactive case studies and role-play situations where nurses can practice facilitating communication about sensitive and emotional topics in a safe setting, and these skills can then be put to practice in the clinical setting.

Cultural Implications

When planning an educational end-of-life program for nurses, several studies have indicated there is a need for increased cultural competence for healthcare professionals in helping patients and families of different cultures cope with death. It is also necessary to consider how nurses providing end-of-life care from different cultures' view of death and issues surrounding end-of-life. For example, in Chinese culture death is considered a taboo topic and families may even decide not to disclose terminal diagnoses to patients (Cui, Shen, Ma, & Zhao, 2011). Thus, end-of-life education in China is limited and avoiding these important discussions can also increase nurses' anxiety levels. A recent cross-sectional survey of 617 registered nurses in China found that nurses in this population had a high need for continuing education surrounding knowledge and skills in caring for patients' and families' physical and psychological concerns at end-of-life (Cui et al., 2011). Results of this survey found that only 29% of the nurses in this study had received training in end-of-life education, despite the fact that 82% of the nurses had cared for patients at end-of-life.

Nurses in this study also indicated a need for more education on dealing with ethical issues surrounding end-of-life care and how differences in age and culture can impact end-of-life care (Cui et al., 2011). This study indicates that education needs surrounding end-of-life care were greater for nurses in smaller hospitals. The authors concluded one reason for this may be nurses in larger hospitals have more opportunities to care for end-of-life patients as compared to nurses in smaller hospitals, which may be a factor in rural critical access hospitals in the United States as well. This study in particular highlighted the need for considering the roles of culture, religious and spiritual practices, as well as the socio-demographic characteristics of nurses when designing end-of-life education programs (Cui et al., 2011).

Qualitative Needs Assessments

Qualitative research studies are another method of gleaning rich data from nurses who care for end-of-life patients and these types of studies often provide helpful information when planning palliative and end-of-life care educational programs for nurses. A study of 25 general medical surgical nurses caring for palliative care patients in Melbourne, Australia in 2013 was completed to explore nurses' abilities in recognition of and responsiveness to dying patients, as well as their influence on the provision of end-of-life care in acute hospital settings (Bloomer, Endacott, O'Connor, & Cross, 2013). In Australia, as well as in many other developed countries, the dominant medical view influencing the health care system is that care is focused on short-term episodic care, and interventions for cures. This in turn, often creates an environment where death is sometimes viewed by clinicians as failure, or even where death is denied at significant costs. Thus, care of dying patients in Australia is less of a priority as compared to short-term

episodic care, leading to under-resourcing in staff and facilities dedicated to care of the dying (Bloomer et al., 2013).

The results of this study found that nurses on general medical surgical wards often had difficulty differentiating between a patient who is acutely ill and a dying patient, and most often deferred to medical staff to make this distinction (Bloomer et al., 2013). Nurses occasionally reported continuing acute resuscitative or intensive physical rehabilitation for patients who were dying and not responsive to this type of care, and this was distressing to many nurses following the death of these patients. The nurses in this study indicated after the fact that forcing dying patients to get up every day to take a shower and do physical therapy felt very “cruel.” Nurses in the study also indicated it was very challenging to care for dying patients while also caring for other acutely ill patients they were assigned to care for; this often times led to the dying patients receiving less attention, and a focus on only completing care tasks. The nurses also discussed a reluctance to interact with patients’ families due to feeling ill-prepared to deal with questions regarding the dying process, and a lack of adequate time to just sit and be therapeutically present with patients and families (Bloomer et al., 2013).

Nurses in the Australian study indicated a wide variety in different perspectives and attitudes regarding caring for dying patients; one nurse reported choosing to care for dying patients, indicating she felt honored and privileged to provide this care. Other nurses reported feeling hesitation and reluctance when caring for end-of-life patients, stating that it is very difficult emotionally, and even uncomfortable for some professionals (Bloomer et al., 2013). Nurses in this study also touched on the fact that it is acceptable for nurses to become emotional about patients they care for; although, they discussed that this emotional impact can have a heavy

toll over time, as often the impact of a patient's death can persist for long periods beyond just the immediate grief (Bloomer et al., 2013). This highlights the need to also focus on compassion fatigue among nurses, perhaps including methods of coping with the emotional aspects of caring for patients at end-of-life when planning continuing education programs.

Another interesting finding related to this study is the system complexities that nurses found in their workplace, which added to the difficulty of providing high quality care to dying patients in an acute care setting. Nurses reported that even when they felt death was imminent, acute care instead of comfort care continued until a medical officer was available to confirm this. They discussed that at night or on weekends or holidays this was a more pronounced problem, as doctors on the weekend and junior doctors were often reluctant to talk to families about end-of-life care and advanced directives, and would often wait until more senior medical officers were available to assist families in making these decisions (Bloomer et al., 2013). In conclusion, common themes regarding the nurses in this study were that nurses in this setting believed they had little influence over end-of-life care, and in general did not make attempts to advocate for changing the focus of care. The nurses in this study clearly preferred to rely on senior doctors to determine when changing the focus from acute to end-of-life care was appropriate. The other common theme that emerged was that generalist nurses experience a great degree of death anxiety when caring for dying patients and this apprehension manifests differently in each person. Nurses' behaviors such as superficial frantic activity, focus on care tasks, reluctance of interacting with the patient and family, and disengagement and deferral to medical providers to have difficult conversations, may be a way for nurses to cope with impending death. These behaviors limit the quality of care that patients and families receive at end-of-life, and indicate a

need to adequately prepare and educate generalist nurses on how to provide high quality physical, social and emotional end-of-life care in an acute setting (Bloomer et al., 2013).

In conclusion, the articles reviewed for this project indicate a clear need for the dissemination of quality, evidence-based end-of-life education for generalist nurses in a variety of settings. This need is particularly pronounced in rural areas, where healthcare professionals may not have as much experience in caring for patients at end-of-life, and where formal hospice and palliative care services and resources are limited. The first step in planning an educational program is to conduct a formal needs assessment of the nurses in the population where this program is being planned.

Significance of Project

In Wyoming, 21 of 23 counties are classified as rural and access to specialized hospice and end-of-life care is severely strained (United States Department of Agriculture, Economic Research Service [USDA, ERS], n.d.). In addition, areas of Wyoming such as Platte County are often faced with extreme weather conditions, vast geographical areas, limited numbers of healthcare workers, and limited transportation, which means that access to available end-of-life care is difficult. In fact, 50% of Wyoming is classified as a Level 4 Frontier and Remote Area, the USDA's highest classification for degree of geographical remoteness (United States Department of Agriculture, Economic Research Service [USDA, ERS], n.d.). There are currently 38 primary care Health Care Provider Shortage Areas in Wyoming, and an estimated shortage of 1,200 nursing professionals (Trust for American's Health, 2013). In Wyoming, 18 licensed agencies provide hospice care, and only six offer inpatient care, mostly in urban areas of the state (Wyoming Department of Health, 2013).

Platte County is located in the rural southeastern part of Wyoming and covers 1,337,000 acres (greater than twice the land mass of Rhode Island) (Emergency Operations Plan [EOP], 2006). There are four towns (Wheatland, Glendo, Guernsey and Chugwater) within Platte County with Wheatland being the largest. According to United States Census Bureau (2014), Platte County had 8,756 residents (4.2 persons per square mile) in 2012. Wheatland is the county seat and sits in the central part of the county. Chugwater is a small town 25 miles from Wheatland, while Glendo and Guernsey are both 30 miles from Wheatland. Platte County Memorial Hospital, located in Wheatland, is the only hospital within Platte County and the closest Level 2 hospital is 70 miles to the south. Platte County is also served by a home health agency, a 50-bed nursing home, and one private pay only assisted living facility. However, none of these agencies currently provide any formal hospice or palliative care services. Although there was once a community based home hospice serving the Wheatland community, this organization was a non-profit funded by grant monies and was not sustainable after the initial grant funding ran out. Thus, there have not been any formal hospice services in the area for the past ten years.

While the nursing home, hospital, and home health agencies provide excellent care, they do not provide any type of formal evidence-based hospice or palliative care, referring patients needing those services to the nearest inpatient hospice facility, 70 miles away. Most patients at the end-of-life choose to stay in their hometown near the support of family and friends, and therefore most often receive care in the local critical access hospital when symptoms become too severe to manage at home. However, staff nurses in the local hospital have limited training in the current standards and guidelines for hospice and palliative care. This is troubling, as recent research indicates that relatives of hospice patients felt more informed, perceived staffing was

more adequate, and had more confidence in care received in a hospice setting compared to a hospital setting (Addington-Hall & O'Callaghan, 2009).

A recent community needs assessment for Platte County, completed in 2013, determined a need for improved access to high quality palliative and end-of-life care for residents of this community (Banner Health, Platte County Memorial Hospital, 2013). This is particularly important since 40% of the county's population is older than 55 (Banner Health, Platte County Memorial Hospital, 2013). The hospital system serving Platte County, Banner Health (2013), has a system-wide policy titled, "Provision of Appropriate End-of-Life Care (Allowing Natural Death)" which outlines and defines advanced directives, palliative and hospice care, and describes how to determine mental capacity. Although the policy addresses the legal definitions and withdrawing life sustaining treatment, this policy only delineates the type of care required when death is imminent. These issues all support the need for a quality improvement project regarding continuing education for the rural generalist nurses who provide end-of-life care in the hospital setting.

Intended Improvement

The aim of my DNP project is to identify rural generalist nurses' self-reported competencies that are important in end-of-life nursing practice, and their perceived educational needs surrounding providing end-of-life care. This initial assessment and project will then be used to guide the development of strategies to provide focused continuing education on caring for patients during the end-of-life. In the future, I plan to also do a post-doctoral study to educate nurses using the ELNEC curriculum to increase knowledge of evidence based end-of-life care,

with the ultimate goal of improving patient and family satisfaction with end-of-life care in this rural community.

The impetus for this study came from the needs assessment completed by the hospital in 2013. There have also been several champions or key supporters in the community, including a local physician and pastor in the community who also serves on the hospital and nursing home board, who have indicated an interest and commitment to improving access to palliative and end-of-life care in our community, as well as my own interest in improving end-of-life care in my local community. After visiting informally with many of my nursing colleagues who work in the community who have indicated an interest in learning more about end-of-life and palliative care, I decided in conjunction with my DNP project committee that a formal needs survey of nurses' educational needs would be the first step in improving this process.

Study Questions

The primary improvement related questions for this project are:

1. *What do rural generalist nurses identify as the most important core competencies in providing care for end-of-life patients?*
2. *Do rural generalist nurses feel adequately and effectively prepared to care for end-of-life patients?*
3. *Is end-of-life education important to rural generalist nurses?*

Framework, Theoretical Underpinnings and Philosophical Foundations

The philosophical foundations for this project are based on several theories related to caring, as nursing is grounded in the ethic of caring and considered a complex concept or process (Sawatzsky, Ennis, Ashcroft, Davis, & Harder, 2009). These theories can be applied to all

aspects of nursing, including nursing education. Watson's Theory of Human Caring is sensitive to the dynamic nature of society and healthcare and is applicable to nursing practice as well as nursing education.

The major conceptual elements of the Theory of Human Caring include *caritas* processes, transpersonal caring, and the caring moment (Caruso, Cisar, & Pipe, 2008). The word *caritas* is a term derived from a Greek word which means to cherish something or someone considered precious. In this sense, having a positive "caritas" is a regard for another and their personal environment that aids in establishing a therapeutic relationship and respect and allows for mindfulness in one's practice of nursing (Caruso et al., 2008). The second component of Watson's theory is the use of transpersonal caring-healing relationships whereby the nurse seeks to embrace the soul of another through caring processes, healing and being in the moment in authentic relationship with another. This is done through ongoing personal, professional and spiritual growth incorporating previous experiences with empathy for another's circumstances (Caruso et al., 2008). The third aspect of Watson's theory is the caring moment involving a transpersonal relationship, *caritas* consciousness and connection on a spiritual level, which transcends space, and time in which the potential for healing on a deeper level occurs (Caruso et al., 2008). These components of Watson's theory can be used when planning an educational program, for example, by using role play and clinical scenarios such as the simulations used in the ELNEC curriculum to act out common real life scenarios that may occur between nurse and patient, between nurse colleagues, or between the nurse and other members of the care team when caring for patients at end-of-life.

Watson's theory describes a transpersonal relationship between patient and nurse that is mutual and reciprocal, and this is a concept that can be applied to the student-teacher relationship as well (Sawaztsky et al., 2009). For example, when planning this educational intervention, it was important to be empathetic to the basic needs of the nurses participating (which is one of the *caritas* processes) just as nurses ensure that the basic needs of their patients are met (i.e., making sure the room is comfortable where nurse participants are taking the survey, providing water and a snack, and ensuring their need for privacy is respected).

Another theory that can be applied to end-of-life care education, is Noddings' Ethics of Care (Noddings, 1998). According to Noddings' Ethics of Care, education from a care perspective has four key components, modeling, dialogue, practice and confirmation. Noddings argues that educators have to show or model in their behavior what it means to care by demonstrating caring in relations with students, and model caring by engaging in dialogue and exploring caring as it can be manifest in many ways.

Noddings discusses the importance of giving students practice in caring and reflection on that practice as well as confirmation, or an act of affirming and encouraging the best in others through trust and continuity (Noddings, 1998). One goal of nursing education is to produce caring individuals through modeling, practice and confirmation and this theory is very applicable when teaching end-of-life care concepts and is also mirrored in many of the ELNEC trainings through trainers modeling behaviors of caring for patients and families at end-of-life, engaging in dialogue and discussion in small groups, reflective practice through role playing, and confirmation through encouragement and sharing best practices.

Noddings also discusses that learning the techniques and skills of the nursing profession is an important aspect of nursing and of being a competent nursing professional, but that overreliance on the rational and objective modes of caregiving can cause an abstraction and distance from the patient's reality (Crowley, 1994). These concepts and theories are all applicable when considering how to improve nurses' educational gaps in providing evidence based, holistic palliative and end-of-life care. Some aspects of these theories can be applied in the initial assessment phase, but will be more pertinent in the post-doctoral study phase during the implementation of the educational intervention.

For the purpose of this project, the framework I used was the Greenhalgh, Robert, Macfarlane, Bate and Kyriakidou, (2004) conceptual model of Diffusion of Innovations in Service Organizations. This model was developed as a guide when considering the determinants of diffusion, dissemination, and implementation of innovations in health service delivery and organization, and was based on a systematic review of empirical research studies in a variety of areas including dissemination and implementation research, complexity studies and organizational and management literature (Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004). This conceptual model provides a framework to assist in examining the individual adopters and organizational factors that influence the likelihood of an innovation or intervention being successfully introduced and sustained in a service organization, and is based on several different theories including Rogers Diffusion of Innovation Theory (Rogers, 1995), as well as studies of organizational process, dissemination and implementation studies, and complexity studies (Greenhalgh et al., 2004). It has been applied recently in a study in the United Kingdom to investigate factors that affect successful implementation and sustainability of the use of an

evidence based palliative care pathway, the Liverpool Care Pathway for the Dying Patient, which is a tool being used to facilitate the use of the hospice model of care into mainstream hospital services (McConnell, O'Halloran, Porter, & Donnelly, 2013).

The core components of this model are the system antecedents necessary for intervention, system readiness for the innovation, characteristics of the adopters and the process of adoption, and communication about the intervention and influence of the informal diffusion process and formal dissemination processes. This model also takes into account the inner organizational context and how this influences implementation of a new process or innovation, and finally how the outer context including external agencies, current health policies, and the sociopolitical climate influences adoption and assimilation of an innovation (Greenhalgh et al., 2004; McConnell et al; 2013).

For example, in regards to my project, an educational needs assessment of rural nurses regarding end-of-life care, I assessed the needs of the adopters, in this case the nurses caring for patients at end-of-life. It was important to consider their educational needs, as well as their current knowledge, skills, values and goals, motivation to learn, learning style, and social networks (McConnell et al., 2013). The seven different aspects related to the adopters and the adoption process in the Diffusion of Innovations in Service Organizations model are based on Rogers' diffusion of innovation theory (Rogers, 1995), as well studies of health service organizations (Greenhalgh et al., 2004).

The first aspect is related to general psychological antecedents of the adopter. There are many individual traits based on literature from cognitive and social psychology that are associated with the propensity of an individual to use innovations, and these include tolerance of

ambiguity, values and learning style. There are also context specific antecedents; for example, if an individual is motivated and has the intellectual ability and specific skills related to use of an intervention, or if the intervention meets a specified need by the adopter, that individual is more likely to adopt an intervention. The third aspect is the meaning attached to the innovation by the intended adopter. Thus, if the meaning attached to the intervention by the individual nurses matches the meaning attached by top management and other stakeholders in the organization, the innovation is more likely to be adopted. The fourth aspect of adoption is if the decision to adopt the innovation is a contingent decision (made by someone else in the organization), a collective decision (the individuals all have a vote, but must ultimately acquiesce to a group decision), or an authoritative decision in which adoption by individuals is compulsory. In this instance, an authoritative decision may make initial adoption rates higher, but may also decrease the chances for successful implementation and sustainability of an innovation (Greenhalgh et al., 2004).

The final three aspects related to the adopters are concerned with the process of adoption. In the preadoption stage, intended adopters must first be aware of the proposed innovation, have sufficient information about the intervention, what the purpose of the intervention is and how to use it in practice, and how the proposed intervention will personally affect them in terms of costs and benefits. In the next stage, during early use of an innovation, successful adoption is more likely if intended adopters have ongoing access to information about what the innovation does and sufficient training and support about how to successfully implement the information or innovation into their current workflow. Finally, successful adoption is more likely if intended adopters are provided with adequate feedback about the consequences of adoption and are given

autonomy and support in adapting and refining the innovation as needed (Greenhalgh et al., 2004).

For my DNP project, I was concerned with the preadoption stage, so it was important to give a brief synopsis about the goals of palliative and end-of-life care, and how this can potentially impact patient outcomes such as quality of life, improved pain and symptom management and improved patient satisfaction scores. It was also helpful to discuss how an educational program on end-of-life care would personally impact the nurses in terms of costs (time) and benefits (learning new skills). All of these concepts were pertinent when I introduced my proposed project to the nurses prior to handing out my survey, with the aim of gaining stakeholder approval.

NEEDS ASSESSMENT METHODS

Setting

The setting was a large staff meeting and conference room for a 24-bed critical access rural hospital in Wheatland, Wyoming. The survey was administered to 16 nurses who provide 24-hour care to a variety of patients of all age groups, including patients at end-of-life. The elements of the setting most likely to influence change and improvements are the key stakeholders, the nurses who provide the care. The nursing administration and the hospital risk manager are also stakeholders, since they have identified there is an educational need, as most nurses in the facility are either generalist medical-surgical nurses, obstetrical nurses, or emergency room nurses, who do not have any formal training or extensive experience in caring for patients at end-of-life.

Needs Assessment Instrument

The needs assessment instrument is a 27-question survey comprised of three parts. Part I includes basic demographic questions. Part II asks the nurses to rank the order of 12 end-of-life nursing competencies such as advanced directives, legal issues, ethical issues, pain control and symptom management to help identify the nurses' perceptions of the most important topics to be addressed when planning an end-of-life care educational intervention. Part III of the survey addresses the participants' individual end-of-life care preparation to identify how much prior education on this topic they have received and if they felt their previous education was helpful to their current practice. The original survey developed for oncology nurses had an additional section, Part IV, asking if the formal palliative care services currently provided in the organization are effective. I modified this section to omit only some questions and asked, "Do you feel Platte County Memorial Hospital as an organization is committed to improving palliative and end-of-life care services?" I included open-ended questions asking if the participants felt comfortable in their current role initiating discussions about end-of-life care and asked them to elaborate why or why not. A final open-ended question asked if the participants have any additional comments related to caring for end-of-life patients.

Planning the Needs Assessment Process and Methods of Evaluation

The study design for this project was a descriptive cross-sectional design to assess rural generalist nurses' perceptions of educational needs regarding end-of-life care, and the original survey (Appendix A), had been previously used in two separate studies. The first study using this survey was a descriptive cross sectional study involving a convenience sample of 56 registered nurses employed at a large medical center in the southeast in 1999 (Coyne & White, 2011).

Three consultants with expertise in palliative nursing care, nursing education and survey research design reviewed the survey and revised it extensively (Coyne & White, 2011). The second study involving this survey used a modified version of the survey to include additional questions. The 2009 Clinical Practice Guidelines for Quality Palliative Care were reviewed to ensure the 12 core competencies listed on the survey were aligned and labeled to be consistent with changes in practice language; for example, comfort care measures was relabeled as symptom management (Coyne & White, 2011). The second study using the survey was then sent by mail and email to 2,530 registered nurses in four states who were members of the Oncology Nursing Society. The final response and the final sample for analysis was 714 (Coyne & White, 2011).

I utilized a modified version of the same survey described above for my project. The original authors granted permission to use and modify this for my DNP project (Appendix B). I removed question #8 from the original survey (Appendix A) as there are no oncology certified or hospice/palliative care certified nurses who work in the community hospital in Wheatland. I removed questions #15, #16, and #17 of the survey since these questions ask if the organization is a religious organization or affiliated with the Catholic Church, and the city and zip code of the practice setting. Since I administered this survey only in the community hospital in Wheatland, which is a for profit corporation not affiliated with a religious organization, these questions did not apply to this setting. I also modified Part IV of the survey by removing questions #29 and #30, which ask if the hospital provides formalized palliative care services and if a specialized palliative care unit or consultative services are available. Since none of these services were available in our community or hospital, these questions were unnecessary for the setting of this study.

Since my setting was a small Banner Health hospital in Wyoming, it was necessary to receive Institutional Review Board approval from Banner Health to move forward with the needs assessment; it took approximately two months to get on the agenda for one of the nursing meetings, and to finalize and administer the survey. I then collated the responses, completed statistical analyses, and identified common themes. I received permission from Banner Health to proceed with my project and the University of Arizona ceded oversight to Banner. I then obtained permission from the nurse manager of the medical surgical unit, to administer the survey during a monthly staff meeting. I gave a brief introduction about my project, and aims of the project and handed out the survey. I left the room while the participants, who choose to participate, completed the survey. The nurse manager then picked up the completed surveys and delivered them to me to maintain confidentiality. I filled out the survey myself to estimate how long it takes to answer the survey and it took approximately eight minutes to complete.

It took approximately one month to write up my findings and prepare for final defense of my project. The only resources needed to complete this project were a printer and approximately 100 pages of paper.

Analysis

There was descriptive data from this survey, as well as one open-ended question at the end of the survey asking participants if there is any additional information or topics they feel are important to receive education on regarding providing end-of-life care that were not addressed in the survey. The main variables were the nurses' ranking of 12 different end-of-life competencies. These survey questions are also related to the National Consensus Project domains, and the National Quality Forum Preferred practices (Coyne & White, 2011). I analyzed the survey data

using statistical tests including measures of central tendency. I also examined how descriptive categories such as age, education level and practice role affect selection of core competencies deemed most important when caring for patients at end-of-life, as was done in previous studies using this survey (Coyne & White, 2011). In addition, I identified common themes in the open-ended survey questions to identify what the nurses perceive as the most important concepts regarding end-of-life care.

Ethical Issues

The ethical concerns related to doing this type of survey include protection of participants' privacy. The participants' privacy was protected by assuring confidentiality through using non-identifying questions and treating the data only as group data, as the participants were not asked for their name anywhere on the survey. The nurse manager collected the surveys after the meeting. I left the room while the nurses completed the surveys and was not able to identify the participant's individual surveys in any way.

Data Analysis and Outcomes

Statistical tests included measures of central tendency and although I intended to use analysis of variance (ANOVA) to determine the factors associated with selection and ranking of the twelve core competencies, my sample size ended up being too small for this test to have enough power in determining variance in descriptive categories, so I instead used a pivot chart to demonstrate variance in descriptive categories. I also found some common themes in the qualitative answers on the survey.

RESULTS

Characteristics of Respondents

The mean age of respondents in this sample was 43 years of age (range of 24-56 years of age). There was only one male respondent, and the remaining 15 respondents were female. The mean time since becoming a nurse was 14.9 years. All respondents worked full-time with 25% of the nurses reporting caring primarily for the adult/geriatric population, and 75% caring for patients of all ages. Seven out of the 16 respondents or 44% were medical surgical nurses, three of the respondents or 19% were emergency room nurses and four respondents or 25% were surgical nurses. One respondent worked primarily in the step down intensive care unit and one respondent was a care coordinator. Three of the nurses or 19% were managers, and the other 81% were staff nurses, although some of the staff nurses also listed other responsibilities such as education coordinator and middle management. All of the respondents were from the same facility, a not for profit Banner Health critical access hospital. In regards to educational preparation, six out of 16 respondents or 38% obtained a diploma or associate degree in nursing, 50% had obtained a Bachelor of Science degree in nursing, and 13% had obtained a Master's degree.

End-of-Life Care Education

Only six respondents answered the question regarding if end-of-life care education was important. All of the six respondents answered that end-of-life care education is important and four out the six respondents indicated that end-of-life care is part of their current professional practice. Thirty-one percent of the respondents had received end-of-life education, with only two of these respondents attending more than six hours of education in the two years; one had four to

six hours of education, one respondent had three to four hours of education, and one respondent had one to two hours of education on end-of-life care in the past two years. The remaining 69% of those surveyed had not received any end-of-life education in the past two years. Figure 1 compares the educational level of respondents, average number of years as a nurse, and if the nurses had received end-of-life care education. The only respondents who had received end-of-life education were the five nurses who had recently completed an associate degree. None of the diploma, bachelors or masters prepared nurses had received any end-of-life care education in the past two years. Interestingly, the associate's degree nurses, the only group who had received end-of-life education also had the least years of experience in nursing. This may simply be in relation to recently graduating from nursing school as end-of-life education is becoming more mainstream in many nursing schools.

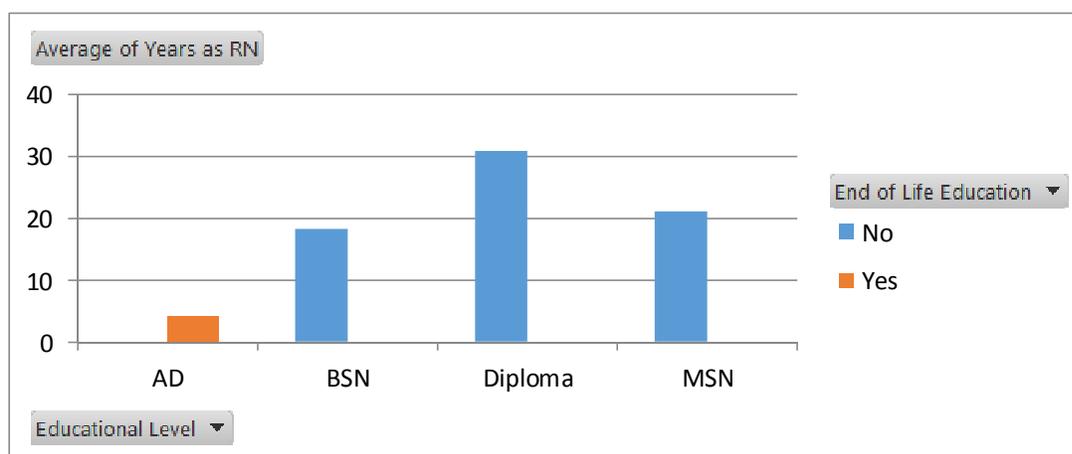


FIGURE 1. Demographics of Nurses who have Received Recent End-of-Life Education.

Vertical Axis: Average years as RN; Horizontal Axis: Educational Level

Red box: Count of nurses who answered yes to receiving end-of-life education in past two years.

Blue box: Count of nurses who have answered no to receiving end-of-life education in past two years.

All of the respondents who had received end-of-life care education felt that what they attended was either fairly useful or very useful and ranked their education as either fairly current

or very current. Only one respondent reported using this education frequently, and three reported sometimes using this knowledge. Five of the six rated their overall end-of-life care education as good or very good, with only one respondent rating their overall education as fair. Three of the respondents reported feeling well prepared to care for patients at end-of-life and two felt only fairly or a little prepared to care for patients at end-of -life.

End-of-Life Care Competencies

The respondents of this survey were asked to numerically rank the order of 12 competencies in end-of-life care, with ‘1’ being the most important competency and ‘12’ being the least important. Table 1 indicates the aggregated rank-ordered responses in order of importance indicating the #1 end-of-life competency, pain control. Talking to patients about death and symptom management were also in ranked as important core competencies.

TABLE 1. *End-of-Life Core Competencies Ranking.*

Core Competency	N	\bar{X}	SD	Rank #1	Rank #2	Rank #3	Rank #11	Rank #12
Pain Control	14	2.64	2.10	5	2	5	0	0
Talking to patients about death	14	3.00	1.96	6	0	1	0	0
Symptom Management	14	3.14	2.03	1	7	2	0	0
Dealing with anger	14	5.43	2.44	0	2	1	1	0
Ethical Issues	14	5.64	2.62	0	0	3	0	1
Recognizing impending death	14	7.14	2.96	1	1	0	0	0
What is Palliative Care Treatment	14	7.29	2.73	1	0	0	0	1
Advanced Directives	14	7.29	3.43	0	1	2	0	3
Legal Issues	14	8.43	2.65	0	0	0	2	2
Religion and cultural perspectives	14	8.50	2.50	0	0	1	4	0
What is Hospice?	14	9.00	2.45	0	1	0	4	0
Dealing with own feelings	14	9.86	2.80	0	0	0	3	6

Organizational Commitment to End-of-Life Care

The respondents were asked if they believe their organization is committed to providing high quality end-of-life care and five of the respondents left this question blank. Six of the respondents reported they strongly agreed that their organization is committed to providing high quality end-of-life care, two respondents agreed and the remaining two answered neutral. The final two narrative questions offered some valuable insight in how the nurses surveyed perceived their role and how comfortable they felt initiating discussions about end-of-life care and care decisions with patients and families. Eight of the 16 respondents, or 50% reported feeling very comfortable with end-of-life discussions if they had previously worked in hospice, had many years of experience caring for patients at end-of-life, or had cared for family members at end-of-life. Three of the 16 respondents indicated that even though they sometimes felt prepared, they would like more education on talking with families about poor prognosis and unexpected diagnoses, as well as talking with families and patients about options and ethical concerns. This topic was repeated in several surveys, especially in regards to when families and patients disagree on the plan of care. Two respondents indicated that more education on dealing with ethical concerns is needed, specifically when patients choose more of a palliative approach initially, but then later opt for more aggressive care because of family members' wishes. Advanced directives were also mentioned, and two respondents indicated that often if nothing is in writing, decisions about end-of-life care become very difficult. One respondent mentioned that although she felt well-prepared to care for patients at end-of-life personally, she felt that more consistency is needed in the end-of-life education nurses receive so that all staff are more

consistent in the care provided. This respondent also felt that perhaps all staff should be educated in end-of-life care, and on a more frequent basis, such as through quarterly meetings.

Although the majority of respondents stated they felt at least somewhat comfortable talking about end-of-life care with patients and families, three of the 16 nurse respondents indicated they did not feel comfortable talking with families until the physician had initiated this conversation with families and patients, stating it was “not their place” or that the physician should be heavily involved and that their role as the nurse would be as more of a support person to extend the conversation. Interestingly, both of these respondents had worked in nursing for less than two years. However, one respondent who had been a nurse for 17 years reported not feeling comfortable initiating end-of-life discussions due to lack of training and “fear of making a mistake.” Two respondents also indicated frustration with the lack of formal end-of-life care resources in the community and the need for more standardized education so that newer nurses felt less overwhelmed regarding discussing these topics with families.

DISCUSSION

Summary

The study completed by Coyne and White in 2011 indicated that 63% of the oncology nurses surveyed had received education or training in end-of-life care in the previous two years. In comparison, this study in a rural setting of generalist nurses found that only 31% of nurses had received any education in end-of-life care over the previous two years. I asked the same question in the context of the previous two years because the original survey by Coyne and White used a two year time period. This question is appropriate within this population because there is a large amount of nursing staff turnover in the small critical access hospital in Wheatland, as many staff

nurses in the medical surgical unit do not stay in that unit for more than two years. This unit is also staffed frequently by travel nurses. In addition, this question is appropriate as most of the other classes required by the hospital have to be renewed every two years. For example, Basic Life Support and Neonatal Resuscitation are renewed every two years to allow for some consistency and standardization.

One possibility for the lack of training is that many hospitals have decreased budgets and financial constraints regarding professional continuing education. In rural settings, this is especially evident as many organizations limit out-of-state travel and often there is a lack of personnel in rural areas who have received current evidence based education in end-of-life care. This is especially true in Wyoming, where local trainings are often not available. For example, ELNEC train the trainer sessions are only offered in large metropolitan areas, thus necessitating out-of-state travel for nurses interested in obtaining this type of education. Professional nurses are forced to pay for training such as this on their own, which severely limits the number of nurses who receive this type of training.

In addition, this survey indicates that younger nurses, with less than two years of experience, do not feel comfortable initiating end-of-life care discussions with patients and families, even though these respondents reported having received current education in end-of-life care. Further questions regarding the type of education they received in end-of-life care would have been helpful in determining if the education they listed was part of their nursing school curriculum or in the form of continuing education. In this survey, the more experienced nurses in general felt more comfortable initiating discussions about end-of-life care. Across all age groups,

respondents indicated that talking about death and dying was one of the top three ranked competencies in end-of-life care education.

Common Themes

The common qualitative themes of this survey in rural Wyoming were similar to some of the themes identified in the qualitative study of rural generalist nurses caring for end-of-life patients in Australia (Bloomer et al., 2013). The nurses in the Australian study indicated a preference in relying on senior doctors to determine when changing the focus from acute to end-of-life care was appropriate. Similarly, three nurses surveyed for this project, especially those with less than two years of experience, mirrored those concerns and identified that they did not feel comfortable initiating discussions about end-of-life care.

Another interesting finding from this project was that nurses in a rural setting rank core competencies that should be included in end-of-life education similarly, to how specialty nurses in urban areas rank the same competencies. The respondents in the original study by Coyne and White in 2011 ranked symptom management as the most important end-of-life competency. However, associate, diploma and baccalaureate nurses identified that they needed more knowledge about palliative care, and master's and doctoral prepared nurses in the original survey ranked communication with patients and their families as more important than knowledge about palliative care. Nurses in administration and education ranked identifying what constitutes palliative care as more important than symptom management (Coyne & White, 2011). In comparison, the rural nurses surveyed in this project ranked pain control, symptom management and talking to patients about death and dying as the top three competencies. Associate and diploma degree nurses in this study ranked symptom management, recognizing impending death,

and pain control as the top competencies, and bachelor's and master's degree prepared nurses in this study overwhelmingly rated talking to patients about death and dying and pain control as their top ranked competencies, as indicated in Table 2. Two of the respondents did not rate the competencies in order from 1-12 so those rows are left blank.

TABLE 2. *End-of-Life Core Competencies Compared to Educational Level.*

Educational Level	Years as RN	What is Palliative Care Treatment	Symptom Management	Advanced Directives	What is Hospice?	Religion and cultural perspectives	Recognizing impending death	Legal Issues	Talking to patients about death	Ethical Issues	Dealing with anger	Pain Control	Dealing with own feelings
AD	1	8	3	7	9	10	1	6	4	3	5	2	11
AD	1.5	9	1	5	10	11	8	6	4	3	7	2	12
AD	4	6	2	7	8	11	9	10	3	5	4	1	12
AD	4	7	4	8	9	11	10	12	1	6	2	3	5
AD	10	9	2	3	10	8	4	11	6	7	5	1	12
BSN	10	1	7	12	2	9	8	10	5	4	6	3	11
BSN	12	12	2	10	11	9	8	7	1	6	3	4	5
BSN	12	5	8	2	7	3	10	12	1	4	6	9	11
BSN	15	6	2	7	11	5	10	9	1	4	8	3	12
BSN	17												
BSN	20	9	2	12	11	10	8	5	4	3	6	1	7
BSN	28	9	2	3	10	7	8	4	6	5	11	1	12
BSN	32	10	2	9	11	6	5	7	1	8	4	3	12
Diploma	31	5	4	12	10	11	2	8	1	9	7	3	6
MSN	18	6	3	5	7	8	9	11	4	12	2	1	10
MSN	24												

These findings could indicate that bachelors and master's degree programs need to incorporate more case studies, role-playing and discussions on talking with families about death and dying. In this sample, this finding may also be related to the fact that many of the older, more experienced nurses in this rural population received associate and diploma degrees, and feel more comfortable talking to patients and families about end-of-life due to their years of experience.

Impact on Practice

The results of this study indicate a strong need for high quality, evidence based end-of-life care in rural settings. Although many of the nurses in this survey indicated that end-of-life care education is important, only approximately one third of the nurses surveyed had received education in end-of-life care in the past two years and interestingly, the nurses who indicated the most recent and most hours of continuing education on this topic, did not feel comfortable talking to patients and families about death and end-of-life care options. These nurses were also the nurses who had most recently graduated from nursing programs. These findings are similar to many other recent studies indicating that there are obvious gaps in professional education on these important topics, and a clear need for standardized and ongoing education for nurses in rural settings where there is a lack of formal hospice care. Another issue identified after completing this survey is that three nurses identified they did not feel comfortable initiating discussions about end-of-life care with patients and families as they indicated they were afraid of saying the wrong thing, or overstepping their role and that the physician should be the person initiating these discussions. This is a separate issue from merely having had adequate training in end-of-life care and was evident with not only the newer nurses, but also one nurse who had 17 years of experience. One nurse indicated, “it is not my place to start these discussions” and another nurse stated, “the physician should be heavily involved in those discussion and I should just be supporting that discussion.” These statements may reflect concerns that nurses, specifically nurses with less than five years of experience in nursing or nurses who do not have much experience in end-of-life care, do not feel empowered or supported to engage in and initiate end-of-life discussions, which could be a separate issue that needs further study. This

reflects a very complex larger issue as discussed by Watts (2011) regarding the need for consensual decision making about when to initiate end-of-life care, which is dependent on symbiotic relationships between different professional groups and the need for open and ongoing communication between patients, families, nurses, physicians and the entire care team. In rural areas such as Wyoming, where specialty hospice care is not always available, there is an even greater need for interprofessional collaboration between all members of the healthcare team in acute care settings. There is also a need for further research on how physician and nurse communication, perceptions and roles impact end-of-life care decisions and discussions with patients and families.

Strengths and Limitations

This study was a very small convenience sample of a fairly homogenous group of nurses in one setting, thus limiting the generalizability. This study could have also been biased by the fact that the principal investigator personally knows and has worked with many of the nurses who were surveyed, thus contributing to possible responder bias. Many of the surveys were only partially completed and some of the respondents did not follow directions completely and instead of rating the core competencies from 1-12, two of the respondents rated every topic as a one or only ranked their top four choices. One strength of this project was that the same survey and wording in the questionnaire used by Coyne and White in 2011 was used for this survey, and it was only modified slightly to remove questions that were not pertinent to this population. Using a slightly modified version of the same survey allowed for some comparison of rural generalist nurse responses to the results from a survey of urban, specialty nurses.

Dissemination and Future Implications for Practice

The purpose of this project was to gain greater insight into the educational needs of nurses in a rural setting regarding end-of-life care. This survey was specific to the sample surveyed and thus will be extremely beneficial in planning a training program that can be developed and tailored to fit the needs of the nurses at Platte County Memorial Hospital. After reading through the survey responses, it is evident that there is a desire and need among the nurses surveyed for further education on the provision of end-of-life care. There is also a great deal of consistency in the topics and core competencies that nurses feel are most important in providing high quality end-of-life care to the patients and families they care for. This survey was developed to ensure the 12 core competencies listed on the survey were similar to the practice language in the 2009 Clinical Practice Guidelines for Quality Palliative Care, as well many of the core competencies taught in ELNEC courses. Thus, this survey will be very beneficial in identifying the key issues and concepts that nurses in this particular setting perceive to be most important, namely talking to patients about death and dying, pain control, and symptom management. The knowledge gained from this survey will be very helpful in developing a tailored continuing education program on core competencies in end-of-life care using the ELNEC modules. I plan to use this information directly in planning an ELNEC course for nurses in my community. I also plan to share the results of this quality improvement project with the staff at the hospital, as well as the researchers who developed the original survey, Dr. Coyne and Dr. White.

In conclusion, there is a large gap in end-of-life care education in rural areas, and after completing this needs assessment, it is evident that nurses in my community desire further

education on the provision of evidence based end-of-life care. I hope to use this information not only to plan trainings for nurses in my own community, but have also been asked by nursing management in several Banner hospitals as well as other not for profit community hospitals and nursing homes to assist in planning end-of-life care courses for other rural facilities in Wyoming.

APPENDIX A:
END-OF-LIFE COMPETENCIES OF REGISTERED NURSES

(Original Survey Instrument developed by Coyne & White, 2011)

**Virginia Commonwealth University
Department of Health Administration and Massey Cancer Center**

END-OF-LIFE COMPETENCIES OF REGISTERED NURSES

The purpose of this survey is to find out more about registered nurses' perceptions of competencies that are important in end-of-life nursing practice. Information from this study will be used to develop new strategies for education and practice surrounding the end-of-life period.

This survey will require approximately 20 minutes of your time. Confidentiality is assured through the use of non-identifying questions. Please do not enter your name anywhere on the survey. Completion of the survey is voluntary and will be taken as your agreement to participate.

There are no foreseeable risks, discomforts, nor cost to you for your participation. Non-participation involves no penalties. The information obtained from this survey will be treated only as group data, not individual. The participants will in no way be identified.

Even though you are in no way obligated to participate in this project, its success depends on your involvement. Thank you in advance for your participation and contribution to discovering new knowledge. If you have questions, suggestions, or complaints, please contact Dr. Ken White (krwhite@vcu.edu) or VCU Office for Research:

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P.O. Box 980568
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Additional information about participation in research studies can be found at <http://www.research.vcu.edu/irb/volunteers.htm>. Your completion of the survey says that you consent to participate in this study. Thank you again for completing the survey and contributing to increasing our knowledge about end-of-life nursing practice.

PART I. Basic Information**1. What is your gender?** Female Male**2. Birth Year: 19 ____****3. What is your racial background? (may select more than one items)** American Indian/Alaska Native Native Hawaiian/other Pacific Islander Asian Black/African American Hispanic/Latino/Latina/Mexican White Other, please specify _____**4. What is your highest level of nursing education?** DNS/PhD/EdD/DNP MS/MA/MSN BS/BA/BSN AD Diploma**5. What year did you graduate with your first degree/diploma in nursing to qualify you to be an RN?** ____ (insert year)**6. What is/are the state(s) where you received your nursing education? (please list all)**

7. How many years have you been a Registered Nurse? ____ year(s)**8. What is your certification type:** Oncology Certified Nurse Basic Advanced Hospice/Palliative Care Basic Advanced Other, please specify: _____ Basic Advanced**9. Are you currently working?** Yes No (Skip to Question 18)**10. How are you currently working?** Full-time Part-time**11. What is your current practice setting?** Hospital Intensive Care Unit Medical/Surgical/Oncology Unit Outpatient Clinic Hospice (Inpatient) Palliative Care Unit Other Hospital Unit Home Care Hospice (Home) Long Term Care Education/academic Other, please specify: _____**12. Which one of the following items best describes the population you currently serve?** Adult Pediatric Geriatric All (mixed)

13. Which one of the following items best describes your current professional role?

- Staff Nurse
 Advanced Practice Nurse
(CNS/CNL/NP)
 Management
 Education
 Other, please specify: _____

14. What is the ownership type of health care organization of your current practice?

- Not-for-profit
 For-profit

15. Is your organization of practice a religious organization?

- Yes
 No (Skip to Question 17)

16. Is your organization of practice affiliated with the Catholic Church?

- Yes
 No

17. What is the zip code and state of your current practice site?

Zip code: _____
State: _____

18. What is the zip code and state of your current home address?

Zip code: _____
State: _____

PART II. End-of-Life Core Competencies

19. What core competencies do nurses need to deal with end-of-life issues?

Please rank order the top 12 nursing EOL competencies. For example, number “1” would be the most important competency for EOL nursing practice and “12” would be the least important one.

Nursing End-of-Life Core Competencies	Rank Order (1 to 12)
What is palliative care treatment?	
Symptom management	
Advanced directives (Do Not Resuscitate/Living Wills/Powers of Attorney)	
What is hospice?	
Religion and cultural perspectives	
Recognizing impending death (physiological changes)	
Legal issues – determining nurse’s role in administering end-of-life palliative therapies or delivering futile care	
How to talk to patients/families about death and dying	
Ethical issues – determining nurse’s role in administering end-of-life palliative therapies	
Dealing with angry dying patients/families	
Pain control techniques (opioid dosing, other pharmacological intervention)	
Dealing with your own feelings	

If you believe an item should appear on this list, but does not, add the item here:

PART III. Individual End-of-Life Care Preparation

20. Have you received education related to end-of-life care in the last two years?

- Yes
 No (Skip to Question 26)

21. How many hours of end-of-life care education did you receive in the last two years (please estimate)?

- 1-2 hours
 3-4 hours
 4-6 hours
 6 hours or more

22. Was this education useful?

- Not Useful
 Fairly Useful
 Very Useful
 Exceptionally Useful

23. How current was this information provided in the education?

- Not Current
- Fairly Current
- Very Current
- Exceptionally Current

24. Have you been able to use this education in your practice?

- Never
- Rarely
- Sometimes
- Often
- Frequently
- Always

25. Please rate the overall education you have received related to caring for patients and their families with an end stage disease:

- Poor
- Fair
- Good
- Very Good
- Excellent

26. Is end-of-life education important to you?

- Yes
- No

27. Is end-of-life care a part of your professional practice?

- Yes
- No

28. How prepared are you today to effectively care for a patient/family with an end-of-life illness?

- Not at all
- A little
- Fair
- Good
- Excellent

PART IV. Organizational End-of-Life Care Commitment**29. Does your organization provide formalized palliative care services?**

- Yes
- No (go to question 31.)

30. If yes, palliative care is provided:

- in a specialized palliative care unit
- as a consultation service
- other

31. How effective do you believe the palliative care service is in your organization?

- Very effective
- Effective
- Average
- Marginally effective
- Not effective

32. If you have any comments related to caring for the patient/family with end-of-life issues, please feel free to share your comments. Please feel free to add comments to back if more space is needed.

APPENDIX B:
MODIFIED SURVEY

MODIFIED SURVEY**PART I. Basic Information****1. What is your gender?** Female Male**2. Birth Year: 19 ____ ____****3. What is your racial background? (may select more than one items)** American Indian/Alaska Native Native Hawaiian/other Pacific Islander Asian Black/African American Hispanic/Latino/Latina/Mexican White Other, please specify _____**4. What is your highest level of nursing education?** DNS/PhD/EdD/DNP MS/MA/MSN BS/BA/BSN AD Diploma**5. What year did you graduate with your first degree/diploma in nursing to qualify you to be an RN?** ____ (insert year)**6. What is/are the state(s) where you received your nursing education? (please list all)****7. How many years have you been a Registered Nurse?** ____ year(s)**8. Are you currently working?** Yes No (Skip to Question 18)

9. How are you currently working?

Full-time

Part-time

10. What is your current practice setting?

Medical/Surgical Unit

Emergency Room

Home Care

Long Term Care

Education/academic

Other, please specify: _____

11. Which one of the following items best describes the population you currently serve?

Adult

Pediatric

Geriatric

All (mixed)

12. Which one of the following items best describes your current professional role?

Staff Nurse

Advanced Practice Nurse (CNS/CNL/NP)

Management

Education

Other, please specify: _____

13. What is the ownership type of health care organization of your current practice?

Not-for-profit

For-profit

14. What is the zip code and state of your current home address?

Zip code: _____

State: _____

PART II. End-of-Life Core Competencies

15. What core competencies do nurses need to deal with end-of-life issues?

Please rank order the top 12 nursing EOL competencies. For example, number “1” would be the most important competency for EOL nursing practice and “12” would be the least important one.

Nursing End-of-Life Core Competencies	Rank Order (1 to 12)
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Ethical issues – determining nurse’s role in administering end-of-life palliative therapies	
Dealing with angry dying patients/families	
Pain control techniques (opioid dosing, other pharmacological intervention)	
Dealing with your own feelings	

If you believe an item should appear on this list, but does not, add the item here:

PART III. Individual End-of-Life Care Preparation

16. Have you received education related to end-of-life care in the last two years?

- Yes
 No (Skip to Question 26)

17. How many hours of end-of-life care education did you receive in the last two years (please estimate)?

- 1-2 hours
 3-4 hours
 4-6 hours
 6 hours or more

18. Was this education useful?

- Not Useful
- Fairly Useful
- Very Useful
- Exceptionally Useful

19. How current was this information provided in the education?

- Not Current
- Fairly Current
- Very Current
- Exceptionally Current

20. Have you been able to use this education in your practice?

- Never
- Rarely
- Sometimes
- Often
- Frequently
- Always

21. Please rate the overall education you have received related to caring for patients and their families with an end stage disease:

- Poor
- Fair
- Good
- Very Good
- Excellent

22. Is end-of-life education important to you?

- Yes
- No

23. Is end-of-life care a part of your professional practice?

- Yes
- No

24. How prepared are you today to effectively care for a patient/family with an end-of-life illness?

- Not at all
- A little
- Fair
- Good
- Excellent

25. Have you received education related to end-of-life care in the last two years?

- Yes
- No (Skip to Question 26)

26. How many hours of end-of-life care education did you receive in the last two years (please estimate)?

- 1-2 hours
- 3-4 hours
- 4-6 hours
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- Fairly Useful
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29. Have you been able to use this education in your practice?

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30. Please rate the overall education you have received related to caring for patients and their families with an end stage disease:

- Poor
 Fair
 Good
 Very Good
 Excellent

31. Is end-of-life education important to you?

- Yes
 No

32. Is end-of-life care a part of your professional practice?

- Yes
 No

33. How prepared are you today to effectively care for a patient/family with an end-of-life illness?

- Not at all
 A little
 Fair
 Good
 Excellent

PART IV. Organizational End-of-Life Care Commitment

34. Do you believe your organization is committed to providing high quality end-of-life care?

- Strongly agree
 Agree
 Neutral
 Disagree
 Strongly disagree

35. Do you feel comfortable in your current role initiating discussions regarding end-of-life care and care decisions with patients and families? Why or why not?

36. If you have any comments related to caring for the patient/family with end-of-life issues, please feel free to share your comments. Please feel free to add comments to back if more space is needed.

APPENDIX C:
BANNER HEALTH LETTER OF APPROVAL



Date: 07/22/15

To: Heather Wiggins, DNP Student
University of Arizona

CC: Susan Kautz, Interim CNO, Platte County Memorial Hospital
University of Arizona Advisor

From: Shelly Fischer, PhD, RN

Re: Assessment of rural nurses' educational needs in providing evidence based end-of-life care

I have assessed your project proposal for implementation potential and appropriateness of the project within Platte County Memorial Hospital. From my review I have determined that this is a process improvement project, and that it has transferability, feasibility, and a high cost-benefit ratio.

I understand that the purpose of the project is to assess educational needs of the nurses related to end-of-life care. It is my understanding that you have garnered the support of the leadership at PCMH, and your advisor, for this project, and that the design provides for strict confidentiality of protected and/or proprietary data.

Please follow the Banner Health "Process to Approve DNP Students Academic Projects". In accordance with that process, your next steps will include submitting required materials, including the letter of approval from your institutional IRB, to me at Shelly.Fischer@BannerHealth.com. I will then forward your packet of materials to the system director for nursing research for final approval to begin your project.

Best wishes on the successful completion of your project.

Sincerely,

A handwritten signature in black ink that reads "Shelly Fischer".

Shelly Fischer, PhD, RN
Western Region Director of Professional Practice
Banner Health
1801 W. 16th St.
Greeley, CO 80631
(970) 227-8378

REFERENCES

- Addington-Hall, J. M. & O'Callaghan, A. C. (2009). A comparison of the quality of care provided to cancer patients in the UK in the last three months of life in inpatient hospices compared with hospitals, from the perspective of bereaved relatives: Results from a survey using the VOICES questionnaire. *Palliative Medicine*, 23(3), 190-197. Retrieved from <http://dx.doi.org/10.1177/0269216309102525>
- Banner Health. (2013). *Provision of Appropriate End-of-life Care (Allowing Natural Death)* [Policy and Procedure]. Retrieved from <http://www.bannerhealth.com/NR/rdonlyres/1C7C6A54-E015-4B24-8064-B70C503ED185/70130/ProvisionofAppropriateEndofLifeCare2124198.pdf>
- Banner Health, Platte County Memorial Hospital. (2013). *Community Health Needs Assessment Report*. Retrieved from http://www.bannerhealth.com/NR/rdonlyres/F55FEEEE6-3D3C-4244-ABE8-16F2EF9F3DF7/0/WYPlatteCHNARReport_FINAL.pdf
- Becker, G., Momm, F., Deibert, P., Xamder, C., Gigl, A., Wagner, B., & Baumgartner, J. (2010). Planning training seminars in palliative care: A cross-sectional survey on the preferences of general practitioners and nurses in Australia. Retrieved from <http://dx.doi.org/10.1186/1472-6920-10-43>
- Bloomer, M. J., Endacott, R., O'Connor, M., & Cross, W. (2013). The 'dis-ease' of dying: Challenges in nursing care of the dying in the acute hospital setting. A qualitative observational study. *Palliative Medicine*, 27(8), 757-764. Retrieved from <http://dx.doi.org/10.1177/026921631>
- Caruso, E. M., Cisar, N., & Pipe, T. (2008, April). Creating a healing environment: An innovative educational approach for adopting Jean Watson's theory of human caring. *Nurs Admin Quarterly*, 32(2), 126-132. Retrieved from <http://dx.doi.org/10.1097/01.NAQ.0000314541.29241.14>
- Coyle, N. (2015). Introduction to palliative nursing care. In B. Ferrell, N. Coyle, & J. Paice (Eds.), *Oxford Textbook of Palliative Nursing* (pp. 3-10). New York, NY: Oxford University Press.
- Coyne, P. J. & White, K. R. (2011, November). Nurses' perceptions of educational gaps in delivering end-of-life care. *Oncology Nursing Forum*, 38(6), 711-717. Retrieved from <http://dx.doi.org/10.1188/11.ONF.711-717>
- Crowley, M. (1994). The relevance of Noddings' ethics of care to the moral education of nurses. *Journal of Nursing Education*, 33(2), 74-80. Retrieved from <http://zp9vv3zm2k.search.serialssolutions.com/?V=1.0&sid=PubMed:LinkOut&pmid=8176501>

- Cui, J., Shen, F., Ma, X., & Zhao, J. (2011, November). Want to nurses want to learn from death education? A survey of their needs. *Oncology Nursing Forum*, 38(6), E402-E408. Retrieved from <http://dx.doi.org/10.1188/11.ONF.E402-E408>
- Downing, J., & Jack, B. A. (2012, September). End-of-life care in rural areas: What is different? *Current Opinion in Supportive and Palliative Care*, 6(3), 391-397. Retrieved from <http://dx.doi.org/10.1097/SPC.0b013e328356ab1f>
- Emergency Operations Plan [EOP]. (2006). *Emergency operations plan for Platte County public health department*. Retrieved from Platte County Public Health Department
- Epner, D. E. & Baile, W. F. (2014, April). Difficult conversations: Teaching medical oncology trainees communication skills one hour at a time. *Academic Medicine*, 89(4), 578-584. Retrieved from <http://dx.doi.org/10.1097/ACM.0000000000000177>
- Ferrell, B., Coyle, N., & Paice, J. (Ed.). (2015). *Oxford Textbook of Palliative Nursing* (4th ed.). New York: Oxford University Press.
- Greenhalgh, T., Robert, G., Macfarlane, F., Bate, P., & Kyriakidou, O. (2004). Diffusion of innovations in service organizations: Systematic review and recommendations. *The Milbank Quarterly*, 82(4), 581-629. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.0887-378X.2004.00325.x/epdf>
- Lefkowitz, C., Sukumavanich, P., Claxton, R., Courtney-Brooks, M., Kelley, J. L., McNeil, M. A., & Goodman, A. (2014). Needs assessment of palliative care education in gynecologic oncology fellowship: We're not teaching what we think is most important. *Gynecologic Oncology*, 135, 255-260. Retrieved from <http://dx.doi.org/10.1016/j.ygyno.2014.08.016>
- McConnell, T., O'Halloran, P., Porter, S., & Donnelly, M. (2013). Systematic realist review of key factors affecting the successful implementation and sustainability of the Liverpool Care Pathway for the Dying Patient. *Worldviews on Evidence-Based Nursing*, 10(4), 218-237. Retrieved from <http://zp9vv3zm2k.search.serialssolutions.com/?V=1.0&sid=PubMed:LinkOut&pmid=23489967>
- McIlpatrick, S., Mawhinney, A., & Gilmour, F. (2010). Assessing the educational needs of palliative care link nurses. *International Journal of Palliative Nursing*, 16(11), 555-559. Retrieved from <http://zp9vv3zm2k.search.serialssolutions.com/?V=1.0&sid=PubMed:LinkOut&pmid=21135789>
- National Consensus Project for Quality Palliative Care. (2013). *Clinical practice guidelines for quality palliative care*. Retrieved from <http://www.nationalconsensusproject.org/GuidelinesTOC.pdf>

- Noddings, Nel. *Philosophy of Education* (4th ed.) (2016). Boulder: Westview Press.
- Pulsford, D., Jackson, G., O'Brien, T., Yates, S., & Duxbury, J. (2011). Classroom-based and distance learning education and training courses in end-of-life care for health and social care staff: A systematic review. *Palliative Medicine*, 27(3), 221-235. Retrieved from <http://dx.doi.org/10.1177/0269216311429496>
- Rogers, E.M. (1995). *Diffusion of Innovations* (4th ed.). New York, NY: The Free Press.
- Schulman-Green, D., LaCoursiere, S., Ma, T., Lazenby, M., & McCorkle, R. (2011). Developing and testing a web-based survey to assess educational needs of palliative and end-of-life health care professionals in Connecticut. *American Journal of Hospice and Palliative Medicine*, 28(4), 219-229. Retrieved from <http://dx.doi.org/10.1177/1049909110385219>
- Trust for American's Health. (2013). *Key Health Data about Wyoming* [Fact sheet]. Retrieved from Healthy Americans website <http://healthyamericans.org/states/?stateid=WY>
- United States Census Bureau. (2014). *State & community quick facts: Platte county, Wyoming*. Retrieved on March 24, 2014 from <http://quickfacts.census.gov/qfd/states/56/56031.html>
- United States Department of Agriculture, Economic Research Service. (n.d.). Frontier and remote area codes overview. Retrieved July 24, 2013 from <http://www.ers.usda.gov/data-products/frontier-and-remote-area-codes.aspx>
- Watts, T. (2012). Initiating end-of-life care pathways: A discussion paper. *Journal of Advanced Nursing*, 68(10). doi: 10.1111/j.1365-2648.2011.05924.x
- Wyoming Department of Health. (2013). *Overview of long-term care programs for Wyoming veterans* [Fact sheet]. Retrieved from Wyoming Department of Health <http://www.health.wyo.gov/vets/longterm/central.html>